

Scottish & Southern Electricity Networks

LT307 – BRACO WEST SITES 2 & 3

REPORT ON GROUND INVESTIGATION

Client: Contract Number: 26555

Scottish & Southern Electricity Networks

Consulting Engineers:

SLR Consulting Ltd

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| Checked & Approved: | | |
| FM Raeburn | Chief Engineer | 26 January 2024 |

For and on Behalf of Raeburn Drilling and Geotechnical Limited Trading as Igne

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SPT Hammer Energy Test Report RD48, RD54 & RD70

H1 to H3

Insitu Thermal Resistivity Needle Probe Calibration Certificate



SCOTTISH & SOUTHERN ELECTRICITY NETWORKS

LT307 – BRACO WEST SITES 2 & 3

REPORT ON GROUND INVESTIGATION

Contract No. 26555 26 January 2024

1. INTRODUCTION

Scottish & Southern Electricity Networks has proposed to construct a new 400kV substation west of the village of Braco within Perth and Kinross. On the instructions of SLR Consulting Ltd, Consulting Engineers to Scottish & Southern Electricity Networks (SSEN), and to their specification, an investigation was carried out to provide information on the ground conditions for design and construction of the proposed works and any geochemical contamination of the site. A factual report only was requested.

The comments given in this report and any opinions expressed therein are based on the ground conditions encountered during the site work, on the results of any in-situ or laboratory testing and any professional third party input. Whilst every effort has been made to ensure the accuracy of the data supplied and any analysis or interpretation derived from it, the possibility exists of variations in the ground, groundwater and ground gas conditions around, below and between the extent of the exploratory positions. No liability can be accepted for any such variations in these conditions. Furthermore, any recommendations are specific to the development as detailed in this Report and no liability will be accepted should they be used for the design of alternative schemes, by third parties, without prior consultation with Raeburn Drilling & Geotechnical Limited trading as Igne.

2. LOCATION OF SITE

The site of the proposed 400kV substation is located within an area of forestry land comprising of mature and semi mature trees on the eastern slopes of Feddal Hill located approximately 5.0km west of Braco Village, Perth and Kinross. Due to two



substation sites being proposed as part of the ground investigation these are centred at the following National Grid References Site 2 NN791089 and Site 3 NN787091.

Both Braco West substations sites are located within an area of existing forestry land, these are both located to the southwest of the existing Braco West Substation (275kV) with overhead electricity cables of the Beauly to Denny line. The overhead cables bisect the site in northeast to south west direction forming the two areas of the proposed substation plots.

A plan showing the approximate location of the site is given in Figure A1 in Appendix A.

3. GROUND INVESTIGATION

3.1 Site Work

The site work was carried out during the period 15th November to 8th December 2023, in accordance with the guidelines laid down in EN1997-2:2007 (Ref.1), BS5930 (Ref.2), BS10175 (Ref.3) and in-house procedures. The results of the site work are given in Appendix B. A schedule of the site works is presented as Figure B0.

Fourteen boreholes were sunk by sonic and rotary core drilling methods with three boreholes were sunk continuous percussion utilising a dynamic sampler and rotary core drilling methods. Twenty trial pits were excavated by mechanical means, at the positions shown on the site plan (Fig. A2 in Appendix A). The depths of the boreholes and trial pits, the descriptions of the strata encountered and comments on the ground-water conditions are given in the borehole and trial pit records (Figs. B1 to B38). The positions and depths of the boreholes and trial pits were determined by the Consulting Engineers and Client and were set out on site by Raeburn Drilling & Geotechnical Limited trading as Igne in conjunction with the Consulting Engineers and Client.

Approximately 4600 peat probes were undertaken across the site over Braco site 2 and site 3 locations. These results have been reported under separate cover as an excel file. During the ground investigation the scope was modified to reflect the deep peat conditions encountered at Braco West 3, this resulted in new borehole locations with the postfix NEW as noted on Appendix A2 Site Plan.



Disturbed and 100mm diameter tube samples were taken at the depths shown on the borehole and trial pit records and were despatched, together with the rock cores, to the depot at Hamilton for examination and storage. Geochemical soil samples were taken directly into tubs. Samples for volatiles analysis were taken into vials, filling the container completely such that no voids were present. Geochemical samples were stored on site and transported to the laboratory in coolboxes. Each sample was uniquely identified and a transmittal note system used throughout sample transfer.

Photographs were taken of the sonic soil samples and rock core from the boreholes these are presented as Figures C1 to C17. Trial pits and associated spoil heaps is presented as Figures C18 to C38.

Standard (split-barrel sampler and cone) penetration tests (Ref.4) were made to assess the relative density of the materials encountered. The values of penetration resistance, given in the borehole records, are not corrected for energy ratio, or in any other way. The references to relative density under the heading "Description of Strata" in the borehole records are based on the field values of penetration resistance uncorrected for the effects of overburden pressure. Three sets of equipment were used for the tests and the Hammer Energy Test Reports are presented as Figures H1 to H3. Which set was used in each borehole is noted in the "Remarks" section of the borehole record.

Dynamic Cone Penetrometer (DCP) tests (Ref. 14) were undertaken adjacent to 10 no Trial pit locations (see Fig. B0). The results are given in Report A15044 in Appendix D, which include plots of cumulative blow count against depth and California bearing ratio (CBR) against depth.

Soakaway tests (Ref.7) were undertaken in four trial pits, located within the proposed Braco West 2 Substation area. The results are given as Report A15044 in Appendix D.

A nominal 50mm diameter perforated standpipe was installed in each of required boreholes as specified by SLR, details of which are given on the relevant records. Tests were subsequently carried out to determine the methane, carbon dioxide, carbon monoxide, hydrogen sulphide and oxygen contents of the gas in the standpipes. In addition, water level readings were taken in the instruments. The results of the monitoring are given in Figure E1.



During the end of the sitework period on the 11th December 2023, the standpipes in boreholes BH01, BH02, BH04, BH07, BH10, BH11NEW, BH13, BH14NEW & BH19 were purged of three well volumes to develop the installations. Thereafter, water samples were taken by bailer/Waterra, before being / transferred to one litre glass and plastic bottles. The water samples were delivered to the laboratory in coolboxes.

The ground levels and co-ordinates at the borehole and trial pit positions, given on the records, were determined using a Global Positioning System and are related to Ordnance Datum and the National Grid, respectively.

3.2 Laboratory Testing

Individual testing schedules were submitted to SLR the Consulting Engineers for scheduling as per their preference, completed schedules were forwarded to the testing laboratory. The laboratory testing was carried out by Terra Tek Limited (trading as Igne) who hold UKAS Accreditation for the scheduled tests.

The geotechnical laboratory testing was carried out in accordance with the referenced testing procedures given below. The results are given in Appendix F and comprised the following: these have been reported as per schedule so current figure locations are not noted as there are multiple locations over the results pages.

| Description of Test | Figures | Ref |
|----------------------------------|---------|----------|
| Moisture Content Tests | | (5)/(13) |
| Liquid and Plastic Limit Tests | | (13) |
| Bulk Density | | (13) |
| Particle Size Distribution Tests | | (13) |
| Moisture Condition Value | | (5) |
| California Bearing Ratio | | (5) |
| Small Shearbox Testing | | (5) |
| Los Angeles Testing | | (11) |
| Point Load Testing | | (12) |
| Unconfined Compressive Strength | | (10) |

To date we have a number of geotechnical tests due to be reported through by the laboratory these include testing schedules 14 (TP07, TP13), schedule 15 (TP10



NEW, 11NEW, 12NEW) & Schedule 17(BH10) with the remaining rock testing results including geochemical testing results from subcontract laboratory.

BRE (Ref. 8) suite SD1 tests were undertaken on geotechnical samples from across the site. The SD1 results are reported as per each testing schedule set of results.

In addition, chemical contamination testing was carried out on 19 samples of made ground and soil. The results are given in Appendix G and are included in laboratory Report Reference 23-28085, 23-28676 & r23-28678. The testing comprised the following suite:

Description of Test

Metals (Arsenic, Boron, Cadmium, Chromium Total, Copper, Lead, Mercury, Nickel & Zinc)

pH and Sulphate

Organic Matter

Total Organic Carbon

TPHCWG Aliphatic/Aromatic Split

Polyaromatic Hydrocarbons (PAH) (USEPA 16)

Phenol

Cyanide Total

Asbestos Screen / Identification

Waste Acceptance Criteria



Senior Engineering Geologist

Chief Engineer

For and on Behalf of Raeburn Drilling and Geotechnical Limited Trading as Igne Ground Investigation Department Hamilton

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REFERENCES

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- (3) BS10175: Code of Practice for the Investigation of Potentially Contaminated Sites, British Standards Institution, 2011 + A1:2013.
- (4) BS EN ISO 22476-3: Geotechnical investigation and testing. Field testing. Standard penetration test, 2005.
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| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|-----|---------|-------------------------------|--------------------|
| J | | | |
| 10 | Client: | SHE Transmission plc | |
| 1.0 | Engine | er: SSE Perth Inveralmond HSE | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:24:58 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com

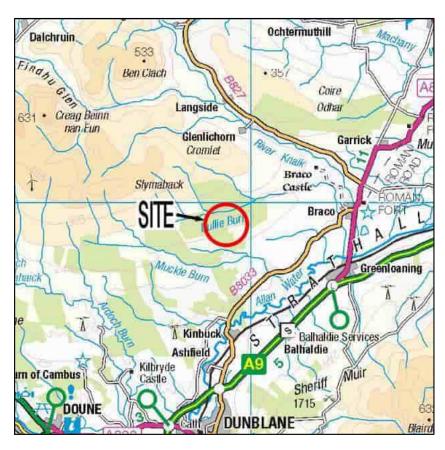


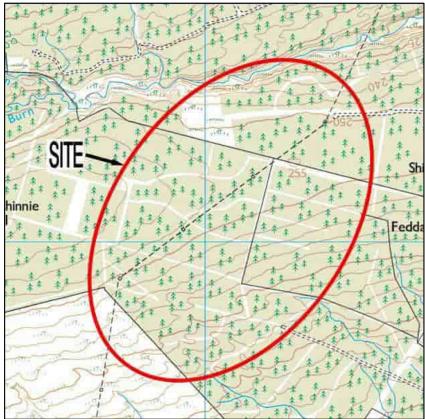
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LOCATION PLAN



Fig No:

RH

Status

Chk & App

SITE PLAN

Contract No: 26555

Fig No:

A2

Client: SHE Transmission plc



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|-----|---------|-------------------------------|--------------------|
| J | | | |
| TD | Client: | SHE Transmission plc | |
| 1.0 | Engine | er: SSE Perth Inveralmond HSE | |

Style: APPENDIX B File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:25:14 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com

APPENDIX B SITE WORKS





Site: LT520 BRACO WEST SUBSTATION

Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

Boring

The standard method of boring in soil for ground investigation is known as the cable tool method. It uses various tools worked on a wire cable, typically a shell in non-cohesive soils such as sand and gravel, and a clay cutter in cohesive soils such as clay. Very dense soils, boulders or other hard obstructions are disturbed or broken up by chiselling and the fragments removed with the shell. Where the ground conditions require, the borehole is lined with driven steel casings of such sizes that the bottom of the borehole is not less than 125mm diameter.

Where there are constraints upon access, alternative methods of soft ground boring are available. However, each has limitations that need to be taken into account when assessing their suitability and the ground conditions inferred from their results.

Rotary Drilling

Rotary drilling is employed to extend ground investigation beyond the practical limit of cable tool boring in hard formations, commonly rock. Core drilling is used to obtain continuous intact samples of the formation and is generally undertaken with double tube swivel type core barrels fitted with tungsten or diamond bits as appropriate to formation type and hardness. Open-hole rotary drilling using tricone rock roller bits or tungsten insert drag bits, or down-the-hole hammers, is carried out where more limited information is sufficient, strata identification being made from cuttings only. Open-hole rotary drilling methods may also be employed for fast penetration of soils where detailed sampling is not required, prior to coring at depth. Air or water is the flushing medium normally used with rotary drilling methods. Where the ground conditions require, the borehole is lined with inserted or drilled-in casing. Rotary percussion allows dynamic sampling within soils.

Sonic Drilling

Sonic drilling is employed as an alternative boring method for soft ground and rock. The sonic rig operates much like any conventional top-drive rotary rig. The main difference is that a sonic drill rig has a specially designed hydraulically powered drill head or oscillator which produces adjustable high frequency vibratory forces. Sonic samples are extruded direct to plastic liner bags or semi-rigid plastic liners for rapid inspection. Bulk and small disturbed samples are then taken from the plastic liner bags.

Trial Pits

Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177

Trial pits are excavated by hand or machine for a number of purposes such as avoiding services, exposing foundations or obtaining a better view of shallow ground conditions.

Samples and In-situ Tests

Tube samples of cohesive soils are generally taken with a 100mm internal diameter open drive sampler known as a U100, with an area ratio of 30%. The sampler is driven into the soil at the bottom of the borehole by a sliding hammer. After a sample is taken, the drive head and cutting shoe are unscrewed from the sample tube and any wet or disturbed soil removed from either end. The sample tube is then sealed with wax and fitted with plastic end caps.

A range of more specialised equipment, e.g. thin walled open drive sampler (UT100), piston or foil samplers, may be used to obtain higher quality samples in conditions where conventional open drive sampling is impracticable or unsatisfactory. The UT100 sampler is specifically utilised to obtain class 1 samples of cohesive soils as required under BS EN1997-2.

Disturbed samples are taken from the boring tools or trial pits at regular intervals. The samples are sealed in airtight containers. Bulk samples are large disturbed samples from the boring tools, or from trial pits, generally where tube samples are unavailable.

The Standard Penetration Test, SPT, in accordance with BS EN ISO 22476-3, determines the resistance of soil to the penetration of a split barrel sampler. A 50mm diameter split barrel sampler is driven 450mm into the soil using a 63.5kg hammer with a 760mm drop, and the penetration resistance, the "N" value, is expressed as the number of blows required to achieve 300mm penetration below an initial penetration of 150mm, the seating drive, through any disturbed soil at the bottom of the borehole.

In coarse soils, the Cone Penetration Test (CPT) is conducted in the same manner as the SPT but using a 50mm diameter 60 degree apex solid cone point to replace the split barrel sampler.

Peat Probing

Generally, peat probing is carried out using a Mackintosh Probe. The probe is pushed through the peat until resistance is met then the depth at which this occurred is recorded.

Groundwater

Borehole water levels are recorded, together with the depths at which seepages or inflows of groundwater are detected and the observations noted on the borehole or trial pit records. These observations may not give an accurate indication of groundwater conditions, for the following reasons:

- (a) The trial pit or borehole is rarely left standing at the relevant depth for sufficient time for the water level to reach equilibrium.
- (b) A permeable stratum may have been sealed off by the borehole casing.
- (c) It may have been necessary to add water to the borehole to facilitate progress.
- (d) There may be seasonal, tidal or other effects at the site.

A more accurate record of groundwater behaviour may be obtained from standpipes or standpipe piezometers.

Gases

Determination and measurement of gases in the ground, commonly in relation to landfills, may be made directly from the ground surface, where a hole is formed by driving a solid and rigid steel spike to depths normally in the range 1.0 to 1.5m. Gas emissions are analysed using an appropriate portable analyser. However, research has shown that the small sample hole size and smearing effects can give a false negative result.

Where more accurate or longer term measurement of emissions is required, gas monitoring standpipes are installed in boreholes.



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

The following site tests are carried out following procedures set out in the listed standards.

TEST

CBR

Data Loggers

Ground Water Sampling

Hand Vanes

Permeability Tests

Slug Tests

Soakaway Tests

Surface Water Sampling

STANDARD

BS 1377 : 1990

BS EN ISO 22282

BS ISO 5667-1: 2009

BS 1377: 1990

BS EN ISO 22282-2-2012

Contract No: 26555

BS EN ISO 22282

BRE Digest 365

BS ISO 5667-6: 2009

Style: BH TP KEY



Site: LT520 BRACO WEST SUBSTATION

Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

SOIL SAMPLES

U (X) General purpose tube sample; X No of blows to drive sampler

Piston Piston sample

NOTE: Tube samples are 100mm diameter unless otherwise specified in the remarks. Suffix 'a' indicates sample not recovered; suffix 'b' indicates full penetration of sampler not obtained;

Contract No: 26555

Nominal Diameter (mm)

Core

54

76

92

113

75

Borehole

76

100

121

146

108

Other casing and borehole diameter sizes are available and may be used where

suffix 'c' indicates full penetration of sampler but limited recovery

D/J/T/V Small Disturbed/Jar/Tub/Vial sample

B/LB Bag/Large Bag sample

UT (X) Thin walled push in sampler (type OS-T/W); X No of blows to drive sampler

ET Sample appropriate for geochemical analyses (tub)

CORE RECOVERY AND ROCK QUALITY

C Core Sample

TCR Total Core Recovery: The total core recovered expressed as a percentage of the core run length

SCR Solid Core Recovery: The core recovered as solid cylinders expressed as a percentage of the core run length

RQD Rock Quality Designation: The core recovered as solid cylinders of length 100mm or more expressed as a percentage of core run length.

RO-S/RO-R Rotary Open Hole Drilling through Soil / Rotary Open Hole Drilling through Rock
FI Fracture Index: The number of discontinuities expressed as fractures per metre

Flush "Depth" indicates depth down to which recorded "Returns" relate

NI Non Intact

NR No Recovery (assumed)

GROUND-WATER

W Water Sample

 ¥
 Ground-water encountered

 ¥
 Depth to which ground-water rose

 ↓
 Ground-water cut off by the casing

 WS
 Water Sample from Standpipe

IN SITU AND FIELD TESTS

SPT=X a/b (pen) Standard penetration test (split barrel sampler(SPT)or cone (CPT)); X is the penetration (N) value;

OPT=X a/b (pen) 'a' is blow/75mm for seating drive; 'b' is blows/75mm for test drive; (pen) is test drive penetration if less than 300mm.

CBR California bearing ratio test
MCV Moisture condition value test

K Permeability test
HP Hand penetrometer test

FV Field vane test

HV Hand vane test (I = Initial, R = Residual)

ID Density test

PID Photo Ionisation Detector (ppm)

LEGENDS

Material legends are in accordance with ISO 710-1 and 710-2 # before a description indicates that it is based on the Driller's record.

INSTALLATIONS (BACKFILL)

, A

Concrete



Bentonite



Spoil



Bentonite/cement grout



Sand



Solid pipe



Gravel



Slotted pipe



Porous element



Wooden plug



Asphalt

ROTARY DRILLING SIZES

Letter

Standard

Non-standard

412

required. Details will be on the individual BH logs.

DIMENSIONS

All dimensions in metres unless otherwise stated.



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Activity Type/Method Key

CC Concrete Coring
COM Rotary Percussion

CP Cable Percussion (Shell and Auger)
CPT Static Cone Penetration Test
DCP Dynamic Cone Penetrometer
DP Dynamic Cone Sampling

Client:

GBS Geobor-S

HP Hand Excavated Trial Pit

ICBR In Situ CBR Test
IDEN In Situ Density Test
IP Inspection Pit

IRES In Situ Resistivity Test
IVAN In Situ Vane Test
MOSTAP Monster Steek Apparaat
MP Mackintosh Probe
PP Peat Probe
RC Rotary Coring
RO Rotary Open Hole

RO-R Rotary Open in Rock
RO-S Rotary Open in Soils

SB Sonic Boring
SC Sonic Coring

SCP Static Cone Penetrometer
SL Sampling Location

SO Sonic Open Holing
TP Trial Pit/Trench

WLS Dynamic (Windowless) Sampler

WS Window Sampler

Contract No: 26555



| Site: LT520 BRACO WEST SUBSTATIO | Site: | LT520 | BRACO | WEST | SHRST | ΔΤΙΟΙ |
|----------------------------------|-------|-------|-------|------|-------|-------|
|----------------------------------|-------|-------|-------|------|-------|-------|

Client: SHE Transmission plc Contract No: 26555

Engineer: SSE Perth Inveralmond HSE

| Exploration Point | Co-ordinates Easting Northing | | Ground Level (mO.D.) | Method | Figure No | Installation | Remarks |
|----------------------|--------------------------------|----------|----------------------------|-----------|-----------|--------------|---------|
| | (m) | (m) | | | | | |
| BH01 | 279045.7 | 708752.2 | 227.89 | IP+SB+GBS | BB1 | 1 | |
| BH02 | 278817.0 | 708935.6 | 249.18 | IP+SB+GBS | BB2 | 1 | |
| BH03 | 278938.5 | 709019.0 | 250.98 | IP+SB+GBS | BB3 | | |
| BH04 | 279075.4 | 709136.1 | 252.35 | IP+SB+GBS | BB4 | 1 | |
| BH05 | 279209.3 | 709189.4 | 252.35 | IP+SB+GBS | BB5 | | |
| BH06 | 278918.1 | 708854.7 | 239.37 | IP+RO+RC | BB6 | | |
| BH07 | 279345.8 | 708987.3 | 235.10 | IP+SB+GBS | BB7 | 1 | |
| BH08 | 279174.6 | 708851.6 | 228.66 | IP+SB+GBS | BB8 | | |
| BH09 | 279245.7 | 709074.8 | 245.98 | IP+SB+GBS | BB9 | | |
| BH10 | 279097.1 | 708955.4 | 240.05 | IP+SB+GBS | BB10 | 1 | |
| BH11 NEW | 279166.5 | 708700.2 | 216.61 | IP | BB11 | 1 | |
| BH12 NEW | 279276.4 | 708841.5 | 223.15 | IP+SB+GBS | BB12 | | |
| BH13 | 278633.3 | 708981.5 | 259.53 | IP+SB+GBS | BB13 | 1 | |
| BH14 NEW | 279416.7 | 709146.0 | 246.92 | IP+RO+RC | BB14 | 1 | |
| BH15 NEW | 279328.4 | 709282.6 | 253.23 | IP+SB+GBS | BB15 | | |
| BH18 | 278879.8 | 709141.7 | 258.49 | IP+COM | BB16 | | |
| BH19 | 278769.3 | 709026.5 | 257.97 | IP+SB+SC | BB17 | 1 | |
| TP01 | 279216.2 | 708992.3 | 239.05 | TP | BB18 | | |
| TP02 | 278914.8 | 708959.8 | 247.70 | TP | BB19 | | |
| TP03 | 279042.2 | 708901.3 | 236.85 | TP | BB20 | | |
| TP04 | 279045.9 | 709078.8 | 250.56 | TP | BB21 | | |
| TP05 | 279135.1 | 708794.4 | 223.47 | TP | BB23 | | |
| TP06 | 279286.2 | 708910.8 | 229.63 | TP | BB24 | | |
| TP07 | 278976.9 | 708791.3 | 228.97 | TP | BB25 | | |
| TP08 | 279149.9 | 709062.8 | 247.01 | TP | BB26 | | |
| TP09 | 278842.5 | 708873.5 | 243.84 | TP | BB27 | | |
| TP10 | 278982.3 | 709176.9 | 255.65 | TP | BB28 | | |
| TP10 NEW | 279320.5 | 708826.9 | 219.82 | TP | BB29 | | |
| TP11 | 278832.8 | 709079.9 | 257.73 | TP | BB30 | | |
| TP11 NEW | 279319.6 | 709178.6 | 250.74 | TP | BB31 | | |
| TP12 NEW | 279448.5 | 709253.8 | 251.72 | TP | BB32 | | |
| TP13 NEW | 279072.2 | 708706.9 | 221.41 | TP | BB33 | | |
| TP19 | 278933.5 | 709111.8 | 255.47 | TP | BB34 | | |
| TP20 | 278760.5 | 708969.6 | 253.41 | TP | BB35 | | |
| TP21 | 279425.0 | 709522.9 | 242.53 | TP | BB36 | | |
| TP22 | 279338.8 | 709439.4 | 249.20 | TP | BB37 | | |
| TP23 | 279253.9 | 709333.8 | 251.53 | TP | BB38 | | |

| | Originator | |
|-----------|------------|--|
| | RB | |
| Chk & App | Status | |
| FMR | Final | |

Style: SCHEDULE OF BH & TP File: P:/GINTWPROJECTS/26556.GPJ Printed: 26/01/2024 15:45:35 Raebum Drilling and Geotechnical, Whistbearry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raebumdrilling.com

SCHEDULE OF SITE WORKS

RAUBURZ

Fig No:

B0

Sheet 1 of 1

| | l |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| DAEDIIDAI | l |
| RAEBURN | L |
| | l |
| TO THE PRICE OF TH | ı |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH01

Inspection Pit to Sonic Boring to Geobore-S to

Contract No: 26555

1.20m 4.00m 10.55m

Location: E 279045.7

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic, Water Flush

N 708752.2

| N 708752.2 | | | - | Footo | | | | Level | | | T 75 | | R | ackfill | |
|------------|-----------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------|----------|-----------------|--------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------|---------|---------------|
| Progress | | | Darry | | Fests | علىيم | | Casing Depth | | Depth | Description of Strata | Legend | Water Depth | Symbol | |
| 15/11 | Depth | Туре | Depth | | Ke | sult | | Deptil | 227.89 | | Soft brown to dark brown spongy amorphous PEAT | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Depui | Š | Depth |
| 2023 | | | | | | | | | | - | Cont brown to dark brown sporigy amorphous (EAT | 1, 11, | | | |
| | 0.50 | D D D | | | | | | | | - | | 11/2 | | | 0.50 |
| | 0.50 0.50- 4.00 | B, D, D | | | | | | | | - | | 1, 11, | | Ħ | <u> </u> |
| Ï | 4.00 | | | | | | | | | - | | 11/2 | | | 1.00 |
| | | | | | | | _ | | 226.69 | 1.20 | | , N | | | |
| | 1.20- 2.70 1.20 | B, D | 1.20 | SPT=6 | <u>2.1</u> | 1 /2.1.1.2 | <u>∠</u> | 1.20 | | - | Loose brown silty SAND & GRAVEL with occasional rootlets noted. Sand is fine to coarse. Gravel is fine to coarse subangular to | ×.°. | 9 | | |
| Ί | 1.20 | | | | | | | | | - | subrounded of sandstone | %. | d | | |
| 1 | | | | | | | | | | - | | 8.0. | | | , |
| | | | | | | | | | | - | | .0 | | | |
| | | | | | | | | | | - | | %·°. | | | |
| | | | | | | | | | | - | | %. | 4 | | |
| | 2.70- | | 2.70 | SPT=23 | 3.4 | 4 /4.6.6.7 | 7 | 2.70 | 225.19 | 2.70 | Medium dense reddish brown very gravelly silty fine to coarse SAND. | . 0. | - | | , |
| . | 3.50 2.70 | UT | • | | | | | | | _ | Gravel is fine to coarse subangular to rounded of sandstone, pelite and quartz | | 5 | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | 224.39 | 3.50 | | | 5 | | |
| | 3.50- 4.00 | В | | | | | | | | - | Firm reddish brown slightly sandy gravelly CLAY with cobbles noted. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded of sandstone and pelite. Cobbles are subangular to | 70/2 | | | , |
| | | | | TCR | SCR | RQD | FI | | 223.89 | 4.00 | subrounded of sandstone and pelite. Cobbles are subangular to subrounded of sandstone | 7 | ž | | , |
| | | | 4.00 | 75 | 13 | 0 | | | 223.03 | 4.00 | Assumed Zone of Core Loss from weaker and finer grained material | 1-4 | 1 | | |
| | | | | | | | 0 | | 223.49 | 4.40 | | | | | |
| | | | | | | | | | | | Firm to stiff reddish brown slightly sandy gravelly CLAY with cobbles and boulders noted. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone. Cobbles and boulders are angular | <u>×o</u> | 2 | | |
| | | | | | | | | | | _ | angular to subangular of sandstone. Cobbles and boulders are angular to subangular of sandstone | × × c | 3 | | , |
| | | | | | | | 0 | | | _ | | × · | | | 5.00 |
| | | | | | | | | | | - | | × | <u>5</u> | | <u> </u> |
| | | | | | | | | | 222.39 | 5.50 | | × o× | 1 | | <u> </u> |
| | | | 5.50 | 100 | 33 | 7 | | | | - | Weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE recovered as very sandy very gravelly | :::: | | |] |
| | | | | | | | | | | | cobbles. Gravel is medium to coarse angular of sandstone | :::: | | |] |
| | | | | | | | | | | _ | | :::: | | | <u> </u> |
| | | | | | | | NI | | | _ | | :::: | | | 1 |
| | | | | | | | | | | - | | :::: | | |] |
| | | | | | | | | | | | | :::: | | |] |
| 15/11 | | | 7.00 | 100 | 0 | 0 | | 7.00 | 220.89 | 7.00_ | Weak to medium strong thinly to thickly laminated reddish brown fine to | :::: | 2.15m | | <u> </u> |
| | | | | | | | NI | | | - | medium grained SANDSTONE recovered as very sandy very gravelly cobbles. Gravel is medium to coarse angular of sandstone | :::: | 3.25m | | 1 |
| | | | | | | | '\' | | 220.29 | 7.60 | | :::: | | | 1 |
| | | | 7.60 | 100 | 38 | 38 | 7 | | | | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fractures are subhorizontal closely spaced | :::: | 1 | |] |
| | | | | | | | | - | 219.99 | 7.90 | planar to undulating smooth clean | :::: | | |] |
| | | | | | | | NI | | 219.59 | 8.30 | Weak thinly to thickly laminated reddish brown SANDSTONE with mudstone bands. Recovered as very clayey gravel. | :::: | | | <u> </u> |
| | | | 0.40 | 100 | 100 | 50 | | | 219.09 | 0.50 | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Distinctly weathered. Fractures Set 1: | :::: | | | <u> </u> |
| | | | 8.40 | 100 | 100 | 50 45 | 17 | - | 219.29 | 8.60 | subhorizontal very closely to closely spaced planar to undulating | <u> ::::</u> | | | <u> </u> |
| | | | 0.00 | 100 | | -3 | 13 | | 210.00 | | smooth clean. Fracture Set 2: subvertical planar smooth clean Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Distinctly weathered. Fractures Set 1: | | | |] |
| | | | | | | | | 1 | 218.89 | 9.00 | ∖ sub horizontal very closely to closely spaced planar to undulating | /:::: | | | <u> </u> |
| | | | | | | | | | | - | smooth clean. Fracture Set 2: subvertical planar smooth with gravel infill | / :::: | | | <u> </u> |
| | | | | | | | 7 | | | - | \ between 9.00 and 9.15m subvertical fracture planar to undulating smooth to rough | / :::: | | | <u> </u> |
| | | | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered to unweathered. 218.04 9.85 217.94 9.95 Fractures are subhorizontal closely to medium spaced planar to | | :::: | | | 1 | | | | | | | |
| L | | | 9.85 | 100 | 86 | 37 | NI. | | 217.94 | | Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean | <u> </u> | 1 | | nth nth |
| | narks: Descrin | tion base | d on Dri | ller's la | na | | | | | | | Hole Dian | n. Borir | To De | ptn Casing |
| 1 " | Pescup | ייטוו המסבו | ווט ווט יי | 3 10 | ~y. | | | | | | | 150 | 1 400 | ٦ I | 4 00 |

PIGENTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:25.48 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Description based on Driller's log.

Description pit was excavated by hand to a depth of 1.20m to clear services.

No ground-water observations are recorded due to the use of water flush.

The Penetration Tests were carried out using Trip Hammer RD54.

A 50mm diameter perforated standpipe was installed to a depth of 5.00m.

Fig No: В1 Sheet 1 of 2 Scale 1:50

150 146

4.00 10.55

4.00 10.55

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | PI | | | |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|---|
| S McL | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | To | hh:mm | Returns | Type | From (m) | To (m) | ~ |
| S IVICE | KD | | | | | | | | | | 100 | Water | 1.20 | 7.00 | |
| | | | | | | | | | | | | | | | 5 |
| Chk & App | Status | | | | | | | | | | | | | | B |
| | DRAFT | | | | | | | | | | | | | | Ř |
| | | | | | | | | | | | | | | | N |

| | | | | | | | | Site: LT520 BRACO WEST SUBSTATION | | | | | | | | | | | | Contract No: 26555 | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------|-------------------------------|------------------------------------|--------------------------|-----------------|--------------------|--------------------------------------------------------------|----------------------|-----------------|----------------|--------------------------------------------------------------------|-------------------------------------------------------|------------|-----------------------------------------------------------------------------------|-----------|----------------|---------------------------------------------------------|--------------------------------------|--------------------|----------------------------|----------------|---------------|--|--|--|
| F | RA | E | ВІ | UΙ | ₹ | N | Clie | Client: SHE Transmission plc | | | | | | | | | | | | BH01 | | | | | | |
| = | | DRILLIN | IG & GE | EOTECH | NICA | LL LTD |) | | | | | almond H | SE | | | | | | Inspection Pit to Sonic Boring to | | | 1.20m 4.00m | | | | |
| Lo | cation: F | E 27904 | 5.7 | | Orie | entatio | on: Vei | Vertical Equipment: Hand Tools, Track Mounted Boart Longyear | | | | | | | | | | | Geobore | S to | | 10. | .55m | | | |
| | | N 70875 | | | | or nous | J.1. V O. | LS250 Mini Sonic; Water Flush | | | | | | | | | | | | | | | | | | |
| ress | Sai | nples | | Т | ests | | | Casing | Level | | | Description of Strata | | | | | pue | Water | | ackfill | | | | | | |
| Progress | Depth | Туре | Depth | ו | Re | sult | | Depth | 227.89 | nOD) D 27.89 | | 14 P | | | • | | | | <u> </u> | Legend | Depth | Symbol | Depth | | | |
| | | | 9.85 | | | | 12 | | | | ١ ١ | Medium str medium gra \Non-intact | | | | | | | / | / ::::: | | | 1 | | | |
| mos :Bulling: | 1 | | | | | | | 10.55 | 217.34 | 1 10 | 0.55 | Medium str medium gra weak muds Fractures a undulating | ong to sained SA stone poor are subha smooth | ciean wili | nly to thick NE with g irtially wea very close n localised D OF BO | ı graveri | ITTIIII | dish brow moderat thered. ced plana — — — - | n fine to ely ar to | <u> ::::</u> | 3.10m | | 10.55 | | | |
| FIRE F. (CIN WW/ROJEC IS/R0555, CP-0-444 (J) 1096 710999 Printed: Z6/01/Z024 13/25/48 Kaebum Drilling and Geolecimical, Whisteberry Kd., Hamilion ML3 UHP 16I: 01096-711177 E-mail: enquires@raebumdnilling.com | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CISKE | | | | | | | | | | | - | | | | | | | | | | | | | | | |
| Re | marks: | | | | | | | | | | | | | | | | | | | Hole | | Го Де | | | | |
| | # Descrip An inspec No groun The Pene | tion base ction pit w d-water o etration Te diameter | as exca bservat ests we | avated b tions are re carrie | oy ha e rece ed ou | orded t usin | due to g Trip l | the us Hamme | e of wat er RD54. | er flı | ush. | S. | | | | | | | | Diam 150 146 | 4.0 |) | 4.00 10.55 | | | |
| | Driller S McL | | inator RB | Struck | | | d-water Time(m | | | Wate rom | er Added To | From | Chiselling To | hh:mm | Returns | Туре | ush From (m | | R | Fig N | o: | | | | | |
| Ä | Chk & App | Sta | atus AFT | | | | | | | | | | | | 100 | Water | 1.20 | 7.00 | RAUBURZ | s | B1 heet 2 d cale 1:5 | | | | | |

| DAEDHDAI | |
|-----------------------------|---|
| RAEBURN | _ |
| DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH02

Inspection Pit to Geobore-S to 1.20m 15.35m

Location: E 278817.0

Style: BOREHOLE NEW File: P:\GINTWIPROJECTS\26555.GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:25:50 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

N 708935.6

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| ess | Sai | mples | | Т | Tests | | | | Level | • | | pu | Water | | ackfill |
|---------------|-----------------------|----------------------------|---------|--------|---------|-----------|------------|--------|------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------|--------|----------------|
| Progress | Depth | Туре | Depth | | Re | sult | | enth i | (mOD) 249.18 | Depth | Description of Strata | Legend | Depth | Symbol | Depth |
| 17/11 2023 | | | | | | | | | | | Soft brown to dark brown spongy pseudo-fibrous PEAT | <u> </u> | | ١ | |
| | | | | | | | | | | _ | | 1/ 1/ | | | 0.50 |
| | 0.50 | B, D | | | | | | | | - | | 7/ | | Ħ | |
| | | | | | | | | | | - | | 1/ 1/ | | ĦĦ | |
| | 1.00- | B, D | | | | | | | 247.00 | 1.20 | | \ <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u> | | ĦĦ | |
| | 1.80 | B, D | 1.20 | SPT=22 | 2 0.1 | 1 /1.5.8. | <u>8</u> | | 247.98 | 1.20 | Soft black plastic amorphorous to pseudo-fibrous PEAT | 1// 7 | | BB | |
| | 1.20- 1.55 1.20 | B, D | | | | | | | 247.63 | 1.55 | | 1, 11, | | | |
| | 1.55- 1.80 | Б, D | | | | RQD | FI | | 247.38 | 1.80 | greyish brown silty SAND & GRAVEL. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded of sandstone | 8 | | Ħ | |
| | 1.00 | | 1.80 | 60 | 10 | 0 | | | | _ | Assumed zone of core loss | | | | 2.00 |
| | | | | | | | AZCL | | 246.88 | 2.30 | | | | | , |
| | | | | | | | | | | - | Weak to moderately strong reddish brown fine to medium grained SANDSTONE. Recovered as non-intact | ::::: | | | |
| | | | | | | | NI | | 246.48 | 2.70 | | | | | |
| | | | | | | | 23 | | 246.18 | 3.00 | Moderately strong reddish brown fine to medium grained SANDSTONE. Fractures are subhorizontal very closely spaced planar | | | | |
| | | | | | | | | | | | to undulating smooth to rough clean with occasional clay smear Weak to moderately strong reddish brown fine to medium grained | | | | |
| | | | 3.30 | 100 | 0 | 0 | NI NI | | | | SANDSTONE. Recovered as non-intact | ::::: | | | |
| | | | | | | | INI | | | - | | | | | |
| | | | | | | | | | 245.38 | 3.80 | Very weak to weak greyish brown MUDSTONE with reddish brown | ::::: | | |) |
| | | | | | | | | | | - | siltstone laminae. Distinctly to destructively weathered. Recovered as soft to firm greyish brown slightly sandy gravelly clay. Sand is fine to | | | | |
| | | | | | | | NA | | | - | coarse. Gravel is fine to coarse angular to subangular of mudstone and siltstone. | | | | |
| 1 | | | | | | | | - | 244.68 | 4.50 | Moderately strong thinly to thickly laminated reddish brown fine to | | | | |
| | | | | | | | | | | | Moderately strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Recovered as non-intact disorganised cobbles and gravel with some subvertical to oblique fractures noted in | | | | " |
| | | | 4.80 | 83 | 17 | 0 | | | | _ | larger cobble sized fragments | | | | |
| | | | | | | | NI | | | - | | | | ľħ. | , |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | | - | | | | | 1 |
| , | | | | | | | | | 243.28 243.18 | 5.90 | Vanuusak ta waak graviah braum MI IDSTONE with raddish braum | ::::: | | F | |
| | | | 6.00 | 100 | 0 | 0 | NA/ | | 210.10 | 0.00 | Very weak to weak greyish brown MUDSTONE with reddish brown siltstone laminae. Distinctly to destructively weathered. Recovered as soft to firm greyish brown slightly sandy gravelly clay | 1 | | | , |
| | | | | | | | | | | | Moderately weak to moderately strong reddish brown thinly to thickly laminated fine to medium grained SANDSTONE with thickly laminated | ::::: | | 14 | |
| | | | 6.50 | 91 | 32 | 0 | NI | | | | interbedded mudstone. Recovered as non-intact unsorted cobbles and gravel with some clay smears | | | | |
| | | | | | | | | | | - | graver with some day smears | ::::: | | |] |
| | | | | | | | | - | 242.18 | 7.00 | Moderately strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with healed incipient fractures | | | | |
| | | | | | | | 13 | | | - | fine to medium grained SANDSTONE with healed incipient fractures with calcite mineralisation. Fractures are subhorizontal very closely to | | | | |
| | | | | | | | | | 241.58 | 7.60 | closely spaced planar to undulating smooth clean with localised gravel infilled, occasional subvertical fracturing noted on refracturing on healed | ::::: | | M | |
| | | | 7.60 | 100 | 67 | 0 | | | | | subvertical fractures Moderately strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fracture Set 1: subhorizontal | <u> </u> | | | ΄ |
| | | | | | | | 23 | | | _ | fine to medium grained SANDSTONE. Fracture Set 1: subhorizontal very closely to closely spaced planar to undulating smooth clean with localised gravel infilled. Fracture Set 2: Oblique to subvertical fracture | | | Į. P | 8.00 |
| | | | | | | | | | 240.88 | 8.30 | localised gravel infilled. Fracture Set 2: Oblique to subvertical fracture planar to undulating rough with gravel infill | ::::: | | C | , |
| | | | | | | | | | | - | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with healed incipient fractures with calcite mineralisation. | | | 0 | |
| | | | | | | | 6 | | | - | Fracture Set 1: subhorizontal very closely to medium spaced planar to undulating smooth to rough clean. Fracture Set 2: subvertical planar to | | | 0 | |
| | | | | | | | | | | - | undulating smooth clean with calcite mineralisation on fracture surfaces | ::::: | | 0 | |
| | | | 9.10 | 83 | 58 | 0 | | | 240.08 | 9.10 | Assumed zone of core loss | ::::: | | _ c | |
| | | | 5.10 | | | | AZCL | - | 239.88 | 9.30 | Strong thinly to thickly laminated reddish brown fine to medium grained | ::::: | | 0 | , |
| | | | | | | | | | | _ | SANĎSTOŃE. Fractúres are subhorizontal very closely to mediúm spaced planar to undulating smooth to rough clean | | | 0 | |
| | | | | | | | 19 | | | - | | | | 0 | |
| Ren | narks: | | | | L | | | | | | | Hole | | To De | 10.00 pth |
| # | Descrip | tion based | | | | | - 4- " | -6400 | t · | | | Diam 150 | | | Casing 1.80 |
| | o groun | ction pit wa d-water of | servati | ons ar | re reco | orded | due to the | he use | of wate | | ces. | 146 | | | 15.35 |

No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD48. A 50mm diameter perforated standpipe was installed to a depth of 8.00m.

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | R |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|
| S McL | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | 'n |
| 3 IVICE | KD | | | | | | | | | | 100 | Water | 1.20 | 1.80 | = |
| | | | | | | | | | | | 50 | Water | 1.80 | 10.30 | Ē |
| Chk & App | Status | | | | | | | | | | 100 | Water | 10.30 | 15.35 | н |
| | DRAFT | | | | | | | | | | | | | | ĕ |
| | 2.0 | | | | | | | | | | | | | | N |
| | | | | | | | | L | | | | | | | |

Fig No:

B2 Sheet 1 of 2 Scale 1:50

| RAEBURN | |
|---------------------------------|---|
| KAEBUKN | 7 |
| ■■■ DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH02

Inspection Pit to Geobore-S to

1.20m 15.35m

Location: E 278817.0

N 708935.6

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear

LS250 Mini Sonic; Water Flush

| ess | | nples | 5.6 | 7 | rests | | | | Level | | | рu | Water | | ackf |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------|--------------------------------------|-------------------------------------|------------------|---------------------------|-----------------|----------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|
| Progress | Depth | Туре | Depth | | Re | sult | | Casing Depth | (mOD) | Depth | Description of Strata | Legend | Depth | Symbol | De |
| ш | | | 9.10 | | | | | | 249.18 | | | ::::: | | S | Г |
| 7/11 | | | 10.30 | 100 | 80 | 30 | | 10.30 | 238.88 | 10.30 | Strong thinly to thickly laminated reddish brown fine to medium grained | ::::: | 8.70m | | |
| | | | .0.50 | | | 55 | 10 | | 220 40 | 10.70- | SANDSTONE with healed incipient fractures with calcite mineralisation. Fracture Set 1: subhorizontal very closely to closely spaced planar to | | 9.40m | | |
| | | | | | | | | | 238.48 | 10.70 | SANDSTONE with healed incipient fractures with calcite mineralisation. Fracture Set 1: subhorizontal very closely to closely spaced planar to undulating smooth to rough clean, locally gravel infilled. Fracture Set 2: subvertical planar to undulating rough clean with calcite mineralisation | ∤::::: | | | |
| | | | | | | | 8 | | | _ | Strong thinly to thickly laminated reddish brown fine to medium grained | | | | |
| | | | 4 | 40- | | 0.5 | | | 237.88 | 11.30 | SANDSTONE with healed incipient fractures with calcite mineralisation. Fractures are subhorizontal very closely to medium spaced planar to | <u> </u> | | | |
| | | | 11.30 | 100 | 77 | 35 | | | | - | undulating smooth clean Strong thinly to thickly laminated reddish brown fine to medium grained | :::: | | | |
| | | | | | | | | | | _ | SANDSTONE with healed incipient fractures with calcite mineralisation. Fractures are subhorizontal closely to medium spaced planar to | :::: | | | |
| | | | | | | | 8 | | | _ | undulating smooth clean | | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | 236.58 | 12 60 | | :::: | | | |
| | | | 12.60 | 100 | 57 | 29 | | | 200.00 | 12.00 | Moderately strong to strong reddish brown thinly to thickly laminated fine to medium grained SANDSTONE with healed incipient fractures | ::::: | | | |
| | | | | | | | NI | | 236.13 | 13.05 | with calcite mineralisation. Recovered as non intact with subvertical fractures noted with calcite mineralisation on fracture surfaces | :::: | | | |
| | | | | | | | | | | - | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with healed incipient fractures with calcite mineralisation. Fracture Set 1: subhorizontal closely to medium spaced planar to undulating smooth to rough clean, locally gravel infilled. Fracture Set 2: | | | | |
| | | | | | | | | | | - | Fracture Set 1: subhorizontal closely to medium spaced planar to undulating smooth to rough clean, locally gravel infilled. Fracture Set 2: | | | | |
| | | | | | | | 8 | | | - | subverticăl planar to undulating rough cleăn | | | | |
| | | | | | | | | | 235.18 | 14.00 | | | | | |
| | | | 14.00 | 96 | 63 | 37 | | | | | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with healed incipient fractures with calcite mineralisation. | | | | |
| | | | | | | | | | | - | Fractures are subhorizontal very closely to medium spaced planar to undulating smooth clean with localised gravel infilled | | | | |
| | | | | | | | 10 | | | - | | :::: | | | |
| | | | | | | | .5 | | | - | | | | | |
| | | | | | | | | | | | | | | | |
| 0/11 | | | | | | | | 15.35 | 233.83 | 15.35 | END OF BOREHOLE | | 9.80m | | 15 |
| | | | | | | | | | | | | | | | |
| Ar No Th A | n inspectory ground in ground in ground in ground in ground in growth in gro | R | as excar bservation ests were perforate nator B | vated ons ar e carri ed sta | by ha re received ou ndpip | orded t using | due to Trip install | the use | e of wate r RD48. depth of | r flush. 8.00m. /ater_Add | Chiselling | | Borin 1.80 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 15.39 1 | 5 | 1.8 1.8 15.3 |
| Ch | k & App | Sta DRA | tus AFT | | | | | | | | 100 Water 10.30 15.35 R | | heet 2 o cale 1:50 | | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | R |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|
| S McL | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | |
| 3 IVICE | KD | | | | | | | | | | 100 | Water | 1.20 | 1.80 | Ê |
| | | | | | | | | | | | 50 | Water | 1.80 | 10.30 | 5 |
| Chk & App | Status | | | | | | | | | | 100 | Water | 10.30 | 15.35 | B. |
| | DRAFT | | | | | | | | | | | | | | K |
| | DRAFI | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | N |

| RAEBURN | |
|-------------------------------|---|
| NALDUKN | (|
| I DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH03

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 2.70m 15.30m

Location: E 278938.5

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| | 1 | N 70901 | 9.0 | | | | | | | LS | 250 Mini Sonic; Water Flush | | | |
|----------|---------------|-----------|----------|--------|--------------|-----------|----------|--------|-----------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------|----------------|
| ess | Sai | mples | | | Tests | | | Casing | Level | | | pue | Water - | Backfil |
| Progress | Depth | Туре | Depth | | Re | esult | | Depth | (mOD) 250.98 | Depth | Description of Strata | Legend | Depth | Der |
| 1/11 | | | | | | | | | 200.00 | | Soft brown to dark brown spongy amorphous PEAT | 71/ 7 | × | ₩ 0.1 |
| .020 | | | | | | | | | | | | 1, 11, | | 3 |
| | 0.50 | B, D | | | | | | | | | | 7/ 1 | | ∃ |
| | | | | | | | | | 249.98 | 1.00 | | \(\frac{1}{2}\) | | = |
| | 1.00 | B, D | | | | | | | 249.98 | 1.20 | Brown slightly gravelly silty fine to medium SAND. Gravel is fine to coarse angular and sub-angular and includes sandstone and granite | жо | | ∃ |
| | 1.20- 1.40 | B, D | 1.20 | SPT= | 9 <u>1.:</u> | 2 /1.2.3. | <u>3</u> | 0.00 | 249.58 | | Firm reddish brown grey mottled slightly sandy slightly gravelly CLAY with occasional grey bands up to 10mm of silty fine sand. Sand is fine | i i | | ∄ |
| | 1.20 1.40- | В | | | | | | | | | to medium. Gravel is fine to coarse subangular to subrounded of sandstone | жо: | | \exists |
| | 2.00 | | | | | | | | | | Loose brown gravelly very silty fine to coarse SAND with low cobble content. Gravel is fine to coarse angular to subangular of sandstone | × ° | | ╡ |
| | 2.00- | B, D | | | | | | | | - | and mudstone. Cobbles are angular to subangular of sandstone. | × | | 3 |
| | 2.70 2.00 | | | | | | | | | - | | | | ∄ |
| | | | | TCF | RSCR | RQD | FI | - | 248.28 | 2.70 | | × | | ∃ |
| | | | 2.70 | 100 | 28 | 17 | | | 240.20 | 2.70 | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly | × | | ∄ |
| | | | | | | | 12 | | | - | laminated mudstone bands. Distinctly weathered. Fracture Set 1: | | | 3 |
| | | | | | | | | | 247.68 | 3.30 | Subhorizontal very closely to closely spaced planar to undulating smooth clean and locally gravel infilled. Fracture Set 2: Subvertical planar to undulating smooth clean | :::: | | ∄ |
| | | | | | | | 17 | | 247.38 | 3.60 | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly | :::: | | ∄ |
| | | | 3.60 | 100 | 60 | 35 | | | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | ∄ |
| | | | | | | | 14 | | | - | \smooth clean and locally gravel infilled Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly | | | ∄ |
| | | | | | | | | | 246.68 | 4.30 | laminated mudstone bands. Distinctly weathered, Fracture Set 1: |]::::: | | 3 |
| | | | | | | | | | | - | Subhorizontal very closely to closely spaced planar to undulating smooth clean and locally gravel infilled. Fracture Set 2: Subvertical planar to undulating rough and gravel infilled | [::::] | | \exists |
| | | | | | | | 6 | | | | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. | | | 3 |
| | | | | | | | | | 245.88 | 5.10 | Partially weathered. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth clean and locally gravel infilled | | | = |
| | | | 5.10 | 100 | 20 | 9 | | | | | Weak to moderately weak thinly to thickly laminated reddish brown | | | ∃ |
| | | | | | | | | | | | SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as non intact sandy very clayey gravel with cobbles noted | :::: | | 3 |
| | | | | | | | | | | | | | | 3 |
| | | | | | | | | | | _ | | | | ∄ |
| | | | | | | | NI | | | - | | :::: | | 3 |
| | | | | | | | | | | | | | | ∄ |
| | | | 6.60 | 100 | 67 | 25 | 1 | | | | | | | = |
| | | | | | | | | | 243.88 | 7 10- | | :::: | | ∄ |
| | | | | | | | | 1 | 243.00 | 7.10 | Medium strong reddish brown thinly to thickly laminated SANDSTONE with thinly to thickly laminated mudstone bands. Partially weathered. | | | \exists |
| | | | | | | | | | | | Fracture Set 1: subhorizontal very closely to closely spaced planar to undulating smooth clean. Fracture Set 2: Subvertical to oblique planar | | | \exists |
| | | | | | | | 9 | | | ' | to undulating smooth clean | :::: | | ╡ |
| | | | | | | | | | 242.00 | 0 10- | | | | \exists |
| | | | 8.10 | 100 | 97 | 50 | | † | 242.88 | 0.10 | Medium strong to strong thinly to thickly laminated reddish brown SANDSTONE with thinly to thickly laminated mudstone bands. Partially | | | ╡ |
| | | | | | | | | | | | SANDSTONE with thinly to thickly laminated mudstone bands. Partially weathered. Fracture Set 1: subhorizontal closely to medium spaced planar to undulating smooth clean. Fracture Set 2: Subvertical planar | | | \exists |
| | | | | | | | | | | - | to undulating smooth clean. Fracture Set 2: Subvertical plantal to undulating smooth clean to undulating smooth clean between 8.80 and 8.85m mudstone band | | | \exists |
| | | | | | | | | | | ' | Detween 0.00 and 0.00m mudsione dand | :::: | | ∄ |
| | | | | | | | | | | - | | :::: | | ∄ |
| | | | | | | | | | | | | | F | \exists |
| | | | 9.60 | 100 | 97 | 70 | | | | - | | | | ∄ |
| | | | | | | | 6 | | | | | | F | \exists |
| | narks: | 1 | | | | | | | | | | Hole Diam. | | Depth Casir |
| ‡ | Descrip | tion base | d on Dri | ller's | loa | | | | | | | Diam. | Doming | + 545 |

Style: BOREHOLE NEW File; P./GINTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:25:51 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

An inspection pit was excavated by hand to a depth of 1.20m to clear services. No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD48.

| Driller | Originator | | Groun | id-water | | Water | Added | | Chiselling | | | FI | ush | | P | Fig No: |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|--------------|---------|
| DJ | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | ``` ` | lgo. |
| DJ | KD | | | | | | | | | | 100 | Water | 1.20 | 15.30 | | Ιь |
| | | | | | | | | | | | | | | | 5 | l B |
| Chk & App | Status | 1 | | | | | | | | | | | | | B | l Sh |
| | DRAFT | | | | | | | | | | | | | | 8 | |
| | DRAFI | | | | | | | | | | | | | | | Sca |
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177 146

ВЗ Sheet 1 of 2 cale 1:50

2.70 15.30

2.70

| | | | | | | | | : LT5 | 20 BF | RACC |) WEST | SUBST | ATIO | N | | | | | Contra | ct No: | 265 | 55 |) | |
|-------------------------------------------|-----------|-----------------------------------------|--------------------|--------|--------|----------|---------|-----------------|----------------|----------|---------------------------------------------------------------|-----------------------------------------|--------------------------|-------------------------|------------------------|--------------------|-------------------|---------------------|-----------------------------------|---------------|-------------|----------------|--------------|-----------------|
| | | ١E | | | | | | ent: \$ | SHE Tr | ansmis | ssion plc | | | | | | | | BHC |)3 | | | | |
| = | | DRILLIN | VG & GE | OTEC | HNIC | LL LTD | Eng | | | | eralmond F | ISE | | | | | | | Inspection Sonic Bo Geobore | oring to | | | 1.20 2.70 | 0m 0m 30m |
| Loc | cation: I | E 27893 | 88.5 | | Orie | entatio | n: Ve | rtical | | Eq | uipment: Ha | and Tools | s, Track | K Mount | ted Boa | art Lo | ngye | ar | _ | 0.0 | | | 10. | 30 |
| | | N 70901 | 19.0 | | | | | | | LS | 250 Mini Sc | onic; Wat | er Flus | h | | | | | | | | | | |
| Progress | Sai | mples | Donth | | Tests | oult | | Casing Depth | Level (mOD) | Depth | | | Desc | ription of | f Strata | | | | | Legend | Wat | | Symbol | ackfill |
| - <u>A</u> | Depth | Туре | Depth 9.60 | | The | sult | | Вери | 250.98 | | betwee | n 10.05 ar | nd 10.10 | m mudst | one ban | nd | | | | 1:::: | 1 | - | Syr | Depth |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | - | | | | | | | | | | | | | |
| 2 | | | | | | | | | | - |] | | | | | | | | | :::: | | | | |
| Lanai. Ordanisa@racountaming.com | | | 11.10 | 100 | 73 | 63 | | | 239.68 | 11.30 | Weak to r | noderately | weak th | inly to thi | ickly lam | inated | reddis | sh brov | vn | :::: :::: | - | | | |
| 2 | | | | | | | NI | | 239.38 | 11.60 | SANDSTO weathered | ONE with n d. Recover oted | nany thic ed as no | klý lamin n intact : | nated mu sandy ve | udstone ery cla | e band yey gra | ls. Dist avel wi | tinctly ith | <u> ::::</u> | - | | | |
| <u> </u> | | | | | | | | | | _ | Medium s SANDSTO weathered planar to u undulating | trong to sto ONE with the | rong thin hinly to th | ly to thick | kly lamin ninated r | ated re | eddish one ba | brown nds. P | n Partially | :::: | | ŀ | | |
| | | | | | | | | | | | weathered planar to u undulating | a. Fracture undulating g smooth c | smooth lean. | ubnorizo clean. Fr | acture S | Set 2: | oblique | m spac e plana | ar to | :::: | | | | |
| | | | 10.00 | 100 | | 07 | | | | | | | | | | | | | | | | | | |
| 1000 | | | 12.60 | 100 | 90 | 87 | | | | | - | | | | | | | | | | | | | |
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| 5 | | | 14.10 | 100 | 75 | 58 | | | | - | 1 | | | | | | | | | | | | | |
| , | | | 14.10 | 100 | " | | | | | |] | | | | | | | | | :::: | | | | |
| 00000 | | | | | | | | | | | _ | | | | | | | | | :::: | | | | |
| ă, | | | | | | | | | | - | - | | | | | | | | | :::: | | | | |
| 20000-11-11-11-11-11-11-11-11-11-11-11-11 | 1 | | | | | | | 2.70 | 235.68 | 15.30 | | | | OF BO | REHOL | _ — — | | | | - : : : : | 11.9 | <u>00m</u> | | 15.30 |
| 2 | | | | | | | | | | | - | | | | | | | | | | | | | |
| 20 | | | | | | | | | | _ |] | | | | | | | | | | | | | |
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| # | | otion base | | | | m el 4 - | م ماء ' | h cf 4 ^ | 'Om 4= -' | oor | iooo | | | | | | | | | Hole Dian | n. E | Boring 2.70 | | Casing 2.70 |
| A N | lo groun | ction pit w d-water o etration Te | bservati | ions a | re rec | orded | due to | the us | e of wate | | ices. | | | | | | | | | 146 | ; | 15.30 | | , 0 |
| <u> </u> | | | | | | , | - ' | | | | | | | | | | | | | | | | | |
| | Driller | Origi | inator | Ct- | | | d-water | | | Vater Ad | | Chiselling | hb | D-t- | | Flush | \/m=\ - | To / | R■ | Fig N | 1 0: | | | |
| | DJ | R | RB | Struc | K Ro | se Io | Time(n | nin) Cut | Oπ Fr | om | To From | То | hh:mm | Returns 100 | Type Water | | | To (m) 15.30 | RAUBURZ | - | ВЗ | | | |
| CI | hk & App | l l | atus AFT | | | | | | | | | | | | | | | | D R | | Sheet | | | |
| Ś | | | | | | | | | | | | | | | | | | | N | * | Scale | 1.50 | , | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH04

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 2.70m 15.25m

Location: E 279075.4

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear

LS250 Mini Sonic, Water Flush N 709136.1

| SS | 90 | N 70913 | | | Tests | | | | Level | | | Backt |
|----------------|--------------------------------|-----------------------------------------------------|----------------------------------|--------------------------|-------------------------------|-----------|------------------|--------------------|----------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Progress | Depth | mples Type | Depth | | | sult | | Casing Depth | (mOD) | Depth | Description of Strata Part Water Depth Part Depth Depth Part Depth Dep | |
| 3/11 | - 241 | 71 | | | | | | Ė | 252.35 | | Soft brown to dark brown spongy amorphous PEAT with cobbles noted. | |
| 023 | | | | | | | | | 054.00 | | | |
| | 0.50 | B, D | | | | | | | 251.80 | 0.55 | Reddish brown slightly gravelly sandy SILT. Sand is fine to coarse. | |
| | | | | | | | | | | - |] | |
| | | B, D B, D | 1.20 | SPT=1 | 2 <u>2.</u> | 3 /2.3.3. | <u>4</u> | 0.00 | 251.15 | 1.20 | Medium dense reddish brown very sandy silty GRAVEL with low cobble | |
| | 2.00 1.20 | | 1.20 | | | | | | | - | content and occasional thickly laminated to thinly bedded silt lenses noted. Sand is fine to coarse. Gravel is fine to coarse subangular to | |
| | | | | | | | | | | - | sandstone. | |
| | 2.00- | B, D | | | | | | | | _ | | 2 |
| | 2.70 2.00 | | | | | | | | | - | | |
| 3/11 | | | | TCR | | | FI | 2.70 | 249.65 | 2.70 | 2.20m | |
| | | | 2.70 | 100 | 17 | 7 | | | | _ | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with interbedded mudstone bands. Destructively weathered. Recovered as very sandy very clayey angular 2.65m | |
| | | | | | | | | | | - | gravel and cobbles noted | |
| | | | | | | | NA | | | - | | |
| | | | | | | | | | | - | | ▋ |
| | | | | | | | 10 | | 248.35 248.25 | 4.00 4.10 | Medium strong thinly to thickly laminate reddish brown fine to medium grained SANDSTONE. Fractures are subhorizontal closely spaced | |
| | | | 4.20 | 100 | 50 | 12 | NI | | | - | \planar to undulating smooth clean \cdot \cd | |
| | | | | | | | | | 247.65 | 4.70 | brown fine to medium grained SANDSTONE. Distinctly weathered. | |
| | | | | | | | 14 | | | _ | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth to rough clean with | |
| | | | | | | | | _ | 247.15 | 5.20 | localised gravel infill Moderately weak to medium strong thinly to thickly laminated reddish | |
| | | | | | | | NI | | 246.05 | E 70 - | brown fine to medium grained SANDSTONE. Distinctly weathered. Recovered as non intact | = |
| | | | 5.70 | 100 | 73 | 17 | | 1 | 246.65 | 5.70 | Medium strong thinly to thickly laminated reddish brown fine to medium | |
| | | | | | | | 8 | | 246.15 | 6.20 | spaced planar to undulating smooth to rough clean with localised gravel infill | |
| | | | | | | | NI | | | | Weak to moderately weak thinly to thickly laminated greyish brown MUDSTONE. Distinctly to destructively weathered. Recovered as firm slightly sandy gravelly clay | |
| | | | | | | | INI | | 245.65 | 6.70 | Madium atrang thinks to thinks laminated raddish brown fine to madium | |
| | | | | | | | 6 | | | | grained SANDSTONE. Fracture Set 1: subhorizontal closely to medium · · · · = spaced planar to undulating smooth to rough clean with localised gravel · · · · = spaced planar to undulating smooth to rough clean with localised gravel | |
| | | | 7.20 | 100 | 96 | 76 | | - | 245.15 | 7.20 | infill. Fracture Set 2: subvertical planar to undulating smooth clean Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional thinly laminated mudstone laminae | |
| | | | | | | | | | | | SANDSTONE with occasional thinly laminated mudstone laminae. Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean | |
| | | | | | | | 4 | | | - | | |
| | | | | | | | | | | - | | |
| | | | | | | | | | 243.75 | 8.60 | ł | |
| | | | 8.60 | 100 | 70 | 50 | NI | 1 | 243.45 | | Weak to moderately weak thinly to thickly laminated greyish brown MUDSTONE. Distinctly to destructively weathered. Recovered as firm | |
| | | | | | | | | 1 | 270.43 | - 0.30 | Slightly sandy gravelly clay Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional thinly laminated mudstone laminae. Fractures are subhorizontal very closely to medium | |
| | | | | | | | 14 | | | - | mudstone laminae. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth clean. | |
| | | | | | | | 11 | | | | | |
| | | | | | | | | | 242.47 | 9.88 - | Strong thinly to thickly laminated reddish brown fine to medium grained | |
| | narks: Descrip | tion base | d on Dri | ller's l | log. | | - | | | | Diam. Boring | epth Ca: |
| Ar No Th | n insped o groun ne Pene | ction pit w d-water o etration Te diameter | as exca bservati ests were | vated ons a e carr | l by ha ire rec ried ou | orded | due to g Trip | o the use Hamme | e of wate r RD48. | r flush. | ices. 177 2.70 14.00 | 2. |
| | Driller | Origi | nator | | | Ground | d-water | r | Iw | /ater Ado | ded Chiselling Flush Fig No: | |
| | DJ | _ | B - | Stru | ck Ro | | | nin) Cut | | | Fig No: Fig | |
| Ch | k & App | Sta | itus | | | | | | | | Sheet 1 of 2 | ! |
| | | DR | AFT | | | | | | | | Scale 1:50 | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ısh | | N N | Fig No: |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----------|--------------|
| DJ | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | ~ | 1 19 110. |
| DJ | KD | | | | | | | | | | 100 | Water | 1.20 | 15.25 | | D4 |
| | | | | | | | | | | | | | | | 5 | B4 |
| Chk & App | Status | | | | | | | | | | | | | | 8 | Sheet 1 of 2 |
| | DRAFT | | | | | | | | | | | | | | ⊠ | |
| | Dit-ti i | | | | | | | | | | | | | | N | Scale 1:50 |
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| ■■■ ■ DRILLING & GEOTECHNICAL LTD | _ |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH04

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 2.70m 15.25m

Location: E 279075.4

N 709136.1

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| ess | San | nples | | 7 | Tests | | | Casina | Level | | | pu | Water | | ckfill |
|----------|----------|--------------------------|---------|-------|-------|------------------|---------|-----------------------|------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------|--------|
| Progress | Depth | Туре | Depth | | Re | sult | | Casing Depth | (mOD) 252.35 | Depth | Description of Strata | Legend | Depth | Symbol | Depth |
| | | | 10.10 | 100 | 83 | 61 | 6 | | 242.00 | 10.35 | SANDSTONE with occasional thinly laminated mudstone laminae. Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean | | | | |
| | | | | | | | _20_ | 1 | 241.85 | | Weak thinly to thickly laminated greyish brown MUDSTONE. Distinctly weathered. Recovered as firm slightly sandy gravelly clay | | | | |
| | | | | | | | 6 | | | _ | Weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional thinly laminated mudstone laminae. Partially weathered. Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean | | | | |
| | | | 11.00 | 100 | 97 | 60 | | | 241.35 | 11.00 | Partially Weathered. Fractures are subnorizontal closely to medium spaced planar to undulating smooth cleanbetween 11.00 and 11.15m recovered as Non Intact | | | | |
| | | | | | | | | | | - | Modium strong to strong thinly to thickly laminated raddish brown fine to | | | | |
| | | | | | | | | | | _ | medium grained SANDSTONE with occasional thinly laminated to thinly bedded interbedded mudstone bands. Partially weathered. Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean with localised clay infill | :::: | | | |
| | | | | | | | | | | - | Between 11.15 and 11.50m Subvertical fracture | | | | |
| | | | | | | | | | | _ | | ::::: | | | |
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| | | | 12.50 | 100 | 99 | 64 | 4 | | | - | | | | | |
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| | | | | | | | | | | | | | | | |
| 7/11 | | | 14.00 | 100 | 72 | 27 | | 2.70 | 238.35 | 14.00 | Medium strong to strong thinly to thickly laminated grevish brown fine to | | 12.45m | | |
| | | | 14.00 | 100 | '- | | | | | - | Medium strong to strong thinly to thickly laminated greyish brown fine to medium grained SANDSTONE with many thinly laminated to thinly bedded interbedded mudstone bands. Partially weathered. Fractures | :::: | 13.90m | | |
| | | | | | | | 9 | | | - | are subhorizontal very closely to closely spaced planar to undulating smooth clean Betwee 14.60 and 14.80m Non intact | | | | |
| | | | | | | | | 1 | 237.55 | | Weak to moderately weak thinly to thickly laminated greyish brown MUDSTONE. Partially weathered. Recovered as firm slightly sandy | ::::: | | | |
| | | | | | | | NI4 | 1 | 237.35 | | gravelly clay | | | | 15.25 |
| | | | | | - | | | | 237.10 | 10.20 | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Unweathered. Fractures are subhorizontal medium spaced planar to undulating smooth clean with | 1 | | | 10.20 |
| | | | | | | | | | | - | \localised clay infill/ END OF BOREHOLE | | | | |
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| _ | | | | | | | | | | _ | | 11. | 1 - | 0.0- | th |
| # | | tion base | | | | | | | | | | Hole Diam | . Borin | _ | Casing |
| Αı | n inspec | tion pit wa d-water o | as exca | vated | by ha | nd to a orded | a dept | th of 1.2 o the us | 0m to cle e of wate | ar servi r flush. | ces. | 177 145 | 2.70 14.0 | | 2.70 |

No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD48.

A 50mm diameter perforated standpipe was installed to a depth of 2.00m.

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | R |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|-------------------------------------------|
| DJ | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | \ \bar{\bar{\bar{\bar{\bar{\bar{\bar{\bar |
| D3 | ND ND | | | | | | | | | | 100 | Water | 1.20 | 15.25 | |
| | |] | | | | | | | | | | | | | E |
| Chk & App | Status | | | | | | | | | | | | | | |
| | DRAFT | | | | | | | | | | | | | | 8 |
| | D. C | | | | | | | | | | | | | | N. |
| | | | | | | | | | | | | | | | 14 |

B4 Sheet 2 of 2 Scale 1:50

Fig No:

Printed: 26/01/2024 13:25:53 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

| DAEDIIDN | |
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| RAEBURN | H |
| DRILLING & GEOTECHNICAL LTD | |
| - Difficulties a dedited filling to the | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH05

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 8.75m

Location: E 279209.3

Style: BOREHOLE NEW File: P.\GINTWAPROJECTS\2655.56 PJ+44 (0)1698 710999 Printed: 26/01/2024 13:25:54 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

DRAFT

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

N 709189.4 LS250 Mini Sonic; Water Flus

| n n | | nples | 9.4 | 7 | Fests | | | | Level | | | ٦ | 10/. 1 | В | ackfi |
|--------|-----------------------|---------------------------------------|----------|----------|-------|------------|------|-----------------|---------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|--------------|------------|
| 000.60 | Depth | Туре | Depth | | | sult | | Casing Depth | (mOD) | Depth | Description of Strata | Legend | Water Depth | Symbol | De |
| 11 | | , | <u>'</u> | | | | | | 252.35 | _ | Soft brown to dark brown spongy pseudo-fibrous PEAT. | 77 7 | | | 0.: |
| 3 | | | | | | | | | | | | 1, 11, | | | |
| | 0.50 | B, D | | | | | | | 251.75 | 0.60 | Brown to reddish-brown very gravelly silty fine to coarse SAND. Gravel | .xo. · | | 1 | |
| | | | | | | | | | | | is angular and sub-angular fine to coarse of sandstone | × | | 1,/- | |
| | 1.00 | B, D | | | | | | | 251.15 | 1 20 | | × · . × | | | |
| | 1.20- 1.90 1.20 | B, D | 1.20 | SPT=10 | 1.2 | 2 /2.2.2.4 | 4 | 0.00 | | | Firm reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subround of sandstone | <u></u> | | \'\ | |
| | 1.20 | | | | | | | | | | - Course of the course can be called a called the calle | | | <u>-</u> ,}- | |
| | | | | | | | | | 250.45 | 1.90 | | <u>.</u> | | | |
| | 1.90- 2.70 2.00 | B D | | | | | | | | - | Reddish brown very sandy silty GRAVEL. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded of sandstone | - % - | | \'\ | |
| | 2.00 | | | | | | | | | - | | · • | | 1, >- | |
| | | | | TCR | SCR | RQD | FI | | 249.65 | 2.70 | | ō ō | | \'\' | |
| | | | 2.70 | 100 | 68 | 35 | | | 243.00 | 2.70 | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with thinly bedded mudstone beds. Fractures are | 1::::: | | \'\ | |
| | | | | | | | | | | - | horizontal very closely to closely spaced planar to undulating smooth clean with occasional clay infill | ::::: | | -, /- | |
| | | | | | | | 12 | | | | between 3.40 and 3.48m firm reddish brown slightly sandy gravelly | | | \\ \' | |
| | | | | | | | | | | | clay band notedbetween 3.60 and 3.74m firm reddish brown slightly sandy gravelly | | | \'. | |
| | | | | | | | | | 248.45 | 3.90 | clay band noted | ::::: | | -) - | |
| | | | 3.90 | 73 | 40 | 0 | 0 | | | - | Assumed Zone of Core Loss | | | \'\' | |
| | | | | | | | _ | | 248.05 | 4.30 | Strong thinly to thickly laminated reddish brown fine to medium grained | | | \'. | |
| | | | | | | | 13 | | 247.65 | 4.70 | SANDSTONE. Fractures are horizontal very closely to closely spaced planar to undulating smooth clean with occasional clay infill | | | -) - | |
| | | | | | | | NI | | 247.45 | | between 4.40 and 4.52m 70 degree fracture planar smooth. Strong thinly to thickly laminated reddish brown fine to medium grained | | | \'\' | |
| | | | | | | | | | | _ | SANDSTONE.Recovered as a subangular to subrounded cobbles Strong thinly to thickly laminated reddish brown fine to medium grained | | | \'. | |
| | | | | | | | 6 | | 246.95 | 5.40 | SANDSTONE. Fracture Set 1: horizontal very closely to closely spaced planar to undulating smooth clean. Fracture Set 2: subvertical planar to undulating smooth to rough clean | ::::: | | -) - | |
| | | | 5.40 | 63 | 43 | 11 | | | | | between 5.30 and 5.40m firm reddish brown slightly sandy gravelly clay band noted | / | | \'\' | |
| | | | | | | | 0 | | 246.40 | 5.95 | Assumed Zone of Core Loss | | | \'. | |
| | | | | | | | NI/ | | 246.30 | 6.05- | Medium thinly to thickly laminated strong reddish brown fine to medium grained SANDSTONE. Partially weathered. Recovered as Non-intact | | |) | |
| | | | | | | | 11 | | 245.85 | 6.50 | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered. Fracture Set 1: horizontal | | | /_' | |
| | | | | | | | | | 243.03 | 0.50 | very closely to closely spaced planar to undulating smooth clean. Fracture Set 2: subvertical planar to undulating smooth to rough clean | / !!!! | | \'. | |
| | | | | | | | 7 | | 245.45 | | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered. Fractures are horizontal |]::::: | | -) - | |
| | | | 6.90 | 100 | 87 | 53 | _NI_ | | 245.30 | 7.05- | Closely spaced planar to undulating smooth clean with occasional clay infill Medium strong thinly to thickly laminated reddish brown fine to medium | / :::: | | 1, 1 | |
| | | | | | | | | | | | grained SANDSTONE. Partially weathered. Recovered as Non-intact Strong thinly to thickly laminated reddish brown fine to medium grained | / ::::i | | \'. | |
| | | | | | | | 4 | | | - | SANDSTONE. Partially weathered. Fractures are horizontal closely to medium spaced planar to undulating smooth clean | | |) | |
| | | | | | | | | | 244.35 | 8.00 | between 7.90 and 7.95m 40 degree fracture planar to undulating | ::::: | | 1,1 | |
| | | | | | | | _ | 1 | 2 17.00 | 5.00 | smooth clean Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE Particily weathered. Errockur Set 1: barrantal elective | | | 1 | - |
| | | | 0.40 | 100 | _ | | 7 | | 243.95 | 8.40 | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered. Fracture Set 1: horizontal closely to medium spaced planar to undulating smooth clean. Fracture Set 2: subvertical planar smooth to rough clean | : | | | |
| | | | 8.40 | 100 | 0 | 0 | 0 | 2.70 | 243.60 | 8.75 | Very weak reddish brown MUDSTONE. Distinctly weathered recovered as firm slightly sandy slightly gravelly clay between 8.50 and 8.75m greenish grey mottled noted. | | 8.75m | 1,1 | |
| | | | 8.75 | 100 | 95 | 71 | _13_ |] | 243.45 | | Medium strong reddish brown and greenish grey fine to medium | | 8.00m | \'. | |
| | | | | | | | | | | | grained SANDSTONE with mudstone laminae. Fractures are horizontal very closely to closely spaced planar to undulating smooth | / ::::: | | <u> </u> | |
| | | | | | | | | | | | \text{\clean with occasional clay infill} Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered. Fractures are horizontal very | ::::: | | , , | |
| | | | | | | | 4 | | | | closely to closely spaced planar smooth clean with occasional clay infillbetween 9.30 and 9.35m firm reddish brown slightly sandy gravelly | | | \'\ | |
| | | | | | | | | | | | clay band noted | | | -) - | L |
| | arks: | tion boss | d or D- | llor's ! | ng. | | | | | | | Hole Diam | | To De ng | oth Cas |
| n | insped | tion base ction pit w d-water o | as exca | vated | by ha | | | | | | ices. | 177 146 | 2.70 15.7 | | 2. |
| | | etration Te | | | | | | | | ı ııuəli. | | | | | |
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RAUBURZ

Fig No:

B5 Sheet 1 of 2

Scale 1:50

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| ■■■ ■ DRILLING & GEOTECHNICAL LTD | Ì |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH05

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 8.75m 15.75m

Location: E 279209.3

Style: BOREHOLE NEW File: P./GINTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:25:55 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

N 709189.4

| SS | | nnlee | J | 7 | Facto | | | | Level | | | Т | l | B: | ackfill |
|----------|----------|--------------------------------------|-----------|----------|-------|--------|--------|-----------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|---------------------------------------|---------------|
| Progress | | nples | <u> </u> | - 1 | Tests | | | Casing | (mOD) | Depth | Description of Strata | egend | Water | | |
| P | Depth | Туре | Depth | | Re | sult | | Depth | 252.35 | | · | _ e | Depth | Symbol | Depth |
| | | | 10.05 | 100 | 67 | 53 | 10 | | 242.30 | \ <u>10.05</u> / - - 10.55 | Medium strong thinly to thickly laminated reddish brown SANDSTONE. Unweathered. Fracture Set1: horizontal very closely to medium spaced planar to undulating smooth.Fracture set 2: oblique planar to undulating smooth clean and gravel infilled | | | | |
| | | | | | | | NA | | 241.40 | 10.95 | Very weak reddish brown MUDSTONE. Distinctly weathered recovered as soft to firm reddish brown and greenish grey slightly sandy slightly gravelly clay. Gravel is fine to medium angular to subangular of sandstone | | | 1/ | |
| | | | | | | | 5 | | 240.80 | 11.55 | Strong thinly to thickly laminated reddish brown SANDSTONE. Partially weathered. Fractures Set 1: horizontal closely to medium spaced planar to undulating smooth clean. Fracture set 2: oblique planar smooth clean with 10mm discoloration at fracture surfaces | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | |
| | | | 11.55 | 100 | 91 | 47 | 4 | | 240.25 | - | between 11.40 and 11.65m 60 degreee oblique fracture. Strong thinly to thickly laminatedreddish brown SANDSTONE. Partially weathered. Fractures are horizontal closely to medium spaced planar to undulating smooth clean. Fracture set 2: oblique planar smooth clean with 10mm discoloration at fracture surfaces | | | | |
| | | | | | | | 5 | | 240.23 | - | Strong thinly to thickly lamainted reddish brown SANDSTONE. Partially weathered. Fractures are horizontal medium to widely spaced planar to undulating smooth clean | | | | |
| | | | | | | | | | 239.60 | 12.75 | | :::: | | ۱ ا | |
| | | | 12.75 | 100 | 91 | 75 | 3 | | | - - - - | Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fracture Set1: closely to medium spaced planar to undulating smooth clean. Fracture set 2 oblique 60 degrees planar to undulating smooth to rough clean with granular infill between 13.10 and 13.15m firm reddish brown slightly sandy gravelly clay band notedbetween 13.33 and 13.38m firm reddish brown slightly sandy gravelly clay band noted | | | | |
| | | | | | | | | | 238.40 | 13.95 | | :::: | | , , | |
| | | | | | | | 10 | | 238.10 | 14.25- | Strongthinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Partially weathered. Fracture Set1: horizontal closely to medium spaced planar to undulating smooth clean. Fracture set 2: | | | _\ | |
| | | | 14.25 | 99 | 91 | 58 | 6 | | | - | oblique 60 degrees planar to undulating smooth to rough gravel infilled Strongthinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fractures are horizontal very closely to closely spaced planar to undulating smooth clean with occasional clay infill | | | | |
| | | | | | | | | | 237.27 | 15.08 | | :::: | | ۱ ۱ | |
| | | | | | | | 11 | | 236.90 | 15.45- | Weak to medium strong thinly to thickly laminated reddish brown and greenish grey MUDSTONE with thickly laminated to thinly bedded fine to medium grained sandstone bands. Fractures are horizontal very closely to closely spaced planar to undulating smooth with clay infill | | | -\`.' \`.' | |
| | | | | | | | 7 | | 236.60 | 15.75 | Strong thinly to thickly laminated reddish brown SANDSTONE. Fractures are horizontal closely to medium spaced planar to undulating smooth clean | <u> ::::</u> - | | 1/1 | 15.75 |
| | | | | | | | | | | _ | END OF BOREHOLE | | | | |
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| | narks: | tion base | d on Dril | ler'e le | | | | | | | | Hole Diam | | o Dep | oth Casing |
| Ar | n inspec | tion base tion pit w d-water o | as exca | /ated | by ha | ind to | a dept | th of 1.2 | 0m to cle | ar servi | ces. | 177 146 | | | 2.70 |
| | | d-water o tration Te | | | | | | | | ııusıı. | | | | | |

The Penetration Tests were carried out using Trip Hammer RD48.

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|
| D.I | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | To | hh:mm | Returns | Type | From (m) | To (m) |
| DJ | KD | | | | | | | | | | 100 | Water | 1.20 | 15.75 |
| | | | | | | | | | | | | | | |
| Chk & App | Status | | | | | | | | | | | | | ı |
| | DRAFT | | | | | | | | | | | | | |
| | Dio. | | | | | | | | | | | | | |

Fig No:

RAUBURZ

В5 Sheet 2 of 2 Scale 1:50

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH06

Contract No: 26555

Inspection Pit to Rotary Open Hole to Rotary Core Drilling to

1.20m 3.00m 10.00m

Location: E 278918.1 N 708854.7 Orientation: Vertical

Equipment: Hand Tools, Track Mounted Commachio Geo 205

| SS | Sai | nples | | Т | ests | | | | Level | | , g | | lack |
|-------------|-------------------|----------------------------------------|---------------------|-----------|--------|----------------|--------|-----------------|------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Progress | Depth | Туре | Depth | | Re | sult | | Casing Depth | (mOD) 239.37 | Depth | Description of Strata | Depth of was | De |
| 9/11 023 | | | | | | | | | 200.07 | _ | Soft brown to dark brown spongy pseudo-fibrous PEAT | *** | * |
| | 0.30 | B, D | | | | | | | 238.97 | 0.40 | Brown very gravelly silty fine to coarse SAND with high cobble content. | *** | <u> 0</u> |
| | 0.60 | B, D | | | | | | | | - | Brown very gravelly silty fine to coarse SAND with high cobble content. Gravel is fine to coarse angular of sandstone. Cobbles are angular up to 100mm of sandstone | | |
| | | | | | | | | | | _ | [] 2] | | |
| | 1.20 | B, D U | 1.20 | SPT=21 | 0.0 |) /2.3.7. | 9 | 0.00 | | - | X X X | | |
| | 1.20- 1.80 | ŬL B, D | | | | | | | | _ | N | | |
| | | | | | | | | | 237.37 | 2.00 | () . 1 () . 4 () . 4 | | |
| | 2.00 | B, D UL | 2.00 | SPT=16 | 3.3 | 3 /3.4.5.4 | 4 | 2.00 | 201.01 | | Weak reddish brown SANDSTONE recovered as slightly sandy slightly clayey gravel with cobbles noted. Sand is fine to coarse. Gravel is fine | | |
| | | | | | | | | | | - | sandstone coanse angular of sandstone. Cobbles are angular, up to roomin of | | |
| | | | | | | | | | | - | | | |
| | 3.00 | UL | 3.00 | TCR | | RQD (45)/50 | 1 | 3.00 | 236.37 | 3.00_ | Moderately weak thinly to thickly laminated reddish brown fine to | | |
| | | | 3.00 3.00 | 100 | | | 17 | | 236.07 | 3.30 | medium grained SANDSTONE. Distinctly weathered. Fractures are subhorizontal closely spaced planar to undulating smooth clean with | | |
| | | | | | | | | | | - | Clayey gravel infill Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated | | |
| | | | | | | | | | | - | non intact with cobbles sized lumps with oblique to subvertical fractures | | |
| | | | | | | | | | | _ | | | |
| | | | | | | | NI | | | - | | | |
| | | | 4.50 | 100 | 60 | 37 | | | | - | | | |
| | | | | | | | | | | _ | :::: | | |
| | | | | | | | | | 234.07 | 5.30 | Medium strong thinly to thickly laminated reddish brown fine to medium | | |
| | | | | | | | ١. | | | - | grained SANDSTONE with many thinly to thickly laminated mudstone bands. Partially to distinctly weathered. Fractures are subhorizontal | | |
| 3/11 | | | | | | | 4 | 3.00 | 233.37 | 6.00 | very closely to closely spaced planar to undulating smooth clean | 3.00m | |
| ,, , , , | | | 6.00 | 100 | 100 | 87 | | 3.00 | 200.07 | - 0.00 | Weak locally medium strong thinly to thickly laminated reddish brown | .10m | |
| | | | | | | | | | | - | laminated mudstone bands.Partially weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean with localised gravel infilled | | |
| | | | | | | | | | | - | :::: | | |
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| | | | | | | | | | | - | | | |
| | | | 7.50 | 100 | 93 | 77 | 3 | | | - | | | |
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| | | | 9.00 | 100 | 95 | 65 | | 1 | 230.27 | 9.10 | Madisus about 4 about 4 bish to bliefly law made days in house for 5 at 5 | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly laminated greyish brown fine to medium grained SANDSTONE with cross bedding noted. Partially to unweathered. Fractures are subhorizontal very closely to medium | | |
| | | | | | | | 3 | | 220 57 | | spaced planar to undulating smooth clean | | |
| 9/11 | | | | | | | 10 | 3.00 | 229.57 229.37 | 9.80 | Medium strong to strong thinly to thickly laminated reddish brown fine to | 1.40m | 10 |
| # | narks: Descrip | tion base | d on Dri | ller's lo | og. | | | | | | Hole Diam. | | Cas |
| No | groun | ction pit w d-water o tration Te | bservati | ons ar | e reco | orded | due to | o the use | e of wate | ear servi r flush. | ces. 130 | 10.00 | 3.0 |
| | Driller | Origi | nator | | | Ground | | | | /ater Ado | led Chiselling Flush R Fig No: | | |
| | PS | R | В | Struc | K Ro | se To | ııme(n | nin) Cut | Off Fro | orn | Chiselling Flush Fig No: Fig | i | |
| Ch | k & App | | atus | | | | | | | | | et 1 of 2 | |
| | | DR | AFT | | | | | | | | Scal | e 1:50 | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | FI | ush | | 6 |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|-----|
| PS | RB | Struck | Rose To | Time(min) | Cut Off | From | To | From | То | hh:mm | Returns | Type | From (m) | To (m) | ٠, |
| Po | KD | | | | | | | | | | 100 | Air | 1.20 | 3.00 | - |
| | | | | | | | | | | | 100 | AirWM | 3.00 | 6.00 | - |
| Chk & App | Status | | | | | | | | | | | | | | - |
| | DRAFT | | | | | | | | | | | | | | 1 6 |
| | DIVALL | | | | | | | | | | | | | | 1.6 |
| | | | | | | | | | | | | | | | |

| | F | RA | _ | B NG & GI | _ | RN | S |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|------------|----------------------|----------|---------------------------|-----------|
| | Loc | ation: E | | | | Orientation | _ on:∖ |
| | Ø | | 1 7088 | 54.7 | | | |
| | Progress | | nples | | | ests | |
| | Pro | Depth | Туре | Depth | 1 | Result | |
| Style: BOREHOLE NEW Flie: P:(GINTW/PROJECTS/26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:25:56 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com | Rer | narks: | | | | | |
| NTW/F | # Aı | Descript n inspec | tion pit v | ed on Dr was exca | avated I | by hand to | a de |
| V File: P:\Gl | N. | o ground | d-water | observat | tions ar | e recorded ed out usin | due |
| E NEV | | Driller | | ginator | Struck | Groun | d-wa |
| REHOL | | PS | | RB | 2 | 1.555 10 | |
| Style: BOF | Ch | ık & App | | tatus RAFT | | | |

Client: SHE Transmission plc

ingineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH06

Inspection Pit to Rotary Open Hole to Rotary Core Drilling to

1.20m 3.00m 10.00m

Equipment: Hand Tools, Track Mounted Commachio Geo 205 /ertical

| Ŋ | | 1 70005 | T.1 | T4- | | Level | | | — | | | D | ackfill |
|----------|-------------|--------------|------------|--------------------------------------|-----------------|-----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|---------|----------|----------------|
| Progress | Sar | nples | | Tests | Casing Depth | | Depth | Description of Strata | | Legend | Water | - Di | |
| Pro | Depth | Туре | Depth | Result | Depth | 239.37 | 2004 | | |) Fe | Depth | Symbol | Depth |
| | | | | | | | - | medium grained SANDSTONE with many thinly to thickly laminated mudstone bands. Unweathered.Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean with localised gravel infilled | / | | | | |
| | | | | | | | - | \localised gravel infilled END OF BOREHOLE | . 」 | | | | |
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| Rei | l marks: | | | | | | | | \dashv | Hole | Т | o Dep | oth |
| # | Descrip | tion base | d on Drill | ler's log. vated by hand to a dep | | | | | } | Diam 130 | . Borin | | Casing 3.00 |
| ΙΑ | n inspec | ction pit wa | as excav | ated by hand to a dep | th of 1.20 | Um to cle | ar servi | ces. | | 130 | 10.00 | ' | 3.00 |

An inspection pit was excavated by hand to a depth of 1.20m to clear serv. No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD70.

| Diam. | Boring | Casing |
|-------|--------|--------|
| 130 | 10.00 | 3.00 |
| | | |
| | | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | Flush | | | | |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|------|
| PS | Ü | Struck | Rose To | Time(min) | Cut Off | From | To | From | To | hh:mm | Returns | Type | From (m) | To (m) | '~ |
| P3 | RB | | | | | | | | | | 100 | Air | 1.20 | 3.00 | l ⊜i |
| | | | | | | | | | | | 100 | AirWM | 3.00 | 6.00 | 5 |
| Chk & App | Status | 1 | | | | | | | | | | | | | 13 |
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| | DRAFT | | | | | | | | | | | | | | 1 |
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Fig No: В6 Sheet 2 of 2 Scale 1:50

| DAEDHDAI | |
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| RAEBURN | _ |
| DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH07

Inspection Pit to Sonic Boring to Geobore-S to

0.45m 2.70m 10.00m

Location: E 279345.8

Slyle: BOREHOLE NEW File: P:\GINTWAPROJECTS\26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:25:57 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| Ν | 70 | 980 | 87 | .3 | |
|---|----|-----|----|----|--|
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| ess | Samples Tests Depth Type Depth Resu | | | | | | Level | | | pu | Water | | ackfill | | |
|----------|-------------------------------------|-------------------------------------------------------------------------|-------|-----|-----|---------|--------|-----------------|-----------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|-----------|---------------|
| Progress | Depth | Туре | Depth | | | | | Casing Depth | (mOD) 235.10 | Depth | Description of Strata | Legend | Depth | Symbol | Depth |
| 23/11 | | | | | | | | | 233.10 | _ | Soft brown to dark brown spongy amorphous PEAT | 77 7 | | | 0.20 |
| 2023 | | | | | | | | | 234.65 | 0.45 | | 1, 11, | | | 0.20 |
| | 0.40 0.45- | B B, D | | | | | | | 234.03 | 0.43 | Brown very sandy silty GRAVEL with medium cobble content. Sand is fine to coarse. Gravel is angular fine to coarse of sandstone. Cobbles | ¥ [1] | | ĦĦ | 1 |
| | 1.20 0.45- | | | | | | | | | | are angular, up to 150mm of sandstone | * 0 × | | |] |
| | 2.00 | | | | | | | | | _ | | 1)99 | | | 1.00 |
| | 1.20- | B, D | | | | | | | | | beneath 1.20m becoming silty to very silty. | ×8. | | | , |
| | 2.70 1.20 | | | | | | | | | | | 9./ | | | |
| | | | | | | | | | | | | 20.3 | | | |
| | | | | | | | | | | | | 8.% | | | 1 |
| | 2.00 | B, D | | | | | | | | - | | % (). | | ▮₽ | |
| | | | | | | | | | | | | 80.6 | | | . |
| | | | | TCR | SCR | RQD | FI | - | 232.40 | 2.70 | | | | | |
| | | | 2.70 | 100 | 15 | 0 | | | 202.10 | | Firm reddish brown slightly sandy gravelly CLAY with cobbles noted. Gravel is fine to coarse angular to subangular of sandstone. Cobbles | 龙 | | | 1 |
| | | | | | | | | | | - | are angular to subangular of sandstone | 7.0 | | ▮₽ | |
| | | | | | | | NA | | | | | 70 | | | |
| | | | | | | | | | | | | F 0 0 | | | |
| | | | | | | | | | 231.30 | 3.80 | | | | | |
| | | | | | | | 15 | | 231.10 | 4.00 | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fractures Set 1: subhorizontal closely spaced | | | | 1 |
| | | | 4.00 | 87 | 13 | 9 | | | | | Ďlanar to undulating smooth clean. Fracture Set 2: subverticál planar to undulating rough clean | | | H | . |
| | | | | | | | | | | | Firm reddish brown slightly sandy gravelly CLAY with cobbles noted. Gravel is fine to coarse angular to subangular of sandstone. Cobbles | 72 | | | |
| | | | | | | | NA | | | | are angular to subangular of sandstone | 24 | | | |
| | | | | | | | " ' | | | | between 4.90 and 5.50m subvertical fracture planar to undulating | | | H | 1 |
| | | | | | | | | | | - | smooth to rough clean. | | | ľħ. | . |
| | | | | | | | 45 | | 229.80 | 5.30 | Strong thinly to thickly laminated reddish brown fine to medium grained | <u>-0 °</u> | | | |
| | | | 5.50 | 100 | 77 | 67 | 15 | | 229.60 | 5.50 | SANĎSTOŃE. Fractúres are subhorizontal closely spaced planăr to undulating smooth clean | 100 | | | |
| | | | | | | | NA | | 229.30 | 5.80 | Firm reddish brown slightly sandy gravelly CLAY with cobbles noted. Gravel is fine to coarse angular to subangular of sandstone. Cobbles | | | | 1 |
| | | | | | | | | | | - | are angular to subangular of sandstone Strong thinly to thickly laminated reddish brown fine to medium grained | :::: | | ▮₽ | |
| | | | | | | | 3 | | | | SANDSTONE with occasional interbedded thinly laminated mudstone laminae. Partially wethered. Fractures are subhorizontal closely to | | | 18. | . |
| | | | | | | | | | 228.50 | 6.60 | medium spaced planar to undulating smooth with some cay infill | | | | |
| | | | | | | | | | | | Medium strong to strong thinly to thickly laminated light reddish grey fine to medium grained SANDSTONE with cross bedding noted. Prtilly | | | | 1 |
| | | | | | | | | | | _ | wethered. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth clean | :::: | | | |
| | | | 7.00 | 100 | 97 | 60 | | | | | | ::::: | | | . |
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| | | | | | | | | | 000 00 | 0.50 | | | | | |
| | | | 8.50 | 100 | 90 | 45 | | - | 226.60 | 8.50 | Medium strong to strong thinly to thickly laminated reddish brown fine to | | | | |
| | | | | | | | 5 | | | | medium grained SANDSTONE with some intercalation of thickly laminated light greenish grey mudstone lenses. Partially weathered. | | | H | |
| | | | | | | | | | 226.05 | 9.05- | Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean with gravel infill | | | # | |
| | | | | | | | | | | | Medium strong to strong thinly to thickly laminate reddish brownd fine to medium grained SANDSTONE. Unweathered. Fractures are | | | | |
| | | subhorizontalvery closely to closely spaced planar to undulating smooth | | | | H | | | | | | | | | |
| | | | | | | · | | | | | | | | | |
| 23/11 | | | | | | | | 2.70 | 225.10 | <u>10</u> .00 | | | 4.30m | | 10.00 |
| Rer | narks: | | | | | | | | | | END OF BOREHOLE | Hole Diam | T | o De g | pth Casing |
| | | tion based ction pit wa | | | | nd to a | a dept | th of 0.4 | 5m to cle | ar serv | ices. Exemption number | 177 | 2.70 | | 2.70 |

An inspection pit was excavated by hand to a depth of 0.45m to clear services. Exemption number No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD48.

| noie | To Deptit | | | | | | | | | |
|------------|---------------|--------|--|--|--|--|--|--|--|--|
| Diam. | Boring | Casing | | | | | | | | |
| 177 146 | 2.70 10.00 | 2.70 | | | | | | | | |

| ı | Driller | Originator | | Groun | d-water | | Water | Added | Chiselling | | | | FI | ush | | R | Fig No: |
|---|-----------|------------|--------|---------|-----------|---------|-------|-------|------------|----|-------|---------|-------|----------|--------|----|--------------|
| ı | D.I | RB | Struck | Rose To | Time(min) | Cut Off | From | To | From | То | hh:mm | Returns | Type | From (m) | To (m) | A | 1 19 110. |
| ı | DJ | KD | | | | | | | | | | 100 | Water | 0.45 | 10.00 | | D7 |
| ı | | | | | | | | | | | | l | | | | 5. | B7 |
| ı | Chk & App | Status | | | | | | | | | | | | | | 8 | Sheet 1 of 1 |
| | | DRAFT | | | | | | | | | | | | | | R | Scale 1:50 |

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|---------------------------------|----|
| RAEBURN | Γ. |
| ■■■ DRILLING & GEOTECHNICAL LTD | ľ |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH08

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 2.70m 10.00m

Location: E 279174.6

Style: BOREHOLE NEW File: P./GINTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:25:58 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

N 708851.6

| ess | Samples Tests Depth Type Depth Result | | | | 0 | Level | | • | pu | Water | | ackfill | | | |
|---------------|----------------------------------------|-------------|----------|----------|-------------|----------|--------|-----------------|-----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------|--------|-------|
| rogr | Depth | Туре | Depth | | | | | Casing Depth | (IIIOD) | Depth | Description of Strata | Legend | Depth | Symbol | Depth |
| 27/11 2023 | - | | | | | | | | 228.66 | | Soft brown to dark brown spongy amorphous PEAT. | <u>~</u> | | Ś | |
| 2023 | | | | | | | | | | - | | 1, 11, | | | |
| | 0.50 | B, D | | | | | | | | _ | | 1 1 1 | | | |
| , | | _, _ | | | | | | | | | | 1, 11, | | | |
| | 0.90 | B, D | | | | | | | 227.76 | 0.90 | Brown very gravelly silty fine to coarse SAND. Gravel is fine to coarse | жо | | | |
| | 1.20 | В | | CPT>50 | n 7. | 18 /19.3 | 1 (85) | 0.00 | 227.46 | 1.20 | angular to subangular of sandstone. | × | | | |
|) | 1.20 | B | 1.20 | 01 17 00 | υ <u>ι.</u> | 10719.5 | 1 (00) | 0.00 | | - | Very dense rown very sandy silty GRAVEL with cobbles noted. Sand is fine to coarse. Gravel is fine to coarse angular of sandstone. Cobbles | 9 19 8 3 6 8 | | | |
| | | | | | | | | | | - | are angular, up to 150mm of sandstone. | 8.0 | | | |
| 1 | | | | | | | | | | - | | 200 | | | |
| | 2.00 | В | | | | | | | | - | | 18.8× | | | |
| | | | | | | | | | | - | |).6 | | | |
| | | | | TCR | ecp | RQD | FI | | | _ | | Q. g | | | |
| | | | 2.70 | 69 | 15 | RQD 0 | г | | 225.96 | 2.70 | Assumed Zone of Core Loss | \ | | | |
| | | | | | | | AZCL | | 225.56 | 3.10 | · | | | | |
| | | | | | | | | | 223.30 | 3.10 | Weak reddish brown SANDSTONE. Destructively weathered. | | | | |
| | | | | | | | | | | - | Recovered as sandy very clayey angular fine to coarse gravel of sandstone with cobbles noted | ::::: | | | |
| | | | | | | | | | | - | | ::::: | | | |
| | | | | | | | NA | | | - | | ::::: | | | |
| | | | 4.00 | 100 | 73 | 30 | | | | - | | ::::: | | | |
| | | | | | | | | | 224.36 | 4.30 | Modium strong to strong thinly to thickly laminated raddish brown fine to | ::::: | | | |
| | | | | | | | | | | | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with interbedded thinly to thickly laminated mudstone laminae. Fractures are subhorizontal very closely | ::::: | | | |
| | | | | | | | | | | | to medium spaced planar to undulating smooth clean and locally gravel infilled | :::: | | | |
| | | | | | | | 10 | | | _ | between 4.90 and 5.50m subvertical fracture planar to undulating smooth to rough clean. | | | | |
| | | | | | | | | | | _ | Sillout to rough dealt. | | | | |
| | | | | | | | | | 223.16 | 5.50 | | :::: | | | |
| | | | 5.50 | 100 | 90 | 73 | | | | _ | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with interbedded thinly to thickly laminated | | | | |
| , | | | | | | | | | | - | mudstone laminae. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth clean and locally gravel infilled | | | | |
| | | | | | | | | | | - | 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | :::: | | | |
| | | | | | | | 7 | | | _ | | :::: | | | |
| | | | | | | | | | | | | ::::: | | | |
| | | | | | | | | | | _ | | :::: | | | |
| | | | 7.00 | 100 | 00 | 00 | | | 221.66 | 7.00_ | Strong thickly laminated to thinly bedded greyish brown fine to coarse | ::::: | | | |
| | | | 7.00 | 100 | 90 | 90 | | | | - | grained SANDSTONE with occasional cross bedding noted. Fractures | | | | |
| | | | | | | | | | | - | are subhorizontal closely to medium spaced planar to undulating smooth clean | ::::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | ::::: | | | |
| | | | | | | | | | | | | :::: | | | |
| | | | | | | | | | | | | ::::: | | | |
| | | | 8.50 | 93 | 87 | 58 | 6 | | | | | | | | |
| | | | | | | | | | | _ | | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | | - | | | | | |
| 27/11 | | | | | | | | 2.70 | 218.66 | 10.00 | | | 0.00m | | 10.00 |
| Rer | narks: | • | | | | | | U | 3.00 | | END OF BOREHOLE | Hole Diam | Т | o Dep | |
| | | otion based | | | | nd to | a dent | h of 1.2 | 0m to cle | ar servi | ces. | 177 | 2.70 | | 2.70 |
| N | o groun | id-water of | bservati | ons a | re rec | orded | due to | the use | e of wate | | | 146 | 10.00 | ا ر | |

An inspection by twise scalaried by find to a depin of 1.20m to clear services. No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD48.

| Fig No: | |
|---------|--|

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | P | | | |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|
| DJ | RB | Struck | Rose To | Time(min) | Cut Off | From | To | From | To | hh:mm | Returns | Type | From (m) | To (m) | ~ |
| DJ | KD | | | | | | | | | | 100 | Water | 1.20 | 10.00 | |
| | | | | | | | | | | | | | | | 5 |
| Chk & App | Status | | | | | | | | | | | | | | B. |
| | | | | | | | | | | | | | | | 8 |
| | DRAFT | | | | | | | l | | | | | | | K |
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| DAEDIIDN | |
|-----------------------------|---|
| RAEBURN | _ |
| DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH09

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 4.05m 10.05m

Location: E 279245.7

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear

LS250 Mini Sonic; Water Flush N 709074.8 Samples Tests Level end Water

| SS | | mples | T | | Tests | | | <u> </u> | Level | | | 70 | | Ba | ackfill |
|---------------|---------------|-----------|----------|--------|--------------|------------|--------------------------------------------------|----------|------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------|-----------|---------|
| Progress | | Tiples | | | | | | Casing | | Depth | Description of Strata | Legend | Water | | |
| Pro | Depth | Туре | Depth | | Re | esult | | Depth | 245.98 | | · | | Depth | Symbol | Depth |
| 22/11 2023 | | | | | | | | | | _ | Soft brown to dark brown spongy amorphous PEAT | 71 7 | | \bowtie | 0.20 |
| | | | | | | | | | | . | | 1/ 1/ | | | |
| | 0.50 | B, D | | | | | | | 245.43 | 0.55 | Soft brown to reddish brown slightly gravelly sandy CLAY. Sand is fine | <u> </u> | | | |
| | | | | | | | | | | | to coarse. Gravel is fine to coarse angular of sandstone | <u> </u> | | | |
| | 4.00 | | | | | | | | 244.00 | 1 10- | | <u>-</u> | | | |
| | | B, D | | ODT | | | == (=) | 0.00 | 244.88 | 1.10 | Reddish brown silty fine to coarse SAND & GRAVEL with cobbles | ø . | | | |
| | 1.20- 2.70 | В | 1.20 | CPT> | 50 <u>19</u> | 9.6 (75)/5 | 50 (5) | 0.00 | | | noted. Gravel is fine to coarse subangular to subrounded of sandstone and quartz. Cobbles are angular to subrounded of sandstone | . · · . l | | | |
| | | | | | | | | | | | | %· o· | | | |
| | | | | | | | | | | | | × . | | | |
| | 0.00 | | | | | | | | | _ | | .0 | | | |
| | 2.00 | B, D | | | | | | | | | | % · · · | | | |
| | | | | | | | | | | | | % · · · | | | |
| | | | | TCF | RSCR | RQD | FI | | 042.00 | 270- | | . 0. | | | |
| | | | 2.70 | 100 | _ | 58 | | 1 | 243.28 | 2.70 | Weak reddish brown SANDSTONE. Destructively weathered. | - | | | |
| | | | | | | | NA |] | 242.98 | 3.00_ | Recovered as sandy very clayey angular fine to coarse gravel of sandstone with cobbles noted | | | | |
| | | | | | | | | | | . | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with interbedded thinly to thickly laminated | | | | |
| | | | | | | | | | | | mudstone laminae. Partially weathered. Fractures are subhorizontal | | | | |
| | | | | | | | 9 | | | | very closely to medium spaced planar to undulating smooth clean and locally gravel infilled | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | 241.93 | 4.05- | | | | | |
| | | | 4.05 | 100 | 37 | 30 | | | | | Weak reddish brown SANDSTONE with interbedded mudstone lenses. Destructively weathered. Recovered as sandy very clayey angular fine | 1:::: | | | |
| | | | | | | | NA | | 241.63 | 4.35 | to coarse gravel of sandstone with cobbles noted. Occasional core with | | | | |
| | | | | | | | ١. | | | | subvertical fractures noted Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with interbedded thinly to thickly laminated | | | | |
| | | | | | | | 4 | | 241.08 | 4.90 | grained SANDSTONE with interbedded thinly to thickly laminated mudstone laminae. Partially weathered. Fractures are subhorizontal | | | | |
| | | | | | | | | | 241.00 | 4.90 | closely to medium spaced planar to undulating smooth clean and locally gravel infilled | /::::: <u> </u> | | | |
| | | | | | | | | | | | Weak reddish brown SANDSTONE with interbedded mudstone lenses. | | | | |
| | | | | | | | | | | | Destructively weathered. Recovered as sandy very clayey angular fine to coarse gravel of sandstone with cobbles noted. Occasional core with | | | | |
| | | | 5.55 | 97 | 87 | 60 | NA | | | | subvertical fractures noted | | | | |
| | | | 0.00 | • | " | | | | | | | | | | |
| | | | | | | | | | 240.03 | 5.95 | Strong thinly to thickly laminated reddish brown fine to medium grained | 1:::: | | | |
| | | | | | | | | | | - | SANDSTONE with interbedded thinly to thickly laminated mudstone laminae. Partially weathered to unweathered. Fractures are | :::: | | | |
| | | | | | | | | | | | subhorizontal closely to widely spaced spaced planar to undulating smooth clean and locally clay infilled | | | | |
| | | | | | | | 1 | | | | Smooth death and locally day illillied | :::: | | | |
| | | | | | | | | | 220.02 | 6.05 | | :::: | | | |
| | | | | | | | NA, | 1 | 239.03 238.93 | 6.95 7.05- | Weak reddish brown SANDSTONE with interbedded mudstone lenses. | | | | |
| | | | 7.05 | 100 | 97 | 77 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | - | Destructively weathered. Recovered as sandy very clayey angular fine to coarse gravel of sandstone with cobbles noted. Occasional core with | / :::: | | | |
| | | | | | | | | | | - | \subvertical fractures noted / | :::: | | | |
| | | | | | | | | | | - | Strong thinly to thickly laminated greyish brown SANDSTONE with thickly Imainted interbedded siltstone. Partially weathered to | | | | |
| | | | | | | | | | | - | unweathered. Fractures are subhorizontal very closely to medium spaced planar to undulating smooth to rough clean and locally gravel | | | | |
| | | | | | | | | | | - | infilled | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | 6 | | | - | | | | | |
| | | | 8.55 | 100 | 97 | 87 | 1 | | | - | | ::::: | | | |
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| | | | | | | | | | | - | | | | | |
| | | | | | | | | | 236.53 | 9.45 - | | :::: | | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly reddish brown laminated fine to medium grained SANDSTONE with some intercalation of thickly | :::: | | | |
| | | | | | | | 8 | | | - | laminated light greenish grey mudstone lenses. Partially weathered to unweathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean with localised gravel infill | ::::: | | | |
| D- | n orl · - · | | | | | | | <u> </u> | <u> </u> | | spaced planar to undulating smooth clean with localised gravel infill | Hole | 1 1 | o Dep | oth |
| | narks: | tion hase | d on Dri | llorlo | la m | | | | | | | Diam | | | Casing |

DRAFT

File: P:\GINTW\PROJECTS\26555.GPJ+44 (0) 1698 710999 Printed: 26\01/2024 13:25:59 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Style: BOREHOLE NEW

Description based on Driller's log.

Description pit was excavated by hand to a depth of 1.20m to clear services.

No ground-water observations are recorded due to the use of water flush.

The Penetration Tests were carried out using Trip Hammer RD54.

Flush
Type From (m) Ground-water
Struck Rose To Time(min) Cut Off Water Added From To Chiselling To Driller Originator To (m) 10.05 From hh:mm Returns RB DJ Water Chk & App Status

Fig No:

RAMBU

177 146

В9 Sheet 1 of 2 Scale 1:50

2.70 10.05

2.70

| | | | | | | Site: LT520 BRACO WEST SUBSTATIO | | | | | | | | | |
|----------------------------------|-------|-------------------|----------------------|-----------------|------------|-------------------------------------|-----------------|---------|-------|--------------------------------|--|--|--|--|--|
| F | Δ | FI | RI | П | RN | | | | | | | | | | |
| | | The second second | CONTRACTOR OF STREET | And Salar and S | NICAL LTD | Client: SHE Transmission plc | | | | | | | | | |
| | | - Dividua | G G GL | J 1 L L 1 | WILLSELL D | Engineer: SSE Perth Inveralmond HSE | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Location: E 279245.7 Orientation | | | | | | | rtical | | | Equipment: Hand Tools, Track N | | | | | |
| | ١ | 1 70907 | 4.8 | | | | | | LSZ | 250 Mini Sonic; Water Flush | | | | | |
| ess | Sar | nples | | Т | ests | | 0 | Level | | | | | | | |
| Progress | Depth | Type | Type Depth | | Result | | Casing Depth | (IIIOD) | Depth | Descrip | | | | | |
| ٩ | | Турс | | | | | · . | 245.98 | 40.05 | | | | | | |
| l | | | | | | | | 235.93 | 10.05 | | | | | | |

Contract No: 26555

BH09

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 4.05m 10.05m

| N 709074.8 | | | | | | I 1 1 | LS | uipment: Hand Tools, Track Mounted Boart Longyear 250 Mini Sonic; Water Flush | | | | | | |
|------------|---------------------|-----------------------|-------------------------------|----------------------------------------------------------------------|-----------------------|----------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------|----------------|-------------|-----------|--|
| Progress | Sam Depth | rples Type | Depth | Tests Result | Casing Depth | 245.98 | l | Description of Strata | | Legend | Water Depth | 0 | ack De | |
| | | | | | | 235.93 | 10.05 | END OF BOREHOLE | | | | S) | -10 | |
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| en | narks: | | | | | | | | | Hole | | o Dep | oth | |
| # I Ar | Descript inspect | on base ion pit w | d on Driller's as excavate | log. d by hand to a de are recorded due rried out using Tri | pth of 1.2 | 0m to cle | ear serv | ices. | | Diam 177 146 | 2.70 | 1 | Ca 2. | |
| No Th | ground e Penet | -water o ration Te | bservations ests were ca | are recorded due rried out using Tri | to the use p Hamme | e of wate r RD54. | r flush. | | | 140 | 10.03 | | | |
| | Oriller | | nator | Ground-wa | | | Vater Ado | Jed Chiselling Flush To From To hh:mm Returns Type From (m) To (m) | R■ | Fig No | D: | | | |
| | DJ | R | B Su | 1,030 TO THIE | Cut | J., 110 | | 100 Water 1.20 10.05 | RAEBU | | 39 | | | |
| Ch | k & App | Sta | itus | | | | | | 13 | l si | heet 2 o | f 2 | | |

| RAFBURN |
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| |
| DRILLING & GEOTECHNICAL LTD |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH10

Inspection Pit to Geobore-S to

1.20m 10.00m

Contract No: 26555

Location: E 279097.1 N 708955.4 Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| <u>က</u> | | nnloo | T | - | Footo | | | | Level | | | 70 | | Backfi |
|------------|---------------------|-------------------------|------------------|-------------------|-------------|-----------|---------|-----------------|-------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|-------------------|
| Progress | Depth | nples Type | Depth | | Fests Re | sult | | Casing Depth | (mOD) | Depth | Description of Strata | Legend | Water Depth | |
| /11 23 | ' | ,, | ' | | | | | | 240.05 | _ | Soft brown to dark brown spongy amorphous PEAT | 77 7 | | 0. |
| 123 | | | | | | | | | 239.55 | 0.50 | | 1, 11, | | 0. |
| | 0.50 | B, D | | | | | | | 239.25 | - | Brown to reddish brown gravelly silty fine to medium SAND with cobbles noted. Gravel is fine to coarse angular of sandstone. Cobbles are angular, up to 140mm and of sandstone | ₩ | | 0 |
| | | | | TCR | SCR | RQD | FI | | 238.85 | 1.20 | Reddish brown to brown gravelly very silty fine to medium SAND with cobbles noted. Gravel is fine to coarse angular of sandstone. Cobbles are angular of sandstone | × | | 0 |
| | 1.20 | B, D | 1.20 1.20 | ^S 100' | 01.2 | 2/3.4.3.4 | 4 | 1.20 | | - | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to destructively weathered. Recovered as | | | 0 1 |
| | | | | | | | | | | - | sandy very clayey gravel | | 0 | 0 |
| | | | | | | | NI | | | - | | | | ° 2 |
| | | | 2.50 | 87 | 55 | 10 | | | | - | | | | |
| | | | 2.50 | 01 | 33 | 10 | | | | - | | | | |
| | | | | | | | | | 236.95 | 3.10 | Moderately weak to medium strong thinly to thickly laminated reddish | | | |
| | | | | | | | 14 | | | - | brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean and locally gravel infilled | | | |
| | | | | | | | 14 | | 236 OF | 4.00 | Stribour clean and locally gravel infilled | | | |
| | | | 4.00 | 83 | 40 | 15 | | | 236.05 | 4.00 | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated | | | |
| | | | | | | | NI | | 235.50 | | mudstone bands. Distinctly weathered. Recovered as sandy clayey gravel | | | |
| | | | | | | | 10 | | 235.30 | 4.75 | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fractures are | | | |
| | | | | | | | NI | | 234.95 | 5.10 | \subhorizontal closely spaced planar to undulating smooth clean Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as sandy clayey | | | |
| | | | 5.50 | 100 | 73 | 17 | 15 | | 234.55 | 5.50 | mudstone bands. Distinctly weathered. Recovered as sandy clayey gravel Medium strong locally strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated | <u> </u> | | |
| | | | | | | | | | | - | \ mudstone bands. Distinctly weathered. Fractures are subhorizontal \ very closely to closely spaced planar to undulating smooth clean and | | | |
| | | | | | | | | | | - | \locally gravel infilled \textsquare Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fractures are subhorizontal very closely to | | | |
| | | | | | | | 12 | | | - | bands. Distinctly weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean and locally gravel infilled | | | |
| | | | | | | | | | | - | | | | |
| | | | 7.00 | 100 | 73 | 41 | | | 232.85 | 7.20 | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly | | | |
| | | | | | | | NI | | 232.35 | 7.70 | laminated mudstone bands. Partially weathered. Recovered as sandy gravel | | | |
| | | | | | | | | | | - | Strong locally very strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional thickly laminated mudstone bands. Partially weathered. Fractures are subhorizontal very | | | |
| | | | | | | | | | | - | closely to medium spaced planar to undulating smooth clean and locally gravel infill | | | |
| | | | 8.50 | 100 | 80 | 33 | | | | - | | | | |
| | | | | | | | 10 | | | - | | | | |
| | | | | | | | | | | - | | | | |
| | | | | | | | | | | _ | | | | |
| /11 | narks: | | | | | | | 10.00 | 230.05 | 10.00 | END OF BOREHOLE | Hole | 7.20m | 1(|
| # I Ar | Descrip n inspec | tion base tion pit w | vas exca | vated | by ha | and to a | a dept | th of 1.2 | 0m to cle | ear servi | | Diam. 145 | Boring 10.00 | Cas 1.2 10. |
| No | groun | d-water o tration T | observat | ions a | re rec | orded | due to | the use | e of wate | er flush. | | | | 10. |
| | D=10 | 1 6: | | | | Grove | d-water | • | I 14 | Vater Ado | led Chiselling Flush | E | | |
| | Driller S McL | _ | inator RB | Struc | | | Time(m | | | | To From To hh:mm Returns Type From (m) To (m) 100 Water 1.20 4.00 | Fig No | o: 810 | |
| Ch | k & App | | atus | | | | | | | | | Sh | neet 1 of 1 | |
| | | DR | AFT | | | | | | | | R | Sc | ale 1:50 | |

| Diam. | Boring | Casing |
|-------|--------|---------------|
| 145 | 10.00 | 1.20 10.00 |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ısh | | R |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|-------|
| S McL | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | ^ |
| 3 IVICE | ND. | | | | | | | | | | 100 | Water | 1.20 | 4.00 | |
| | | | | | | | | | | | 0 | Water | 4.00 | 5.50 | 5 |
| Chk & App | Status | 1 | | | | | | | | | 100 | Water | 5.50 | 10.00 | MB DR |
| O a / pp | | | | | | | | | | | | | | | 8 |
| | DRAFT | | | | | | | | | | | | | | |
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| | . = | | - | | | | | e: LT5 | 520 BF | RACC | WEST SUBSTATION | | t No: 2 | | 5 | |
|--------------|---------------|---------------|--------------------|------------|-------------|-----------------|----------|-----------------|--------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|---------------------|--------|-----------------|
| R | | Æ | | | | | | ent: | SHE Tra | ansmis | sion plc | Inspecti BH1 | on Pit N | | | |
| === | | DRILLIN | NG & GE | OTEC | HNIC | AL LTD | | gineer: | SSE Pe | erth Inv | eralmond HSE | Inspection | n Pit to | | 1.2 | 20m |
| Loca | | E 27916 | | | Orie | entatio | n: Ve | rtical | | Equ | uipment: Hand Tools | _ | | | | |
| Progress | Sar Depth | nples Type | Depth | | Tests Re | esult | | Casing Depth | Level (mOD) 216.61 | Depth | Description of Strata | | Legend | Water Depth | Symbol | Backfill Dep |
| 1/12 2023 | | | | | | | | | 216.31 | 0.30 | Soft brown to dark brown spongy pseudo-fibrous PEAT | | 17 7 7 71 7 | | | |
| | 0.50 | B, D | | | | | | | | - | Brown to reddish brown very gravelly sifty fine to coarse SAND. (is fine to coarse rounded to sub-angular of sandstone and quartz | zite | xo | | | 0.5 |
| | 1.20 | D | | | | | | | 215.41 | 1.20 | # Driller notes Red brown sandy CLAY with sandstone boulders | | · · · × | | | |
| | | | | | | | | | 215.01 | 1.60 | Weak to moderately weak thinly to thickly laminated reddish broy | vn fine | | | Ħ | |
| | | | 2.00 | TCR 100 | SCR 13 | RQD 0 | FI NI | | | - | Weak to moderately weak thinly to thickly laminated reddish brov to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to destructively weathered. Recovere sandy very clayey gravel | ed as | | | | 2.0 |
| | | | 3.50 | 100 | 40 | 11 | | | | | | | | | | 2 |
| | | | 3.30 | 100 | 40 | '' | | | | - | | | | | | > |
| | | | | | | | | - | 212.41 | 4.20 | Weak to moderately weak thinly to thickly laminated reddish brov | vn fine | :::: | | | 2 |
| | | | | | | | 27 | 1 | 212.11 | 4.50 | Weak to moderately weak thinly to thickly laminated reddish brov to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fracture Set 1: subhorize very closely to closely spaced planar to undulating smooth clean locally gravel infilled. Fracture set 2: subvertical planar to undulating smooth clean with localised clay smears | ontal and | | | | 5 |
| | | | | | | | 10 | | 211.61 | 5.00 | Moderately weak to medium strong thinly to thickly laminated red | dish | | | | 5.0 |
| | | | 5.00 | 100 | 90 | 53 | | | | - | brown fine to medium grained SANDSTONE with some thickly laminated mudstone bands. Partially weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean locally gravel infilled | / | (:::: | | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly laminated reddish brown medium grained SANDSTONE with some thickly laminated mudbands. Partially weathered. Fractures are subhorizontal closely to | stone | | | | |
| | | | | | | | 8 | | | _ | medium spaced planar to undulating smooth clean locally gravel | infilled | | | | |
| | | | | | | | | | 210.11 | 6.50 | Return 6 50 7 50m Subjective fracture | | | | | |
| | | | 6.50 | 100 | 100 | 37 | | 1 | 210.11 | - | Between 6.50-7.50m Subvertical fracture Medium strong to strong thinly to thickly laminated reddish brown medium grained SANDSTONE. Partially weathered to Unweather English Set 1: which was a plant of the product | fine to red. | | | | |
| | | | | | | | | | | - | Fracture Set1: subhorizontal closely to widely spaced planar to undulating smooth clean. Fracture Set 2: oblique to subvertical p to undulating smooth clean | lanar | | | | |
| | | | | | | | | | | - | | | | | | |
| | | | 8.00 | 100 | 100 | 93 | 3 | | | - | | | | | | 1 |
| | | | | | | | | | | - | | | | | | 1 |
| | | | | | | | | | | - | | | | | | |
| | | | | | | | | 1 | 207.41 | 9.20 | Medium strong to strong brown thinly to thickly laminated reddish | fine to | :::: :::: | | | |
| | | | 9.50 | 100 | 90 | 44 | 9 | | | - | Medium strong to strong brown thinly to thickly laminated reddish medium grained SANDSTONE. Partially weathered to unweather Fracture Set 1: subhorizontal very closely to closely spaced plan undulating smooth clean. Fracture Set 2: subvertical planar to | red. ar to | | | | <u>-</u> |
| | | | | | | | | | 206.61 | 10.00 | undulating smooth clean | | ::::: | | | 10.0 |
| # I Ar | n insped | | as exca | vated | by ha | | | | 20m to cle se of wate | | END OF BOREHOLE | | Hole Diam. | Borir | To De | epth Casir |
| | | tration To | | | | | | | | | | | | | | |
| | Oriller PS | _ | inator RB | Struc | k Ro | Ground se To | | r nin) Cut | | Vater Add | ded Chiselling Flush To From To hh:mm Returns Type From (m) To (m) | RAEBU | Fig No |): 311 | | |
| Ch | k & App | | atus AFT | | | | | | | | | מאכשו | Sh | neet 1 d ale 1:5 | | |

| RAEBURN | |
|-----------------------------------------|---|
| RAEDURN | ŀ |
| III III III DRILLING & GEOTECHNICAL LTD | |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH12 NEW

Contract No: 26555

Inspection Pit to Sonic Boring to Geobore-S to

1.20m 2.70m 10.85m

Location: E 279276.4 NI 700011 5

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| | 1 | N 70884 | 1.5 | | | | | | | | 250 Willin Gorilo, Water Flush | | | | |
|---------------|--------------|-----------|----------|-----------|------|------|-----|-----------------|---------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|--------|---------|
| 9SS | Sar | nples | | 7 | ests | | | | Level | | | В | Water | | ackfill |
| Progress | Depth | Туре | Depth | | | sult | | Casing Depth | (IIIOD) | Depth | Description of Strata | Legend | Depth | Symbol | Depth |
| | | туре | Deptil | | Ne | Suit | | Ворит | 223.15 | | Coff have to deal have great and file and DEAT | | Борат | Ş | Depui |
| 30/11 2023 | | | | | | | | | | _ | Soft brown to dark brown spongy pseudo-fibrous PEAT | 71 | | | |
| | | | | | | | | | | _ | | 1/ 1/ | | | |
| | 0.50 | B, D | | | | | | | | | | 77 7 | | | |
| | 0.70 | В | | | | | | | 222.45 | 0.70 | Brown to reddish brown silty fine to coarse SAND & GRAVEL. Gravel is | ⊗ | | | |
| | 0 0 | | | | | | | | | - | fine to coarse rounded to sub-angular of sandstone and quartzite | ^· _o | | | |
| | 1.00 | D | | | | | | | 221.95 | 1.20 | | · · · | | | |
| | | B, D | | | | | | | 221.90 | 1.20 | Weak Brown to reddish brown SANDSTONE recovered as very | ::::: | | | |
| | 2.70 1.20 | | | | | | | | | - | gravelly silty fine to medium sand with cobbles noted. Gravel is fine to coarse angular of sandstone and quartzite. Cobbles are sub-angular | :::: | | | |
| | | | | | | | | | | - | up to 120mm of brown sandstone | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | _ | | :::: | | | |
| | | | | | | | | | | _ | | :::: | | | |
| | | | | | | | | | | | | :::: | | | |
| | | | | TCD | SCR | BOD | FI | 1 | | | | 1::::1 | | | |
| | | | 0.70 | TCR | 69 | RQD | FI | 1 | 220.45 | 2.70 | Madium strong to strong think, to think, love in stad and disk busy of the | | | | |
| | | | 2.70 | 96 | 69 | 54 | | | | - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with some thickly laminated mudstone | :::: | | | |
| | | | | | | | 14 | | 240.05 | 2 20 | bands. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth to rough clean with occasional clay smear | :::: | | | |
| | | | | | | | | 1 | 219.95 | 3.20 | | :::: | | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with some thickly laminated mudstone bands. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth to rough clean with localised gravel infill | :::: | | | |
| | | | | | | | 8 | | | - | planar to undulating smooth to rough clean with localised gravel infill | :::: | | | |
| | | | | | | | " | | | _ | Between 3.60 to 3.70m clay band noted | :::: | | | |
| | | | | | | | | | 219.15 | 4.00 | | :::: | | | |
| | | | 4.00 | 100 | 87 | 21 | | | | _ | Moderately weak to medium strong thinly to thickly laminated reddish brown reddish brown fine to medium grained SANDSTONE. Recovered | :::: | | | |
| | | | | | | | NI | | | | as Non-intact | :::: | | | |
| 1 | | | | | | | | | 218.55 | 4.60 | | :::: | | | |
| | | | | | | | | 1 | | | Moderately weak to medium strong thinly to thickly laminated reddish | ::::: | | | |
| | | | | | | | | | | - | brown fine to medium grained SANDSTONE with many thinly to thickly laminated greyish brown mudstone bands. Distinctly weathered. Fracture Set 1: subhorizontal very closely to closely spaced planar to | :::: | | | |
| | | | | | | | | | | - | Fracture Set 1: subhorizontal very closely to closely spaced planar to undulating smooth clean. Fracture Set 2: subvertical to oblique | :::: | | | |
| | | | | | | | 9 | | | - | undulating rough clean with localised clayey gravel infill | :::: | | | |
| | | | | | | | " | | | - | | | | | |
| | | | 5.50 | 100 | 97 | 63 | 1 | | | - | | :::: | | | |
| | | | | | | | | | 217.25 | 5.90 ⁻ | | :::: | | | |
| 1 | | | | | | | | | 217.20 | J.30 _ | Medium strong thinly to thickly laminated reddish brown fine to medium | :::: | | | |
| | | | | | | | | | | | grained SANDSTONE with many thinly to thickly laminated mudstone bands. Fractures are subhorizontal very closely to medium spaced | :::: | | | |
| | | | | | | | | | | | planar to undulating smooth clean | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | 1::::1 | | | |
| | | | | | | | | | | - | | | | | |
| | | | 7.00 | 100 | 100 | 52 | 7 | | | - | | :::: | ı | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | | | | - | | :::: | | | |
| 30/11 | | | | ļ | | | | 2.70 | 215.15 | 8.00 | | :::: | 0.40m | | |
| | | | 8.00 | 100 | 100 | 65 | | | | _ | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thinly to thickly laminated | 1 1 | 4.40m | | |
| | | | | | | | | | | | mudstone bands. Fracture Set 1: subhorizontal very closely to medium | | | | |
| | | | | | | | | | | - | spaced planar to undulating smooth clean. Fracturé Set 2: oblique planar to undulating rough and gravel infilled | :::: | ı | | |
| | | | | | | | | | | - | | :::: | ı | | |
| | | | | | | | | | | - | | :::: | ı | | |
| | | | | | | | | | | - | | [::::] | | | |
| | | | | | | | | | | - | | :::: | ı | | |
| | | | 9.35 | 100 | 100 | 83 | _ ا | | | - | | :::: | ı | | |
| | | | 0.00 | | | | 5 | | | _ | | :::: | ı | | |
| 1 | | | | | | | | | | _ | | | | | |
| L | | | | | | | | | | | | :::: | | | |
| Rer | narks: | | | | | | | | | | | Hole | | o Dep | |
| # | Descrip | tion base | d on Dri | ller's lo | na | | | | | | | Diam. | . Borin | y (| Casing |

Style: BOREHOLE NEW File: P./GINTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:26:02 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Description based on Driller's log.

An inspection pit was excavated by hand to a depth of 0.70m to clear services. Exemption number

No ground-water observations are recorded due to the use of water flush.

| Diam. | Boring | Casing |
|------------|---------------|--------|
| 177 146 | 2.70 10.85 | 2.70 |

| Dr | riller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ısh | | P |
|-------------|--------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|
| | | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | To | hh:mm | Returns | Type | From (m) | To (m) | ~ |
| : ' | DJ | KD | | | | | | | | | | 100 | Water | 0.70 | 10.85 | |
| | | | | | | | | | | | | | | | | Ê |
| Chk | & App | Status | | | | | | | | | | | | | | 11 |
| | | DRAFT | | | | | | | | | | l | | | | Ř |
| - | | 2.0 | | | | | | | | | | | | | | N |

Fig No: B12 Sheet 1 of 2 Scale 1:50

| | | | | | | | | : LT5 | 20 BI | RAC | O W | /EST S | SUBS | ΓΑΤΙΟ | N | | | | Cont | ract No: | 2 | 6555 | 5 | |
|----------|-------------------------|----------------|-------------|-------------|-------------|--------|-----------------|--------------------|-----------------------|-------------------|---------------|----------------------|------------------|-------|----------------|---------------|------------------------|----------|-------|---------------------------------------|------------|---------------------|-------------------|------------------------|
| F | RA | | | | | | Clie | nt: \$ | SHE Tr | ansn | nissio | n plc | | | | | | | ВН | 12 N | ١E | W | | |
| | | DRILLIN | IG & GE | OTECH | NICAL | LTD | | | | | | lmond H | SE | | | | | | Sonic | ction Pit to Boring to ore-S to | | | 1.2 2.7 10. | |
| Loc | ation: E | 27927 70884 | | | Orier | ntatio | n: Ver | tical | | | | nent: Ha Mini Soi | | | | ed Boa | rt Long | gyear | | | | | | |
| Progress | Sam Depth | | Depth | | ests Res | ult | | Casing Depth | (00) | | oth | | | Desc | ription of | Strata | | | | Legend | , | Water Depth | Symbol | ackfill Dept |
| <u> </u> | | | 9.35 | | | | | | 223.15 | | - | | | | | | | | | | | | Ś | |
| | | | | | | | | | 212.30 | 10.8 | - 85 | | | | O OF BO | | | | | | : | | | 10.8 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| # | narks: Descriptio | on base | d on Dr | iller's log |] . | | | | I | | | | | | | | | | | Di | ole am. | Borin | | Casin |
| Α | n inspecti o ground- | on pit w | as exca | avated b | y han | d to a | dept due to | h of 0.7 the us | 0m to cl e of wate | ear se er flus | ervices h. | . Exemptio | n numbe | er | | | | | | | 77 46 | 2.70 10.8 | 5 | 2.70 |
| | Driller DJ | | nator B | Struck | | | -water ime(m | nin) Cut | | Nater i | Added To | From | Chiselling To | hh:mm | Returns 100 | Type Water | ush From (n 0.70 | n) To (m | | Fig | | : 12 | | |
| Ch | ık & App | Sta DR. | atus AFT | | | | | | | | | | | | | | | | BUR | Ĭ | Sh | eet 2 o ale 1:50 | | |

| DAEDIIDN |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RAEBURN |
| |
| TO THE RESERVE THE PRICE OF THE |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH13

Inspection Pit to Sonic Boring to Geobore-S to

Contract No: 26555

Location: E 278633.3

N 708981.5

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| ess | Sar | nples | | 7 | Tests | | | | Level | | | pu | Water - | Bac | ckf |
|-------------|-----------------------|-------------------------|----------|------------|--------------|-----------------|--------|-----------------|-----------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------|-------------|-----|
| Progress | Depth | Туре | Depth | | Re | sult | | Casing Depth | (mOD) 259.53 | Depth | Description of Strata | Legend | Depth | ogw. | D |
|)/11 023 | | | | | | | | | 200.00 | | Soft brown to dark brown spongy amorphous PEAT | 1/ 1 | × | ^× | - |
| 023 | | | | | | | | | | | | 1, 11, | ************************************* | ****** | _ |
| | 0.50 | B, D | | | | | | | | | | 77 7 | × | × | (|
| | | | | | | | | | | | | 1, 11, | | В | |
| | | | | | | | | | | | | 77 7 | Ħ | Ħ | |
| | 1.20- | В | | | | | | | 258.33 | 1.20 | Very soft black to dark brown plastic amorphous PEAT | 1, 11, | Ħ | Ħ | |
| | 2.70 1.20 | UT | | | | | | | | | | 1, 11, | | H_ | 1 |
| 0/11 | 1.65 | D | | | | | | 1.20 | | | | <u> </u> | Dry | | |
| ,,,, | | | | | | | | 1.20 | 257.53 | 2.00 | | 1/ 1/ | | | |
| | 2.00- 3.80 | B, D | | | | | | | 057.00 | 2.30 | Soft to firm brown grey mottled slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded of | <u></u> | 0 | ∄ | |
| | | | | | | | | | 257.23 | 2.30 | k sandstone - | W. 77 *.0°. | | | |
| | | | | | | | | | | | Medium dense brown very gravelly clayey fine to coarse SAND with medium cobble content. Gravel is fine to coarse angular to subangular of sandstone. Cobbles are angular to subangular of sandstone | (.60 × | | | |
| | 2.70- 3.80 2.70 | B, D | 2.70 | SPT=28 | B <u>1.2</u> | 2 /5.5.12 | 2.6 | 2.70 | | | | 8. 8. 8 8. 8. 8 | 0+ | 7 | 2 |
| | 2.70 | | | | | | | | | - | | X X X | 0 | | |
| | | | | | | | | | | | | N / XI | 0 | 0 | |
| | | | | | | | | | | | | ₹.Q. 8 | | 0 | |
| | 3.80- | R | | | | | | | 255.73 | 3.80 | Province are collected for the control of the collected for the co | × Ø. | 0 | | (|
| | 3.80 | 0 | | TOP | 005 | POS | F. | - | | - | Brown very gravelly very clayey fine to coarse SAND. Gravel is fine to coarse subangular to subrounded of sandstone | | | | |
| | | | 4.20 | TCR 100 | SCR 27 | RQD 0 | FI | - | 255.33 | 4.20 | Weak reddish brown SANDSTONE. Destructively weathered. | a | | | |
| | | | | | | | | | | | Recovered as sandy very clayey angular fine to coarse gravel of sandstone with cobbles noted | :::: | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | :::: | | | |
| | | | | | | | NA | | | | | :::: | | | |
| | | | | | | | | | | | | :::: | | | |
| 1/11 | | | | | L | | | 5.70 | | | | | Dry | | |
| | | | 5.70 | 100 | 0 | 0 | | | 253.63 | 5.90 | Week to made white week to the control of the contr | | | | |
| | | | | | | | | | | - | Weak to moderately weak reddish brown SANDSTONE Distinctly weathered. Recovered as non-intact with occasional clay bands | :::: | | | |
| | | | | | | | NI | | | | | :::: | | | |
| | | | | | | | | | 252.83 | 6.70 | | :::: | | | |
| | | | | | | | | | | 3.10 | Medium strong to strong thickly laminated to thinly bedded greyish | | | | |
| | | | | | | | 14 | | 252.00 | 7 00 | Medium strong to strong thickly laminated to thinly bedded greyish brown fine to medium grained SANDSTONE. Fractures Set 1: subhorizontal very closely to closely spaced planar to undulating smooth clean and gravel infilled. Fracture Set 2: subvertical planar to | | | | |
| | | | 7.20 | 100 | 27 | 13 | | 1 | 252.33 | 7.20 | undulating smooth cleanbetween 7.20 and 7.40m subvertical fracture planar rough clean, with | :::: | | | |
| | | | | | | | | | | | \ \calcife mineralisation / | | | | |
| | | | | | | | | | | | Medium strong thickly laminated to thinly bedded reddish brown fine to medium grained SANDSTONE healed subvertical fractures with calcite mineralisation noted. Fractures Set1: subhorizontal very closely to closely spaced planar to undulating smooth clean and gravel infilled. Fracture Set 2: subvertical planar to undulating smooth clean | | | | |
| | | | | | | | | | | - | closely spaced planar to undulating smooth clean and gravel infilled. Fracture Set 2: subvertical planar to undulating smooth clean | | | | |
| | | | | | | | | | | | | :::: | | | |
| | | | | | | | | | | | between 8.40 and 8.70m subvertical fractureplanar rough clean, with calcite mineralisation | :::: | | | |
| | | | 8.70 | 100 | 77 | 23 | 14 | | | | | :::: | | | |
| | | | 0.70 | 100 | ' ' | 23 | | | | | | | | | |
| | | | | | | | | | | | | :::: | E | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 2/11 | | | | | | | | 10.00 | 249.53 | 10.00 | | | 5.10m | | 1 |
| Ren | narks: | | | | | | | . 10.00 | ,0.00 | , | END OF BOREHOLE | Hole Diam. | To I | Depth Ca | h |
| Ar | inspec | tion base tion pit w | as exca | vated | by ha | nd to a | a dept | th of 1.2 | 0m to cle | ear serv | ices. | 177 | 1.80 | 4 | 4 |
| No | groun | d-water o tration Te | bservati | ons a | re rec | orded | due to | o the use | e of wate | r flush. | | 145 | 10.00 | 10 | |
| | Oriller | _ | inator | Struc | | Ground se To | | r nin) Cut | | /ater Ad | ded Chiselling Flush To From To hh:mm Returns Type From (m) To (m) | Fig No | D : | | _ |
| S | McL | 8 | RB - | | | - | | | | | Chise ing | E | 313 | | |
| Ch | k & App | | atus | | | | | | | | 100 Water 5.70 10.00 | l | heet 1 of 1 | 1 | |
| | | I DP | AFT | | - 1 | - 1 | | 1 | 1 | 1 | | I - | cale 1:50 | | |

| Diam. | Boring | Casing |
|-------|--------|--------|
| 177 | 1.80 | 4.20 |
| 145 | 10.00 | 10.00 |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | 3 |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|-----|
| S McL | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | 'A |
| S IVICE | KD | | | | | | | | | | 100 | Water | 1.20 | 4.20 | 1 2 |
| | | | | | | | | | | | 100 | Water | 4.20 | 5.70 | 15 |
| Chk & App | Status | 1 | | | | | | | | | 100 | Water | 5.70 | 10.00 | В |
| | DRAFT | | | | | | | | | | | | | | 18 |
| | DIVALL | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | N |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

BH14 NEW

Contract No: 26555

Inspection Pit to Sonic Boring to Sonic Coring to

0.80m 2.70m 8.40m

Location: E 279416.7 N 709146.0 Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear

LS250 Mini Sonic; Water Flush

| SS | | mples | 0.0 | - | Tests | | | | Level | | | 70 | 10/. 1 | Ва | ıckfill |
|----------|-----------------------|-----------|-------|-------|--------------|-----------|------------|-----------------|------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------|--------|----------------|
| Progress | Depth | Type | Depth | | | sult | | Casing Depth | l . | Depth | Description of Strata | Legend | Water Depth | Symbol | Depth |
| 4/12 | | | | | | | | | 246.72 | 0.20 | Soft brown to dark brown spongy pseudo-fibrous PEAT | 11/ | 1 | | |
| 2023 | 0.50 | B D | | | | | | | | _ | Firm reddish brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular to subround and includes sandstone | | | | 0.50 |
| | 0.50 | B, D | | | | | | | 246.12 | 0.80 | | | | 目目 | |
| | | B, D | | | | | | 4.00 | 245.72 | 1.20 | Brown to reddish brown slightly silty slightly sandy GRAVEL with cobbles noted. Sand is fine to coarse. Gravel is fine to coarse angular and sub-angular and includes sandstone. Cobbles are angular and sub-angular up to 90mm of sandstone | 9.7.6 3.6.8 9.0.8 | | | 1.00 |
| | 1.20- 2.00 1.20 | B, D | 1.20 | SPT=2 | 4 <u>7.1</u> | 12 /8.7.5 | <u>0.4</u> | 1.20 | | - | Very weak brown to reddish brown SANDSTONE recovered as slightly gravelly silty fine to medium sand. Gravel is fine to coarse angular and includes sandstone | | | | |
| | 2.00- | B. D | | | | | | | | - - | | | | | |
| | 2.00- 2.70 2.00 | , | | | | | | | | - | | | | | |
| | | | | TCR | | | FI | | 244.22 | 2.70 | | :::: | | H | 2.70 |
| | | | 2.70 | 100 | 50 | 10 | 8 | | | - - - | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fracture Set 1: subhorizontal to oblique very closely to closely spaced planar to undulating smooth clean and locally gravel infilled. Fracture Set 2: | | | | |
| | | | | | | | | | 243.32 | 3.60 | subvertical planar to undulating smooth clean | :::: | | | |
| | | | | | | | | | 243.32 | - 3.60 | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as sandy clayey gravel | | | | |
| | | | 4.20 | 97 | 40 | 7 | NI | | | - | | | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | - | 242.12 | 4.80 | Moderately weak to medium strong thinly to thickly laminated reddish | 1:::: | | | |
| | | | | | | | 10 NI | | 241.82 | 5.10 ⁻ 5.40 | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Fractures are subhorizontal to oblique very closely to closely spaced planar to undulating smooth clean and locally gravel infilled. | / | | | |
| | | | E 70 | 100 | 70 | 22 | 13 | - | 241.22 | | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as sandy clayey | <u> </u> | | | |
| | | | 5.70 | 100 | 73 | 33 | NI | | 240.82 | 6.10 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <u> </u> | | | |
| | | | | | | | | | | - | \understand | / :::: | | | |
| | | | 7.20 | 100 | 75 | 50 | 6 | | | - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional healed fractures with calcite mineralisation. Fracture Set 1: subhorizontal very closely to medium spaced planar to undulating smooth clean. Fracture Set 2: | | | | |
| | | | | | | | | | 239.02 | - - 7.90 | subvertical planar to undulating smooth clean with occasional gravel infilled | | | | |
| | | | | | | | NI. | 1 | 238.92 | 8.00 | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated | | 1 | | |
| 04/40 | | | | | | | 10 | 0.40 | 238.62 | | mudstone bands. Distinctly weathered. Recovered as sandy clayey | / <u> ::::</u> | E 00= | | |
| 04/12 | | | 8.40 | 97 | 77 | 26 | NI. | 8.40 | 238.52 | 8.4U - - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONEwith occasional healed fractures with calcite mineralisation. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean. | | 5.00m | | |
| | | | | | | | 10 | | | - | Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as sandy clayey gravel | | | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional healed fractures with calcite mineralisation. Fracture Set 1: subhorizontal closely to medium spaced planar to undulating smooth clean. Fracture Set 2: subvertical planar to undulating smooth clean with occasional gravel infilled | | | | |
| | | | | | <u> </u> | | | | 236.97 | 9.95 | END OF BOREHOLE | Hole | T 2 | o Dep | 9.95 th |
| # | | tion base | | | | | | h -f 0 0 | Ome to als | | END OF BUREHOLE | Diam 145 | n. Borin | ig (| Casing 2.70 |

PIGENTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:26:04 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

An inspection pit was excavated by hand to a depth of 0.80m to clear services. Exemption number 76/2023. No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD54.

| Diam. | Boring | Casing |
|-------|--------|--------|
| 145 | 8.40 | 2.70 |
| | | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | B | Fig No: |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|-----------|
| SW | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | ~ | 1 19 110. |
| 300 | KD | | | | | | | | | | 100 | Water | 0.80 | 8.40 | | |
| | | | | | | | | | | | | | | | B. | B14 |
| Chk & App | Status | | | | | | | | | | | | | | 8 | Shee |
| | DRAFT | | | | | | | | | | | | | | R | Scale |
| | | | | | | | | | | | | | | | N | |



RAEBURN

Site: LT520 BRACO WEST SUBSTATION

Client: SHE Transmission plc

Engineer: SSF Perth Inveralmond HSF

BH15 NEW

Contract No: 26555

Inspection Pit to Sonic Boring to Geobore-S to

Location: E 279328.4

E-mail: enquiries@raeburndrilling.com

Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177

Printed: 26/01/2024 13:26:05

P:\GINTW\PROJECTS\26555.GPJ+44 (0)1698 710999

File:

BOREHOLE NEW

Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear

LS250 Mini Sonic; Water Flush N 709282 6 Level Backfill Samples Tests Water Casino (mOD) Depth Description of Strata Depth Depth Туре Depth Depth Result Depth 253.23 11, Soft brown to dark brown spongy amorphous PEAT 252.93 0.30 0.30 D Reddish brown slightly gravelly clayey fine to medium SAND with cobbles noted. Gravel is fine to coarse sub-rounded to sub-angular and includes sandstone. Cobbles sub-angular to sub-rounded, up to 0.50 0.50 B, D <u>0</u>. Ö 120mm and of red-brown sandstone Ð. 252.03 1.20 Weak brown SANDSTONE recovered as slightly gravelly silty fine to medium sand with cobbles noted. Gravel is fine to coarse angular to subangular and includes brown sandstone. Cobbles are angular, up to 1.20 B. D 7.12/13.9.12.11 1.20 1.20 TCR SCR RQD FI 251.73 1.50 D 1.50 04.9 /11.7.15.12 1.50 1.50 1.50 90mm of sandstone Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to destructively weathered. Recovered as a sandy gravel with many angular cobbles NI 3.00 100 55 12 249.93 3.30 Moderately weak to medium strong thinly to thinly laminated reddish brown fine to medium grained SANDSTONE with some thinly to thickly laminated mudstone bands. Fracture Set 1: subhorizontal very closely to closely spaced planar to undulating smooth to rough clean and gravel infilled. Fracture Set 2: subvertical planar to undulating smooth clean 21 249.13 4.10 4.00 100 30 Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to destructively weathered. Recovered as a conductory. NI 248.63 4.60 sandy gravel Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with some thinly to thickly laminated mudstone bands. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth to rough clean and gravel 13 248.33 4.90 infilled Weak to moderately weak reddish brown thinly to thickly laminated fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to destructively weathered. Recovered as a conductory. NI 5.50 100 60 55 sandy gravel 247.13 6.10 Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with some thinly to thickly laminated mudstone bands. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth to rough clean 9 7.00 13 97 60 246.03 7.20 Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as a sandy gravel NI 245.43 7.80 Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with some thinly to thickly laminated mudstone bands. Partially weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth to rough clean 19 244.73 8.50 Weak to moderately weak thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as a sandy gravel 8.50 100 57 40 NI 244.03 9.20 Strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with occasional healed fractures with calcite mineralisation. Unweathered. Fractures are subhorizontal closely to medium spaced planar to undulating smooth clean 3

Remarks:

Description based on Driller's log. An inspection pit was excavated by hand to a depth of 1.20m to clear services.

No ground-water observations are recorded due to the use of water flush. The Penetration Tests were carried out using Trip Hammer RD54.

END OF BOREHOLE

| Diam. | Boring | Casing |
|-------|--------|---------------|
| 146 | 10.00 | 1.50 10.00 |

5.80m

Hole

10.00

To Depth

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ısh | | Ē |
|-----------|------------|-------------------------|--------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C/V/ | • | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | '~ |
| 300 | KD | | | | | | | | | | 100 | Water | 1.20 | 4.00 | Êi |
| | | | | | | | | | | | 0 | Water | 4.00 | 10.00 | 뒮 |
| Chk & App | Status | | | | | | | | | | | | | | B |
| | DRAFT | | | | | | | | | | | | | | Ř |
| | | | | | | | | | | | | | | | N |
| | SW | SW RB Chk & App Status | SW RB Struck Chk & App Status | SW RB Struck Rose To Chk & App Status | SW RB Struck Rose To Time(min) Chk & App Status | SW RB Struck Rose To Time(min) Cut Off Chk & App Status | SW RB Struck Rose To Time(min) Cut Off From Chk & App Status | SW RB Struck Rose To Time(min) Cut Off From To Chk & App Status | SW RB Struck Rose To Time(min) Cut Off From To From From To From To | SW RB Struck Rose To Time(min) Cut Off From To From To To From To | SW Struck Rose To Time(min) Cut Off From To From To hh:mm Chk & App Status Status | SW Struck Rose To Time(min) Cut Off From To From To hh:mm Returns 100 0 Chk & App Status Status | SW Struck Rose To Time(min) Cut Off From To From To hh:mm Returns Type 100 Water Water Water Water Chk & App Status | SW Struck Rose To Time(min) Cut Off From To From To hh:mm Returns Type From (m) Chk & App Status Status Status Status Water 4.00 | SW Struck Rose To Time(min) Cut Off From To From To hh:mm Returns Type From (m) To (m) Chk & App Status Status |

Fig No: B15 Sheet 1 of 1

Scale 1:50

| DAEDLIDAL |
|-----------------------------------------|
| RAEBURN |
| |
| III III III DRILLING & GEOTECHNICAL LTD |

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH18

Inspection Pit to Rotary Open Hole to Rotary Core Drilling to

1.20m 3.20m 10.00m

Location: E 278879.8 N 709141.7 Orientation: Vertical

Equipment: Hand Tools, Track Mounted Commachio Geo 205

| SS | Sar | nples | | T | ests | | | | Level | | | ЪГ | Water | | ackf |
|--------------|-------------------|--------------------------|------------|-----------|-----------|------------------|--------------|-----------------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|--------|------|
| Progress | Depth | Туре | Depth | | Re | esult | | Casing Depth | (mOD) 258.49 | Depth | Description of Strata | Legend | Depth | Symbol | De |
|)/11 023 | | | | | | | | | 200.40 | | Soft brown to dark brown spongy amorphous PEAT | 71/7 | | | |
| 025 | 0.30 | B, D | | | | | | | | _ | | 1, 11, | | ₩ | 0 |
| | | | | | | | | | | _ | | 7. 7 | | XXXX | 0. |
| | | | | | | | | | | - | | 1, 11, | | | |
| | | | | | | | | | | - | | 7. 7 | | | |
| | 1.20 | D. | 1.20 | SPT=13 | 2.3 | 3 /3.3.4.3 | <u>3</u> | 0.00 | | - | | 1, 11, | | | |
| | | UL | | | | | | | | - | | 7. 7 | | | |
| | | | | | | | | | | - | | 1/ 1/ | | | |
| | | | | | | | | | 256.59 | 1.90 | Soft brown to reddish brown slightly gravelly sandy CLAY. Sand is fine | <u>-0 -</u> | | | |
| | 2.20 | D | | SPT=17 | 3 ' | 3 /4.4.5.4 | 4 | 2.20 | | _ | to medium. Gravel is fine to coarsé sub-angular tó sub-rounded of sandstone and quartzite | | | | |
| | 2.20 | ÜL | 2.20 | 01 1-17 | <u> </u> | 374.4.3. | 1 | 2.20 | | - | • | <u> </u> | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | | - | | <u> </u> | | | |
| 9/11 | | | | | | | | 2 20 | 255.29 | 3.20 | | <u> </u> | 0.00m | | |
| <i>J</i> III | 3.20 | D | 3.20 | SPT=48 | 3.5 | <u>5 /7.11.1</u> | 13.17 | 2,20 3.20 | | | # Driller Notes weathered red brown SANDSTONE. | | 0.00111 | | |
| | | | | | | | | | | | | :::: | | | |
| | | | | | | 1_ | | | | - | | [::::] | | | |
| | | | 4.00 | TCR 100 | SCR 27 | RQD 0 | FI | | 254.49 | 4.00 | Moderately weak to medium strong thinly to thickly laminated raddish | | | | |
| | | | 4.00 | 100 | 21 | 0 | | | | - | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as | :::: | | | |
| | | | | | | | NI | | | - | non-intact sandy gravel | :::: | | | |
| | | | | | | | " | | | - | | :::: | | | |
| | | | | | | | | | 253.59 | 4.90 | Medium strong to strong thinly to thickly laminated reddish brown fine to | | | | |
| | | | | | | | 4. | | | | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Distinctly weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating | | | | |
| | | | | | | | 13 | | 252.99 | 5.50 | smooth clean. | | | | |
| | | | 5.50 | 100 | 40 | 33 | NI. | | 252.89 | 5.60 | Moderately weak to medium strong thinly to thickly laminated reddish | | | | |
| | | | | | | | 3 | | 050 :- | - | brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly weathered. Recovered as non-intact sandy gravel | :::: | | | |
| | | | | | | | | | 252.49 | 6.00_ | Medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE. Fractures are subhorizontal medium spaced | | | | |
| | | | | | | | , | | | - | \planar to undulating smooth clean / | :::: | | | |
| | | | | | | | NI | | | - | Moderately weak to medium strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with many thickly laminated mudstone bands. Distinctly to partially weathered. Recovered | :::: | | | |
| | | | | | | | | | 251.79 | 6.70 | as non-intact sandy clayey gravel | | | | |
| | | | | | | | | | | - | Medium strong to strong thinly to thickly laminated reddish brown fine to medium grained SANDSTONE with may thinly to thickly laminated mudstone bands. Fractures are subhorizontal very closely to closely | | | | |
| | | | 7.00 | 97 | 73 | 27 | | | | - | mudstone bands. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean | | | | |
| | | | | | | | | | | - | | :::: | | | |
| | | | | | | | 8 | | | - | | :::: | | | |
| | | | | | | | | | | - | between 7.90 to 8.40m subvertical fracture planar to undulating rough with gravel infill. | ::::: | | | |
| | | | | | | | | | | _ | Tought with graver fillin. | :::: | | | |
| | | | | | | | | | 240.00 | 8.50 ⁻ | | | | | |
| | | | 8.50 | 100 | 73 | 70 | | | 249.99 | 0.50 | Strong thinly to thickly laminated reddish brown fine to medium grained | | | | |
| | | | | | | | | | | - | SANĎSTOŇE. Fractúres are subhorizontal closely to medium spaced planar to undulating smooth clean | | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | 4 | | | - | | | | | |
| | | | | | | | | | | - | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | 248.49 | 10.00 | | :::: | - | | 10 |
| # | narks: Descrip | tion base | d on Dri | ller's lo | q. | | | | | | END OF BOREHOLE | Hole Diam | . Borin | _ | Casi |
| Αı | n insped | ction pit w d-water o | as exca | vated b | y ha | and to a | a dept | h of 1.20 | 0m to cle | ar servi | ces. | 130 | 10.0 | 0 | 4.0 |
| | | tration Te | | | | | | | | . 114511. | | | | | |
| | | | | | | | | | | | | | | | |
| | Deille: | 0 | note: I | | | Ground | d-water | | ١٨ | /ater Ado | led Chiselling Flush | F | | | |
| | Driller PS | _ | nator B | Struck | | | | nin) Cut | | | To From To hh:mm Returns Type From (m) To (m) | Fig No | 0: | | |
| | | | | | | | | | | | 100 Air 1.20 3.20 100 AirWM 4.00 5.00 | l | 316 | | |
| Ch | ık & App | | atus | | | | | | | | | | heet 1 o | | |
| | | DK | AFT | | | | | | | | | So | cale 1:5 | 0 | |

| noie | 100 | сриі |
|-------|--------|--------|
| Diam. | Boring | Casing |
| 130 | 10.00 | 4.00 |
| | | |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ısh | | R |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|----|
| PS | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | _ |
| P3 | KD | | | | | | | | | | 100 | Air | 1.20 | 3.20 | Ê |
| | | | | | | | | | | | 100 | AirWM | 4.00 | 5.00 | |
| Chk & App | Status | 1 | | | | | | | | | 0 | AirWM | 5.00 | 10.00 | 13 |
| O G. App | | | | | | | | | | | | | | | K |
| | DRAFT | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | N |



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH19

Inspection Pit to Sonic Boring to Sonic Coring to

1.20m 2.70m 10.05m

Location: E 278769.3 N 709026.5 Orientation: Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| ress | _ | mples | 1 | 7 | ests | | | | Level | | | ू व | Motor | В | ackfill |
|--------|--------------|-----------|------------------|---------------------|-------------------|-----------|--------|-----------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|----------|-------------|
| Progre | Depth | Туре | Depth | | | sult | | Casing Depth | (mOD) | Dept | n Description of Strata | Legend | Water Depth | Symbol | Depth |
| 23/11 | | .,,,, | | | | | | <u> </u> | 257.97 | | Soft brown to dark brown spongy pseudo-fibrous PEAT | 77 7 | | | |
| 2023 | | | | | | | | | 257.57 | 0.40 | | 1, 11, | | | |
| | 0.50 | B, D | | | | | | | | | Brown sandy slightly silty GRAVEL with cobbles noted. Sand is fine to coarse. Gravel is fine to coarse angular of sandstone. Cobbles are | 9.7 | | | 0.50 |
| | | | | | | | | | | | angular up to 100mm of sandstone | \$ 0 × | | ĦĦ | 1 |
| | | | | | | | | | | | |) 29 | | ĦĦ | |
| | 1.20- | UT(13) | | | | | | | | | 4 | [*, 8, 4 | | BB | |
| | 1.65 | , , | | | | | | | | | + | 3.2 | | ĦĦ | 1 |
| | 1.65 | D | | | | | | | | | † | ₹0.3 | | ĦĦ | |
| | | | | | | | | | 255.97 | 2.00 | 1 |).ø.× | | |] |
| | 2.00 2.10 | B D | | | | | | | | | Weak reddish brown SANDSTONE recovered as slightly sandy slightly clayey gravel with cobbles noted. Distinctly to destructively weathered. | | | | 1 |
| | | | | | | | | | | | Sand is fine to coarse. Gravel is fine to coarse angular of sandstone. - Cobbles are angular, up to 100mm of sandstone | ::::: | | ĦĦ | |
| | | | | TCR | SCR | RQD | FI | | 255.27 | 2.70 | | ::::: | | |] |
| | | _ | 2.70 2.70 | SH210 ³⁴ | 2¢ ^{5.5} | 5 /5.3.13 | 3.13 | 2.70 | | | Weak to moderately weak thinly to thickly laminated reddish brown SANDSTONE. Distinctly to destructively weathered. Recovered as | ::::: | | ĦĦ | 1 |
| | 2.90 | D | 2.70 | | | | | | | | sandy very clayey gravel with cobbles noted | ::::: | | ĦĦ | 1 |
| | | | | | | | NI | | | | † | ::::: | | | |
| | | | | | | | | | 254.37 | 3.60 | 1 | ::::: | | ĦĦ | |
| | | | | | | | NI | | 254.07 | 3.90 | Weak to moderately weak thinly to thickly laminated reddish brown SANDSTONE. Distinctly to destructively weathered. Recovered as | | | \vdash | |
| | | | | | | | 30 | | | | Weak to medium strong thinly to thickly laminated reddish brown | | | | 4.00 |
| | | | 4.20 | 100 | 62 | 31 | 00 | | 253.77 | 4.20 | SANDSTONE. Distinctly to destructively weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean with occasional clay infill | | | H | |
| | | | | | | | NI | | | | Weak thinly to thickly laminated reddish brown SANDSTONE. Distinctly | | | | , |
| | | | | | | | | | 253.17 | 4.80 | to destructively weathered. Recovered as non-intact | | | M. | |
| | | | | | | | | | | | Weak thinly to thickly laminated reddish brown SANDSTONE. Distinctly weathered. Fractures are subhorizontal very closely to closely spaced | | | | |
| | | | | | | | 10 | | | | planar to undulating smooth clean with localised gravel infilled | ::::: | | | |
| | | | | | | | | | 252.47 | 5.50 | | ::::: | | | |
| | | | 5.50 | 100 | 73 | 29 | | | | | Strong thinly to thickly laminated greyish brown SANDSTONE. Partially weathered. Fractures are subhorizontal closely to medium spaced | | | | |
| | | | | | | | 8 | | 251.97 | 6.00 | - planar to undulating smooth clean with localised gravel infilled | ::::: | | | |
| | | | | | | | | | | | Moderately weak to medium strong thinly to thickly laminated greyish brown SANDSTONE with interbedded thickly laminated mudstone | | | | |
| | | | | | | | | | | | bands. Partially weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth with localised clay infilled | | | | |
| | | | | | | | 14 | | | | - | | | | |
| | | | | | | | | | 250.97 | 7.00 | † | ::::: | | | , |
| | | | 7.00 | 100 | 27 | 9 | 40 | | | | Medium strong to strong thinly to thickly laminated reddish brown | ::::: | | | |
| | | | | | | | 10 | | 250.67 | 7.30 | SANDSTONE. Partially weathered. Fractures are subhorizontal very closely to closely spaced planar to undulating smooth clean with localised gravel infilled | | | ΙЛЦ | |
| | | | | | | | | | | | Moderately weak to medium strong reddish brown SANDSTONE with many interbedded thickly laminated mudstone bands. Partially to | | | F | |
| | | | | | | | NI | | | | distinctly weathered. Recovered as non-intact very clayey gravel | ::::: | | | , |
| | | | | | | | | | 249.87 | 8.10 | | | | 悄 | , |
| | | | 8.10 | 100 | 85 | 28 | 6 | | 249.69 | 8.28 | - Fractures are subnorizontal closely spaced planar to undulating smooth | /:::: | | | |
| | | | | | | | 51 | | | | - clean Moderately weak to medium strong reddish brown SANDSTONE with | | | | |
| | | | 0.75 | 100 | 00 | 25 | " | | 249.22 | 8.75 | many interbedded thickly laminated mudstone bands. Partially weathered. Fractures are horizontal very closely spaced planar to | <u> ::::</u> | | | |
| | | | 8.75 | 100 | 88 | 35 | | | | | undulating smooth with localised gravel infill Moderately weak to medium strong reddish brown SANDSTONE with | | | | , |
| | | | | | | | | | | | Moderately weak to medium strong reddish brown SANDSTONE with many interbedded thickly laminated mudstone bands. Partially weathered. Fractures are horizontal very closely to closely spaced | ::::: | | | |
| | | | | | | | 22 | | | | planar to undulating smooth with localised gravel infill | ::::: | | H | ' |
| | | | | | | | | | | | 1 | ::::: | | H | |
| | | | | | | | | | | | 1 | | | | |
| | narks: | | | | | | | | | | • | Hole Diam | | o De | 10.00 |
| | | tion base | | | | ınd to a | a dept | th of 1.2 | 0m to cle | ar ser | vices. | 166 | 2.70 |) | 2.70 |
| N | o groun | d-water o | bservati | ons ar | e rec | orded | due to | the use | e of wate | | | 145 | 10.0 | ن ا | 10.05 |

PIGENTWAPROJECTS/26555. GPJ+44 (0) 1698 710999 Printed: 26/01/2024 13:26:07 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

The Penetration Tests were carried out using Trip Hammer RD54.

| Dri | iller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | P |
|----------|-------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|------------|
| | | RB | Struck | Rose To | Time(min) | Cut Off | From | То | From | То | hh:mm | Returns | Type | From (m) | To (m) | ` ` |
| <u>!</u> | | KD | | | | | | | | | | 100 | Water | 2.70 | 4.20 | Ê |
| i I | | | | | | | | | | | | 0 | Water | 4.20 | 10.05 | 15 |
| Chk 8 | & App | Status | | | | | | | | | | | | | | В |
| 1 | | DRAFT | | | | | | | | | | | | | | Ř |
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Fig No:

B17 Sheet 1 of 2 Scale 1:50

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| RAFRIII | ŞΝ | |
| DRILLING & GEOTECH | NUCALITO | Client: |
| DRILLING & GEOTECH | MICALLID | Engine |
| | | |
| Location: E 278769.3 | Orientation | n: Vertica |
| N 709026.5 | | |

SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

BH19

Inspection Pit to Sonic Boring to Sonic Coring to

1.20m 2.70m 10.05m

Vertical

Equipment: Hand Tools, Track Mounted Boart Longyear LS250 Mini Sonic; Water Flush

| <u>ĕ</u> ļ | San | nples | - | Tes | | | Casing | Level (mOD) | Donth | | | Door | ription of | Strata | | | | | euc | Water | <u></u> | ackf |
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| L Progress | Depth | Туре | Depth | | Result | | Casing Depth | 257.97 247.92 | Dehiii | | | | | | | | | | Legend | Depth | Symbol | De |
| 114 | | | | | | | 10.05 | 247.92 | \10.05 <i>/</i> - | | | ENI | OF BO | REHOLE | | | | Ŧ | | 8.85m | | 10 |
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| en# ا# | narks: Descript | ion base | ed on Dril | ler's loa | | | | | | | | | | | | | | | Hole Diam. | . Borin | | Cas |
| Ar No | n inspec | tion pit w | ed on Dril vas excav observation ests were | vated by | hand to | a dept | h of 1.2 | 0m to cle e of wate | ar servi | es. | | | | | | | | | 166 145 | 2.70 10.0 | 5 | 2.7 10. |
| Th | e Pene | tration Te | ests were | e carried | out usin | ıg Trip I | Hamme | r RD54. | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| [| Driller | | inator | Ctrucal | Groun | nd-water | in) Cut | | /ater Add | | Chiselling | | Pot: | FI | ush | a) T- /- | F | 2 | Fig No | D: | | |
| | | F | RB - | SITUCK | Rose To | nime(m | iin) Cut | Off Fro | 71T1 | o From | То | hh:mm | Returns 100 | Water | 2.70 | n) To (n 4.20 10.0 | | \ | | 317 | | |
| Ch | k & App | Sta | atus | | | | | | | | | | 0 | Water | 4.20 | 10.0 | ° Ē | 3 | | heet 2 o | f 2 | |
| | | DR | AFT | | | 1 | | | | | | | 1 | | | | ΙŘ | 2 | | cale 1:5 | | |

| Hole | 10 D | eptn |
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| Diam. | Boring | Casing |
| 166 145 | 2.70 10.05 | 2.70 10.05 |

| Driller | Originator | | Groun | d-water | | Water | Added | | Chiselling | | | Flu | ush | | P |
|-----------|------------|--------|---------|-----------|---------|-------|-------|------|------------|-------|---------|-------|----------|--------|------|
| | RB | Struck | Rose To | Time(min) | Cut Off | From | To | From | To | hh:mm | Returns | Type | From (m) | To (m) | '^ |
| | KD | | | | | | | | | | 100 | Water | 2.70 | 4.20 | = |
| | | | | | | | | | | | 0 | Water | 4.20 | 10.05 | 5 |
| Chk & App | Status | | | | | | | | | | | | | | B |
| | DRAFT | | | | | | | | | | | | | | ä |
| | Dita. I | | | | | | | | | | | | | | N |
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| | | | | S | ite: LT52 | 20 BR | ACO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
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| F | 2 4 | EBU | IR | N | | | | Trial Pit | t No. | | | |
| = | | DRILLING & GE | | LLTD | | | nsmission plc h Inveralmond HSE | Trial Pit to | | | 1.10r | n |
| | | | | | ingineer. S | SE FEI | , | | | | | |
| Lo | | E 279216.2 | Orie | ntation: V | /ertical | | Equipment: 15T Tracked Excavator | | | | | |
| SS | | N 708992.3 Samples and Te | sete | | Leve | el | | Width - | _ | Length - | _ | ckfill |
| Progress | Sample | I 40 I | 55.5 | | (m) | Dept | Description of Strata | | Legend | Water Depth | - Q | Dept |
| 21/1 2023 | 1 | | | | 239.0 | J5 | Soft brown to dark brown spongy amorphous PEAT | | 711/ | <u> </u> | | |
| | 0.30 | B, D | | | 238.6 | 0.40 | Brown to reddish brown very sandy silty GRAVEL with medium cobl | ble | 1/ V/ | <u> </u> | | |
| | 0.60 | B, B, B, B, D B | | | 220 | 15 0.00 | Brown to reddish brown very sandy silty GRAVEL with medium cobleontent. Sand is fine to coarse. Gravel is fine to coarse angular of sandstone. Cobbles are angular up to 140mm of sandstone | | * 0 . | | | |
| 21/1 | 1 | | | | 237.9 | 0.90 95 1.10 | Medium strong brown grey SANDSTONE. Rock is slightly to moderate weathered and recovered as: gravelly silty fine to medium sand with | ately high | · \ · · · · · · · · · · · · · · · · · | | | |
| | | | | | | | Medium strong brown grey SANDSTONE. Rock is slightly to moder weathered and recovered as: gravelly silty fine to medium sand with cobble content and medium boulder content. Gravel is fine to coars angular and includes sandstone. Cobbles and boulders are angular 480mm of sandstone | e, up to | | | | |
| | | | | | | | END OF TRIAL PIT | | | | | |
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| Re | marks: | | | | | | | | | | | |
| T | rial pit C | CAT scanned prior s of the pit stood v | to excavation | on to chec | ck for service | ces. | | | | | | |
| T | Ground-v | water was not enco | ountered. | • | | ging (pos | sible bedrock). | | | | | |
| Re | · | | , | | | 0 0 11 | , | | | | | |
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| | Driller | Originator . | Struck R | Ground-w | | ıt Off | | R | Fig N | o: | | _ |
| | | AD | | | | | | RAUBURZ | | 318 | | |
| C | hk & App | Status DRAFT | | | | | | ğ | 1 | heet 1 c | | |
| ì | | 2.00.1 | | | | | | N | s | cale 1:5 | U | |

| | | | | | Site: | _T520 | BRA | CO WEST SUBSTATION | Contrac | ct No: | 26555 | 5 | |
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| F | ZΔ | EBU | JR | N | | | | | Trial Pit | t No. | | | |
| = | | DRILLING & GE | | | Client: | | | smission plc Inveralmond HSE | Trial Pit to | | | 1.70m | |
| | | | | | Liigiiik | | | | | | | | |
| Lo | | E 278914.8 | 0 | rientatior | n: Vertic | al | | Equipment: 14T Tracked Excavator | | | | | |
| SS | | N 708959.8 Samples and Te | nete | | | Level | | | Width - | _ | Length - | 3.80m Bac | kfill |
| Progress | Sample | Ι Φ Ι | 2515 | | | (m) | Depth | Description of Strata | | Legend | Water Depth | og |)ept |
| 27/1 202: | 0.20 | B, D | | | | 247.70 | | Soft brown to dark brown spongy amorphous PEAT | | 11/2 | - | | _ |
| | 0.30 | B, D | | | | 247.40 247.20 | | Light brown slightly gravelly slightly clayey fine to medium SAND with occasional roots and local black organic stains. Gravel is fine to coar | se | 107/ | | | |
| | 0.70 | B, B, B, B, D | | | | | | Reddish brown to brown very sandy very silty GRAVEL with low cobt content. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone. Cobbles are angular up to 160mm of sand | / | 9.0. | | | |
| | | | | | | | - | subangular of sandstone. Cobbles are angular up to 160mm of sand | dstone | 29 | • | | |
| | 4.50 | | | | | | : | | | , | | | |
| 27/1 | 1.50 1 1.70 | B, D B, D | | | | 246.10 246.00 | 1.60 1.70 | Medium strong brown SANDSTONE slightly to moderately weathere | d. | 9:2 | Dry | | |
| | | | | | | | - | Medium strong brown SANDSTONE slightly to moderately weathere. Recovered as cobbles and some boulders with some finer materiral compising slightly gravelly slightly silty fine to coarse sand. Gravel is coarse angular of sandstone. Cobbles and boulders are angular up 370mm of sandstone | fine to | | | | |
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| Re | marks: Trial pit C | CAT scanned prior | to excava | ation to cl | heck for | services | S. | | | | | | |
| Ī | Fround-\ | s of the pit stood v water was not enc | ountered. | • | | | . , | | | | | | |
| Re | rial pit v | vas terminated at a | a depth of | 1.700m | due to h | nard digg | ing (pos | sible bedrock). | | | | | |
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| | Driller | Originator . | Struck | Ground Rose To | d-water Time(mir | ns) Cut C | Off | | RA | Fig N | o: | | |
| _ | hk 0 ^ | | | | | | | | RAUBURZ | | B19 Sheet 1 o | .f 1 | |
| | hk & App | Status DRAFT | | | | | | | Ř | 1 | sheet 1 o cale 1:50 | | |
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| | | | | | Site: [| _T520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
|----------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------|----------|------------------|---------------------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------|----------------|------------|--------------|
| F | ZΔ | EBL | IR | N | | | | | Trial Pit | No. | | | |
| = | | DRILLING & GEO | | | Client: | | | smission plc Inveralmond HSE | Trial Pit to | | | 1.50 | m |
| | | | | | Liigiiik | | - reiu | | | | | | |
| Lo | | E 279042.2 | Orie | entation | : Vertic | al | | Equipment: 14T Tracked Excavator | | | | | |
| ss | | N 708901.3 Samples and Tes | ete | | | Level | | | Width - | | Length - | _ | n ickfill |
| Progress | Sample | Φ | 313 | | | (m) | Depth | Description of Strata | | Legend | Water Depth | 8 | Depth |
| 21/1 202 | 1 | | | | | 236.85 | | Soft brown to dark brown spongy amorphous PEAT | | 71/7 | | | |
| | 0.50 | B, D ES | | | | 236.45 | 0.40 | Brown to reddish brown very sandy silty GRAVEL with low cobble co | ntent. | 1/ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | |
| | 0.60 | B, B, B, D | | | | | | Brown to reddish brown very sandy silty GRAVEL with low cobble cor Gravel is fine to coarse sub-rounded to sub-angular of sandstone and psammite. Cobbles are sub-rounded to sub-angular up to 130mm of sandstone and psammite | t | * 0 × | | | |
| m00 | 1.00 | B, D, ES | | | | 225 65 | 1 20 | · | | 99 | | | |
| E-mail: enquiries@raeburndrilling.com | 1.30 | B, B, B, D | | | | 235.65 | | Medium strong brown grey SANDSTONE. Rock is slightly to moderal weathered and recovered as: silty sand and gravel with low cobble or | ely ontent | 3 7. | | | |
| epnung epnung | 1 | | | | | 235.35 | 1.50 | Medium strong brown grey SANDSTONE. Rock is slightly to moderat weathered and recovered as: silty sand and gravel with low cobble or and low to medium boulder content. Sand is line to medium. Gravel is coarse angular of sandstone. | s fine to | -`-` - | | *** | |
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| chnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 | | | | | | | | | | | | | |
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| 3:27:56 | rial pit C | AT scanned prior to the contract of the pit stood ve | | | | | 5. | | | | | | |
| 024 13 | 3round-v | vater was not enco vas terminated at a | untered. | _ | | | ıa (poss | ible bedrock). | | | | | |
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| Style: TRIALPIT File: P:\GINTW\PROJECTS\26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:55 Raebum Drilling and Geote | | | | | | | | | | | | | |
| :: <u> </u> | Driller | Originator | Struck R | Ground ose To | d-water Time(min | ns) Cut C | Off | | Ŗ | Fig N | o: | | |
| LPIT L | | AD – | | | (| 1 | | | RAUBURZ | F | 320 | | |
| <u> </u> | hk & App | Status DRAFT | | | | | | | ij | | heet 1 o | | |
| Styk | | Jivai I | | | | | | | Ñ | S | cale 1:5 | U | |

| | | | | | | Site: | _T520 | BR/ | ACO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-----------------------------------------|-----------|-------------|-----------|------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------|-----------------|-----------|------------------|
| | F | Δ | EBU | | <i>S N</i> | | | | | Trial Pit | No. | | | |
| | | | DRILLING & GE | | | Client: | | | smission plc | TP04 | | | 2.00 | 0m |
| | | | | | | Engine | er: SSI | = Pertr | n Inveralmond HSE | | | | | |
| | Loc | ation: E | E 279045.9 | | Orientatio | n: Vertic | al | | Equipment: 14T Tracked Excavator | | | | | |
| | S | | N 709078.8 | | | | Lovel | | | Width - | | Length - | _ | |
| | Progress | Sample Depth | Samples and Te | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water Depth | Symbol | ackfill Depth |
| | 立 27/11 2023 | | B, D | | | | 250.56 | | Soft brown to dark brown spongy pseudo-fibrous PEAT with occasion | nal | 7/7 7 | | <u>\$</u> | Bopai |
| | 2023 | 0.20 0.30 | B, D | | | | 250.26 250.16 | | pieces of wood Light brown to light grey slightly gravelly very clayey fine to medium S Gravel is fine to coarse angular and sub-angular of sandstone | SAND. | <u> </u> | | ₩ | |
| | | 0.60 | B, B, B, B, D | | | | | | Gravel is fine to coarse angular and sub-angular of sandstone Soft to firm reddish brown to brown slightly gravelly sandy CLAY. Sar fine to coarse. Gravel is fine to coarse angular to subangular of sand Cobbles are angular and subangular up to 140mm of sandstone | nd is | 101 | _ | ₩ | |
| mc | | 1.00 | В | | | | | _ | Cobbles are angular and subangular up to 140mm of sandstone | | <u> </u> | | ₩ | |
| lling.co | | | | | | | 240.16 | 1.40 | | | | | ▓ | |
| ourndri | | 1.60 | B, B, D | | | | 249.16 | 1.40 | Light brown very gravelly clayey fine to coarse SAND with medium of content. Gravel is fine to coarse angular of sandstone. Cobbles are a up to 150mm of sandstone | obble angular | \$12 \$12 | | ₩ | |
| Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com | | | | | | | 040.50 | | | | - 29 | | | |
| quiries | 27/11 | | | | | | 248.56 | 2.00 | beneath 1.80m becoming low boulder content. Boulders are angul to 228mm and of brow sandstone | ar, up | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | Dry | *** | |
| ail: end | | | | | | | | | END OF TRIAL PIT | | | | | |
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| ling ar | | | | | | | | | | | | | | |
| rn Dril | | | | | | | | | | | | | | |
| Raebu | | | | | | | | | | | | | | |
| 7:55 F | | narks: | AT scanned prior | r to over | vation to a | book for | convicos | | | | | | | |
| 4 13:2 | Th | ne walls | of the pit stood v vater was not enc | ertical t | hroughout | | | | | | | | | |
| 1/2024 | | | as terminated at a | | | lue to ha | ırd diggir | ng (poss | sible bedrock). | | | | | |
| 1: 26/0 | | | | | | | | | | | | | | |
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| JECT. | | | | | | | | | | | | | | |
| WPRC | | | | | | | | | | | | | | |
| GINTV | | | | | | | | | | | | | | |
| File: P.\GINTW\PROJECTS\26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:55 | | Drille - | Originata | | Group | id-water | | 1 | | - | Te: - • • | | | |
| | | Driller | Originator AD | Struck | Rose To | | ns) Cut C | Off | | Ă | Fig N | | | |
| RIALF | Ch | nk & App | Status | | | | | | | RAUBURZ | 1 | 321 heet 1 o | f 1 | |
| Style: TRIALPIT | | | DRAFT | | | | | | | Ř | | cale 1:50 | | |
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| | | | | | Site: L | T520 | BRA | CO WEST SUBSTATION | Contrac | t No: 🗸 | 26555 | 5 | |
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| F | 2 Δ | EBI | | Trial Pit | | | | | | | | | |
| | | DRILLING & GE | OTECHN | ICAL LTD | Client: | | | smission plc | TP0 | | | 0.54 | • |
| | | | | | Engine | er: SSE | E Perth | Inveralmond HSE | Trial Pit to | | | 2.50 | 0m |
| Lo | cation: I | E 279135.1 | C | Orientation | n: Vertica | ıl | | Equipment: 14T Tracked Excavator | 1 | | | | |
| | | N 708794.4 | | | | | | | Width - | 1.30m | Length - | 3.40r | m |
| Progress | Sample | Samples and To | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | | ackfill |
| Prog | Depth | Result | | | | 223.47 | Берит | • | | | Depth | Symbol | Depth |
| 27/1 202 | 1 3 | | | | | | | Soft brown to dark brown spongy pseudo-fibrous PEAT with occasio pieces of wood | nai | 7 77 | ĺ | | |
| | 0.50 | B, D, ES | | | | | | | | <u> </u> | 1 | | |
| | | | | | | | | | | 1, 11, | | | |
| | 1.00 | ES | | | | | - | | | <u> </u> | 1 | | |
| P | | | | | | | | | | 77 77 | | | |
| | 1.50 | B, D | | | | | | | | 1/ 1/ | | | |
|) | 0.00 | | | | } | 221.67 | 1.80 | Brown silty SAND and GRAVEL with low to medium cobble content. | Sand is | | | | |
| | 2.00 | B, B, B, B, D, ES | ^ | | | | _ | Brown silty SAND and GRAVEL with low to medium cobble content. fine to medium. Gravel is fine to coarse sub-rounded to subangular langular of sandstone and quartzite. Cobbles are subrounded to subup to 170mm and of sandstone | ocally angular | | | | |
| 27/1 | 1 | | | | | 220.97 | 2.50 | up to 170mm and or sandstone | | 907 | Dry | | |
| | | | | | | | | END OF TRIAL PIT | | 1 | 5., | | |
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| Re | marks: Frial pit C | AT scanned prior | r to excav | ation to c | heck for | services | s. | | | | | | |
| 1 | Ground-v | of the pit collaps vater was not end | ountered | | | | | | | | | | |
| 1 | rial pit w | as terminated at | a depth o | of 2.50m d | lue to har | d diggir | ıg (poss | ible bedrock). | | | | | |
| 207 | | | | | | | | | | | | | |
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| <u> </u> | Driller | Originator | Struck | | d-water Time(mins | s) Cut C | off | | R■ | Fig N | o: | | |
| | | AD | Oduck | 1,056 10 | rine(iiii) | , care | <u></u> | | 슽 | F | 323 | | |
| Style: IKIALPIT File: P:\GINTWIPROJECTS\2005\3.6F2/444 (U)T086 710999 Printed: 26/01/2024 3:27:30 Raebum Drilling and Geoleconical, Winsteberry Kd., Hamilton ML3 UHF 1et: U1098-71117 F-mail: enquires@raebumorilling.com | hk & App | | | | | | | | RAUBURN | s | heet 1 c | | |
| Style | | DRAFT | | | | | | | N | S | cale 1:5 | 0 | |

| | | | | Site: LT52 | 0 BRA | ACO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------|------------------|----------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|------------------|--------------|-------|
| F | 2Δ | EBL | JRN | | | | Trial Pit | t No. | | | |
| = | | DRILLING & GEO | | | | smission plc | TP06 | | | 1.50m | |
| | | | | Engineer. 33 | e Peru | n Inveralmond HSE | | | | | |
| Lo | cation: [| E 279286.2 | Orientatio | n: Vertical | | Equipment: 14T Tracked Excavator | | | | | |
| · γ | | N 708910.8 | | Level | | | Width - | _ | Length - | 3.80m Bac | ⊵fill |
| Progress | Sample Depth | Samples and Tes | its | (m) | Depth | Description of Strata | | Legend | Water Depth | log | epth |
| 21/1 202 | 1 | F | | 229.6 | 3 | Soft brown to dark brown spongy amorphous PEAT | | 77 7 | <u> </u> | <u></u> | |
| 202 | 0.30 | B, D, ES | | 229 1 | 0.50 | | | 1, 11, | | | |
| | 0.60 | ES D D D D | | 220.10 | 0.00 | Brown to reddish brown very sandy silty GRAVEL with low cobble co and low boulder content. Gravel is fine to coarse angular of sandstor Cobbles and boulders are angular up to 490mm of sandstone | ntent ne. | 3/7/ | | | |
| E | 1 | B, B, B, B, D B, D | | | | Cobbles and boulders are angular up to 490mm of sandstone | | 3.0 | 4 | | |
| ichnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com | 1.10 | ES | | 228.43 | 3 1.20 | Medium strong brown grey SANDSTONE. Rock is slightly to modera | tely | - FX | , | | |
| <u>i</u> 21/1 | 1 | | | 228.13 | 3 1.50 | Medium strong brown grey SANDSTONE. Rock is slightly to modera weathered and recovered as: gravelly silty fine to medium sand with to high cobble content and medium boulder content. Gravel is fine to angular of sandstone. | médium coarse | ۔:ـ:بر | Dry | | |
| @raet | | | | | | sandstone END OF TRIAL PIT | / | | | | |
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| 13:27 | he walls | AT scanned prior to of the pit stood ver vater was not encou | tical throughout | | S. | | | | | | |
| 72024 | | as terminated at a | | due to hard digg | ing (poss | sible bedrock). | | | | | |
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| ΣI L | | | | | | | | | | | |
| Style: TRALPIT File: P:\GINTW\PROJECTS\\26555.GPJ+44 (0)1698 710999 Printed: 26\\0172024 13:27:56 Raebum Drilling and Geote | | 1 2 | | ad woter | | | T - | | | | |
| Ē <u>⊢</u> | Driller | Originator | | nd-water Time(mins) Cut | Off | | R | Fig N | | | |
| SIALP. | hk & App | Status | | | | | RAUBURZ | | B24 Sheet 1 o | f 1 | |
| ye: | a App | DRAFT | | | | | Ř | 1 | cale 1:50 | | |
| ю́ | | | | | | | 134 | | | | |

| | | | | | Site: L | T520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 2655 | 5 | |
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| F | 2 Δ | EBU | JR | N | | | | | Trial Pit | No. | | | |
| = | | DRILLING & GEO | | LLTD | Client: | | | smission plc Inveralmond HSE | Trial Pit to | | | 1.20 | lm |
| | | | | | Engine | ei. 33 | - Peru | . Inveralmond hoe | | | | | |
| Lo | | E 278976.9 | Orie | entation | : Vertica | al | | Equipment: 14T Tracked Excavator | | | | | |
| SS | | N 708791.3 Samples and Te | ete | | | Level | | | Width - | | Length - | _ | n ickfill |
| Progress | Sample Depth | 1 0 1 | SIS | | | (m) | Depth | Description of Strata | | Legend | Water Depth | Symbol | Depth |
| 7/12 202 | 2 | | | | | 228.97 | | Soft brown to dark brown spongy amorphous PEAT | | 71/ | | | |
| | 0.30 | B, D | | | | 228.57 | 0.40 | Brown to reddish brown sandy clavey GRAVEL with medium to high | cobble | 0 | | | |
| | 0.70 | B, B, B, B, D | | | | | | Brown to reddish brown sandy clayey GRAVEL with medium to high content and low boulder content. Sand is fine to coarse. Gravel is fine coarse angular of sandstone. Cobbles and boulders are angular up to 240mm of sandstone | e to o | - · · · · | | | |
| | 1.00 | В | | | | 227.97 | | | | . —•- | | | |
| 7/12 | 2 | | | | | 227.77 | 1.20 | Medium strong brown SANDSTONE. Rock is slightly to moderately weathered and recovered as: boulders with some cobbles slightly graslightly clayey fine to coarse sand. Gravel is fine to coarse angular os sandstone. Cobbles and boulders are angular up to 500mm of sand | avelly f | <u> ::::</u> : | ₹ | | |
| 7/12 | | | | | | | | <u>Sandstone.</u> Cobbles and boulders are angular up to 500mm of sand END OF TRIAL PIT | stone_/ | | | | |
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| Re | | CAT scanned prior | | | | | S. | | | | | | |
| | 3round-v | s of the pit stood ve vater was encount | ered at a de | epth of 1 | 1.20m. | | ng (noon | ible bodreek) | | | | | |
| Suppose the suppose of the suppose o | riai pit w | as terminated at a | a depth of 1. | .20m au | ie to na | ra aiggir | ig (poss | ible bedrock). | | | | | |
| 9.5 | | | | | | | | | | | | | |
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| | Driller | Originator | | Ground ose To | | s) Cut C | Off | | R | Fig N | 0: | | |
| | | AD | 1.20 | | | | | | RAUBURZ | | 325 | | |
| C | hk & App | Status DRAFT | | | | | | | Ř | 1 | heet 1 o | | |
| ğ | | | | | | | | | Ň | 5 | cale 1:5 | iU | |

| | | | | | Site: [| _T520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
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| F | 2 Δ | EBU | JR | N | | | | | Trial Pit | No. | | | |
| = | | DRILLING & GE | | | Client: | | | smission plc | TP08 | | | 1.50 |)m |
| | | | | | Engine | er: SSI | = Pertr | Inveralmond HSE | Than to | | | 1.00 | |
| Lo | cation: | E 279149.9 | 0 | rientatior | n: Vertic | al | | Equipment: 14T Tracked Excavator | | | | | |
| <u></u> | | N 709062.8 | \perp | | | | | | Width - | | Length - | _ | |
| Progress | Sample | Samples and Te | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water Depth | oq | ckfill |
| 21/1 | Depth | Result | | | | 247.01 | _ | Soft brown to dark brown spongy amorphous PEAT | | <u> </u> | Берш | Š XXX | Depth |
| 21/1 2023 | | | | | | | | . 🐧 | | 1, 11, | | ₩ | |
| | 0.50 | B, D, ES | | | | 246.31 | 0.70 | | | <u> </u> | | ₩ | |
| | 1.00 | B, B, B, D, ES | | | | | | Brown to reddish brown very gravelly silty fine to coarse SAND with k cobble content. Gravel is fine to coarse angular to subangular of sar and quartzite. Cobbles are angular and subangular up to 130mm of | ow idstone | ₩. (7.) ×. (8.) | | ₩ | |
| 21/1 | 1.00 | B, B, B, D, E3 | | | | 245 71 | 1 20 | and quartzite. Cobbles are angular and subangular up to 130mm of sandstone | | 8. y. | | | |
| 21/1 | 1 | | | | | 245.71 245.51 | 1.30 | Medium strong brown grey SANDSTONE. Rock is slightly to moderal | tely medium | | Dry | ₩ | |
| | | | | | | | | Medium strong brown grey SANDSTONE. Rock is slightly to moderal weathered and recovered as: gravelly silty fine to medium sand with cobble content and low boulder content. Grave is fine to coarse angular up to 320mm of sandstone. Cobbles and boulders are angular up to 320mm of sands | ular of / | | | | |
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| Re | marks: | AT scanned prior | to eveny | ation to o | hock for | convicos | | | | | | | |
| T d | he walls | s of the pit stood ve vater was not enco | ertical thre | oughout e | | | ·. | | | | | | |
| T | | as terminated at a | | | ue to ha | ırd diggir | ıg (poss | ible bedrock). | | | | | |
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| <u>-</u> | Driller | Originator | | Groun | d-water | | <u> </u> | | p= | Fig N | 0. | | |
| | 21 mol | AD - | Struck | Rose To | | ns) Cut C | Off | | RAUBURZ | Fig N | | | |
| į C | hk & App | Status | | | | | | | ā | | 326 heet 1 o | f 1 | |
| Siyle: IRALPT FIRE: F.YGIN IWP-ROJECTS/2003.GFG-F44 (U) 1095 / 1095 / 1095 / 1095 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 1095 / 10 | 1.5 | DRAFT | | | | | | | Ř | 1 | cale 1:5 | | |
| ر | | | | | | | | | | | | | |

| | R | Α | EBl | JF | RN | Site: L | | | ACO WEST SUBSTATION smission plc | Trial Pit | t No. | 26555 | 5 | |
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| | | | 278842.5 | | Orientation | | er: SSE | | Inveralment HSE | _ | | | | |
| | ss Sa | ample S | 708873.5 Samples and Te | sts | | | Level | | | | pue | Water | | ackfill |
| | 07/11 | | Result B, D | | | ; | (m) 243.84 | Depth | Description of Strata Soft brown to dark brown spongy amorphous PEAT with occasional polywood | oieces | | Depth | Symbol | Depti |
| | |).50 E | ES B, B, D | | | | 243.44 | 0.40 | Light brown to light grey very sandy slightly silty GRAVEL with low co content. Sand is fine to coarse. Gravel is fine to coarse angular locall sub-angular of sandstone. Cobbles are angular up to 130mm of sand | bble y dstone | * () × () × () × () × () × () × () × () | | | |
| illing.com | 1 | .00 E | 3, ES | | | | 242.94 | 0.90 | Brown to reddish brown very sandy slightly silty GRAVEL with low co and low boulder content. Sand is fine to coarse. Gravel is fine to coar angular of sandstone. Cobbles are angular up to 150mm and of sand Boulders are angular up to 250 mm of sandstone | | * 0 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | | | |
| E-mail: enquiries@raeburndrilling.com | | | 3, B, B, B, B, D | | | | 244.04 | | | | ·) 9/9 | _ | | |
| il: enquiries | 27/11 2 | 2.00 E | ES | | | | 241.84 | 2.00 | beneath 1.80m becoming low boulder content END OF TRIAL PIT | | .11.22 | Ţ | *** | |
| | | | | | | | | | | | | | | |
| Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | | | | | | - | | | | | | |
| OHP Tel: (| | | | | | | | - | | | | | | |
| ilton ML3 | | | | | | | | - | | | | | | |
| y Rd, Ham | | | | | | | | | | | | | | |
| Vhistleberr | | | | | | | | - | | | | | | |
| echnical, V | | | | | | | | - | | | | | | |
| and Geote | | | | | | | | - | | | | | | |
| um Drilling | | | | | | | | | | | | | | |
| | Rema | | | | | | | - | | | | | | |
| 024 13:27: | The Grou | walls o und-wa | T scanned prior of the pit stood version to the pit stood version to the pit stood at a second to the pit stood to the pi | ertical the | roughout e a depth of | excavatio 2.00m. | n. | | sible bedrock). | | | | | |
| d: 26/01/2 | | | | | | | 99 | J (| | | | | | |
| 99 Printe | | | | | | | | | | | | | | |
| 1698 7109 | | | | | | | | | | | | | | |
| PJ+44 (0) | | | | | | | | | | | | | | |
| S\26555.G | | | | | | | | | | | | | | |
| PROJECT | | | | | | | | | | | | | | |
| \MLNI9\:c | | | | | | | | | | | | | | |
| PIT File: F | Dri | ller | Originator _ | Struck 2.00 | Ground Rose To | d-water Time(mins | s) Cut C | off | | RA | Fig N | o: B27 | | |
| Style: TRIALPIT File: P.\GINTW\PROJECTS\2655.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:57 | Chk & | & App | Status DRAFT | | | | | | | RAUBURZ | s | heet 1 c | | |

| | | | | | | Site: L | T520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 26555 | , | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|---------------------------------------------------------------|---------|--------------|------------|------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|------------|-----------|--------|
| | F | Δ | EBU | H | <i>S N</i> | | | | | Trial Pit | No. | | | |
| | | | DRILLING & GE | | | Client: | | | smission plc | TP10 | | | 2.30 | lm |
| | | | | | | Engine | er: SSE | : Pertr | n Inveralmond HSE | marritto | | | 2.50 | ,,,, |
| İ | Loc | ation: E | 278982.3 | | Orientation | n: Vertica | al | | Equipment: 14T Tracked Excavator | | | | | |
| | " | | N 709176.9 | | | | | | | Width - | | Length - 3 | | |
| | Progress | | Samples and Te | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | Symbol | ckfill |
| | 28/11 | Depth | Result | | | | 255.65 | | Soft brown to dark brown spongy amorphous PEAT with occasional p | | 7/ 7/ F | Depth | | Depth |
| | 28/11 2023 | | | | | | | - | of wood | | 1, 11, | | \bowtie | |
| | | 0.50 | B, D, ES | | | | | | | | <u> </u> | | | |
| ۔ | | 1.00 | ES | | | | | - | | | <u> </u> | | \bowtie | |
| ng.cor | | 1.00 | LO | | | | 254.35 | 1.30 | | | 1/ V/ | | | |
| mdrilli | 28/11 | 1.40 1.50 | ES B, B, B, B, D | | | | 204.00 | 1.50 | Brown slightly gravelly silty fine to coarse SAND with low cobble conto Gravel is fine to coarse subangular to subrounded locally angular of sandstone and quartzite. Cobbles are subangular to subrounded up to | ent. | 70.5 5.0.8 | 1 | \bowtie | |
| raebu | | | _, _, _, _, _ | | | | | | sandstone and quartzite. Cobbles are subangular to subrounded up to 130mm of sandstone | Ю. | × 0.9 | | | |
| ries@ | | 2 10 | ES | | | | | _ | | | ×0.5 | | ₩ | |
| endni | 28/11 | 2.10 2.20 | В | | | | 253.45 253.35 | 2.20 | Medium strong brown SANDSTONE slightly to moderately weathered | d | ×0.8 | Dry | \bowtie | |
| -mail: | | | | | | | | - | Medium strong brown SANDSTONE slightly to moderately weathered. Recovered as silty SAND & GRAVEL with high cobble content. Sand to coarse. Gravel is fine to coarse angular of sandstone. Cobbles an boulders are angular up to 440mm of sandstone | is fine / | | | | |
| 177 E | | | | | | | | - | END OF TRIAL PIT | | | | | |
| 8-711 | | | | | | | | - | | | | | | |
| 0169 | | | | | | | | | | | | | | |
| P Tel | | | | | | | | - | | | | | | |
| L3 0H | | | | | | | | _ | | | | | | |
| ton N | | | | | | | | | | | | | | |
| Hami | | | | | | | | - | | | | | | |
| y Rd, | | | | | | | | | | | | | | |
| tleber | | | | | | | | - | | | | | | |
| Whis | | | | | | | | - | | | | | | |
| hnical | | | | | | | | | | | | | | |
| eotec | | | | | | | | | | | | | | |
| and G | | | | | | | | - | | | | | | |
| rilling | | | | | | | | | | | | | | |
| purn [| | | | | | | | - | | | | | | |
| Rae | _ | | | | | | | | | | | | | |
| :27:58 | Tr | | AT scanned prior | | | | | 3. | | | | | | |
| 24 13 | G | round-w | of the pit stood v vater was not enc as terminated at a | ountere | d. | | | a (noce | ihle hedrock) | | | | | |
| 3/01/20 | | iai pit w | as terrimated at a | a depui | 01 2.30111 u | ue to na | ra alggii | ig (poss | ible bedrock). | | | | | |
| ted: 26 | | | | | | | | | | | | | | |
| Prin | | | | | | | | | | | | | | |
| 6660 | | | | | | | | | | | | | | |
| 398 71 | | | | | | | | | | | | | | |
| 4 (0)1 | | | | | | | | | | | | | | |
| 3PJ+4 | | | | | | | | | | | | | | |
| 555.G | | | | | | | | | | | | | | |
| TS\26 | | | | | | | | | | | | | | |
| COJEC | | | | | | | | | | | | | | |
| WPR | | | | | | | | | | | | | | |
| File: P:\GINTW\PROJECTS\2655.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:58 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | | | | | | | | | | | | |
| File: P | | Driller | Originator | | | d-water | J - | | | R≡ | Fig N | lo: | | |
| | | | ĀD | Struck | Rose To | Time(min | s) Cut C | Off | | RAUBURZ | | B28 | | |
| TRIAL | Ch | k & App | Status | | | | | | | B | 1 | Sheet 1 o | f 1 | |
| Style: TRIALPIT | | | DRAFT | | | | | | | ZZ | S | cale 1:50 |) | |

| | | | | | | Site: L7 | Г520 | BRA | CO WEST SUBSTATION | Contrac | t No: 2 | 26555 | 5 | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-----------------------------------|------------|-------------|------------|--------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------|----------|-----------------|----------|
| | R | Δ | EBI | UF | 5 M | | | | | Trial Pit | No. | | | |
| | | | DRILLING & GE | OTECHN | ICAL LTD | Client: | | | smission plc | TP10 | | :VV | 1.70m | _ |
| | | | | | | Enginee | r: SSE | Perth | Inveralmond HSE | Trial Pit to | 1 | | 1.70m | |
| | Loca | ation: E | 279320.5 | C | Orientation | : Vertical | | | Equipment: 14T Tracked Excavator | 1 | | | | |
| | | N | 708826.9 | | | | | | | Width - | | Length - | | |
| | l B l | | samples and T | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | Backf | |
| | 원 30/11 | | Result | | | 2 | 19.82 | | Topsoil: Dark brown slightly gravelly silty fine to medium SAND. Grav | el is | | Depth | oq ⊨ S De | pth — |
| | 2023 | 0.20 B | 3, D | | | 2 | 19.52 | 0.30 | fine to coarse sub-rounded to sub-angular of sandstone and quartzite | €. | × | | | |
| | | 0.50 B | 8, B, B, D | | | | | - | Brown to reddish brown slightly gravelly slightly clayey to clayey fine t medium SAND with low cobble content. Gravel is fine to coarse sub-rounded to sub-angular of sandstone. Cobbles are sub-rounded | to | ₩. 7.7° ×. 00. 3 ₽. 18. 18 | | | |
| _ | | | | | | | | - | sub-angular up to 140mm of sandstone | | XX | | | |
| E-mail: enquiries@raeburndrilling.com | | | | | | 2 | 218.72 | 1.10 | Brown to reddish brown gravelly slightly clayey to clayey fine to coars | <u></u> | P. 1 | | | |
| ndrilli | | 1.50 B | 8, B, B, B, B, D | | | | | - | Brown to reddish brown gravelly slightly clayey to clayey fine to coars SAND with medium cobble content and low to medium boulder content Gravel is fine to coarse angular of sandstone. Boulders and cobbles angular up to 390mm of sandstone | ∍nt. are | ×. 05. 2 ×. 05. 2 ×. 75. 0 | | | |
| raebur | | | | | | 2 | 18.12 | 1.70 | END OF TRIAL PIT | | 8.8. | | | |
| ries@ | | | | | | | | _ | LIND OF TRIALITY | | | | | |
| enqui | | | | | | | | - | | | | | | |
| -mail: | | | | | | | | - | | | | | | |
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| 1698 | | | | | | | | - | | | | | | |
| Tel: (| | | | | | | | | | | | | | |
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| berry | | | | | | | | _ | | | | | | |
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| ical, V | | | | | | | | - | | | | | | |
| techn | | | | | | | | | | | | | | |
| d Geo | | | | | | | | - | | | | | | |
| ing an | | | | | | | | - | | | | | | |
| n Drill | | | | | | | | | | | | | | |
| aeburi | | | | | | | | - | | | | | | |
| 58 R | | narks: | | | | | | | I | | | | | _ |
| 13:27: | Th | ne walls o | T scanned prior f the pit stood v | ertical th | roughout e | | | | | | | | | |
| 2024 | | | ter was not end terminated at | | | ue to hard | l diggin | g (poss | ible bedrock). | | | | | |
| 26/01/ | | | | | | | | | | | | | | |
| inted: | | | | | | | | | | | | | | |
| 9 P | | | | | | | | | | | | | | |
| 10999 | | | | | | | | | | | | | | |
| 1698 7 | | | | | | | | | | | | | | |
| (0) | | | | | | | | | | | | | | |
| 3PJ+ | | | | | | | | | | | | | | |
| 6555. | | | | | | | | | | | | | | |
| STS/2 | | | | | | | | | | | | | | |
| ROJEC | | | | | | | | | | | | | | |
| TWPF | | | | | | | | | | | | | | |
| File: P.\GINTWPROJECTS\26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:58 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | | | | | | | | | | | | |
| File: P | [| Driller | Originator | C: | Ground | | | " | | R■ | Fig No | o: | | _ |
| Η | | | ĀD | Struck | Rose To | Time(mins) | Cut O | # | | RAUBURZ | | 329 | | |
| TRIAL | Ch | k & App | Status | | | | | | | B | | heet 1 c | f 1 | |
| Style: TRIALPIT | | | DRAFT | | | | | | | R | So | cale 1:5 | 0 | |

| | | | | Site: L | _T520 | BRA | ACO WEST SUBSTATION | Contrac | ct No: | 26555 | 5 | |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------|------------------|---------------------------|--------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------|------------------|-----------|--------|
| F | ZΔ | EBU | IRN | J | | | | Trial Pit | t No. | | | |
| = | | DRILLING & GEO | OTECHNICAL L | TD | | | smission plc | Trial Pit to | | | 2.50 | |
| | | | | Engine | er: SSI | = Pertr | n Inveralmond HSE | Trial Trial | • | | 2.00 | |
| Lo | cation: | E 278832.8 | Orienta | tion: Vertic | al | | Equipment: 14T Tracked Excavator | 1 | | | | |
| (0 | | N 709079.9 | | | | | | Width - | _ | Length - | _ | |
| Progress | Sample | Samples and Te | ests | | Level (m) | Depth | Description of Strata | | Legend | Water | g | ckfill |
| DI BIO | Depth | Result | | | 257.73 | _ | Soft brown to dark brown spongy amorphous PEAT | | <u> </u> | Depth | ₩ ₩ | Depth |
| 28/1 202: | 3 | | | | | | | | 1, 11, | | | |
| | 0.50 | B, D B, D | | | 257.13 | 0.60 | Light brough to light group and group light CAND with law on hills | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | |
| | | | | | 256.83 | 0.90 | Light brown to light grey very gravelly very silty SAND with low cobble content. Sand is fine to coarse. Gravel is fine to coarse angular to sub-angular of sandstone. Cobbles are angular to sub-angular up to of sandstone | ; 80mm | ₩. (A.) ×. (G.) | | | |
| ig.com | 1.00 | B B, B, B, D | | | | - | of sandstone Firm to stiff reddish brown slightly sandy slightly gravelly CLAY with lo | / w . | | | | |
| odriji Fili | | | | | | | Firm to stiff reddish brown slightly sandy slightly gravelly CLAY with lo cobble content. Sand is fine to medium. Gravel is fine to coarse suba locally sub-rounded of sandstone, granite and quartzite. Cobbles are subangular up to 140mm of sandstone and granite | ngular | 70 | | | |
| aebur | | | | | | | - Casangala ap to 7.00mm or canacione and grame | | 100 | , | | |
| ies@r | 2.40 | D D D | | | | _ | | | | | | |
| endui | 2.10 | B, B, D | | | 255.43 | 2.30 | | | -00 | | | |
| chnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com | 2.50 | B, B, B, D | | | | | Brown very clayey SAND & GRAVEL with medium cobble content an occasional lenses of soft brown clay. Sand is fine to coarse. Gravel is coarse angular of sandstone. Cobbles are angular up to 150mm of | d fine to | | į | | |
| ш́ 28/1 | 1 | | | | 254.93 | 2.80 | sandstone END OF TRIAL PIT | | | Dry | \bowtie | |
| -7111 | | | | | | - | LIND OF TRIALETT | | | | | |
| 01698 | | | | | | | | | | | | |
| - <u>Tel</u> | | | | | | | | | | | | |
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| Whist | | | | | | | | | | | | |
| nical, | | | | | | | | | | | | |
| sotech | | | | | | | | | | | | |
| and Ge | | | | | | - | | | | | | |
| illing | | | | | | | | | | | | |
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| Raeb | | | | | | | | | | | | |
| g Re ≿ T | marks: Trial pit C | AT scanned prior | to excavation t | o check for | services | S. | | | | | | |
| 24 13:2 | Ground-v | s of the pit stood ve vater was not enco | ountered. | | | | | | | | | |
| 01/202 | rial pit w | as terminated at a | a depth of 2.80r | n due to ha | ırd diggir | ng (poss | ible bedrock). | | | | | |
| d: 26/ | | | | | | | | | | | | |
| Printe | | | | | | | | | | | | |
| 666 | | | | | | | | | | | | |
| 8 710 | | | | | | | | | | | | |
| (0)169 | | | | | | | | | | | | |
| 0+44 1 | | | | | | | | | | | | |
| 55.GF | | | | | | | | | | | | |
| S\265 | | | | | | | | | | | | |
| JECT | | | | | | | | | | | | |
| NPRC | | | | | | | | | | | | |
| VI NE | | | | | | | | | | | | |
| Style: TRIALPIT File: P:\GINTW\PROJECTS\28656.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:58 Raebum Drilling and Geote | | · | | | | | | | | | | |
| Ē ⊢ | Driller | Originator _ AD - | | ound-water To Time(min | s) Cut C | Off | | R | Fig N | | | |
| AIALPI | hk & App | | | | | | | Ē | | B30 Sheet 1 o | ъf 1 | |
| } } | ~ App | DRAFT | | | | | | RAUBURZ | | cale 1:50 | | |
| ಹ ∟ | | | | | | | | 13 = | Ь | | | |

| | | | | | | Site: L | .T520 | BRA | CO WEST SUBSTATION | Contrac | ct No: | 2655 | 5 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|--------------------------------------|------------|-------------------|----------------------|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|----------|----------|
| | R | Δ | EBI | UF | 5 N | | | | | Trial Pit | | -\^/ | |
| | | | DRILLING & GE | OTECHN | ICAL LTD | Client: | | | smission plc | TP1 | | =VV | 2.20m |
| | | | | | | Engine | er: SSE | E Perth | Inveralmond HSE | Trial Pit to |) | | 2.20m |
| Ī | Loca | ation: E | 279319.6 | (| Orientation | n: Vertica | al | | Equipment: 14T Tracked Excavator | 1 | | | |
| L | | | 709178.6 | | | | | | | Width - | | Length - | 3.80m |
| | Progress | Sample | Samples and Το Φ Ι | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | Backfill |
| | | Depth | Result | | | | 250.74 | | Soft brown to dark brown spongy pseudo-fibrous PEAT | | Lee V | Depth | Depth |
| 2 | 0/11 | | | | | | | - | Soft brown to dark brown sporigy pseudo-librous PEAT | | 1/ 1/ | | |
| | | 0.50 | D | | | | 250.14 | 0.60 | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | |
| | | | | | | | | | Reddish brown to brown slightly gravelly silty to very silty fine to medi SAND with low cobble content and low boulder content. Gravel is fine coarse angular and subangular of sandstone. Cobbles and boulders angular and subangular up to 250mm of sandstone | um e to | ₩. (). ×. (§. | | |
| J.com | | 1.00 | B, B, B, B, D | | | | | - | angular and subangular up to 250mm of sandstone | aic | 3.8. | | |
| E-mail: enquiries@raeburndrilling.com | | | | | | | 249.24 | 1.50 | | | \$ 8 G | | |
| eburn | | | | | | | 249.24 | 1.50 | Reddish brown slightly gravelly to gravelly slightly clayey to clayey fin medium SAND with low to medium cobble content. Gravel is fine to c | e to | × 0 . | | |
| es@ra | | 1.90 I | B, B, B, D B | | | | 248.74 | 2.00 | angular of sandstone. Cobbles are angular up to 160mm of sandstor | ne | x. y. | | |
| nquirie | | 2.00 | | | | | 248.54 | 2.20 | Medium strong brown SANDSTONEslightly to moderately weathered Recovered as boulders with some cobbles and much finer material | |]::::: | | |
| nail: e | | | | | | | | - | comprisising of slightly gravelly slightly clayey fine to coarse sand. Grant fine to coarse angular of sandstone. Cobbles and boulders are angulated to 430mm of sandstone | avel is ilar up | | | |
| | | | | | | | | | END OF TRIAL PIT | | | | |
| 71117 | | | | | | | | _ | | | | | |
| 1698-7 | | | | | | | | - | | | | | |
| Tel: 0 | | | | | | | | | | | | | |
| 3 OHP | | | | | | | | - | | | | | |
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| amiltor | | | | | | | | | | | | | |
| ₹d, Hg | | | | | | | | - | | | | | |
| berry F | | | | | | | | _ | | | | | |
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| cal, M | | | | | | | | - | | | | | |
| techni | | | | | | | | | | | | | |
| d Geo | | | | | | | | _ | | | | | |
| ing an | | | | | | | | - | | | | | |
| n Drill | | | | | | | | | | | | | |
| aebur | | | | | | | | - | | | | | |
| .59 R | | narks: | | | | | | | | | | | 1 1 |
| 13:27 | Th | e walls | AT scanned prior of the pit stood v | ertical th | roughout e | | | i. | | | | | |
| /2024 | | | ater was not end as terminated at | | | ue to har | rd diggin | ıg (poss | ible bedrock). | | | | |
| 26/01 | | | | | | | | | | | | | |
| inted: | | | | | | | | | | | | | |
| 96 P | | | | | | | | | | | | | |
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| 26555 | | | | | | | | | | | | | |
| ECTS | | | | | | | | | | | | | |
| PROJE | | | | | | | | | | | | | |
| J M | | | | | | | | | | | | | |
| File: P:\GINTW\PROJECTS\28555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:59 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | | | | | | | | | | | |
| | | Oriller | Originator | Struck | Ground Rose To | d-water Time(mins | s) Cut C | off_ | | Ŗ | Fig N | lo: | |
| Style: TRIALPIT | | AD ——— | AD | | | | | | | RAUBURZ | | B31 | |
| : TR | Chl | k & App | Status DRAFT | | | | | | | ដ្ឋ | 1 | heet 1 | |
| Style | | | 2.341 | | | | | | | N | | cale 1: | Ю |

| | | | | | | Site: L7 | Γ520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 2655 | 5 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|--------------------------------------|-----------|-------------|-------------|--------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|----------|---------------|
| | R | Δ | EBI | UF | 5 M | | | | | Trial Pit | | -\ \ / | |
| | | | DRILLING & GE | OTECHN | ICAL LTD | Client: | | | smission plc | TP12 | | :VV | 2.00m |
| | | | | | | Enginee | r: SSE | Perth | Inveralmond HSE | Trial Pit to | | | 2.00m |
| | Loca | ation: E | 279448.5 | C | Orientation | n: Vertical | | | Equipment: 14T Tracked Excavator | | | | |
| | | | 709253.8 | | | | | | | Width - | | Length - | |
| | 5 | Sample S | amples and T | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | Backfill ☑ |
| | OL D | Depth I | Result | | | | 51.72 | | Soft brown to dark brown spongy amorphous PEAT | | | Depth | Depth |
| | 30/11 2023 | 0.20 B | s, D | | | 2 | 51.37 | 0.35 | | | | | |
| | | 0.60 B | , B, B, B, D | | | | | - | Reddish brown slightly gravelly clayey fine to medium SAND with low content. Gravel is fine to coarse subrounded to subangular of sandst Cobbles subangular to subrounded up to 120mm of sandstone | cobble one. | | | |
| _ | | 1 00 B | | | | | | - | Gozzio cazangana o cazoanaca ap lo lizonni o canacano | | | | |
| ng.con | | 1.00 B 1.20 D | | | | | | - | | | | | |
| ndrilli | | | | | | 2 | 50.32 | 1.40 | Brown to reddish brown gravelly slightly clavey to clavey fine to medi | um | | | |
| raebu | | 1.60 B | i, B, B, B | | | | | - | Brown to reddish brown gravelly slightly clayey to clayey fine to medi SAND with low to medium cobble content and low boulder content. Of fine to coarse angular of sandstone. Boulders and cobbles are angul 335mm of sandstone | ravel is ar up to | | | |
| E-mail: enquiries@raeburndrilling.com | | | | | | 2 | 49.72 | 2.00 | END OF TRIAL PIT | | | | |
| endni | | | | | | | | - | END OF TRIALITY | | | | |
| E-mail: | | | | | | | | | | | | | |
| | | | | | | | | - | | | | | |
| 8-711 | | | | | | | | - | | | | | |
| : 0169 | | | | | | | | | | | | | |
| 1P Tel | | | | | | | | - | | | | | |
| /L3 0F | | | | | | | | _ | | | | | |
| Iton N | | | | | | | | | | | | | |
| Hami | | | | | | | | - | | | | | |
| ry Rd, | | | | | | | | | | | | | |
| stleber | | | | | | | | - | | | | | |
| , Whis | | | | | | | | | | | | | |
| chnica | | | | | | | | | | | | | |
| Seotec | | | | | | | | | | | | | |
| g and (| | | | | | | | - | | | | | |
| Drilling | | | | | | | | - | | | | | |
| eburn | | | | | | | | | | | | | |
| 9 Rae | Rem | narks: | | | | | | | | | | | |
| 3:27:59 | Tri | al pit CA | T scanned prior f the pit stood v | | | | | | | | | | |
| 024 1; | Gr | ound-wat | ter was not end terminated at | countered | l | | | a (poss | ible bedrock). | | | | |
| 6/01/2 | | | | · · | | | 55 | J (1 | , | | | | |
| ted: 2 | | | | | | | | | | | | | |
| Pri | | | | | | | | | | | | | |
| 66601 | | | | | | | | | | | | | |
| . 2 869 | | | | | | | | | | | | | |
| 4 (0)1 | | | | | | | | | | | | | |
| 3PJ+4 | | | | | | | | | | | | | |
| 3555.0 | | | | | | | | | | | | | |
| TS/26 | | | | | | | | | | | | | |
| OJEC | | | | | | | | | | | | | |
| W/PR | | | | | | | | | | | | | |
| File: P.\GINTWPROJECTS\26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:27:59 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | | | | | | | | | | | |
| File: P | | Driller | Originator | | Ground | | | | | R≡ | Fig N | o: | |
| | | AD | AD | Struck | Rose To | Time(mins) | Cut O | ff | | RAUBURZ | | 332 | |
| TRIAL | Chl | « & App | Status | | | | | | | B | 1 | heet 1 o | of 1 |
| Style: TRIALPIT | | | DRAFT | | | | | | | RN | S | cale 1:5 | 0 |

| | | | | | Site: L | T520 | BRA | ACO WEST SUBSTATION | Contrac | t No: 👍 | 2655 | 5 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------|------------------------|--------------------------|----------------------|--------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|----------|
| F | 2 4 | EB | LIF | 5 M | | | | | Trial Pit | t No. | | |
| 30 | | DRILLING & GE | EOTECHN | ICAL LTD | Client: | | | smission plc | TP1 | | -VV | 2.40m |
| | | | | | Enginee | er: SSE | E Perth | n Inveralmond HSE | Trial Pit to | , | | 2.40m |
| Lo | ocation: | E 279072.2 | (| Orientation | n: Vertical | l | | Equipment: 14T Tracked Excavator | 1 | | | |
| | | N 708706.9 | | | | | | | Width - | | Length - | 3.80m |
| Progress | Sample | Samples and T | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | Backfill |
| 1/1 | Depth 2 0.00 | Result B, D | | | | 221.41 | ļ . | Soft brown to dark brown spongy amorphous PEAT | | <u> </u> | Depth | □ Dept |
| 202 | | В, Б | | | 2 | 221.21 | 0.20 | . = | V | | | |
| | 0.50 | B, B, B, B, D | | | | 220.71 | 0.70 | Brown silty SAND and GRAVEL with medium cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse roun subangular of sandstone and quartzite. Cobbles and boulders are ro to subangular up to 225mm of sandstone | unded | | | |
| _ | 1.00 | | | | | | | Brown to reddish brown very gravelly slightly clayey to clayey fine to SAND with medium cobble content. Gravel is fine to coarse angular subangular of sandstone. Cobbles are angular and subangular up to | coarse and | 50 | | |
| E-mail: enquiries@raeburndrilling.com | 1.00 | B, B, B, B, B, D | | | | | _ | subangular of sandstone. Cobbles are angular and subangular up to 160mm of sandstone | 1 | 0.9 | | |
| ndrillir | | | | | | | | | | 9.6. | | |
| aepnr | | | | | | | | | | .0.6 | | |
| ies@r | 2.00 | B, B, B, B, D | | | | | _ | beneath 1.80m becoming low boulder content. Boulders are angul | ar, up to | 2.0.3 | | |
| enduir | | | | | | 240.04 | | 570mm and includes sandštone | | 1.7 | | |
| 1/1 E 1/1 | 2 | | | | 2 | 219.01 | 2.40 | END OF TRIAL PIT | |) <u>./</u> . | | XXX |
| | | | | | | | | | | | | |
| -7111 | | | | | | | - | | | | | |
| 71698 | | | | | | | - | | | | | |
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| 3 0 1 1 | | | | | | | - | | | | | |
| u ML | | | | | | | - | | | | | |
| amilto | | | | | | | | | | | | |
| Rd, H | | | | | | | | | | | | |
| berry | | | | | | | _ | | | | | |
| /histle | | | | | | | | | | | | |
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| techn | | | | | | | | | | | | |
| d Geo | | | | | | | - | | | | | |
| ing an | | | | | | | - | | | | | |
| n Dril | | | | | | | | | | | | |
| aepni | | | | | | | | | | | | |
| R | emarks: | | | | | | | | | | | |
| 13:28: | The walls | CAT scanned prions of the pit stood v | vertical th | roughout e | excavation | | S. | | | | | |
| 2024 | Ground- Trial pit v | water was encour vas terminated at | ntered at a depth o | a depth of of 2.40m d | 1.50m. ue to harc | d diggir | ng (poss | sible bedrock). | | | | |
| 26/01/ | | | | | | | | | | | | |
| nted: | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 36601 | | | | | | | | | | | | |
| 269 | | | | | | | | | | | | |
| (0) | | | | | | | | | | | | |
| 4 1 | | | | | | | | | | | | |
| 0.0000 | | | | | | | | | | | | |
| 218/2 | | | | | | | | | | | | |
| CODE | | | | | | | | | | | | |
| a M | | | | | | | | | | | | |
| <u>N</u> | | | | | | | | | | | | |
| FIRE PYCIN I WARROJEC I SY26555, GPJ+44 (U)1698 710999 Printed: 26/01/2024 13:28:00 Raebum Drilling and Geotecnnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | Driller | Originator | | | d-water | | | | P | Fig N | 0: | |
| - | | AD | Struck | | Time(mins) |) Cut C | Off | | | | | |
| RIAL — | Chk & App | o Status | | | | | | | RAUBURN | 1 | 333 heet 1 | of 1 |
| Style: TRIALPIT | | DRAFT | | | | | | | RN | | cale 1:5 | |

| | | | | | | Site: L | T520 | BRA | CO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------|------------------------------------------|---------|-------------|---------------------|------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------|-----------------------|--------|--------|
| | F | 2Δ | EBU | JE | 5 N | | | | | Trial Pit | No. | | | |
| | | | DRILLING & GE | | | Client: | | | smission plc | TP19 | | | 0.50 | |
| | | | | | | Engine | er: SSE | E Perth | Inveralmond HSE | Iriai Pit to | 1 | | 2.50 | m |
| İ | Loc | ation: E | 278933.5 | | Orientation | n: Vertica | al | | Equipment: 14T Tracked Excavator | 1 | | | | |
| | | | N 709111.8 | | | | | | | Width - | 1.30m | Length - | 3.10n | n |
| | Progress | Sample | Samples and Te | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | | ckfill |
| | Pro | Depth | Result | | | | 255.47 | Dopui | · | 1 | | Depth | Symbol | Depth |
| | 28/11 2023 | 1 | | | | | | | Soft brown to dark brown spongy pseudo-fibrous PEAT with occasion pieces of wood | naı | <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u> | | ₩ | |
| | | 0.50 | B, D | | | | | | | | <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u> | 1 | ₩ | |
| | | 0.80 | B, D | | | | 254.77 254.57 | 0.70 | Light brown to light grey slightly gravelly slightly clayey fine to mediun SAND. Gravel is fine to medium subangular of sandstone | n | 707 | | ₩ | |
| COM. | | 1.00 1.10 1.20 | B B, B, B, D | | | | | - | Firm reddish brown slightly sandy slightly gravelly CLAY with low cob | ble | 12 | | ₩ | |
| rilling | | 1.20 | В | | | | | | Firm reddish brown slightly sandy slightly gravelly CLAY with low cob content. Sand is fine to medium. Gravel is fine to coarse subangular subrounded of sandstone, granite and quartzite. Cobbles are subang to 140mm of sandstone and granite | gular up | | | ₩ | |
| apnrude | | | | | | | | | | | 7 | | ₩ | |
| s@rae | | | | | | | | | | | - (- P./ | | ₩ | |
| quirie | | 2.10 | B, B, D | | | | | - | | | | | ₩ | |
| E-mail: enquiries@raeburndrilling.com | 28/11 | 2.40 | В | | | | 253.07 252.97 | 2.40 2.50 | Medium strong brown SANDSTONE slightly to moderately weathers | d | 700 | Dry | ₩ | |
| | | | | | | | | | Medium strong brown SANDSTONE, slightly to moderately weathere Recovered as boulders with some cobbles and much finer material comprising of slightly gravelly slightly clayey fine to coarse angular of sandstone. Cobbles and boulders are angular of 550mm of sandstone. | velis / | |] | | |
| 11177 | | | | | | | | - | fine to coarse angular of sandstone. Cobbles and boulders are angular of sandstone. | lar up / <i>J</i> | | | | |
| 2-869 | | | | | | | | | END OF TRIAL FIT | | | | | |
| el: 01 | | | | | | | | | | | | | | |
| OHP | | | | | | | | | | | | | | |
| ML3 | | | | | | | | - | | | | | | |
| nilton | | | | | | | | | | | | | | |
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| erry R | | | | | | | | | | | | | | |
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| al, WF | | | | | | | | | | | | | | |
| chnic | | | | | | | | | | | | | | |
| Geote | | | | | | | | _ | | | | | | |
| gand | | | | | | | | | | | | | | |
| Drillin | | | | | | | | | | | | | | |
| eburn | | | | | | | | | | | | | | |
| Rae | Rer | marks: | | | | | | | | | | | | |
| 3:28:00 | Ti | rial pit C | AT scanned prior of the pit stood ve | | | | | S. | | | | | | |
| 024 13 | G | round-w | rater was not enco as terminated at a | ountere | d. | | | na (poss | sible bedrock) | | | | | |
| 3/01/2 | | | | . чори. | o. 2.00 a | 40 10 | | .g (pooc | 330,300,9 | | | | | |
| ed: 26 | | | | | | | | | | | | | | |
| Print | | | | | | | | | | | | | | |
| 6660 | | | | | | | | | | | | | | |
| 98 71 | | | | | | | | | | | | | | |
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| 55.GI | | | | | | | | | | | | | | |
| .S\265 | | | | | | | | | | | | | | |
| JECT | | | | | | | | | | | | | | |
| APRC | | | | | | | | | | | | | | |
| MLNIS | | | | | | | | | | | | | | |
| File: P.\GINTWIPROJECTS\2655.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:28:00 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 | | | <u>.</u> | | | 4 | | | | , | | | | |
| | | Driller | Originator AD | Struck | Rose To | d-water Time(min | s) Cut C | Off | | R | Fig N | lo: | | |
| Style: TRIALPIT | <u></u> | alz 0 A | | | | | | | | RAUBURZ | 1 | B34 | £ A | |
| ie: TR | Ch | nk & App | Status DRAFT | | | | | | | R | | heet 1 o cale 1:50 | | |
| Sty | | | | | | | | | | N | ئــــــــــــــــــــــــــــــــــــــ | | | |

| | | | | Site: | LT520 | BR/ | ACO WEST SUBSTATION | Contrac | t No: | 26555 | 5 | |
|------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------|-----------|--------------------------|------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------|-----------------------|-------|-------------|
| F | ZΔ | EBU | JRN | J | | | | Trial Pit | t No. | | | |
| = | | DRILLING & GEO | | TD | | | smission plc n Inveralmond HSE | Trial Pit to | | | 1.70 | m |
| | | | | Engin | eei. 33i | _ reiii | Tiliveralillong noe | | | | | |
| Lo | | E 278760.5 | Orienta | ition: Vertic | al | | Equipment: 14T Tracked Excavator | | | | | |
| S | | N 708969.6 | etal | | Level | 1 | | Width - | | Length - | _ | n ckfill |
| Progress | Sample | Samples and Te | SIS | | (m) | Depth | Description of Strata | | Legend | Water Depth | - Ioq | Depth |
| 28/1 202 | 1 3 | | | | 253.41 | | Soft brown to dark brown spongy pseudo-fibrous PEAT with occasior pieces of wood | nal | 77.7 | | | <u> </u> |
| 202 | 0.50 | B, D, ES | | | | | pieces of wood | | 1/2 1/2 | | | |
| | 0.00 | 2, 2, 20 | | | | | | | <u> </u> | | | |
| E | 1.00 | ES | | | | _ | | | 71/7 | 1 | ₩ | |
| ichnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com | 1.40 | B, B, B, B, D, ES | | | 252.11 | 1.30 | Croy to raddish brown you gravally sith fine to eagree SAND with his | ıb. | 1/ 1/ | i | ₩ | |
| epurud 28/1 | 1 60 | B | | | 251.81 251.71 | 1.60 | Grey to reddish brown very gravelly silty fine to coarse SAND with hig cobble content. Gravel is fine to coarse angular locally sub-angular of sandstone. Cobbles are angular to subangular of sandstone. | !" | ₩. (). ×. (0. | Dry | | |
| s@rae | | | | | 231.71 | 1.70 | Medium strong brown SANDSTONE. Slightly to moderately weathere Recovered as cobbles with some boulders and much finer material. | ed. | / | Diy | *** | |
| nduirie | | | | | | - | comprisisng of slightly gravelly slightly clayey fine to coarse sand. Gra fine to coarse angular of sandstone. Cobbles and boulder are angula 500mm of sandstone | r up to | | | | |
| nail: er | | | | | | | END OF TRIAL PIT | | | | | |
| 7 E-1 | | | | | | | | | | | | |
| 71117 | | | | | | _ | | | | | | |
| 1698- | | | | | | | | | | | | |
| <u>Tel:</u> | | | | | | | | | | | | |
| 3 OHP | | | | | | | | | | | | |
| W W | | | | | | - | | | | | | |
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| y Rd, r | | | | | | | | | | | | |
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| Whist | | | | | | | | | | | | |
| hnical | | | | | | | | | | | | |
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| and G | | | | | | - | | | | | | |
| Orilling | | | | | | | | | | | | |
| J mnq | | | | | | | | | | | | |
| - Rae | marks: | | | | | | | | <u> </u> | <u> </u> | | |
| 28:01 | rial pit C | CAT scanned prior s of the pit stood ve | | | | S. | | | | | | |
| 024 13 | Ground-\ | water was not enco | ountered. | | | na (poss | sible bedrock). | | | | | |
| 6/01/2 | · | | , | | 33 | J (1 | , | | | | | |
| nted: 2 | | | | | | | | | | | | |
| <u>.</u> | | | | | | | | | | | | |
| 10999 | | | | | | | | | | | | |
| 1698 7 | | | | | | | | | | | | |
| 44 (0) | | | | | | | | | | | | |
| +GPJ+ | | | | | | | | | | | | |
| 26555 | | | | | | | | | | | | |
| SECTS | | | | | | | | | | | | |
| ROJE | | | | | | | | | | | | |
| Ž | | | | | | | | | | | | |
| : P:\GI | | | | | | | | | | | | |
| E E | Driller | Originator _ | | ound-water To Time(mi | ns) Cut (| Off | | R | Fig N | 0: | | |
| IALPI | u. i. o . | | | | | | | RAUBURZ | | B35 | | |
| Style: TRIALPIT File: P:\GINTW\PROJECTS\\26555.GPJ+44 (0)1698 710999 Printed: 26\\0172024 13:28:01 Raebum Drilling and Geote | hk & App | Status DRAFT | | | | | | R | 1 | heet 1 o cale 1:50 | | |
| ź | | | | | | | | N | نَـــــــــــــــــــــــــــــــــــــ | | | |

| | | | | | | Site: L | _T520 | BRA | ACO WEST SUBSTATION | Contrac | t No: | 26555 | | |
|--------------------------------------------------------------------------------------------------------------------|---------------|----------|----------------------------------------|------------|-------------|----------------|------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|-----------------------|----------|----------|
| | | ^ | EBU | | NC | | | | | Trial Pit | No. | | | _ |
| | | | DRILLING & GE | | | Client: | SHI | E Tran | smission plc | TP2 | | | | |
| | | | | | 1,000,000 | Engine | er: SSI | E Perth | n Inveralmond HSE | Trial Pit to | 1 | | 3.00m | |
| | Loc | ation: E | E 279425.0 | (| Orientation | l n: Vertic | al | | Equipment: 14T Tracked Excavator | 1 | | | | |
| | | ١ | N 709522.9 | | | | | | | Width - | 1.30m | Length - | 3.80m | |
| | ress | Sample | Samples and Te | ests | | | Level | D 11 | D : 10- 10- 1 | | Legend | Water | Backfill | <u> </u> |
| | Progress | Depth | Result | | | | (m) 242.53 | Depth | · | | Leg | Depth | Dep | oth |
| | 20/11 2023 | | | | | | 242.43 | 0.10 | MADE GROUND: Dark brown slightly gravelly silty fine to coarse SAN cocasional roots. Gravel is fine to coarse subangular to subrounded of | ND with | | | | |
| | | 0.50 | B, B, B, D, ES | | | | | | granite and psammite | with | | | | |
| | | 0.70 | D | | | | 241.83 241.78 | 0.70 | | | <u></u> | | | |
| mo | | 1.00 | B, D, ES | | | | | _ | Dark brown slightly gravelly silty fine to coarse SAND with occasional Gravel is fine to medium subrounded of granite psammite and quartz | roots. ite. | / <u>-:-</u> | | | |
| illing.c | | | | | | | 241.33 | 1.20 | Relict/buried Topsoil Soft brown to light brown slightly sandy slightly gravelly CLAY. Sand i | s fine to | 1 | | | |
| E-mail: enquiries@raeburndrilling.com | | 1.50 | B, B, B, D, ES | | | | | | coarse. Gravel is fine to coarse subangular to subrounded of granite, psammite and sandstone Soft raddish brown slightly grandy slightly gravelly CLAY with low cook | / | 4 | | | |
| @raet | | | | | | | | | Soft reddish brown slightly sandy slightly gravelly CLAY with low cobb content and low boulder content. Sand is fine to medium. Gravel is fir coarse subrounded locally subangular and includes granite psammite | ne to | | | | |
| uiries(| | | | | | | | - | sandstone and quartzite. Cobbles and boulders are sub-rounded up 125mm of granite and psammite | to | 5 0 | | | |
| : endı | | | | | | | | | | | | | | |
| -mail | | 2.50 | B, B, D, ES | | | | | | | | - | | | |
| 77 E | | | | | | | | | beneath 2.50m becoming very sandy | |) 7 | | | |
| Printed: 26/01/2024 13:28:01 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 | 20/11 | | | | | | 239.53 | 3.00_ | END OF TRIAL PIT | | - O - 6 | Dry | | |
| 1698 | | | | | | | | | | | | | | |
| Tel: (| | | | | | | | | | | | | | |
| 0HP | | | | | | | | | | | | | | |
| ML3 | | | | | | | | - | - | | | | | |
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| eotec | | | | | | | | | | | | | | |
| and G | | | | | | | | - | | | | | | |
| lling a | | | | | | | | | | | | | | |
| ırn Dri | | | | | | | | | | | | | | |
| Raebu | | | | | | | | | | | | | | |
| 01 F | | narks: | l | | | | | | | | | | | _ |
| 13:28: | Th | ne walls | AT scanned prior of the pit stood v | ertical th | roughout e | | | S. | | | | | | |
| 2024 | | | ater was not enc as terminated at | | | ue to rea | aching s | chedule | ed depth. | | | | | |
| 6/01/2 | | | | | | | | | | | | | | |
| ted: 2 | | | | | | | | | | | | | | |
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| ile: P: | | Driller | Originator | | Groun | d-water | | | | | Eig N | <u> </u> | | |
| | | וסווויט | AD | Struck | Rose To | | s) Cut C | Off | | A | Fig N | | | |
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| | | | | | Site: L | T520 | BRA | CO WEST SUBSTATION | Contrac | ct No: | 26555 | 5 | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------|------------|-------------------|---------------------|------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|--------------|------------|--------|
| |) A | EBU | ID | N | | | | | Trial Pi | t No. | | | |
| | | | | | Client: | SHE | Tran | smission plc | TP2 | 2 | | | |
| - | | DRILLING & GE | OTECHNIC | LALLID | Engine | er: SSE | E Perth | Inveralmond HSE | Trial Pit to | 0 | | 2.80 |)m |
| - | 4: | E 070000 0 | | .: 4 - 4: | .) /4: | -1 | | Carriera anti 44T Tractical Consentan | _ | | | | |
| Lo | | E 279338.8 | Or | rientatior | n: vertica | al | | Equipment: 14T Tracked Excavator | | | | | |
| 8 | | N 709439.4 | | | | Laval | | | Width - | _ | Length - | _ | |
| Progress | Sample | Samples and Te | ests | | | Level (m) | Depth | Description of Strata | | Legend | Water | | ckfill |
| Pro | Depth | Result | | | | 249.20 | | Coff hypers to doub hypers an angula of three of DEAT | | <u> </u> | Depth | Symbol | Deptl |
| 20/1 202 | 0.30 | B, D | | | | | | Soft brown to dark brown spongy pseudo-fibrous PEAT | | 1/ 1/ | | | |
| | | B, D, ES | | | - | 248.80 | 0.40 | Firm grey slightly sandy slightly gravelly CLAY with low cobble conter occasional roots. Sand is fine to coarse. Gravel is fine to coarse roun | nt and | 10/2 | _ | | |
| | | | | | - | 248.50 | 0.70 | | _ | 10 | 1 | | |
| Ē | 1.00 | B, B, B, D, ES | | | | | _ | Soft to firm reddish brown slightly sandy gravelly CLAY with medium content and low boulder content. Sand is fine to medium. Gravel is file | cobble ne to | 4 5 | | \bowtie | |
| ng.c | | | | | | | | coarse subrounded, locally subangular of granite, psammite, sandsto quartzite. Cobbles and boulders are sub-rounded up to 128mm of gr and psammite | anite | 70/1 | 1 | | |
| III dri | | | | | | | | and pourmine | | 100 | | | |
| aepn | | | | | | | | | | P./ | , | | |
| es@r | 2.00 | B, B, D, ES | | | | | _ | | | 7 | 4 | | |
| ndnin | | | | | | | | | | | 2 | | |
| <u>a</u> : | | | | | | | | | | 100 | | \bowtie | |
| Printed: 26/01/2024 13:28:01 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP 1el: 01698-71177 E-mail: enquiries@raebumdrilling.com | 1 | | | | | 246.50 246.40 | 2.70 | Madius street on the CAMPOTON TO SEE | | 300 | | | |
| 1177 | | | | | | 240.40 | 2.00 | Medium strong brown grey SANDSTONE slightly weathered. Recov- slightly silty sandy gravel with medium cobble content and low boulde content. Gravel is fine to coarse angular of sandstone. Cobbles and boulders are angular up to 240mm of sandstone | ered as | / - | . Diy | *** | |
| 38-71 | | | | | | | | boulders are angular up to 240mm of sandstone. | ′ | | | | |
| : 016 | | | | | | | | END OF TRIAL FIT | | | | | |
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| 5 7 | rial pit C | CAT scanned prior | | | | | i. | | | | | | |
| 2 일 기 | Ground-v | s of the pit stood ve water was not enco | ountered. | • | | | | | | | | | |
| 1/202 | rial pit w | as terminated at a | a depth of | 2.80m d | ue to ha | rd diggir | ıg (poss | ible bedrock). | | | | | |
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| ë. L | | | | | | | | | | | | | |
| | Driller | Originator _ | Struck | Ground Rose To | d-water Time(min | s) Cut C | Off | | R | Fig N | o: | | |
| LPIT | | AD | | | | | | | Ê | [| B37 | | |
| Style: TRIALPIT | hk & App | | | | | | | | RAUBURZ | | Sheet 1 c | | |
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| | | | | Site: | Site: LT520 BRACO WEST SUBSTATION | | | | Contract No: 26555 | | | | |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|-----------|---------------|-----------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|------------------------|-----------|--------------|--|
| I | RAEBURN | | | | | | | | Trial Pit No. TP23 | | | | |
| 10 | DRILLING & GEOTECHNICAL LTD Client: SHE Transr Engineer: SSE Perth I | | | • | | <u>. </u> | | 2.10 |)m | | | | |
| | | | | Engine | eer: SSI | = Pertr | I Inversimond HSE | | | | | | |
| Lo | ocation: I | E 279253.9 | Orient | ation: Vertic | al | | Equipment: 14T Tracked Excavator | | | | | | |
| L | | N 709333.8 | | | Level | | | Width - | | Length - | _ | n ickfill | |
| Progress | Sample Depth | Samples and Te | sts | | (m) | Depth | Description of Strata | | Legend | Water Depth | Symbol | Depth | |
| <u>តំ</u> 21/ 20: | | F | | | 251.53 | | MADE GROUND: Grey to brown gravelly silty fine to coarse sand with | <u> </u> | | <u> </u> | Š ₩ | Бори | |
| 20 | 0.30 | B, D, ES | | | 251.03 | 0.50 | medium cobble content and occasional roots, pieces of wood and a point. Gravel is fine to coarse angular of granite. Cobbles are angular of 50mm of granite | ip to | | | ₩ | | |
| | 0.60 | B, D, ES | | | 250.73 | | Soft brown to dark brown spongy pseudo-fibrous PEAT | | <u> </u> | 1 | ₩ | | |
| E | 0.90 | B, D, ES | | | | | Brown to orange brown gravelly slightly silty fine to coarse SAND. Grafine to coarse subangular of granite, psammite and quartzite | avel is | ×0× | | ▓ | | |
| lling.co | 1.25 | B, B, B, B, D, ES | | | 250.38 | 1.15 | Reddish brown very gravelly very silty fine to coarse SAND with low content. Gravel is fine to coarse angular of sandstone. Cobbles are a | obble | ₩ | | ₩ | | |
| ourndri | | | | | | | up to 160mm of sandstone | rigulai | R. D. C | | | | |
| @rael | | | | | 040.50 | 0.00 | beneath 1.60m becoming medium cobble content. | | × 8. | \$ | ▓ | | |
| E-mail: enquiries@raeburndrilling.com | 2.00 | B, B, D, ES | | | 249.53 249.43 | 2.00 | Medium strong reddish brown SANDSTONE slightly to moderately weathered. Recovered as gravelly silty fine to coarse sand with medi high cobble content and low boulder content. Gravel is fine to coarse | um to | ÷ | Dry | \bowtie | | |
| ail: en | | | | | | | ¬ \ angular of sandstone. Cobbles and boulders are angular up to ∠80m. | m of | | | | | |
| | | | | | | | \sandstone END OF TRIAL PIT | / | | | | | |
| ichnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 | | | | | | _ | | | | | | | |
| 1698-7 | | | | | | | | | | | | | |
| Tel: 0 | | | | | | | | | | | | | |
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| / Rd, F | | | | | | | | | | | | | |
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| hnical, | | | | | | | | | | | | | |
| eotec | | | | | | | | | | | | | |
| and G | | | | | | - | | | | | | | |
| Orilling | | | | | | | | | | | | | |
| J unq | | | | | | | | | | | | | |
| Rae | emarks: | | | | | | | | <u> </u> | | | | |
| 3:28:02 | Trial pit C | AT scanned prior to of the pit stood ve | | | | S. | | | | | | | |
| 024 1 | Ground-v | vater was not enco | ountered. | | | ng (poss | sible bedrock). | | | | | | |
| 6/01/2 | · | | | | | | , | | | | | | |
| ted: 2 | | | | | | | | | | | | | |
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| Style: TRIALPIT File: PAGINTWAPROJECTS/26555.GPJ+44 (0)1698 710999 Printed: 26/01/2024 13:28:02 Raebum Drilling and Geote | | | | | | | | | | | | | |
| <u> </u> | Driller | Originator AD | | e To Time(mir | ns) Cut C | Off | | RA | Fig N | | | | |
| SIALPI | Chk & App | | | | | | | E | | B38 | f 1 | | |
| yle: TF | ык ос Арр | DRAFT | | | | | | RAUBURZ | 1 | sheet 1 o cale 1:50 | | | |
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| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|------|---------|-------------------------------|--------------------|
| V | | | |
| | Client: | SHE Transmission plc | |
| , LD | Engine | er: SSE Perth Inveralmond HSE | |

Style: APPENDIX C File: P./GINTWARQJECTS/2655.G.P.J Printed: 25/01/2024 18:25.47 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH01





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:15 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAEBUR



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH01





| 555.GPJ Printed: 2501/2024 18:08:15 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com | | | |
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SONIC & ROCK CORE PHOTOGRAPHS





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH02





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:21 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURN



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH02





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:21 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAEBUR



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH02





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SONIC & ROCK CORE PHOTOGRAPHS

RAEBUR



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH03





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:30 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH03





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SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH03





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:30 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH04





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:08:35 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH04





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:35 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH04





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:35 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH05





Originator
RB
Chk & App Status
FMR FINAL

SONIC & ROCK CORE PHOTOGRAPHS

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Fig No:

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CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:41 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH05





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:41 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH05



Originator
RB
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SONIC & ROCK CORE PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH06





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:08:46 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS



Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. **BH06**



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SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH07





Originator
RB
Chk & App Status
FMR FINAL

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH07





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:08:53 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAEBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH07



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:08:53 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH08





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:08:57 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH08



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:08:57 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH09





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:09:02 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH09





Originator

RB

Chk & App Status

FMR FINAL

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH10





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:09:07 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH10



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:09:07 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH11 NEW





CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:09:11 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH11 NEW



Originator

RB

Chk & App Status

FMR FINAL

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURN

Fig No:

C11

Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:09:11 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH12 NEW





Originator
RB
Chk & App Status
FMR FINAL

CORE PHOTOS File: P:\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:09:16 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH12 NEW



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:09:16 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

ZACBIDZZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH13





CORE PHOTOS File: P./GINTWPROJECTS\2665.GPJ Printed: 25/01/2024 18:09:20 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH13





CORE PHOTOS File: P./GINTWPROJECTS\2665.GPJ Printed: 25/01/2024 18:09:20 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH14 NEW





Originator

RB

Chk & App Status

FMR FINAL

CORE PHOTOS File: P./GINTWPROJECTS\26555.GPJ Printed: 25/01/2024 18:09:24 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@naebumdrilling.com

SONIC & ROCK CORE PHOTOGRAPHS

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SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH14 NEW



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:09:24 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURN

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH15 NEW





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:09:28 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS





Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No.

BH15 NEW



Style: CORE PHOTOS File: P.\GINTWAPROJECTS\26565.GPJ Printed: 25/01/2024 18:09:28 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-71177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH18





CORE PHOTOS File: P./GINTWAPROJECTS/2655.6.PJ Printed: 25/01/2024 18:09:31 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH19





Originator
RB
Chk & App Status
FMR FINAL

CORE PHOTOS File: P./GINTW/PROJECTS/2655.GPJ Printed; 25/01/2024 18:09:36 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

SONIC & ROCK CORE PHOTOGRAPHS

RAUBURZ



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Borehole No. BH19





CORE PHOTOS File: P./GINTW/PROJECTS/2655.GPJ Printed; 25/01/2024 18:09:36 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status FMR **FINAL**

SONIC & ROCK CORE PHOTOGRAPHS

RAEBURY

Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP01**





Originator
RB
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FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:01 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP01**



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RB
Chk & App Status
FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:01 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

ZCBBDZ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP02**





Originator RB Chk & App Status FMR **FINAL**

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:14 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP02**



Originator
RB
Chk & App Status
FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:14 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

JCBMPJ

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP03**





Originator
RB
Chk & App Status
FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:26 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP03**



Style: TP PHOTOS File: P.\GINTW\PROJECTS\28555.GPJ Printed: 25/01/2024 17:56:26 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com Originator RB Chk & App Status FINAL FMR

TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP04**





Originator
RB
Chk & App Status
FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:38 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP04**



Originator
RB
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File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:56:38 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP05**





Originator

RB

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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP05**



Originator
RB
Chk & App Status
FMR FINAL

TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP06**





Originator
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TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP06**



Originator
RB
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File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 17:57:04 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

ACBEA

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP07**





Originator
RB
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TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP07**



Originator
RB
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TRIAL PIT PHOTOGRAPHS

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Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP08**





Originator
RB
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TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP08**



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RB
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TRIAL PIT PHOTOGRAPHS

ACBED A

Fig No:



Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

Trial Pit No.

Contract No: 26555

TP09





Originator
RB
Chk & App Status
FMR FINAL

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RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP09**



Originator
RB
Chk & App Status
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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP10**





Originator
RB
Chk & App Status
FMR FINAL

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RAEBUR

Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP10**



Originator
RB
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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP10 NEW**





Originator
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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP10 NEW**



Originator
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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP11**





Originator
RB
Chk & App Status
FMR FINAL

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TRIAL PIT PHOTOGRAPHS

RAEBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP11 NEW**





Originator
RB
Chk & App Status
FMR FINAL

File: P.\GINTW\PROJECTS\26555.GPJ Printed: 25/01/2024 18:04:45 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raebumdrilling.com

TRIAL PIT PHOTOGRAPHS

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Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP11 NEW**



Originator
RB
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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP12 NEW**





Originator
RB
Chk & App Status
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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP12 NEW**



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H RB

Chk & App Status

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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP13 NEW**





Originator
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TRIAL PIT PHOTOGRAPHS

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Fig No:



: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP13 NEW**



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RB
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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP19**





Originator
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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP19**



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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP20**





Originator
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TRIAL PIT PHOTOGRAPHS

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Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP20**



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TRIAL PIT PHOTOGRAPHS

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Fig No:



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP21**





Originator RB Chk & App Status FMR FINAL

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TRIAL PIT PHOTOGRAPHS

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP21**



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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP22**





Originator
RB
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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP22**



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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc
Engineer: SSE Perth Inveralmond HSE

Trial Pit No. **TP23**

Contract No: 26555





Originator
RB
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TRIAL PIT PHOTOGRAPHS

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Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP23**



Originator
RB
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FMR FINAL

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TRIAL PIT PHOTOGRAPHS

ACBIN DA

Fig No:



Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

Trial Pit No. **TP11**



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RB
Chk & App Status
FMR FINAL

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TRIAL PIT PHOTOGRAPHS

RAUBUR

Fig No:

C29



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|----|---------|-------------------------------|--------------------|
| J | | | |
| 10 | Client: | SHE Transmission plc | |
| U | Engine | er: SSE Perth Inveralmond HSE | |

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APPENDIX D INSITU TESTING





Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP03

Test Run No 1

Date of Test 06.12.23

| Time | Depth to Water |
|----------|----------------|
| (minute) | (m) |
| 0 | 1.30 |
| 0.5 | 1.30 |
| 1 | 1.30 |
| 1.5 | 1.30 |
| 2 3 | 1.30 |
| | 1.30 |
| 5 | 1.30 |
| 7.5 | 1.30 |
| 10 | 1.30 |
| 15 | 1.30 |
| 30 | 1.32 |
| 60 | 1.35 |
| 85 | 1.39 |
| 145 | 1.42 |
| 180 | 1.45 |
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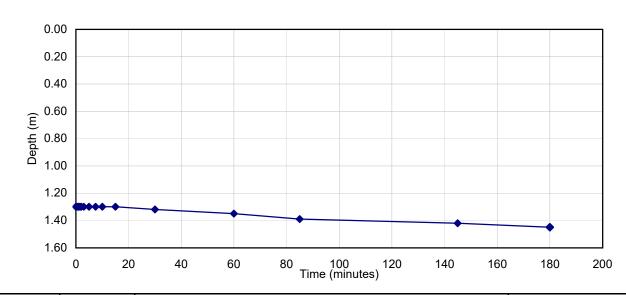
| Weather Conditions | | | |
|---------------------------------------|---------|--------------------|--|
| Dry, cold | | | |
| Non Engineering Str | ata Des | cription | |
| 0.00-0.40: | | | |
| 0.40-0.90: Light greyish brown | | and GRAVEL with | |
| cobble 0.90-2.00: Reddish brown silty | | and CRAVEL with | |
| cobble | | IIIG GIVAVEE WIIII | |
| Test Pit Dime | ensions | | |
| Length | m | 2.90 | |
| Width | m | 0.80 | |
| Depth | m | 2.00 | |
| Test Paran | neters | | |
| Maximum Effective Depth | m | 1.30 | |
| 75% Effective Depth | m | 1.48 | |
| 25 % Effective Depth | m | 1.83 | |
| Effective Storage Volume | m³ | 0.81 | |
| Surface Area a _{p50} | m² | 4.91 | |
| Time for 75% | min | ~ | |
| Time for 25% | min | ~ | |
| t _{p75-25} | min | ~ | |

| , | Soil Infiltration Rate | |
|---|------------------------|--|
| | INDETERMINATE | |

Comments

Bedrock at 2.00m.

Test terminated due to slow water outflow.



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| RB | 14/12/2023 | |

SOAKAWAY BRE 365



Sheet 1 of 1



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP06

Test Run No 1

Date of Test 06.12.23

| Time | Depth to Water |
|----------|----------------|
| (minute) | (m) |
| 0 | 1.10 |
| 0.5 | 1.15 |
| 1 1.5 | 1.20 1.25 |
| | 1.30 |
| 2 3 | 1.40 |
| 5 | 1.45 |
| 6 | 1.50 |
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| Weather Conditions | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|--|--|--|
| Dry, cold | | | | |
| Non Engineering Strata Description | | | | |
| 0.00-0.40: PEAT 0.40-1.20: Reddish brown gravelly silty SAND with cobbles and boulders. 1.20-1.50: Greyish brown SANDSTONE. | | | | |
| Test Pit Dimensions | | | | |
| Length | m 3.20 | | | |
| Width | m 1.10 | | | |
| l | | | | |

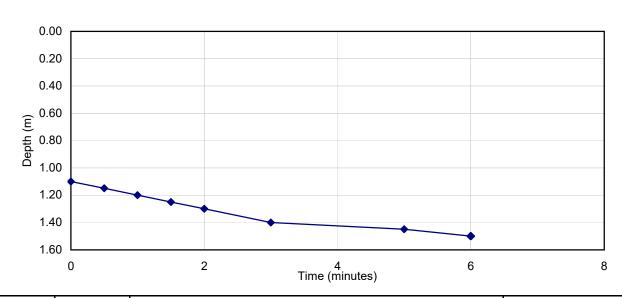
| Test Pit Dimensions | | | |
|-------------------------------|-----|------|--|
| Length | m | 3.20 | |
| Width | m | 1.10 | |
| Depth | m | 1.50 | |
| Test Parameters | | | |
| Maximum Effective Depth | m | 1.10 | |
| 75% Effective Depth | m | 1.20 | |
| 25 % Effective Depth | m | 1.40 | |
| Effective Storage Volume | m³ | 0.70 | |
| Surface Area a _{p50} | m² | 5.24 | |
| Time for 75% | min | 1 | |
| Time for 25% | min | 3 | |
| t _{p75-25} | min | 2 | |

Soil Infiltration Rate
1.1E-03 m/s

Comments

Bedrock at 1.50m.

Unable to fill pit above 1.10m due to filtration rate.



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| RB | 14/12/2023 | |

SOAKAWAY BRE 365



Sheet 1 of 1

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP06

Test Run No 2

Date of Test 06.12.23

| Time (minute) | Depth to Water (m) |
|------------------|-----------------------|
| | |
| 0 | 1.10 |
| 0.5 | 1.10 |
| 1 | 1.15 |
| 1.5 | 1.15 |
| 2 | 1.20 |
| 3 | 1.20 |
| 5 | 1.30 |
| 7.5 | 1.35 |
| 10 | 1.50 |
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| Weather Conditions | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|---|------|--|--|
| Dry, cold | | | | |
| Non Engineering Strata Description | | | | |
| 0.00-0.40: PEAT 0.40-1.20: Reddish brown gravelly silty SAND with cobbles and boulders. 1.20-1.50: Greyish brown SANDSTONE. | | | | |
| Test Pit Dimensions | | | | |
| Length | m | 3.20 | | |
| Width | m | 1.10 | | |
| Depth | m | 1 50 | | |

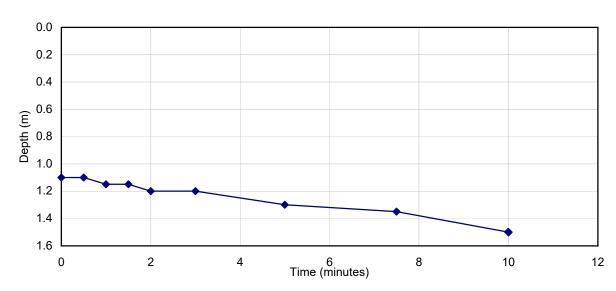
| Lest Pit Dimensions | | | |
|---------------------|---------------------------------------|--|--|
| m | 3.20 | | |
| m | 1.10 | | |
| m | 1.50 | | |
| Test Parameters | | | |
| m | 1.10 | | |
| m | 1.20 | | |
| m | 1.40 | | |
| m³ | 0.70 | | |
| m² | 5.24 | | |
| min | 2 | | |
| min | 8.3 | | |
| min | 6 | | |
| | m m m m m m m m m m m m m m m m m m m | | |

| Soil Infiltration Rate | |
|------------------------|--|
| 3.6E-04 m/s | |

Comments

Bedrock at 1.50m.

Unable to fill pit above 1.10m due to filtration rate.



| Originator | Checked & Approved |
|------------|-----------------------|
| RB | 14/12/2023 |

SOAKAWAY BRE 365



Sheet 1 of 1



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP06

Test Run No 3

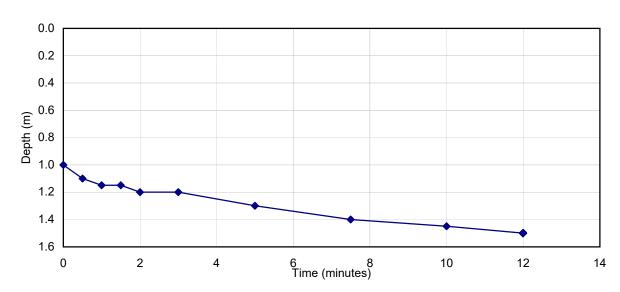
Date of Test 06.12.23

| Time | Depth to Water |
|-------------|----------------|
| (minute) | (m) |
| 0 0.5 | 1.00 1.10 |
| 0.5 | 1.15 |
| 1.5 | 1.15 |
| 2 | 1.20 |
| 2 3 5 | 1.20 1.30 |
| 7.5 | 1.40 |
| 10 | 1.45 |
| 12 | 1.50 |
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| Weather Conditions | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|----------|--|
| Dry, cold | | | |
| Non Engineering Str | ata Des | cription | |
| 0.00-0.40: PEAT 0.40-1.20: Reddish brown gravelly silty SAND with cobbles and boulders. 1.20-1.50: Greyish brown SANDSTONE. | | | |
| Test Pit Dime | ensions | | |
| Length | m | 3.20 | |
| Width | m | 1.10 | |
| Depth | m | 1.50 | |
| Test Parameters | | | |
| Maximum Effective Depth | m | 1.00 | |
| 75% Effective Depth | m | 1.13 | |
| 25 % Effective Depth | m | 1.38 | |
| Effective Storage Volume | m³ | 0.88 | |
| Surface Area a _{p50} | m² | 5.67 | |
| Time for 75% | min | 0.78 | |
| Time for 25% | min | 7 | |
| t _{p75-25} | min | 6 | |

| Soil Infiltration Rate |
|------------------------|
| 4.2E-04 m/s |

Comments
Bedrock at 1.50m.



| Originator | Checked & Approved |
|------------|-----------------------|
| RB | 14/12/2023 |

SOAKAWAY BRE 365



Sheet 1 of 1



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP07

Test Run No 1

Date of Test 05.12.23

| Time | Depth to Water |
|----------|----------------|
| (minute) | (m) |
| 0 | 0.40 |
| 0.5 | 0.40 |
| 1 | 0.40 |
| 1.5 | 0.40 |
| 2 3 | 0.40 |
| 3 | 0.40 |
| 5 | 0.40 |
| 7.5 | 0.40 |
| 10 15 | 0.40 |
| 30 | 0.40 0.40 |
| 65 | 0.40 |
| 140 | 0.41 |
| 190 | 0.41 |
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| Dry, cold | | |
|-------------------------------------------------------------------------------------------------|---------|----------|
| Non Engineering Str | ata Des | cription |
| 0.00-0.40: | PEAT | |
| 0.40-1.00: Reddish brown sar | , , | • |
| cobbles and b | | |
| 1.00-1.20: Greyish brown slightly clayey slightly gravelly SANDSTONE with cobbles and boulders. | | |
| Test Pit Dimensions | | |
| Length | m | 2.00 |
| Width | m | 1.10 |
| Depth | m | 1.20 |
| Test Param | neters | |
| Maximum Effective Depth | m | 0.40 |
| 75% Effective Depth | m | 0.60 |
| 25 % Effective Depth | m | 1.00 |
| Effective Storage Volume | m³ | 0.88 |
| Surface Area a _{p50} | m² | 4.68 |
| Time for 75% | min | ~ |
| Time for 25% | min | ~ |
| t _{p75-25} | min | ~ |

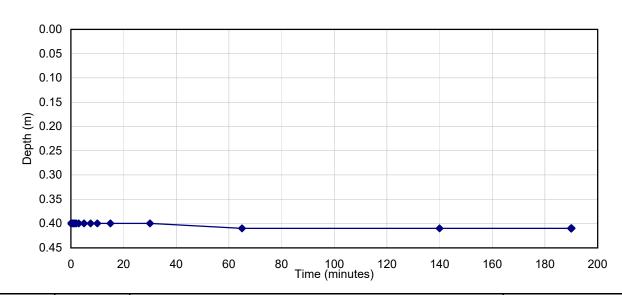
Weather Conditions

| INDETERMINATE | |
|------------------------|--|
| Soil Infiltration Rate | |

Comments

Bedrock at 1.20m.

Test terminated due to slow water outflow.



| Originator | Checked & Approved |
|------------|-----------------------|
| RB | 14/12/2023 |

SOAKAWAY BRE 365



Sheet 1 of 1



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Test Pit No TP13

Test Run No 1

Date of Test 05.12.23

| Time | Depth to Water |
|----------|----------------|
| (minute) | (m) |
| 0 | 0.80 |
| 0.5 | 0.80 |
| 1 1.5 | 0.80 0.80 |
| 2 | 0.80 |
| 3 | 0.80 |
| 5 | 0.80 |
| 7.5 | 0.80 |
| 10 15 | 0.80 0.80 |
| 30 | 0.80 |
| 45 | 0.82 |
| 95 | 0.85 |
| 165 | 0.88 |
| 195 | 0.89 |
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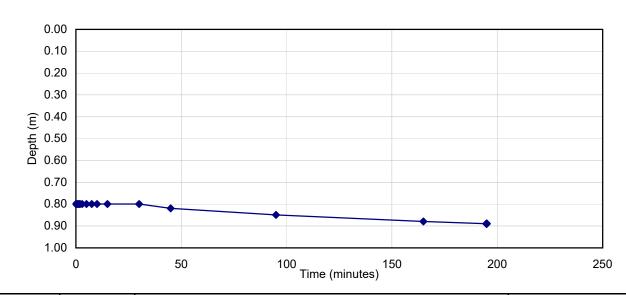
| Weather Conditions | | | |
|-------------------------------|---------------------|------------------|--|
| Dry, cold | | | |
| Non Engineering Str | ata Desc | ription | |
| 0.00-0.40: | PEAT | | |
| 0.40-0.90: Brown SAND and G | | with cobbles and | |
| boulder | •. | | |
| 0.90-2.00: Reddish brown ver | , 0 | y clayey SAND | |
| with cobbles. | | | |
| Test Pit Dime | Test Pit Dimensions | | |
| Length | m | 2.10 | |
| Width | m | 0.90 | |
| Depth | m | 1.80 | |
| Test Paran | neters | | |
| Maximum Effective Depth | m | 0.80 | |
| 75% Effective Depth | m | 1.05 | |
| 25 % Effective Depth | m | 1.55 | |
| Effective Storage Volume | т³ | 0.95 | |
| Surface Area a _{p50} | m² | 4.89 | |
| Time for 75% | min | ~ | |
| Time for 25% | min | ~ | |
| t _{p75-25} | min | ~ | |

| Soil Infiltration Rate | |
|------------------------|--|
| INDETERMINATE | |

Comments

Bedrock at 2.00m.

Test terminated due to slow water outflow.



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| RB | 14/12/2023 | |

SOAKAWAY BRE 365



Sheet 1 of 1

RF

Date tested

LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

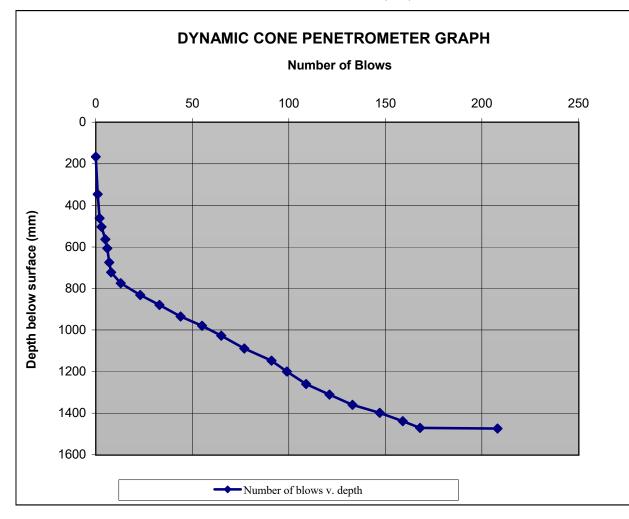
Engineer SSE Perth Inveralmond HSE

> **Test Location** TP02

Contract No 26555

1 DCP No.

Tested by Sunny, clear, cold Zero Error (mm) 167 Weather



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|-------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 167 | 722 | 8 | 8 | Topsoil | 69.38 | 3 |
| 722 | 1259 | 109 | 101 | Unknown | 5.32 | 52 |
| 1259 | 1471 | 168 | 59 | Unknown | 3.59 | 78 |
| 1471 | 1474 | 208 | 40 | Unknown | 0.08 | 4667 |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 892mm

Test stopped at 1474mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

Date tested

Site LT520 BRACO WEST SUBSTATION

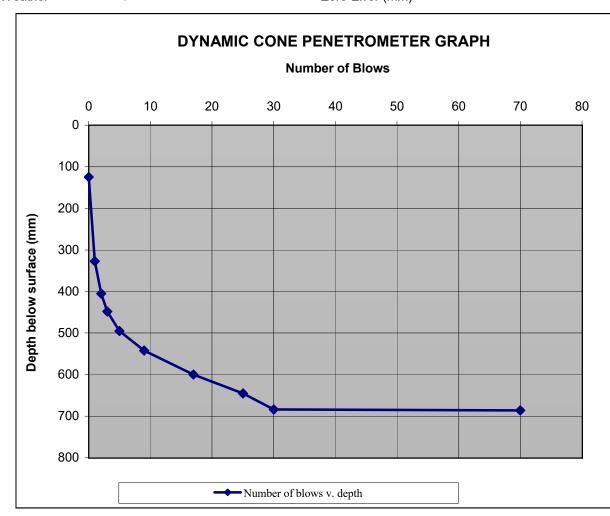
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Test Location TP03

Contract No 26555

Tested by RF DCP No. 2
Weather Sunny, clear, cold Zero Error (mm) 125



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|-------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 125 | 405 | 2 | 2 | Topsoil | 140.00 | 2 |
| 405 | 495 | 5 | 3 | Unknown | 30.00 | 8 |
| 495 | 645 | 25 | 20 | Unknown | 7.50 | 36 |
| 645 | 684 | 30 | 5 | Unknown | 7.80 | 34 |
| 684 | 686 | 70 | 40 | Unknown | 0.05 | 7165 |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 892mm

Test stopped at 684mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

Date tested

Site LT520 BRACO WEST SUBSTATION

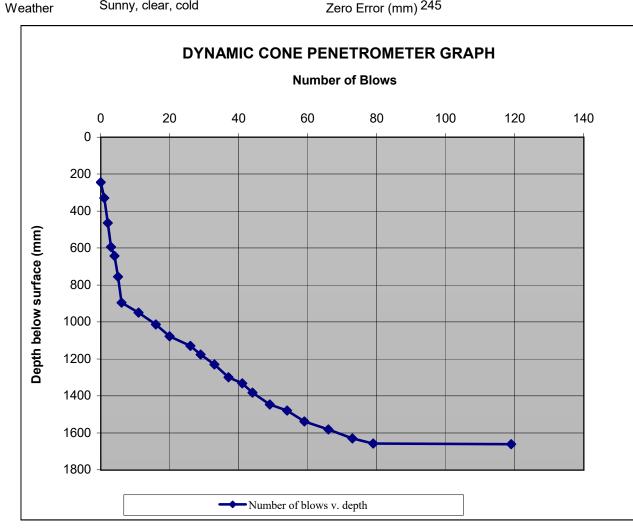
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Test Location TP04

Contract No 26555

Tested by RF DCP No. 3 Weather Sunny, clear, cold Zero Error (mm) 245



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|-------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 245 | 895 | 6 | 6 | Topsoil | 108.33 | 2 |
| 895 | 1129 | 26 | 20 | Unknown | 11.70 | 22 |
| 1129 | 1333 | 41 | 15 | Unknown | 13.60 | 19 |
| 1333 | 1658 | 79 | 38 | Unknown | 8.55 | 31 |
| 1658 | 1661 | 119 | 40 | Unknown | 0.08 | 4667 |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 895mm

Test stopped at 1661mm due to refusal of equipment to further penetration

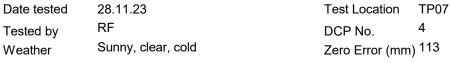
| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

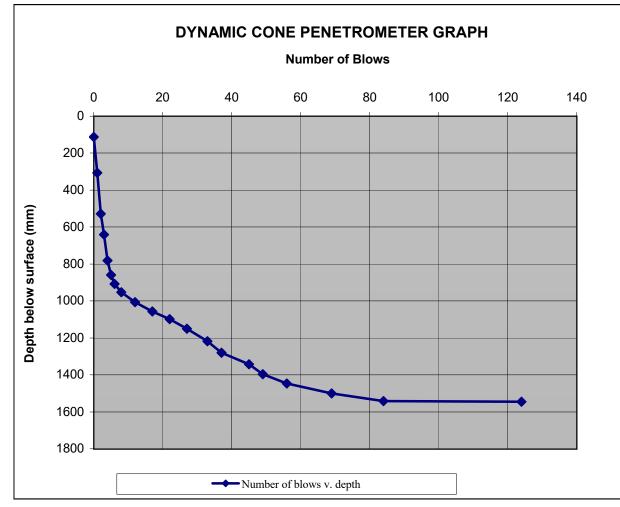
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location** TP07

Contract No 26555





| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|-------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 113 | 907 | 6 | 6 | Topsoil | 132.33 | 2 |
| 907 | 1280 | 37 | 31 | Unknown | 12.03 | 22 |
| 1280 | 1446 | 56 | 19 | Unknown | 8.74 | 31 |
| 1446 | 1542 | 84 | 28 | Unknown | 3.43 | 82 |
| 1542 | 1545 | 124 | 40 | Unknown | 0.08 | 4667 |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 907mm

Test stopped at 1545mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

RF

Date tested

LT520 BRACO WEST SUBSTATION

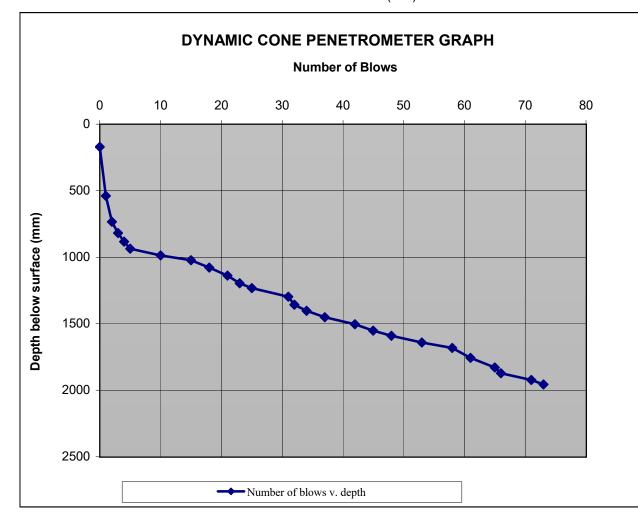
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location TP09** 5 DCP No.

Contract No 26555

Tested by Sunny, clear, cold Zero Error (mm) 170 Weather



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|----------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 170 | 735 | 2 | 2 | Topsoil | 282.50 | 1 |
| 735 | 937 | 5 | 3 | Unknown | 67.33 | 4 |
| 937 | 1022 | 15 | 10 | Unknown | 8.50 | 31 |
| 1022 | 1297 | 31 | 16 | Unknown | 17.19 | 15 |
| 1297 | 1403 | 34 | 3 | Unknown | 35.33 | 7 |
| 1403 | 1681 | 58 | 24 | Unknown | 11.58 | 23 |
| 1681 | 1871 | 66 | 8 | Unknown | 23.75 | 11 |
| 1871 | 1957 | 73 | 7 | Unknown | 12.29 | 21 |

Remarks:

Cone Angle 60° UKAS accredited test - No

Test stopped to add extension rods at depths of 937mm and 1756mm

Test stopped at 1957mm due to refusal of equipment to further penetration

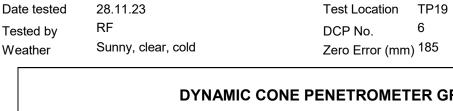
| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

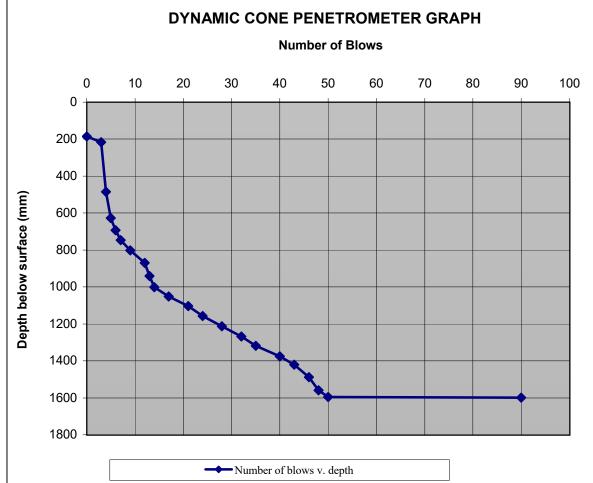
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location TP19**

Contract No 26555





| Start Depth (mm) | Finish Depth (mm) | No. of Blows | s Blows per Layer Material | | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|----------------------|--------------|-------------------------------|---------|----------------|-----------------------------------------------------|
| 185 | 217 | 3 | 3 | Topsoil | 10.67 | 25 |
| 217 | 693 | 6 | 3 | Unknown | 158.67 | 1 |
| 693 | 870 | 12 | 6 | Unknown | 29.50 | 8 |
| 870 | 1001 | 14 | 2 | Unknown | 65.50 | 4 |
| 1001 | 1489 | 46 | 32 | Unknown | 15.25 | 17 |
| 1489 | 1596 | 50 | 4 | Unknown | 26.75 | 9 |
| 1596 | 1599 | 90 | 40 | Unknown | 0.08 | 4667 |

Remarks:

Cone Angle 60° UKAS accredited test - No

Test stopped to add extension rods at depths of 940mm

Test stopped at 1599mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

Date tested

Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

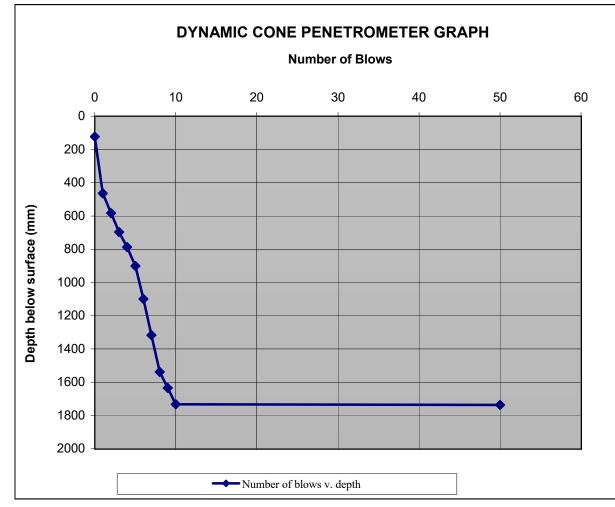
Test Location TP20

Contract No 26555

Tested by RF
Weather Sunny, clear, cold

28.11.23

r, cold DCP No. 7
Zero Error (mm) 124



| Start Depth (mm) | Finish Depth (mm) | No. of Blows per Layer | | Material | DCP mm/blow | Estimated average CBR over depth range (%) | |
|------------------|----------------------|---------------------------|----|----------|----------------|-----------------------------------------------------|--|
| 124 | 464 | 1 | 1 | Topsoil | 340.00 | 1 | |
| 464 | 900 | 5 | 4 | Unknown | 109.00 | 2 | |
| 900 | 1538 | 8 | 3 | Unknown | 212.67 | 1 | |
| 1538 | 1733 | 10 | 2 | Unknown | 97.50 | 2 | |
| 1733 | 1736 | 50 | 40 | Unknown | 0.08 | 4667 | |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 900mm

Test stopped at 1736mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

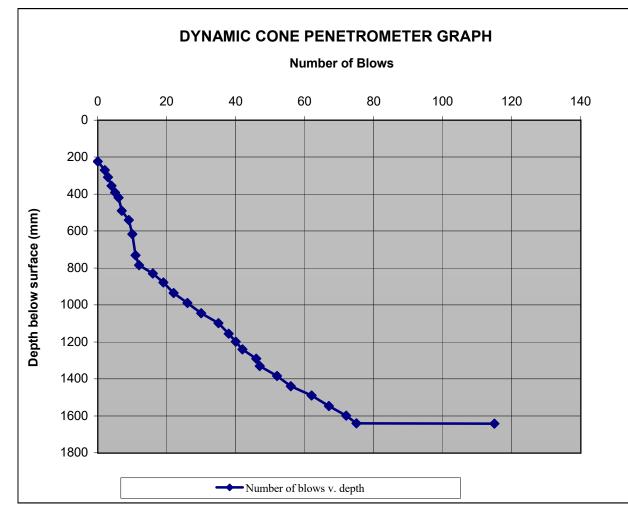
SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location** TP21

Contract No 26555





| Start Depth (mm) | Finish Depth (mm) | h No. of Blows Blows pe Layer | | Material | DCP mm/blow | Estimated average CBR over depth range (%) | |
|------------------|-------------------|-------------------------------------|----|----------|----------------|-----------------------------------------------------|--|
| 223 | 223 541 9 9 | | 9 | Topsoil | 35.33 | 7 | |
| 541 | 784 | 12 | 3 | Unknown | 81.00 | 3 | |
| 784 | 1331 | 47 | 35 | Unknown | 15.63 | 17 | |
| 1331 | 1640 | 75 | 28 | Unknown | 11.04 | 24 | |
| 1640 | 1642 | 115 | 40 | Unknown | 0.05 | 7165 | |

Remarks:

Cone Angle 60°

UKAS accredited test - No

Test stopped to add extension rods at a depth of 805mm

Test stopped at 1642mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

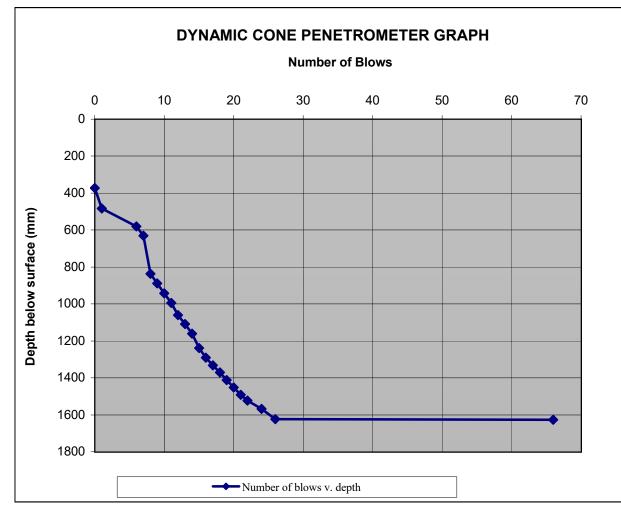
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location** TP22

Contract No 26555

Date tested 28.11.23 RF 9 DCP No. Tested by Sunny, clear, cold Zero Error (mm) 372 Weather



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|----------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 372 | 484 | 1 | 1 | Topsoil | 112.00 | 2 |
| 484 | 580 | 6 | 5 | Unknown | 19.20 | 13 |
| 580 | 837 | 8 | 2 | Unknown | 128.50 | 2 |
| 837 | 1160 | 14 | 6 | Unknown | 53.83 | 4 |
| 1160 | 1523 | 22 | 8 | Unknown | 45.38 | 5 |
| 1523 | 1623 | 26 | 4 | Unknown | 25.00 | 10 |
| 1623 | 1626 66 40 | | Unknown | 0.08 | 4667 | |

Remarks:

Cone Angle 60° UKAS accredited test - No

Test stopped to add extension rods at a depth of 837mm

Test stopped at 1626mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |

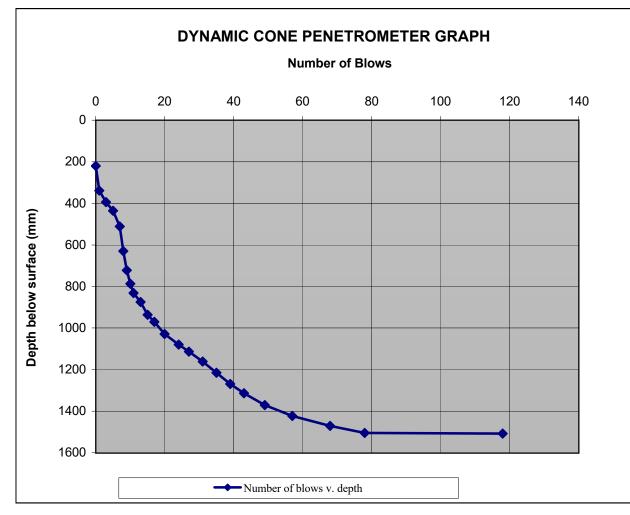
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

> **Test Location** TP23 10 DCP No.

Contract No 26555

Date tested 28.11.23 RF Tested by Sunny, clear, cold Zero Error (mm) 220 Weather



| Start Depth (mm) | Finish Depth (mm) | No. of Blows | Blows per Layer | Material | DCP mm/blow | Estimated average CBR over depth range (%) |
|------------------|----------------------|--------------|--------------------|----------|----------------|-----------------------------------------------------|
| 220 | 339 | 1 | 1 | Topsoil | 119.00 | 2 |
| 339 | 512 | 7 | 6 | Unknown | 28.83 | 9 |
| 512 | 832 | 11 | 4 | Unknown | 80.00 | 3 |
| 832 | 1028 | 20 | 9 | Unknown | 21.78 | 12 |
| 1028 | 1423 | 57 | 37 | Unknown | 10.68 | 25 |
| 1423 | 1505 | 78 | 21 | Unknown | 3.90 | 72 |
| 1505 | 1508 | 118 | 40 | Unknown | 0.08 | 4667 |

Remarks:

Cone Angle 60° UKAS accredited test - No

Test stopped to add extension rods at a depth of 832mm

Test stopped at 1508mm due to refusal of equipment to further penetration

| Originator | Checked & Approved | Dynamic Cone Penetrometer | |
|------------|-----------------------|--------------------------------------------------------------------|--------------|
| IM | 06/12/2023 | In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB | Sheet 1 of 1 |



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 | |
|-----|---------|-------------------------------|--------------------|--|
| J | | | | |
| TD. | Client: | SHE Transmission plc | | |
| , L | Engine | er: SSE Perth Inveralmond HSE | | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:26:55 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com

APPENDIX E MONITORING



Client: SHE Transmission plc Engineer: SSE Perth Inveralmond HSE Contract No: 26555

Water level measurements taken from ground level.

| Borehole No. | yed n OD) | Base ipe (r | Date /Time | oheric sure ar) | G | Sas Co | mposit | tion | | ential sure | Flow | Depth to Water | # (C | Remarks |
|-----------------|--------------------------|--------------------------------|----------------|-----------------------------------|------------------------|------------------------|-----------------------|------------------|-------------|--------------------------|--------|----------------------|----------------|-------------------|
| | Surveyed Level (m OD) | Depth to Base of Standpipe (m) | | Atmospheric Pressure (mBar) | CH ₄ (%vol) | CO ₂ (%vol) | O ₂ (%vol) | H ₂ S | CO (ppm) | Differential Pressure | (l/hr) | (m) (mBGL) | Depth (mOD) | |
| BH01 | 227.89 | | 23/01/24 09:00 | 969 | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | -8.00 | -1.80 | 2.44 | 225.45 | Dry, Overcast |
| | 227.89 | | 23/01/24 09:01 | | 0.00 | 0.10 | 19.50 | 0.00 | 1.00 | | | | | Dry, Overcast |
| | 227.89 | | 23/01/24 09:02 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 227.89 | | 23/01/24 09:03 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 227.89 | | 23/01/24 09:04 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 227.89 | | 23/01/24 09:05 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | -1.80 | | | Dry, Overcast |
| BH02 | 249.18 | | 23/01/24 09:00 | 965 | 0.00 | 0.00 | 18.60 | 0.00 | 0.00 | -4.00 | -0.80 | 4.78 | 244.40 | Dry, Overcast |
| | 249.18 | | 23/01/24 09:01 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 249.18 | | 23/01/24 09:02 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 249.18 | | 23/01/24 09:03 | | 0.00 | 0.10 | 19.10 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 249.18 | | 23/01/24 09:04 | | 0.00 | 0.10 | 18.90 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 249.18 | | 23/01/24 09:05 | | 0.00 | 0.10 | 18.80 | 0.00 | 1.00 | | -0.70 | | | Dry, Overcast |
| BH04 | 252.35 | | 23/01/24 09:00 | 962 | 0.00 | 0.20 | 19.30 | 0.00 | 1.00 | -6.00 | -1.30 | Dry | | Overcast, raining |
| | 252.35 | | 23/01/24 09:01 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 252.35 | | 23/01/24 09:02 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 252.35 | | 23/01/24 09:03 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 252.35 | | 23/01/24 09:04 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 252.35 | | 23/01/24 09:05 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | -1.30 | | | Overcast, raining |
| BH07 | 235.10 | | 23/01/24 09:00 | 970 | 0.00 | 0.00 | 19.30 | 0.00 | 1.00 | -22.00 | -3.40 | 4.51 | 230.59 | Dry, Overcast |
| | 235.10 | | 23/01/24 09:01 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 235.10 | | 23/01/24 09:02 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 235.10 | | 23/01/24 09:03 | | 0.00 | 0.10 | 19.40 | 0.00 | 1.00 | | | | | Dry, Overcast |
| | 235.10 | | 23/01/24 09:04 | | 0.00 | 0.10 | 19.40 | 0.00 | 1.00 | | | | | Dry, Overcast |
| | 235.10 | | 23/01/24 09:05 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | -3.40 | | | Dry, Overcast |
| BH10 | 240.05 | | 23/01/24 09:00 | 968 | 0.00 | 0.00 | 19.30 | 0.00 | 1.00 | -22.00 | -3.40 | Dry | | Dry, Overcast |
| | 240.05 | | 23/01/24 09:01 | | 0.00 | 0.00 | 19.40 | 0.00 | 1.00 | | | | | Dry, Overcast |
| | 240.05 | | 23/01/24 09:02 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 240.05 | | 23/01/24 09:03 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 240.05 | | 23/01/24 09:04 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 240.05 | | 23/01/24 09:05 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | -3.40 | | | Dry, Overcast |
| BH11 NEW | 216.61 | | 23/01/24 09:00 | 970 | 0.00 | 0.00 | 19.30 | 0.00 | 0.00 | 0.50 | -1.20 | 1.02 | 215.59 | Dry, Overcast |
| | 216.61 | | 23/01/24 09:01 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 216.61 | | 23/01/24 09:02 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 216.61 | | 23/01/24 09:03 | | 0.00 | 0.00 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 216.61 | | 23/01/24 09:04 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | | | | Dry, Overcast |
| | 216.61 | | 23/01/24 09:05 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | -1.20 | | | Dry, Overcast |
| BH13 | 259.53 | | 23/01/24 09:00 | 963 | 0.00 | 0.20 | 19.00 | 0.00 | 1.00 | -20.00 | -3.30 | Dry | | Overcast, raining |
| | 259.53 | | 23/01/24 09:01 | | 0.00 | 0.10 | 19.40 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 259.53 | | 23/01/24 09:02 | | 0.00 | 0.10 | 19*.3 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 259.53 | | 23/01/24 09:03 | | 0.00 | 0.10 | 19.30 | 0.00 | 1.00 | | | | | Overcast, raining |
| | 259.53 | | 23/01/24 09:04 | | 0.00 | 0.10 | 19.30 | 0.00 | 0.00 | | | | | Overcast, raining |
| | 259.53 | | 23/01/24 09:05 | | 0.00 | 0.10 | 19.30 | 0.00 | 1.00 | | -3.30 | | | Overcast, raining |
| BH14 NEW | 246.92 | | 23/01/24 09:00 | 971 | 0.00 | 0.10 | 19.20 | 0.00 | 1.00 | -25.00 | -3.60 | Dry | | Dry, Overcast |
| | 246.92 | | 23/01/24 09:01 | | 0.00 | 0.10 | 19.40 | 0.00 | 1.00 | | | | | Dry, Overcast |
| Chk & App | Originator RB Status | Tit | | RESUL MC | TS C | | | | | | EL | | RAUBURZ | Fig No: |



257.97

257.97

23/01/24 09:04

23/01/24 09:05

Site: LT520 BRACO WEST SUBSTATION

SHE Transmission plc Engineer: SSE Perth Inveralmond HSE

0.00

0.00

0.10

0.10

19.20

19.10

0.00

0.00

0.00

0.00

0.00

Water level measurements taken from ground level.

Overcast, raining

Overcast, raining

Contract No: 26555

Depth to Base of Standpipe (m) Depth Surveyed Level (m OD) Atmospheric Pressure (mBar) Gas Composition Differential Pressure Borehole Date Flow to Remarks /Time Depth (mOD) No. Water (Pa) (m) CO CH₄ CO₂ O_2 H_2S (mBGL) (l/hr) (%vol) (%vol) (%vol) (ppm) (ppm) BH14 NEW 246.92 23/01/24 09:02 0.00 0.10 19.30 0.00 1.00 Dry, Overcast 246.92 23/01/24 09:03 0.00 0.10 19.30 0.00 2.00 Dry, Overcast 246.92 23/01/24 09:04 0.00 0.10 19.30 0.00 1.00 Dry, Overcast 246.92 0.00 -3.60 23/01/24 09:05 0.10 19.30 0.00 2.00 Dry, Overcast BH19 257.97 23/01/24 09:00 962 0.00 0.10 18.80 0.00 0.00 0.00 0.00 8.74 249.23 Overcast, raining 257.97 23/01/24 09:01 0.00 0.10 19.20 0.00 0.00 Overcast, raining 257.97 23/01/24 09:02 0.00 0.10 19.40 0.00 0.00 Overcast, raining 257.97 23/01/24 09:03 0.00 0.10 19.30 0.00 0.00 Overcast, raining

Style: SPIPE MONITORING Flie: P:GINTWMPROJECTS/26555.GPJ Printed: 26/01/2024 17:02:31 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tei: 01698-711177 E-mail: enquiries@raebumdrilling.com Originator RB Chk & App Status **FMR** DRAFT

RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES

RAMBU

Fig No:

E1

Sheet 2 of 2



SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

STANDARD

Contract No: 26555

CLASSIFICATION TESTS

TEST

Determination of water content BS EN ISO 17892-1:2014

Client:

Determination of liquid limit BS 1377: 1990: Part 2: 4.3 and 4.4

Determination of liquid and plastic limits

Determination of bulk density

Determination of particle density

Determination of particle density

BS EN ISO 17892-2:2014

BS EN ISO 17892-3:2016

Determination of particle size distribution

BS EN ISO 17892-4:2016

CHEMICAL TESTS

Determination of organic matter content BS 1377 : 1990 : Part 3 : 3.4 Determination of mass loss on ignition BS 1377 : 1990 : Part 3 : 4.3

Determination of sulphate content of soil and groundwater BS 1377 : 1990 : Part 3 : 5.2, 5.3 and 5.5

Determination of chloride content BS 1377 : 1990 : Part 3 : 7.2 and 7.3

Determination of pH value BS 1377: 1990: Part 3: 9.5

COMPACTION-RELATED TESTS

Determination of dry density/moisture content relationship BS 1377 : 1990 : Part 4 : 3.3 to 3.6

Determination of moisture condition value (MCV) SDD Tech Memo SH7/83; SDD Appls Guide No.1 Rev. 1989

Determination of California Bearing Ratio (CBR) BS 1377 : 1990 : Part 4 : 7.4

CONSOLIDATION AND STRENGTH TESTS

Incremental loading oedemeter test

Unconfined compression test

Unconsolidated undrained triaxial test

Consolidated triaxial compression tests on water saturated soils

BS EN ISO 17892-7:2018

BS EN ISO 17892-8:2018

BS EN ISO 17892-9:2018

Lab Vane Tests BS 1377 : 1990

Direct shear tests BS EN ISO 17892-10:2019
Permeability tests BS EN ISO 17892-11:2019
Fall cone test BS EN ISO 17892-6:2017

ROCK TESTS

Determination of point load strength ISRM Commission on Testing Methods, 1985

Determination of unconfined compressive strength ASTM D7012-14

LA Abrasion Tests BS EN 1097-2-2010 and BS 818 : Part 2 : 1990

Magnesium Soundness Tests BS EN 1367-2

Slake durability ISRM Suggested methods
Rock porosity / density ISRM Suggested methods

Printed: 26/01/2024 12:26:29 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-1

Issue No 01

LABORATORY TEST REPORT

| , | INGI | A15044-1 | Date samples received | 12/12/2023 | |
|-----------------------------------------------|------------------|------------------------------------------|-------------------------------------|-------------------------|--|
| Project Number Your Ref Purchase Order | | 26555 Date written instructions received | | 29/11/2023 | |
| | | 26555 | Date testing commenced | 15/12/2023 | |
| | | Please find enclo | sed the results as summarised below | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | |
| | 12 | Determination of Water (| Content | Yes | |
| | 4 | Atterberg Limit | Yes | | |
| | 12 | Particle Size Distribution | Yes | | |
| 1 Moisture Content / Dry Density Relationship | | | Yes | | |
| 5 Moisture Condition Value | | | Yes | | |
| | 1 | California Bearing Ratio | | Yes | |
| | 2 | Shear Strength by Direct | Shear | Yes | |
| | 1 | Resistance to Fragmenta | tion by Los Angeles Method | Yes | |
| | 4 | Chemical Analysis | | s/c - Yes | |
| | | | | | |
| | | | | | |

Remarks:

Issued by: C Donnelly Date of Issue: 18/01/2024 Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories : 18/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

This report should not be reproduced except in full without the written approval of the laboratory.

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory.

The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

Feedback on the this report may be left via our website www.igne.com/contact







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airdrie@igne.com
www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton



SHE Transmission plc

| t Table | | | E | ingineer | SSE Perth Inv | veralmond HSE | |
|------------------------------------------|---------------------|--------------------|---------------|----------------|------------------|------------------------------------------------------------------------------------|--------------------|
| onten | 5 | Sample Identific | cation | | | | |
| 1212 - Moisture Content Table | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | TP01 | 0.60 | | В | 2012712 | Brown silty sandy fine to coarse GRAVEL with cobbles | 15.2 |
| | TP01 | 0.60 | | D | 2012711 | Brown silty sandy fine to coarse GRAVEL | 14.1 |
| | TP03 | 0.60 | | В | 2012714 | Brown silty very sandy fine to coarse GRAVEL | 16.6 |
| | TP03 | 0.60 | | D | 2012713 | Brown silty very sandy fine to coarse GRAVEL | 21.3 |
| | TP03 | 1.30 | | D | 2012715 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 14.4 |
| | TP06 | 1.00 | | D | 2012718 | Brown silty very sandy fine to coarse GRAVEL | 13.0 |
| | TP08 | 1.00 | | В | 2012721 | Brown silty very gravelly SAND. Gravel is fine to coarse | 17.1 |
| | TP08 | 1.00 | | D | 2012719 | Brown silty very gravelly SAND. Gravel is fine to coarse | 18.8 |
| | TP21 | 1.00 | | D | 2012723 | Brown slighty sandy slightly gravelly CLAY. Gravel is fine to coarse | 17.9 |
| | TP21 | 1.50 | | В | 2012725 | Brown slightly gravelly slightly sandy CLAY with cobbles. Gravel is fine to coarse | 14.0 |
| | TP21 | 1.50 | | D | 2012724 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 16.4 |
| :29:51 | TP22 | 0.50 | | D | 2012727 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 17.4 |
| 11/2024 12 | TP22 | 1.00 | | В | 2012730 | Brown very clayey SAND and GRAVEL. Gravel is fine to coarse | 15.1 |
| Project No A15044-1: 18/01/2024 12:29:51 | TP22 | 1.00 | | D | 2012728 | Brown very clayey SAND and GRAVEL. Gravel is fine to coarse | 13.1 |
| A150 | Notes | | | | | | |
| roject No | Originator | Checked Approve | | D | | tion of the Water Content EN ISO 17892-1:2014 | |
| Lab Pi | TP | 18/01/202 | 4 | | | | Sheet 1 of 2 |

62 Rochsolloch Road, Airdrie, ML6 9BG

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | 18/01/2024 |



Contract No

26555

| Version 026 - 01/09/2023 | 1212 - Moisture Content Table - A15044-1.xls | • |
|--------------------------|----------------------------------------------|---|
| | | |
| | | |

SHE Transmission plc

Engineer

SSE Perth Inveralmond HSE

| rent 7 | | Sample Identifi | cation | <u> </u> | | | |
|-----------------------------------------------|---------------------|--------------------|------------------------|----------------|------------------|-----------------------------------------------------------------------|--------------------|
| 1212 - Moisture Content T | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | TP22 | 2.00 | | D | 2012731 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 12.0 |
| | TP23 | 0.90 | | D | 2012734 | Brown gravelly silty SAND. Gravel is fine to coarse | 30.6 |
| | TP23 | 1.25 | | В | 2012737 | Brown silty very gravelly SAND. Gravel is fine to coarse | 15.6 |
| | TP23 | 1.25 | | D | 2012735 | Brown silty very gravelly SAND. Gravel is fine to coarse | 16.7 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 2 | | | | | | | |
| Lab Project No A15044-1 : 18/01/2024 12:29:52 | | | | | | | |
| .1:18/01/20 | | | | | | | |
| 5044- | Notes | | | | | | |
| Project No A1504 | Originator | Checked Approve | | D | | tion of the Water Content | |
| Lab Pro | TP | 18/01/202 | BS EN ISO 17892-1:2014 | | Sheet 2 of 2 | | |

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| TP | <u>CD</u> | |

62 Rochsolloch Road, Airdrie, ML6 9BG



Contract No

26555

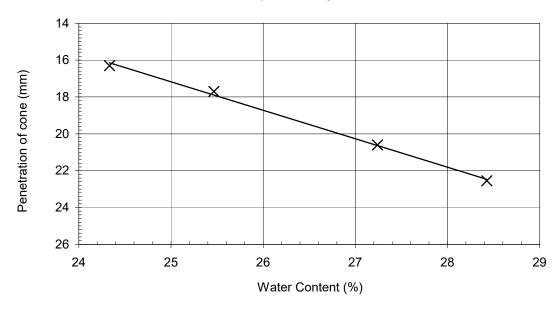


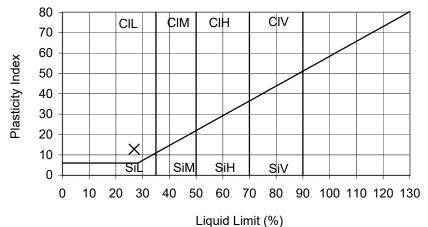
Non Engineering Description : Brown slightly gravelly slightly sandy CLAY. Gravel is fine to

coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content: (BS EN ISO 17892-1:2014)

Percentage retained on 425 µm sieve:

Liquid Limit:

Plastic Limit:

14 %

Plasticity Index:

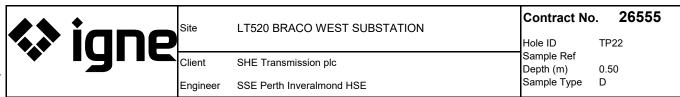
13

Equivalent water content of material passing 425µm sieve : 25.6 % Liquidity Index : 0.89

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| NW | CD | |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index



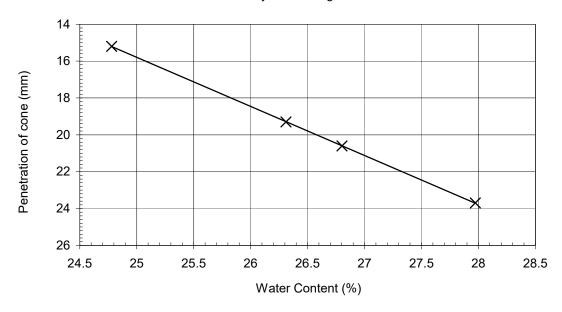


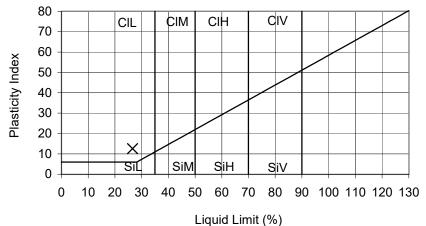
Non Engineering Description: Brown slightly gravelly slightly sandy CLAY. Gravel is fine to

coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content : (BS EN ISO 17892-1:2014) 17.4 % Percentage retained on 425 μ m sieve : 42 % Liquid Limit : 27 % Plastic Limit : 14 % Plasticity Index : 13

Equivalent water content of material passing 425µm sieve : 30.0 % Liquidity Index : 1.23

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| NW | CD 18/01/2024 | |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index





client SHE Transmission plc

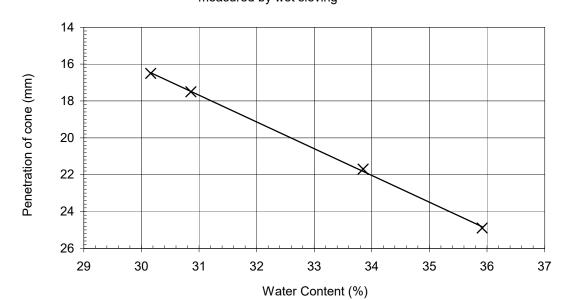
Engineer SSE Perth Inveralmond HSE

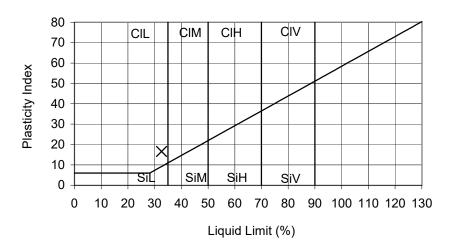
Contract No. 26555

Hole ID TP22
Sample Ref
Depth (m) 1.00
Sample Type D

Non Engineering Description: Brown very clayey SAND and GRAVEL. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

| As Received Water Content: (BS EN ISO 17892-1:2014) | 13.1 % | 6 |
|-----------------------------------------------------|--------|---|
| Percentage retained on 425µm sieve : | 49 % | 6 |
| Liquid Limit : | 33 % | 6 |
| Plastic Limit : | 16 % | 6 |
| Plasticity Index : | 17 | |
| | | |

Equivalent water content of material passing 425µm sieve : 25.7 % Liquidity Index : 0.57

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 18/01/2024 |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index



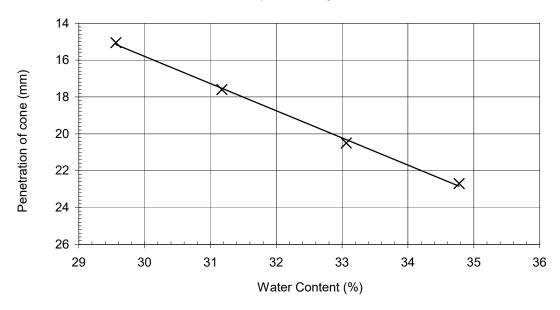


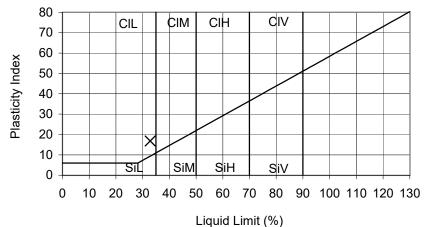
Non Engineering Description: Brown slightly gravelly slightly sandy CLAY. Gravel is fine to

coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content: (BS EN ISO 17892-1:2014)

Percentage retained on 425 µm sieve:

Liquid Limit:

Plastic Limit:

16 %

Plasticity Index:

17

Equivalent water content of material passing 425µm sieve : 19.7 % Liquidity Index : 0.22

| Originator | Checked & Approved | Plasti |
|------------|-----------------------|--------|
| NW | CD | |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index





| te | LT520 BRACO WEST SUBSTATION |
|----|------------------------------|
| ic | LIDZO DIVACO WEGI GODOTATION |

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP01 Hole Sample Ref Depth (m)

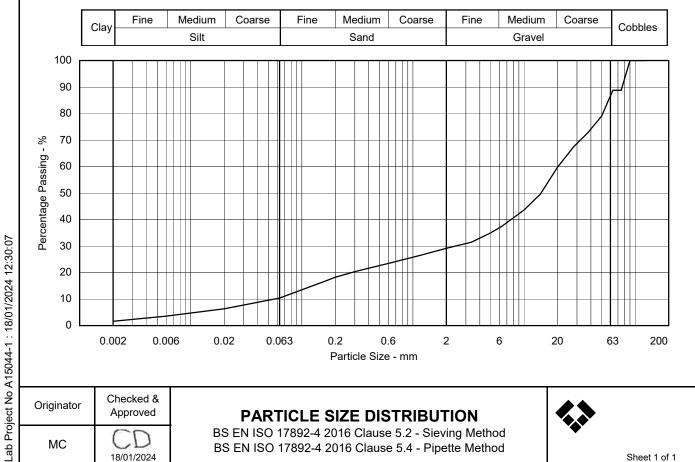
0.60 Sample Type В

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm | % Passing 100 100 89 89 79 73 67 60 50 44 37 35 31 29 27 |
| 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 6 µm | 24 22 20 18 16 10 6 3 |
| θ μπ 2 μm | 2 |

Brown silty sandy fine to coarse GRAVEL with cobbles

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 11.3 |
| Gravel | 59.6 |
| Sand | 19.1 |
| Silt | 8.4 |
| Clay | 1.6 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 90 |
| D60 | 20 |
| D10 | 0.058 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 344.8 |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| МС | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| ite LT520 BRACO WEST SUBSTATION |
|---------------------------------|
|---------------------------------|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref De

TP03

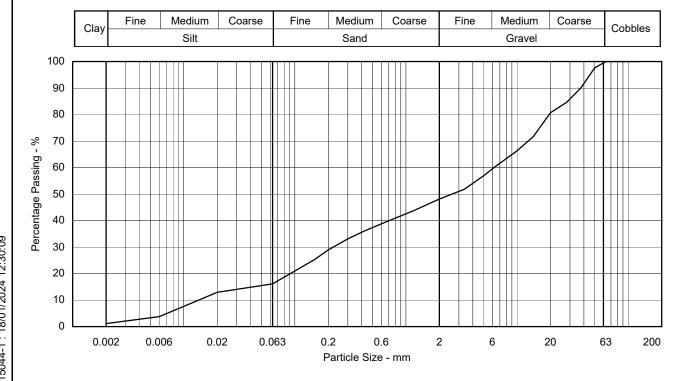
| Depth (m) | 0.60 |
|-------------|------|
| Sample Type | В |

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 98 90 85 81 72 66 60 57 52 48 44 39 36 33 29 25 16 13 4 |
| · | |

| Brown silty very sandy fine to coarse GRAVEL | Non Engineering Description |
|----------------------------------------------|----------------------------------------------|
| | Brown silty very sandy fine to coarse GRAVEL |

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 51.9 |
| Sand | 32.2 |
| Silt | 14.8 |
| Clay | 1.1 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 6.2 |
| D10 | 0.014 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 442.9 |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
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PARTICLE SIZE DISTRIBUTION





Brown

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP03 Sample Ref

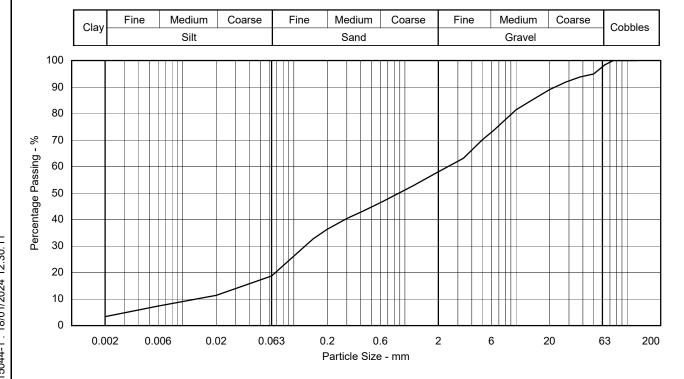
Depth (m) 1.30 Sample Type B

| Particle Size | % Passing |
|---------------|-----------|
| | |
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 98 |
| 50.0 mm | 95 95 |
| 37.5 mm | 94 |
| 28.0 mm | 92 |
| 20.0 mm | 89 |
| 14.0 mm | 85 |
| 10.0 mm | 81 |
| 6.30 mm | 74 |
| 5.00 mm | 70 |
| 3.35 mm | 63 |
| 2.00 mm | 58 |
| 1.18 mm | 53 |
| 630 µm | 47 |
| 425 μm | 43 |
| 300 μm | 40 |
| 200 μm | 36 |
| 150 μm | 33 |
| 63 µm | 19 |
| 20 μm | 11 |
| 20 μm | 7 |
| 2 μm | 3 |
| <u> </u> | |
| | |
| | |

| Non Engineering Description |
|-----------------------------------------------|
| |
| silty SAND and GRAVEL with cobbles. Gravel is |
| fine to coarse |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 1.6 | |
| Gravel | 40.4 | |
| Sand | 39.8 | |
| Silt | 14.8 | |
| Clay | 3.3 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 75 | |
| D60 | 2.5 | |
| D10 | 0.013 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 192.3 | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
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| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| UBSTATION |
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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP06 Hole Sample Ref Depth (m)

1.00 Sample Type В

| Particle Size | % Passing |
|-------------------------------|----------------|
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 100 |
| 50.0 mm | 97 |
| 37.5 mm | 92 |
| 28.0 mm | 88 |
| 20.0 mm | 86 |
| 14.0 mm 10.0 mm | 79 71 63 |
| 6.30 mm 5.00 mm 3.35 mm | 59 55 |
| 2.00 mm | 50 |
| 1.18 mm | 46 |
| 630 μm | 41 |
| 425 μm | 36 |
| 300 μm | 30 |
| 200 μm | 23 |
| 150 μm | 18 |
| 63 μm | 16 |
| 20 μm | 11 |
| 6 μm | 7 |
| 2 μm | 4 |

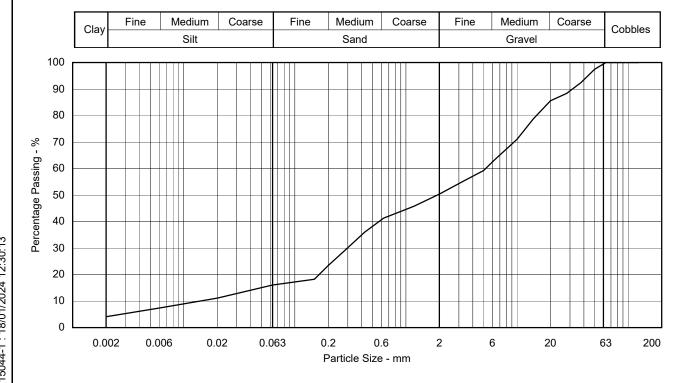
Non Engineering Description

Brown silty very sandy fine to coarse GRAVEL

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 0.0 | |
| Gravel | 49.6 | |
| Sand | 34.7 | |
| Silt | 11.6 | |
| Clay | 4.0 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 63 | |
| D60 | 5.2 | |
| D10 | 0.014 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 371.4 | |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
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PARTICLE SIZE DISTRIBUTION





| ite | LT520 BRACO WEST SUBSTATION |
|-----|------------------------------|
| ito | LIDZO DIVACO WEGI GODGIATION |

Brown

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP08
Sample Ref

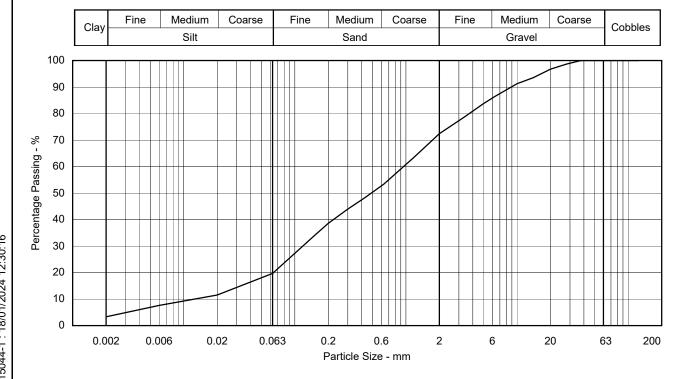
| Sample Rei | |
|-------------|------|
| Depth (m) | 1.00 |
| Sample Type | В |

| Particle Size | % Passing |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 6.30 µm 425 µm 300 µm 200 µm 150 µm 63 µm 200 µm 150 µm 63 µm 20 µm | % Passing 100 100 100 100 100 100 99 97 94 91 86 84 79 72 63 53 48 44 39 34 20 11 8 3 |
| | |

| Non Engineering Description |
|----------------------------------------------------|
| silty very gravelly SAND. Gravel is fine to coarse |
| |

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 27.6 |
| Sand | 53.3 |
| Silt | 15.8 |
| Clay | 3.3 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 38 |
| D60 | 0.95 |
| D10 | 0.013 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 73.1 |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |
| | |



| Originator | Checked & Approved |
|------------|-----------------------|
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PARTICLE SIZE DISTRIBUTION





Client SHE Transmission plc

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Contract No 26555

Hole TP21 Sample Ref

Depth (m) 1.00 Sample Type B

| 1 |
|-----------|
| % Passing |
| |
| 100 |
| 100 |
| 100 |
| 100 |
| 97 |
| 94 |
| 88 |
| 87 |
| 85 |
| 82 |
| 79 |
| 78 |
| 74 |
| 71 |
| 69 |
| 67 |
| 64 |
| 62 |
| 57 |
| 53 |
| 42 |
| 30 |
| 22 |
| 12 |
| |

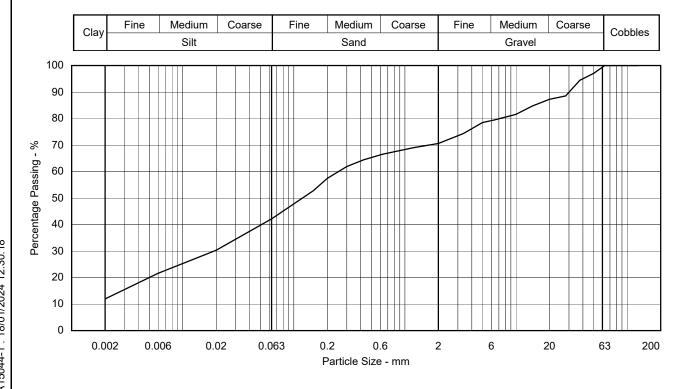
Non Engineering Description

Brown slighty sandy slightly gravelly CLAY. Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|------|
| Cobbles | 0.0 |
| Gravel | 29.4 |
| Sand | 29.3 |
| Silt | 29.4 |
| Clay | 11.9 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 0.25 |
| D10 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| te | LT520 BRACO WEST SUBSTATION |
|----|-----------------------------|
| | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP21 Sample Ref

Depth (m) 1.50 Sample Type B

| Particle Size | % Passing |
|---------------|-----------|
| | |
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 93 |
| 63.0 mm | 93 |
| 50.0 mm | 88 |
| 37.5 mm | 85 |
| 28.0 mm | 80 |
| 20.0 mm | 78 |
| 14.0 mm | 76 |
| 10.0 mm | 73 |
| 6.30 mm | 71 |
| 5.00 mm | 70 |
| 3.35 mm | 69 |
| 2.00 mm | 68 |
| 1.18 mm | 67 |
| 630 µm | 65 |
| 425 μm | 64 |
| 300 µm | 62 |
| 200 μm | 59 |
| 150 µm | 56 |
| 63 µm | 45 |
| 20 µm | 33 |
| 6 µm | 23 |
| | |

2 µm

13

Non Engineering Description

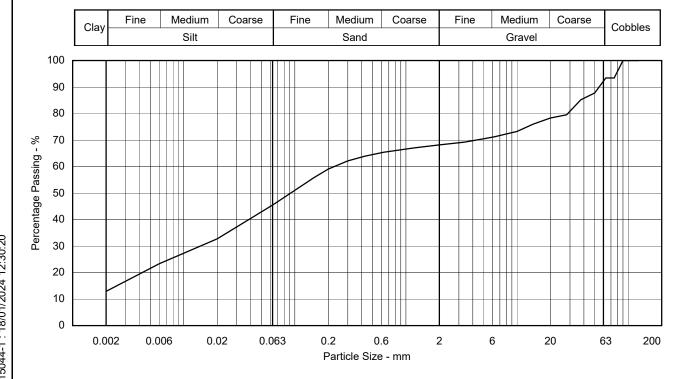
Brown slightly gravelly slightly sandy CLAY with cobbles.

Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|------|
| Cobbles | 6.6 |
| Gravel | 25.3 |
| Sand | 23.6 |
| Silt | 31.7 |
| Clay | 12.9 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 90 |
| D60 | 0.23 |
| D10 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| ite | LT520 BRACO WEST SUBSTATION |
|-----|-----------------------------|
| | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP22 Sample Ref

Depth (m) 0.50 Sample Type B

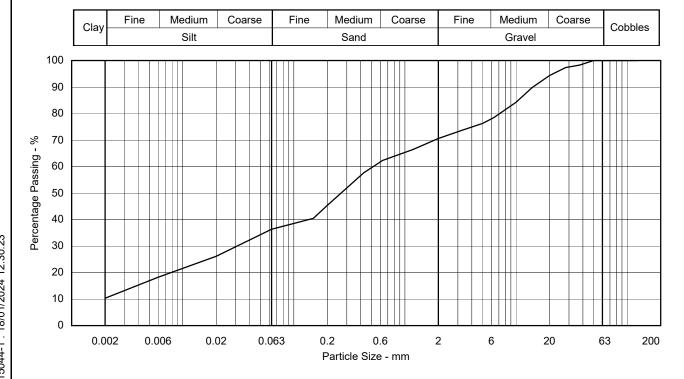
| Particle Size | % Passing |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm | % Passing 100 100 100 100 100 98 97 94 90 84 78 76 74 71 66 62 58 52 45 40 |
| 63 µm 20 µm 6 µm 2 µm | 36 26 18 10 |
| | |

| Non | Engineering | Description | |
|-----|-------------|-------------|--|
| | | | |

Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|------|--|
| Cobbles | 0.0 | |
| Gravel | 29.4 | |
| Sand | 34.9 | |
| Silt | 25.3 | |
| Clay | 10.3 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 50 | |
| D60 | 0.52 | |
| D10 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A | |

| Notes | |
|---------------------------------|-------|
| Sedimentation sample not pre-tr | eated |
| | |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| ite LT520 BRACO WEST SUBSTATION |
|---------------------------------|
|---------------------------------|

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP22 Sample Ref

Depth (m) 1.00 Sample Type B

| Particle Size | % Passing |
|--------------------------------------------------------------------|----------------------------------|
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 100 |
| 50.0 mm | 92 |
| 37.5 mm | 91 |
| 28.0 mm | 90 |
| 20.0 mm | 87 |
| 14.0 mm | 83 |
| 10.0 mm | 78 |
| 6.30 mm | 72 |
| 5.00 mm | 70 |
| 3.35 mm | 68 |
| 2.00 mm | 65 |
| 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm | 61 57 51 43 39 34 |
| 20 μm | 25 |
| 6 μm | 21 |

2 µm

14

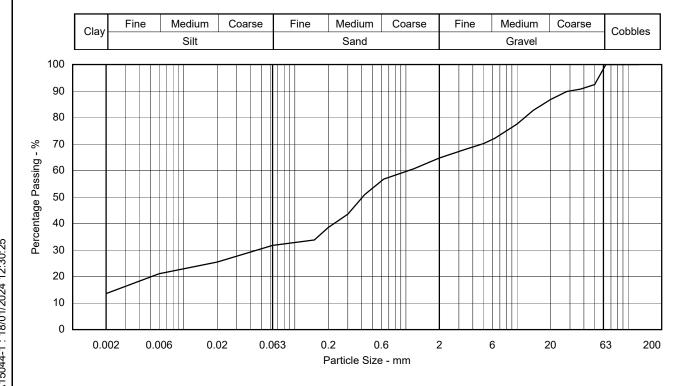
Non Engineering Description

Brown very clayey SAND and GRAVEL. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|------|--|
| Cobbles | 0.0 | |
| Gravel | 35.3 | |
| Sand | 33.4 | |
| Silt | 17.8 | |
| Clay | 13.5 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 63 | |
| D60 | 1.1 | |
| D10 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A | |

Notes

Sedimentation sample not pre-treated



Originator Checked & Approved

RF CD
18/01/2024

PARTICLE SIZE DISTRIBUTION





Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP22 Sample Ref

Sample Ref
Depth (m) 2.00
Sample Type B

| Particle Size | % Passing |
|---------------|-----------|
| | _ |
| | |
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 100 |
| 50.0 mm | 100 |
| 37.5 mm | 97 |
| 28.0 mm | 93 |
| 20.0 mm | 92 |
| 14.0 mm | 89 |
| 10.0 mm | 87 |
| 6.30 mm | 84 |
| 5.00 mm | 82 |
| 3.35 mm | 80 |
| 2.00 mm | 76 |
| 1.18 mm | 71 |
| 630 µm | 65 |
| 425 µm | 58 |
| 300 µm | 54 |
| 200 µm | 49 |
| 150 µm | 46 |
| 63 µm | 45 |
| 20 µm | 31 |
| 6 µm | 26 |
| 2 µm | 17 |
| | |

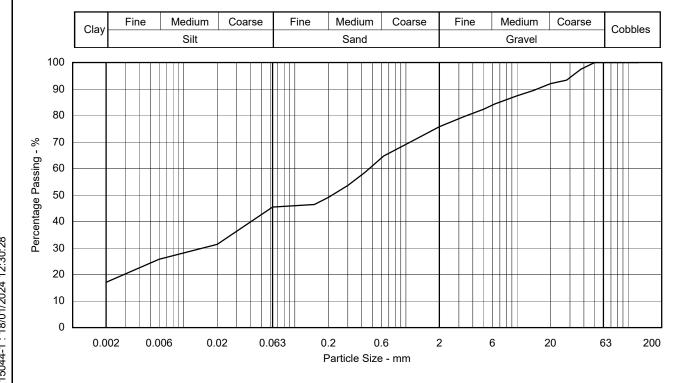
| Non Engineering Description | 1 |
|-----------------------------|---|
|-----------------------------|---|

Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|------|--|
| Cobbles | 0.0 | |
| Gravel | 24.2 | |
| Sand | 31.3 | |
| Silt | 27.4 | |
| Clay | 17.0 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 50 | |
| D60 | 0.47 | |
| D10 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A | |

Notes

Sedimentation sample not pre-treated



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18/01/2024

PARTICLE SIZE DISTRIBUTION





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref

0.90

TP23

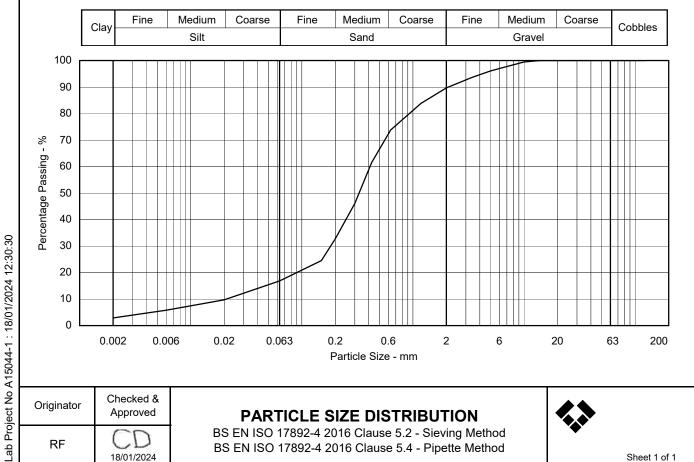
Depth (m) Sample Type В

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 100 100 100 100 100 99 97 96 94 90 84 74 61 46 33 24 17 10 6 |
| | |

| Non Engineering Description | |
|-----------------------------------------------------|--|
| | |
| Brown gravelly silty SAND. Gravel is fine to coarse | |

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 10.4 |
| Sand | 73.3 |
| Silt | 13.5 |
| Clay | 2.8 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 14 |
| D60 | 0.41 |
| D10 | 0.021 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 19.5 |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP23 Hole Sample Ref

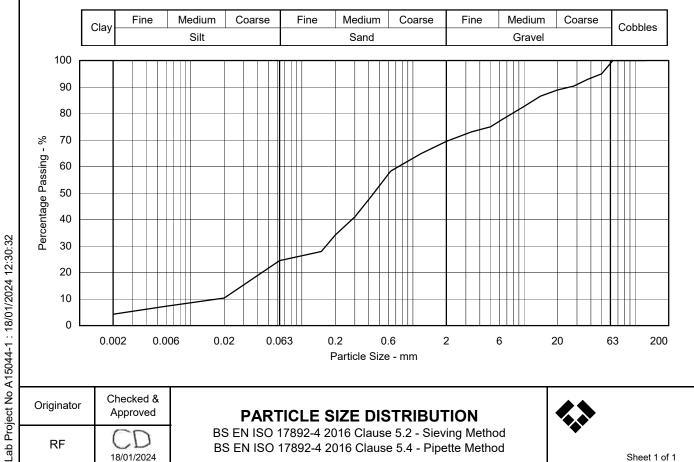
Depth (m) 1.25 Sample Type В

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm | 100 100 100 100 95 93 90 89 87 83 78 75 73 70 65 58 49 41 34 28 24 10 7 |
| 2 µm | |

| Non Engineering Description | |
|----------------------------------------------------------|--|
| | |
| Brown silty very gravelly SAND. Gravel is fine to coarse | |

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 30.5 |
| Sand | 46.0 |
| Silt | 19.2 |
| Clay | 4.3 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 0.75 |
| D10 | 0.018 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 41.7 |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION



SHE Transmission plc

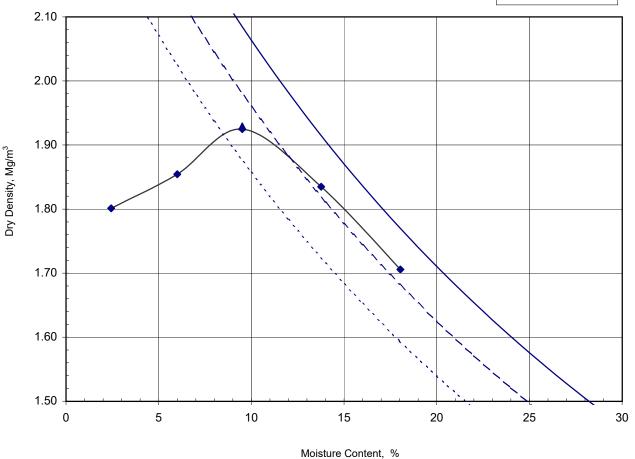
Engineer SSE Perth Inveralmond HSE **Contract No** 26555

TP08 Hole Sample Ref Depth (m)

Sample Type

1.00 В

0 % Air Voids 5 % Air Voids - - - -10 % Air Voids



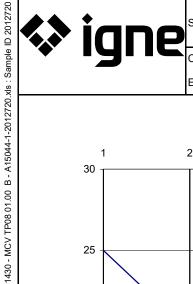
| Non Engineering Description | | Brown silty very gravelly SAND. Gravel is fine to coarse |
|--------------------------------|-------|----------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with particles up to medium-gravel size |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 0 |
| Mass Retained on 20.0 mm Sieve | % | 3 |
| Particle Density - Assumed | Mg/m³ | 2.60 |
| Natural Moisture Content | % | 0.0 |
| Maximum Dry Density | Mg/m³ | 1.93 |
| Optimum Moisture Content | % | 9.5 |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

Moisture Content / Dry Density Relationship



Lab Project No A15044-1: 18/01/2024 12:30:37 62 Rochsolloch Road, Airdrie, ML6 9BG



Site LT520 BRACO WEST SUBSTATION

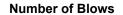
Client SHE Transmission plc

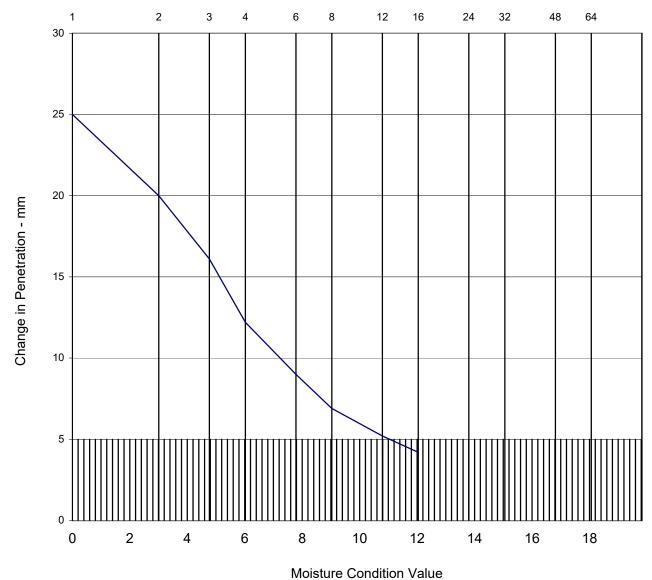
Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID TP08 Sample Ref

Depth (m) 1.00 Sample Type В





| Non Engineering Description | Brown silty very gravelly SAND. Gravel is fine to coarse |
|-----------------------------|----------------------------------------------------------|
| Determination No | 1 |
| Moisture Condition Value | 8.3 |
| Moisture Content | 6 19 |
| Method of determining MCV | Steepest fit line |
| Mass retained on 20mm sieve | 6 3.0 |
| Notes | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

MOISTURE CONDITION VALUE

BS1377:Part 4:1990 Clause 5.4





Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555
Hole ID TP01

Sample No
Depth (m) 0.60
Sample Type B

Non Engineering Brown silty sandy fine to coarse GRAVEL with cobbles **Description:**

Preparation Details:

Specimen was prepared at Natural Moisture Content

Compaction using 4.5kg compactive effort

Specimen Bulk Density 2.03 Mg/m³
Specimen Dry Density 1.69 Mg/m³
Mass of sample > 20 mm 41.3 %

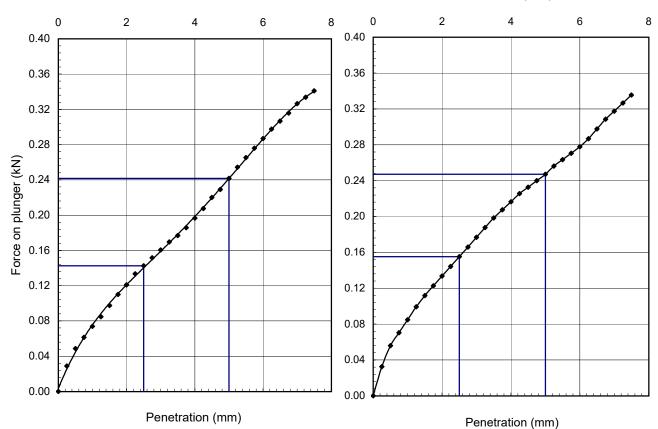
Specimen Unsoaked

Test Details: Top Base 2.0 2.0 Surcharge: kg kg 10 10 Seating Load: Ν Ν Moisture Content: 20 20 % %

CBR Value: 1.2 % 1.2 %

Top of Specimen Penetration (mm)

Base of Specimen Penetration (mm)



Non-standard test due to % retained on 20mm sieve

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

ab Project No A15044-1: 18/01/2024 12:30:39

62 Rochsolloch Road, Airdrie, ML6 9BG

CALIFORNIA BEARING RATIO

BS1377 : Part 4 : Clause 7 : 1990





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

Hole ID TP03 Sample No Depth (m)

Sample Type

0.60 В

Non Engineering Brown silty very sandy fine to coarse GRAVEL **Description:**

Preparation Details:

Specimen was prepared at Natural Moisture Content

Compaction using 4.5kg compactive effort

Specimen Bulk Density 1.95 Mg/m³ Specimen Dry Density 1.59 Mg/m³ 17.7 % Mass of sample > 20 mm

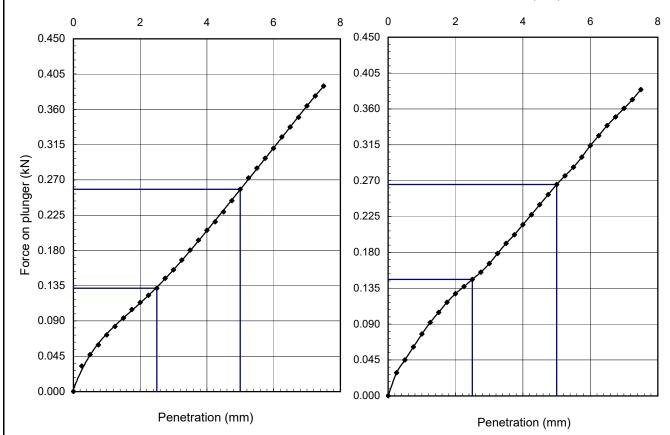
Specimen Unsoaked

Test Details: Top Base 2.0 2.0 Surcharge: kg kg 10 10 Seating Load: Ν Ν Moisture Content: 23 23 % %

CBR Value: 1.3 % 1.3 %

> Top of Specimen Penetration (mm)

Base of Specimen Penetration (mm)



| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 18/01/2024 |

CALIFORNIA BEARING RATIO

BS1377: Part 4: Clause 7: 1990





| ite | LT520 BRACO WEST SUBSTATION |
|-----|-----------------------------|
| ile | LIBZU BRACO WEST SUBSTATION |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID TP21 Sample No

Depth (m) 1.50 Sample Type B

Non Engineering Brown slightly gravelly slightly sandy CLAY with cobbles. Gravel is fine to coarse

Preparation Details:

Specimen was prepared at Natural Moisture Content

Compaction using 2.5kg compactive effort

Specimen Bulk Density 2.16 Mg/m³
Specimen Dry Density 1.85 Mg/m³
Mass of sample > 20 mm 20.8 %

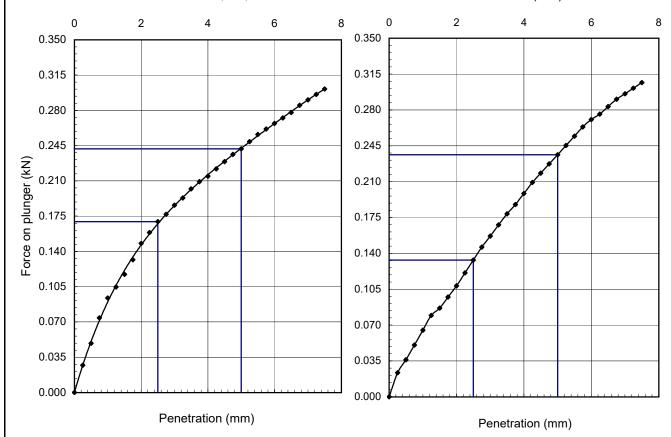
Specimen Unsoaked

Test Details: Top Base 2.0 Surcharge: 2.0 kg kg 10 10 Seating Load: Ν Ν Moisture Content: 17 17 % %

CBR Value: 1.3 % 1.2 %

Top of Specimen Penetration (mm)

Base of Specimen Penetration (mm)



| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

CALIFORNIA BEARING RATIO

BS1377 : Part 4 : Clause 7 : 1990





| Site | LT520 BRACO | WEST | SUBSTATION |
|--------|--------------|-------|------------|
| JILC . | LIJZU DINAGO | VVLOI | CODOIATION |

lient SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID TP22 Sample No

Depth (m) 1.00 Sample Type B

Non Engineering Brown very clayey SAND and GRAVEL. Gravel is fine to coarse **Description:**

Preparation Details:

Specimen was prepared at Natural Moisture Content

Compaction using 2.5kg compactive effort

Specimen Bulk Density 2.15 Mg/m³
Specimen Dry Density 1.84 Mg/m³
Mass of sample > 20 mm 12.2 %

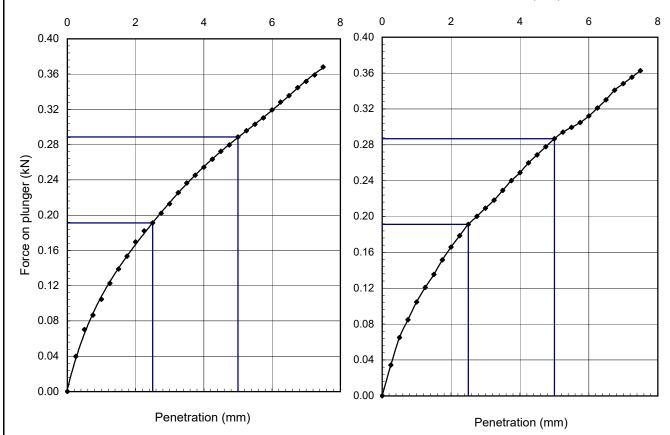
Specimen Unsoaked

Test Details: Base Top 2.0 Surcharge: 2.0 kg kg 10 10 Seating Load: Ν Ν Moisture Content: 17 17 % %

CBR Value: 1.4 % 1.4 %

Top of Specimen Penetration (mm)

Base of Specimen Penetration (mm)



| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

CALIFORNIA BEARING RATIO

BS1377 : Part 4 : Clause 7 : 1990





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

Hole ID TP23 Sample No Depth (m)

Sample Type

1.25 В

Non Engineering Brown silty very gravelly SAND. Gravel is fine to coarse **Description:**

Preparation Details:

Specimen was prepared at Natural Moisture Content

Compaction using 4.5kg compactive effort

Specimen Bulk Density 2.08 Mg/m³ Specimen Dry Density 1.76 Mg/m³ 13.7 % Mass of sample > 20 mm

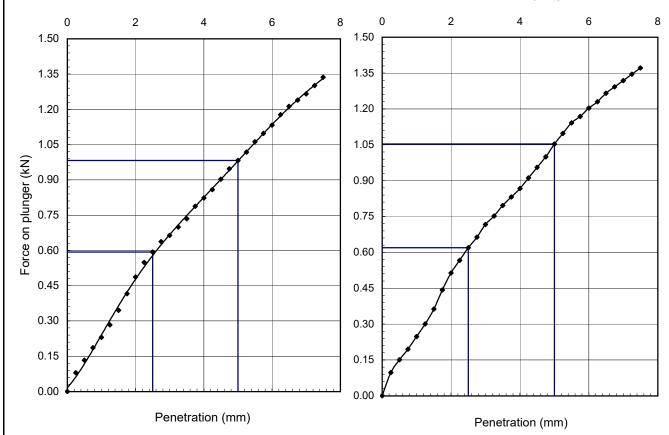
Specimen Unsoaked

Test Details: Top Base Surcharge: 2.0 2.0 kg kg 50 50 Seating Load: Ν Ν Moisture Content: 18 18 % %

5.3 **CBR Value:** 4.9 % %

> Top of Specimen Penetration (mm)

Base of Specimen Penetration (mm)



| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

CALIFORNIA BEARING RATIO

BS1377: Part 4: Clause 7: 1990



| Site | LT520 BRACO | WEST | CHESTATION |
|------|-------------|-----------|------------|
| JILC | | V V L O I | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

3

Sample Type

Specimen Details

Specimen Number

Depth within original sample n/a
Orientation within original sample n/a

Test condition Submerged

Non Engineering Description Brown silty sandy fine to coarse GRAVEL with cobbles

Preparation Material > 2mm removed (69% passing). Remoulded using 2.5kg

compactive effort at as-received moisture content

1

| <u>. </u> | | | | - |
|------------------------------------------------|--------|------|------|------|
| Length | mm | 60.0 | 60.1 | 60.0 |
| Width | mm | 60.0 | 60.0 | 60.0 |
| Height | mm | 25.0 | 25.0 | 25.0 |
| Initial moisture content | % | 15 | 15 | 15 |
| Initial wet density | Mg/m³ | 1.99 | 1.99 | 1.99 |
| Initial dry density | Mg/m³ | 1.73 | 1.73 | 1.73 |
| Particle Density (assumed) | Mg/m³ | 2.65 | 2.65 | 2.65 |
| | | | | |
| Consolidation Stage | | | | |
| Normal stress | kPa | 25 | 50 | 100 |
| Height change | mm | -2.6 | -3.2 | -4.3 |
| Duration | day(s) | 1 | 1 | 1 |
| | | | | |
| Shearing Stage | | | | |
| Normal stress | kPa | 25 | 50 | 100 |
| Peak Conditions: | | | | |
| Rate of horizontal displacement | mm/min | 0.06 | 0.06 | 0.06 |
| Maximum shear stress | kPa | 29 | 43 | 72 |
| Horizontal displacement | mm | 3.6 | 4.7 | 5.1 |
| Height change | mm | 1.1 | 0.9 | 1.2 |
| Final Conditions | | | | |
| Final moisture content | % | 23 | 23 | 22 |
| Duration | day(s) | 1 | 1 | 1 |
| | | | | |

Shear Strength Parameters

Maximum Condition: (linear tangent interpretation)

Effective Cohesion kPa 12
Effective Angle of Shearing Resistance degrees 32.5

| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 18/01/2024 |

62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/2024 12:30:52

Shear Strength by Direct Shear (small shearbox)



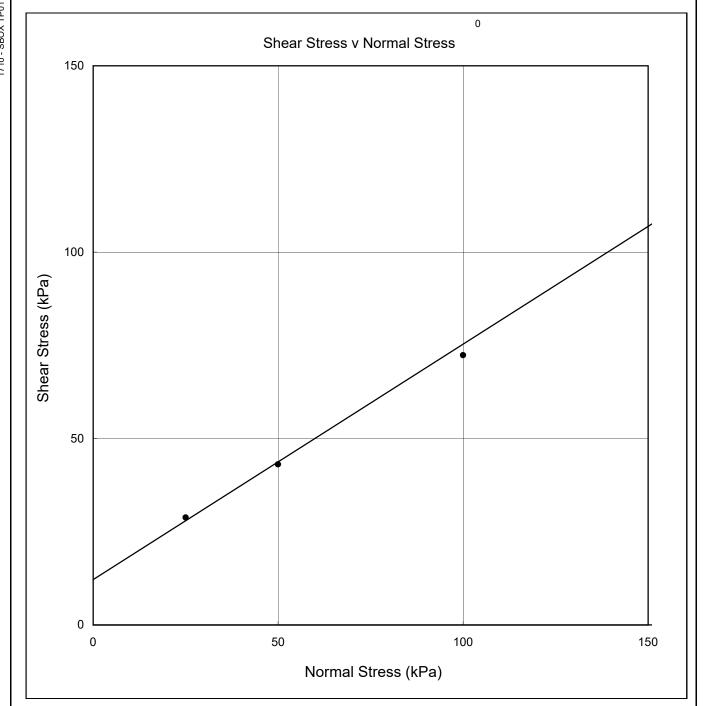
SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole Sample Ref Depth (m) TP01

Depth (m) 0.60 Sample Type B



Shear Strength Parameters

| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 18/01/2024 |

62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/202

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Client

Contract No 26555

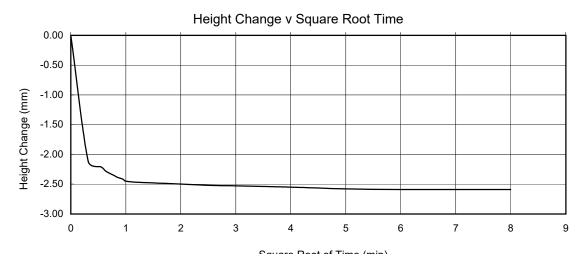
TP01 Hole Sample Ref Depth (m)

Sample Type

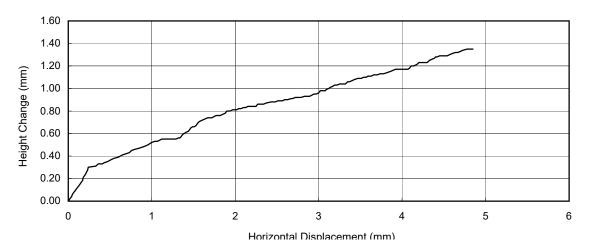
0.60

Specimen No. 1

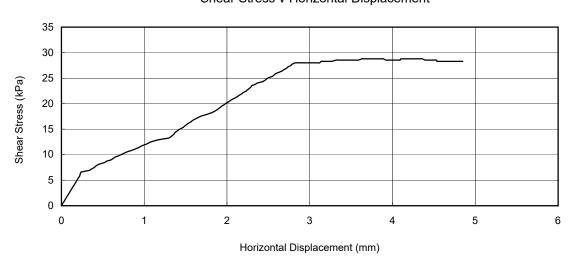
Normal Pressure = 25 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



| Originator | Checked & Approved | | | |
|------------|-----------------------|--|--|--|
| SG | CD 18/01/2024 | | | |

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1: 18/01/202

Sheet 3 of 5

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Client

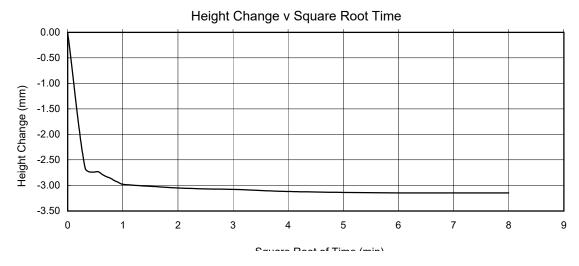
Contract No 26555

Hole TP01 Sample Ref

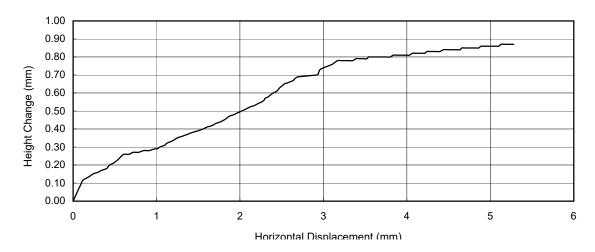
Depth (m) 0.60 Sample Type B

Specimen No. 2

Normal Pressure = 50 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



| Originator | Checked & Approved | | |
|------------|-----------------------|--|--|
| SG | 18/01/2024 | | |

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/202

Sheet 4 of 5

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Client

Contract No 26555

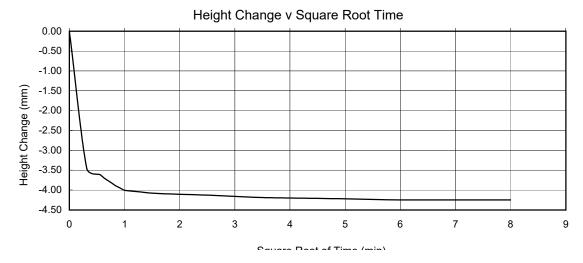
Hole Sample Ref

TP01

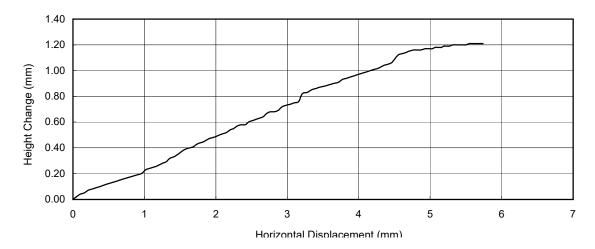
Depth (m) 0.60 Sample Type B

Specimen No. 3

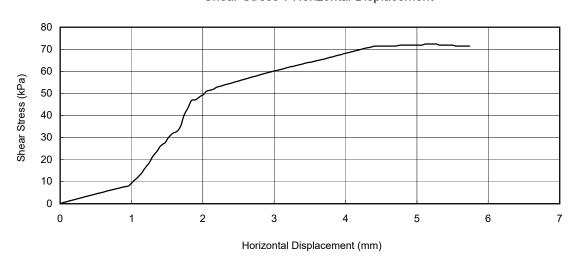
Normal Pressure = 100 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



| Originator | Checked & Approved | | |
|------------|-----------------------|--|--|
| SG | 18/01/2024 | | |

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/202

Sheet 5 of 5

| Site | LT520 BRACO | WEST | SUBSTATION |
|------|-------------|------|------------|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole TP03 Sample Ref Depth (m)

Sample Type

0.60

Specimen Details

Depth within original sample n/a n/a Orientation within original sample

Test condition Submerged

Brown silty very sandy fine to coarse GRAVEL Non Engineering Description

Preparation Material>2mm removed (52% passing). Remoulded using 2.5kg

compactive effort at as-received moisture content

| Specimen Number | | 1 | 2 | 3 |
|---------------------------------|--------|------|------|------|
| Length | mm | 60.0 | 60.0 | 60.0 |
| Width | mm | 60.0 | 59.9 | 60.0 |
| Height | mm | 25.0 | 25.0 | 25.0 |
| Initial moisture content | % | 17 | 17 | 17 |
| Initial wet density | Mg/m³ | 2.02 | 2.02 | 2.02 |
| Initial dry density | Mg/m³ | 1.73 | 1.73 | 1.73 |
| Particle Density (assumed) | Mg/m³ | 2.65 | 2.65 | 2.65 |
| Consolidation Stage | | | | |
| Normal stress | kPa | 25 | 50 | 100 |
| Height change | mm | -1.9 | -2.5 | -4.3 |
| Duration | day(s) | 1 | 1 | 1 |
| Shearing Stage | | | | |
| Normal stress | kPa | 25 | 50 | 100 |
| Peak Conditions: | | | | |
| Rate of horizontal displacement | mm/min | 0.06 | 0.06 | 0.06 |
| Maximum shear stress | kPa | 15 | 27 | 48 |
| Horizontal displacement | mm | 3.8 | 4.5 | 4.9 |
| Height change | mm | 0.7 | 1.3 | 2.2 |
| Final Conditions | | | | |
| Final moisture content | % | 20 | 21 | 21 |
| Duration | day(s) | 1 | 1 | 1 |

Shear Strength Parameters

Maximum Condition: (linear tangent interpretation)

2 **Effective Cohesion** kPa 26.5 Effective Angle of Shearing Resistance degrees

| Originator | Checked & Approved | | |
|------------|-----------------------|--|--|
| SG | CD 18/01/2024 | | |



SHE Transmission plc

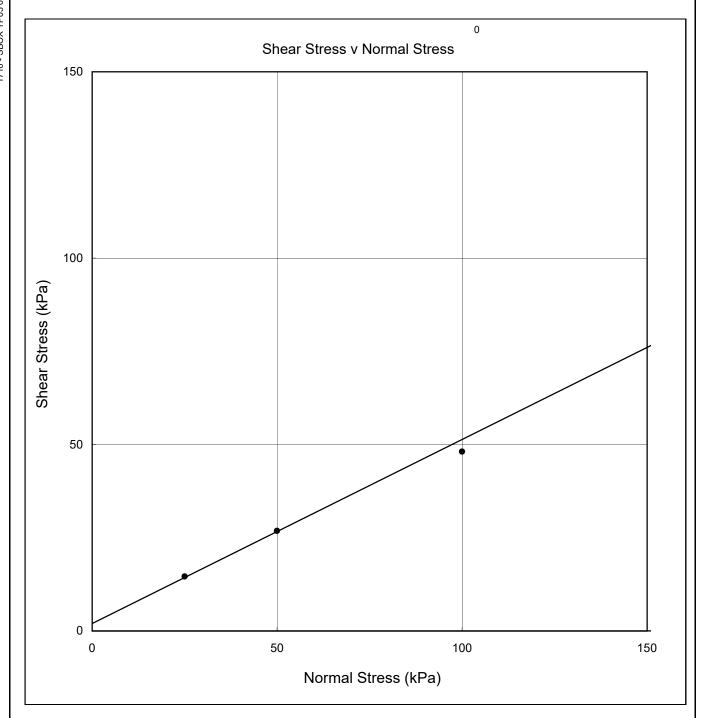
Engineer SSE Perth Inveralmond HSE

Contract No 26555

26555 TP03

Hole Sample Ref Depth (m) Sample Type

0.60 B



Shear Strength Parameters

| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 18/01/2024 |

62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/202

Shear Strength by Direct Shear (small shearbox)



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

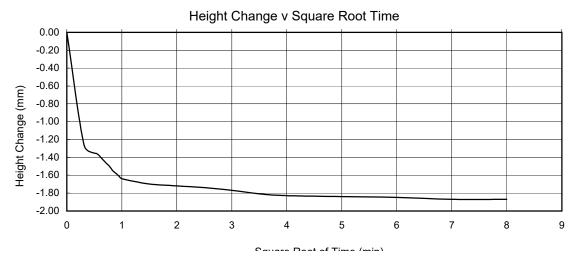
Contract No 26555

Hole TP03 Sample Ref

Depth (m) 0.60 Sample Type B

Specimen No. 1

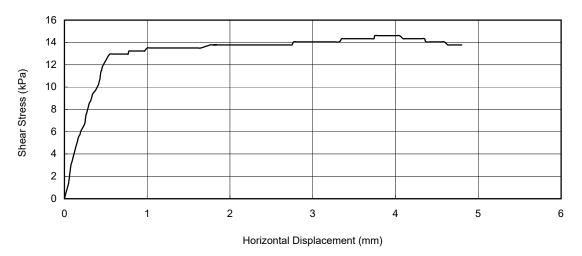
Normal Pressure = 25 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 18/01/2024 |

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1 : 18/01/202

Sheet 3 of 5

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Client

Contract No 26555

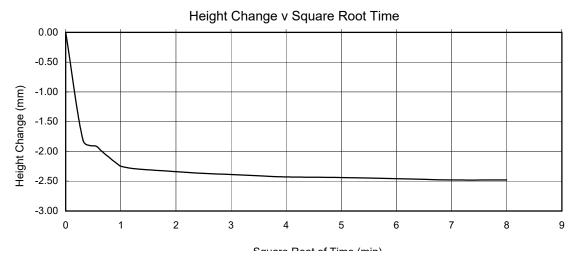
Hole Sample Ref Depth (m)

Sample Type

TP03

Specimen No. 2

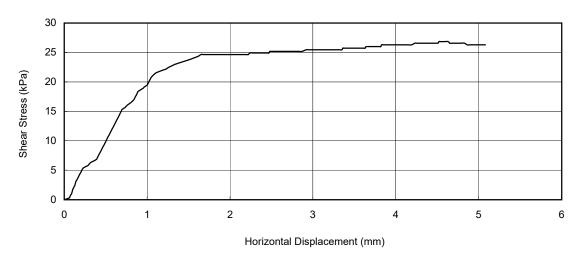
Normal Pressure = 50 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



Originator Checked & Approved

SG D
18/01/2024

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



SHE Transmission plc

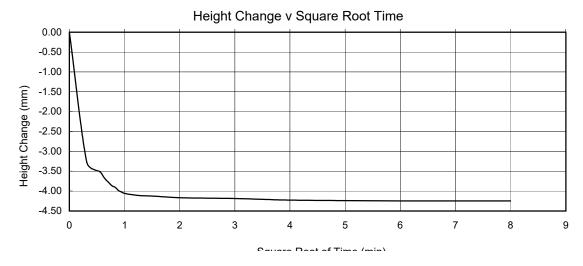
Engineer SSE Perth Inveralmond HSE Contract No 26555

TP03 Hole Sample Ref Depth (m)

0.60 Sample Type

Specimen No. 3

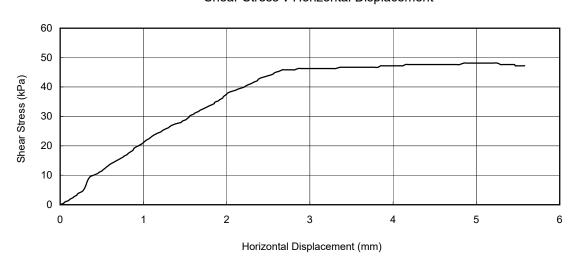
Normal Pressure = 100 kPa



Height Change v Horizontal Displacement



Shear Stress v Horizontal Displacement



| Originator | Checked & Approved |
|------------|-----------------------|
| SG | 18/01/2024 |

Shear Strength by Direct Shear (small shearbox)

BS1377:Part 7:1990 Clause 4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-1: 18/01/202

Sheet 5 of 5

Contract No 26555

| \ | י יצי | | Client | SHE Transmission plc | | | | | | |
|---------|-------------------------------|---------------|----------------|----------------------|-----------------------------------------------------|------------------------------------|----------------------------|--------------|-----------|--|
| | | E | ngineer | SSE Perf | SE Perth Inveralmond HSE | | | | | |
| Hole ID | Sample Identifi Depth m | Sample Ref | Sample Type | Lab Sample ID | 10-14mm Size Fraction Passing 11.2mm Sieve | Particle Density (8-12.5 mm) | Los Angeles Coefficient | Impact Value | Test Date | |
| | | | | | % | Mg/m³ | LA | SZ | | |
| TP06 | 1.00 | | В | 2012717 | 35 | ~ | 27 | ~ | ~ | |
| | | | | | UKAS | accredited test | Yes | No | | |
| Notes O | | | | | | | | | 1 | |

Notes Opinions and interpretations are outside the scope of UKAS accreditation.

Originator Approved DW

Lab Project No A15044-1: 18/01/2024 12:31:02 62 Rochsolloch Road, Airdrie, ML6 9BG

RESISTANCE TO FRAGMENTATION BY LOS ANGELES AND IMPACT TEST METHODS BS EN 1097-2:2020





Summary of Chemical Analysis Soil Samples

Our Ref 23-30018 Client Ref A15044-1 Contract Title A15044-1

| Lab No | 2280455 | 2280456 | 2280457 | 2280458 |
|----------------------|---------|---------|---------|---------|
| .Sample ID | TP01 | TP03 | TP03 | TP08 |
| Depth | 0.60 | 0.60 | 1.30 | 1.00 |
| Other ID | 2072711 | 2072713 | 2072715 | 2072719 |
| Sample Type | SOIL | SOIL | SOIL | SOIL |
| Sampling Date | n/s | n/s | n/s | n/s |
| Sampling Time | n/s | n/s | n/s | n/s |

| Test | Method | LOD | Units | | | | |
|---------------------------------------|-------------|-----|-------|-----|-----|-----|-----|
| Inorganics | | | | | | | |
| рН | DETSC 2008# | | рН | 7.1 | 6.1 | 6.5 | 5.9 |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | 200 | 49 | 160 | 32 |



Information in Support of the Analytical Results

Our Ref 23-30018 Client Ref A15044-1 Contract A15044-1

Containers Received & Deviating Samples

Date Inappropriate container for

| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
|---------|----------------|---------|---------------------|------------------------------------------------------|-------|
| 2280455 | TP01 0.60 SOIL | | PT 500ml | Sample date not supplied, Anions 2:1 (30 days), pH + | |
| | | | | Conductivity (7 days) | |
| 2280456 | TP03 0.60 SOIL | | PT 500ml | Sample date not supplied, Anions 2:1 (30 days), pH + | |
| | | | | Conductivity (7 days) | |
| 2280457 | TP03 1.30 SOIL | | PT 500ml | Sample date not supplied, Anions 2:1 (30 days), pH + | |
| | | | | Conductivity (7 days) | |
| 2280458 | TP08 1.00 SOIL | | PT 500ml | Sample date not supplied, Anions 2:1 (30 days), pH + | |
| | | | | Conductivity (7 days) | |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-2

Issue No 01

LABORATORY TEST REPORT

| Project Nar Project Nur | | LT520 BRACO WEST SUBSTATION A15044-2 Date samples received | | 13/12/2023 | |
|----------------------------|----------------------------|------------------------------------------------------------|----------------------------------------------------------|-------------------------|--|
| Your Ref | IIDCI | 26555 | Date written instructions received | 14/12/2023 | |
| Purchase Order | | 26555 | | 19/12/2023 | |
| ruiciiase (| Jidei | | Date testing commenced d the results as summarised below | 19/12/2023 | |
| F: / | Ι | | a the results as summarised selection | 1 | |
| Figure / Table | Test Quantity | Description | | ISO 17025 Accredited | |
| | 12 | Determination of Water Content Yes | | | |
| | 2 | Atterberg Limit Yes | | | |
| | 8 | Particle Size Distribution | | | |
| | 2 | Moisture Content / Dry Density Relationship | | Yes | |
| | 4 Moisture Condition Value | | Yes | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Remarks:

Issued by: C Donnelly Date of Issue: 18/01/2024 Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories : 18/01/20

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

This report should not be reproduced except in full without the written approval of the laboratory.

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory.

The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

Feedback on the this report may be left via our website www.igne.com/contact







62 Rochsolloch Road, Airdrie, ML6 9BG
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Offices in Airdrie, Birmingham and Aston Clinton

| Version 026 - 01/09/2023 | 2 - Moisture Content Table - A15044-2 vls |
|--------------------------|-------------------------------------------|
| | |

SHE Transmission plc

Engineer

| SSE Perth | Inveralmond HSE |
|-----------|-----------------|
| | |

| ent T | | Sample Identifi | cation | | | <u> </u> | |
|-----------------------------------------------------------------------------|---------------------|-----------------|---------------|-------------------------------------|---------------------------|-----------------------------------------------------------------------|--------------------|
| 1212 - Moisture Content T. | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | TP02 | 0.70 | | В | 2013055 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 16.8 |
| | TP02 | 0.70 | | D | 2013053 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 7.2 |
| | TP02 | 1.50 | | D | 2013057 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 15.2 |
| | TP10 | 2.20 | | В | 2013058 | Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse | 8.0 |
| | TP11 | 0.70 | | D | 2013060 | Brown very silty very gravelly SAND. Gravel is fine to coarse | 18.2 |
| | TP11 | 1.00 | | В | 2013061 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 9.7 |
| | TP11 | 1.10 | | D | 2013063 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 15.3 |
| | TP11 | 2.50 | | D | 2013065 | Brown very clayey SAND and GRAVEL. Gravel is fine to coarse | 16.7 |
| | TP19 | 1.10 | | В | 2013068 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 15.8 |
| | TP19 | 1.10 | | D | 2013067 | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse | 16.1 |
| | TP20 | 1.40 | | В | 2013071 | Brown clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse | 13.1 |
| 16:25:38 | TP20 | 1.40 | | D | 2013069 | Brown clayey SAND and GRAVEL. Gravel is fine to coarse | 17.3 |
| Project No A15044-2: 18/01/2024 16:25:38 | | | | | | | |
| 3044-2 : 18 | Notes | | | | | | |
| Notes Notes Checked & Approved Originator Approved Determination of the | | | | | tion of the Water Content | | |
| Lab Proje | TP | 18/01/202 |) | BS EN ISO 17892-1:2014 Sheet 1 of 1 | | | Sheet 1 of 1 |

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | CD 18/01/2024 |

62 Rochsolloch Road, Airdrie, ML6 9BG



Contract No

26555

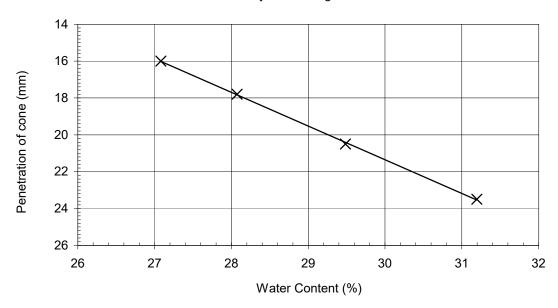


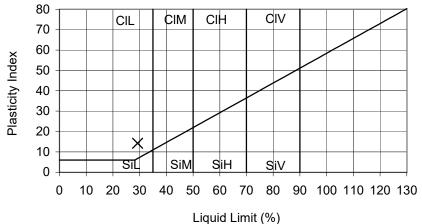
Non Engineering Description: Brown slightly gravelly slightly sandy CLAY. Gravel is fine to

coarse

Preparation: Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone Results:

| As Received Water Content: (BS EN ISO 17892-1:2014) | 15.3 | % |
|-----------------------------------------------------|------|---|
| Percentage retained on 425µm sieve : | 40 | % |
| Liquid Limit : | 29 | % |
| Plastic Limit : | 15 | % |
| Plasticity Index : | 14 | |
| | | |

Equivalent water content of material passing 425µm sieve : 25.5 % Liquidity Index: 0.75

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 18/01/2024 |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5



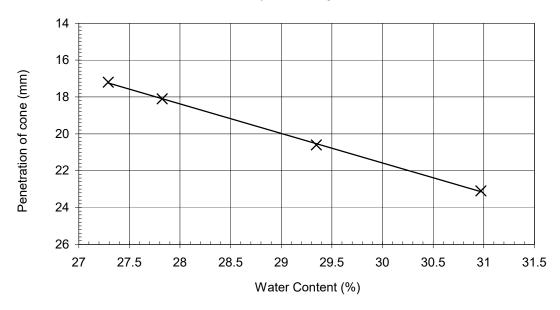


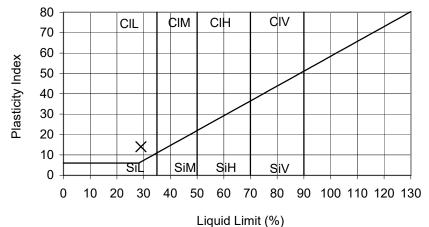
Non Engineering Description: Brown slightly gravelly slightly sandy CLAY. Gravel is fine to

coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content: (BS EN ISO 17892-1:2014)

Percentage retained on 425µm sieve:

Liquid Limit:

Plastic Limit:

15 %

Plasticity Index:

Equivalent water content of material passing 425µm sieve : 31.6 % Liquidity Index : 1.19

| Originator | Checked & Approved | Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index |
|------------|-----------------------|------------------------------------------------------------------------------------------------------|
| NW | CD 18/01/2024 | BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5 |





| NC |
|----|
| |

SHE Transmission plc

6

4

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref Depth (m)

0.70 Sample Type В

TP02

| Particle Size | % Passing |
|---------------|-----------|
| | |
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 100 |
| 50.0 mm | 97 |
| 37.5 mm | 91 |
| 28.0 mm | 83 |
| 20.0 mm | 78 |
| 14.0 mm | 76 |
| 10.0 mm | 71 |
| 6.30 mm | 67 |
| 5.00 mm | 65 |
| 3.35 mm | 63 |
| 2.00 mm | 59 |
| 1.18 mm | 53 |
| 630 µm | 46 |
| 425 μm | 38 |
| 300 µm | 33 |
| 200 µm | 28 |
| 150 µm | 25 |
| 63 µm | 23 |
| 20 µm | 12 |

6 µm

2 µm

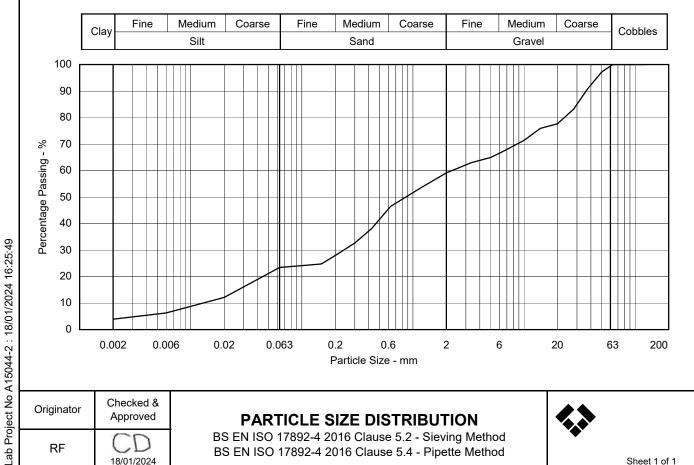
| Non Engineering | Description |
|-----------------|-------------|
| | |

Brown silty SAND and GRAVEL. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 0.0 | |
| Gravel | 40.9 | |
| Sand | 36.5 | |
| Silt | 18.8 | |
| Clay | 3.9 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 63 | |
| D60 | 2.3 | |
| D10 | 0.013 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 176.9 | |

Notes

Sedimentation sample not pre-treated



Checked & Originator Approved RF 18/01/2024

PARTICLE SIZE DISTRIBUTION





| ite | LT520 BRACO WEST SUBSTATION |
|-----|------------------------------|
| ito | LIDZO DIVACO WEGI GODGIATION |

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP02 Hole Sample Ref

| Depth (m) | 1.50 |
|-------------|------|
| Sample Type | В |

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm | 100 100 100 93 88 86 84 78 76 72 67 65 63 59 54 47 38 33 28 25 24 |
| 6 μm 2 μm | 6 4 |

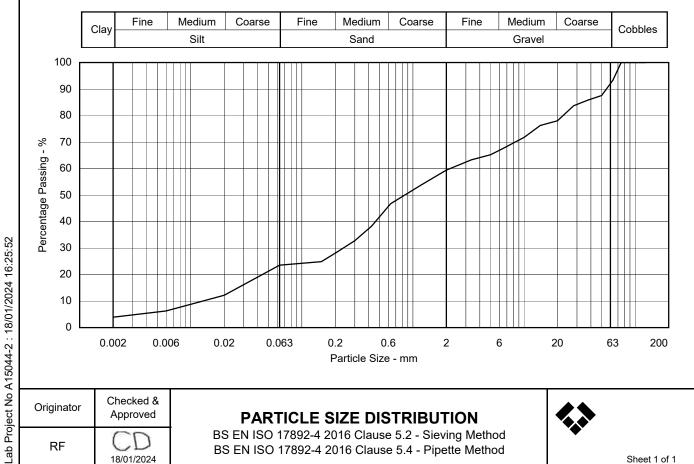
| Non Engineering | g Description |
|-----------------|---------------|
| | |

Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 6.7 | |
| Gravel | 33.9 | |
| Sand | 36.6 | |
| Silt | 18.9 | |
| Clay | 3.9 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 75 | |
| D60 | 2.2 | |
| D10 | 0.013 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 169.2 | |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| te | LT520 BRACO WEST SUBSTATION |
|----|------------------------------|
| ic | LIDZO DIVACO WEGI GODOTATION |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP10 Sample Ref

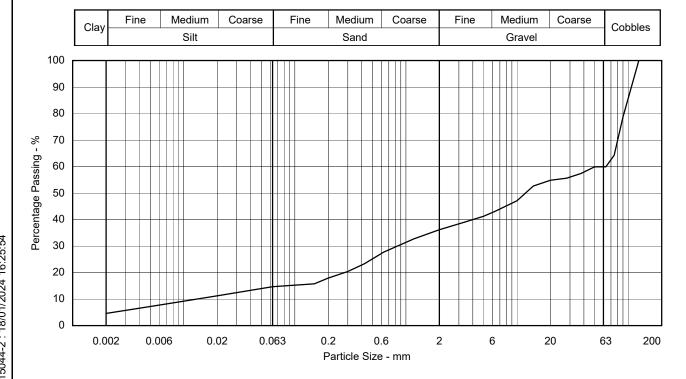
Depth (m) 2.20 Sample Type B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm | 100 79 64 60 60 57 56 55 53 47 43 41 39 36 33 28 23 20 18 16 15 |
| 2 µm | 5 |

| Non Engineering Description | | |
|--------------------------------------------------------------------|--|--|
| Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse | | |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|--------|--|
| Cobbles | 40.1 | |
| Gravel | 23.7 | |
| Sand | 21.8 | |
| Silt | 9.8 | |
| Clay | 4.5 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 125 | |
| D60 | 63 | |
| D10 | 0.013 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 4846.2 | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





| ite | LT520 BRACO WES | ST SUBSTATION |
|-----|-----------------|---------------|
|-----|-----------------|---------------|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref

TP11

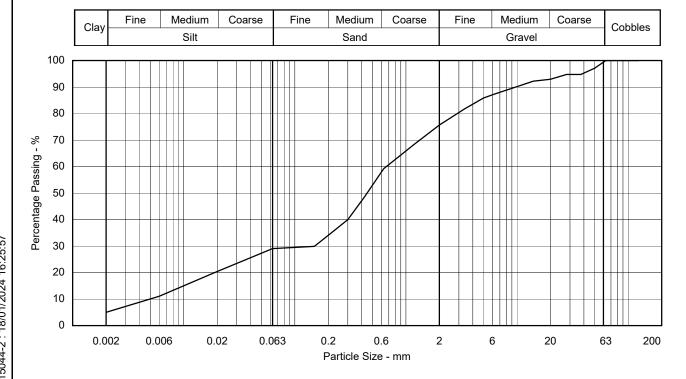
| Depth (m) | 0.70 |
|-------------|------|
| Sample Type | В |

| Particle Size | % Passing |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 200 µm 150 µm 63 µm 20 µm | 100 100 100 100 97 95 95 93 92 90 87 86 82 76 68 59 49 40 34 30 29 20 11 |
| 2 μπ | Ŭ |

| Non Engineering Description | |
|---------------------------------------------------------------|--|
| Brown very silty very gravelly SAND. Gravel is fine to coarse | |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|--------|--|
| Cobbles | 0.0 | |
| Gravel | 24.3 | |
| Sand | 47.2 | |
| Silt | 23.5 | |
| Clay | 5.0 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 63 | |
| D60 | 0.67 | |
| D10 | 0.0050 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 134.0 | |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |
| | |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP11 Hole Sample Ref

Depth (m) 1.10 Sample Type В

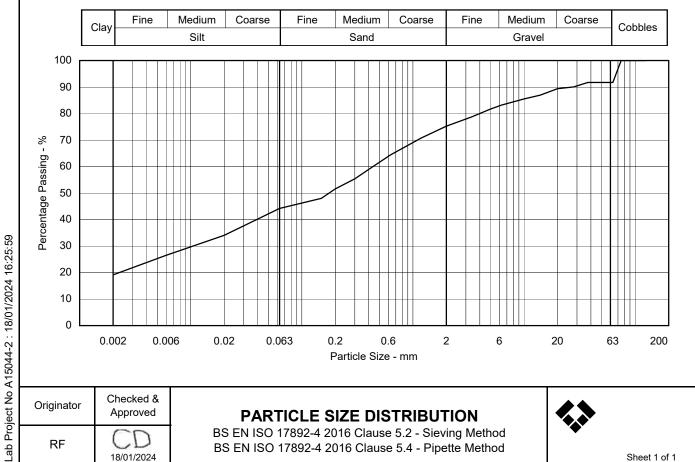
| Particle Size | % Passing |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Particle Size 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 28.0 mm 28.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 μm 425 μm 300 μm 200 μm 150 μm 63 μm 20 μm 63 μm 20 μm | % Passing 100 100 100 92 92 92 90 89 87 85 83 82 79 75 71 64 60 55 52 48 44 34 26 |
| 6 μm 2 μm | 26 19 |

Non Engineering Description

Brown slightly gravelly slightly sandy CLAY with cobbles. Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|------|
| Cobbles | 8.3 |
| Gravel | 16.5 |
| Sand | 31.7 |
| Silt | 24.4 |
| Clay | 19.1 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 75 |
| D60 | 0.44 |
| D10 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





SHE Transmission plc

23

16

8

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP11 Hole Sample Ref

Depth (m) 2.50 Sample Type В

| % Passing |
|-----------|
| |
| 100 |
| 100 |
| 91 |
| 85 |
| 80 |
| 75 |
| 73 |
| 71 |
| 68 |
| 65 |
| 62 |
| 60 |
| 57 |
| 55 |
| 51 |
| 45 |
| 39 |
| 35 |
| 31 |
| 28 |
| 26 |
| |

20 µm 6 µm

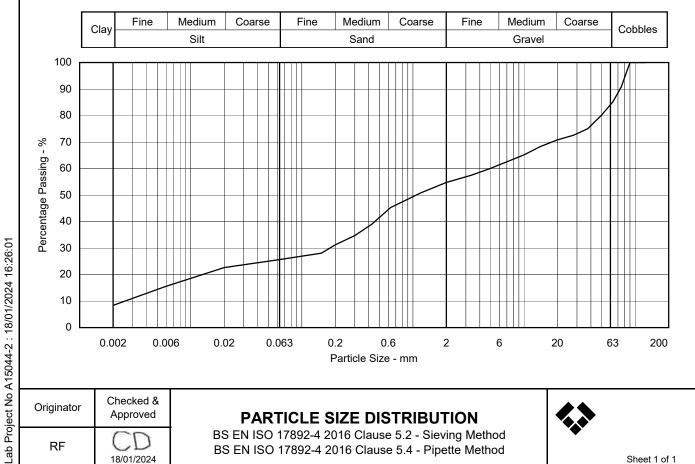
2 µm

Brown very clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|--------|
| Cobbles | 14.9 |
| Gravel | 30.4 |
| Sand | 29.3 |
| Silt | 17.1 |
| Clay | 8.4 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 90 |
| D60 | 5.0 |
| D10 | 0.0026 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 1923.1 |

Notes

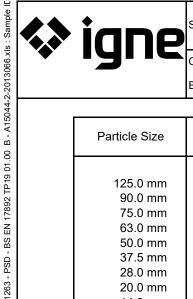
Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP19 Hole Sample Ref

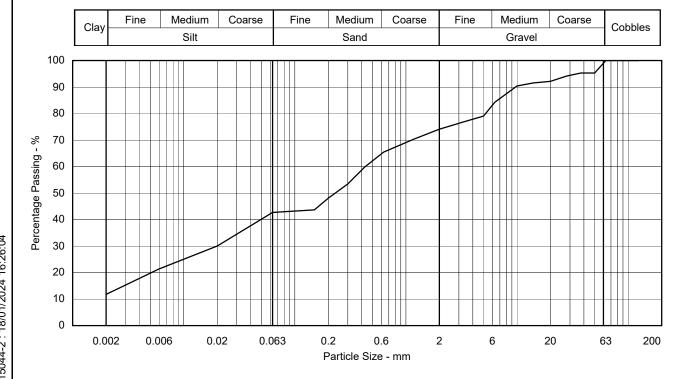
| Depth (m) | 1.00 |
|-------------|------|
| Sample Type | В |

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm 20 µm | 100 100 100 100 95 95 94 92 92 90 84 79 77 74 70 65 60 53 48 44 43 30 21 12 |
| | |

| Non Engineering Description | |
|-----------------------------|--|
| | |
| | |
| | |
| | |
| | |
| Sample Proportions % | |

| Sample Proportions - % | |
|-------------------------------------------------------------------|------|
| Cobbles | 0.0 |
| Gravel | 25.9 |
| Sand | 32.3 |
| Silt | 30.0 |
| Clay | 11.7 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 0.43 |
| D10 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |
| | |

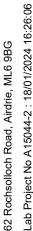


| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION



1263 - PSD - BS EN 17892 TP20 01.40 B - A15044-2-2013070.xls : Sample ID 2013070





| ite LT520 BRACO WEST SUBSTATION |
|---------------------------------|
|---------------------------------|

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP20 Sample Ref

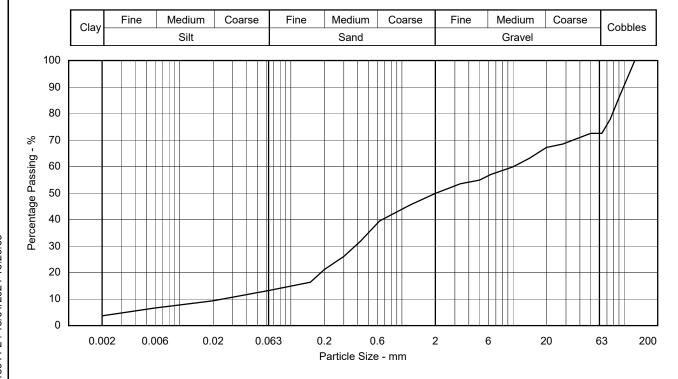
Depth (m) 1.40 Sample Type B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 86 78 72 72 71 68 67 63 60 57 55 53 50 45 39 32 26 21 16 13 9 7 |
| | |

| Non Engineering Description | | |
|---------------------------------------------------------------------|--|--|
| Brown clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse | | |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 27.5 | |
| Gravel | 22.6 | |
| Sand | 36.9 | |
| Silt | 9.3 | |
| Clay | 3.6 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 125 | |
| D60 | 10 | |
| D10 | 0.025 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 400.0 | |

| Notes | | |
|--------------------------------------|--|--|
| Sedimentation sample not pre-treated | | |
| | | |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method



Sheet 1 of 1

| Site | LT520 BRACO WEST SUBSTATION |
|------|-----------------------------|

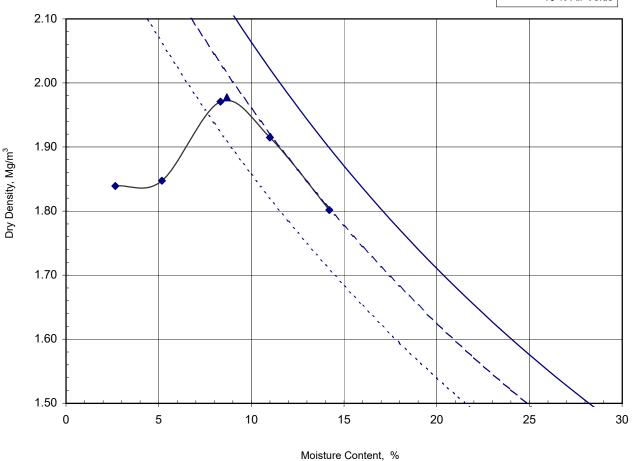
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP02 Sample Ref

Depth (m) 0.70 Sample Type B



| Non Engineering Description | | Brown silty SAND and GRAVEL. Gravel is fine to coarse |
|--------------------------------|-------|---------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 9 |
| Mass Retained on 20.0 mm Sieve | % | 23 |
| Particle Density - Assumed | Mg/m³ | 2.60 |
| Natural Moisture Content | % | 17 |
| Maximum Dry Density | Mg/m³ | 1.98 |
| Optimum Moisture Content | % | 8.7 |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

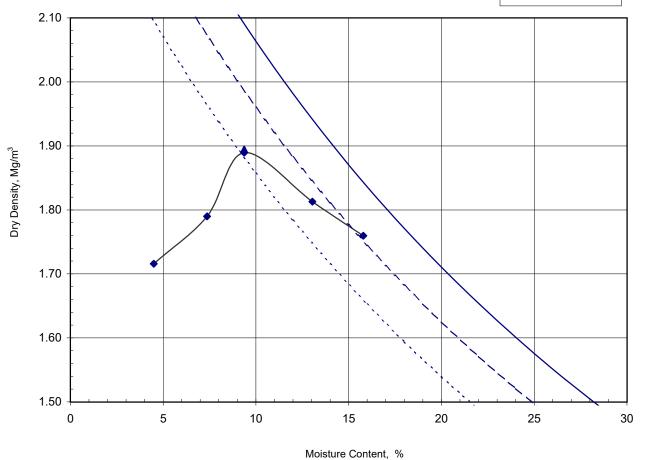
Contract No 26555

Hole TP11 Sample Ref Depth (m) 1.00

Sample Type

0 % Air Voids
- — 5 % Air Voids
- - - - 10 % Air Voids

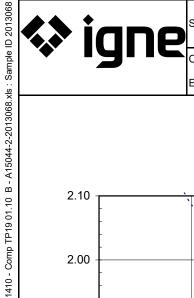
В



| Non Engineering Description | | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse |
|--------------------------------|-------|-----------------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 2.5kg Rammer for soils with particles up to medium-gravel size |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 0 |
| Mass Retained on 20.0 mm Sieve | % | 4 |
| Particle Density - Assumed | Mg/m³ | 2.60 |
| Natural Moisture Content | % | 9.7 |
| Maximum Dry Density | Mg/m³ | 1.89 |
| Optimum Moisture Content | % | 9.4 |

| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 18/01/2024 |



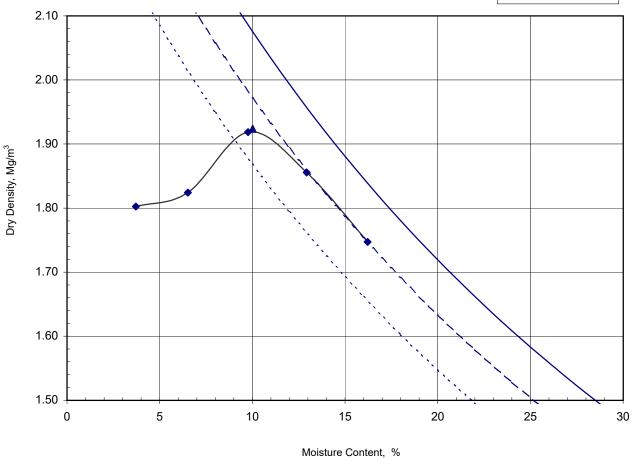


lient SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP19
Sample Ref
Depth (m) 1.10
Sample Type B



| Non Engineering Description | | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse |
|--------------------------------|-------|-----------------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 2.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 3 |
| Mass Retained on 20.0 mm Sieve | % | 15 |
| Particle Density - Assumed | Mg/m³ | 2.62 |
| Natural Moisture Content | % | 16 |
| Maximum Dry Density | Mg/m³ | 1.92 |
| Optimum Moisture Content | % | 10.0 |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |



Client SHE Transmission plc

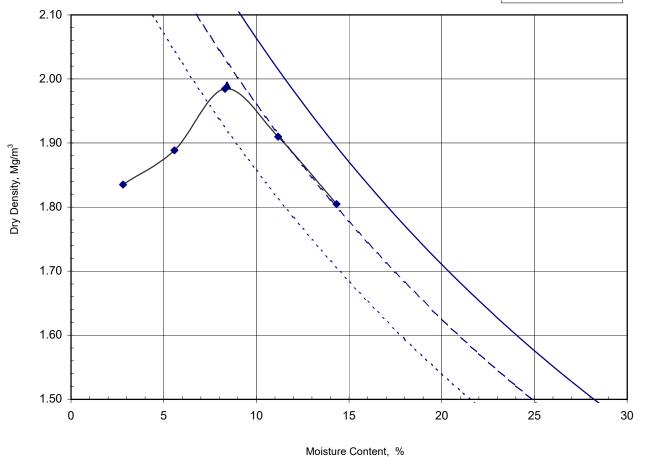
Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP20 Sample Ref

Depth (m) 1.40 Sample Type B

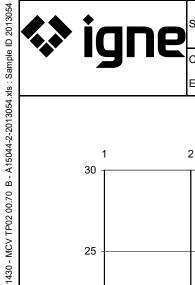
Non-standard test due to % retained on 20mm/37.5mm sieve



| Non Engineering Description | | Brown clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse |
|--------------------------------|-------|---------------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 28 |
| Mass Retained on 20.0 mm Sieve | % | 31 |
| Particle Density - Assumed | Mg/m³ | 2.60 |
| Natural Moisture Content | % | 13 |
| Maximum Dry Density | Mg/m³ | 1.99 |
| Optimum Moisture Content | % | 8.4 |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |





Client SHE Transmission plc

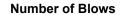
Engineer SSE Perth Inveralmond HSE

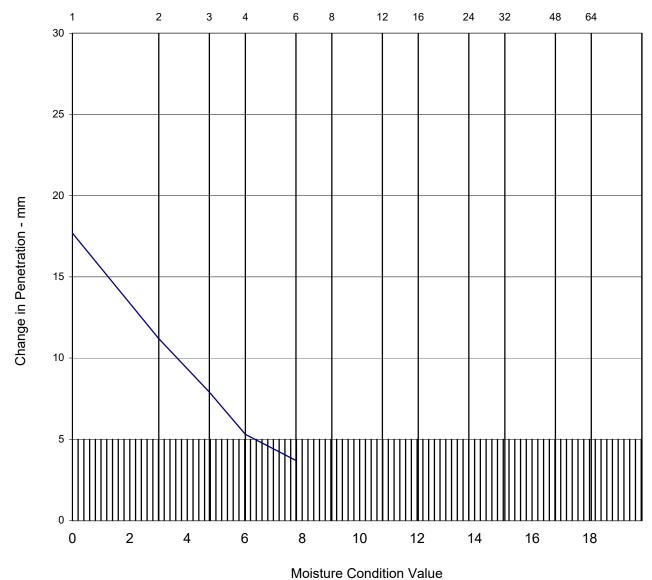
26555 **Contract No**

Hole ID TP02

Sample Ref Depth (m)

0.70 Sample Type В





| Non Engineering Description | | Brown silty SAND and GRAVEL. Gravel is fine to coarse |
|-----------------------------|---|-------------------------------------------------------|
| Determination No | | 1 |
| Moisture Condition Value | | 5.9 |
| Moisture Content | % | 19 |
| Method of determining MCV | | Steepest fit line |
| Mass retained on 20mm sieve | % | 22.0 |
| Notes | | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

MOISTURE CONDITION VALUE



1430 - MCV TP11 01.00 B - A15044-2-2013061.xls : Sample ID 2013061



Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

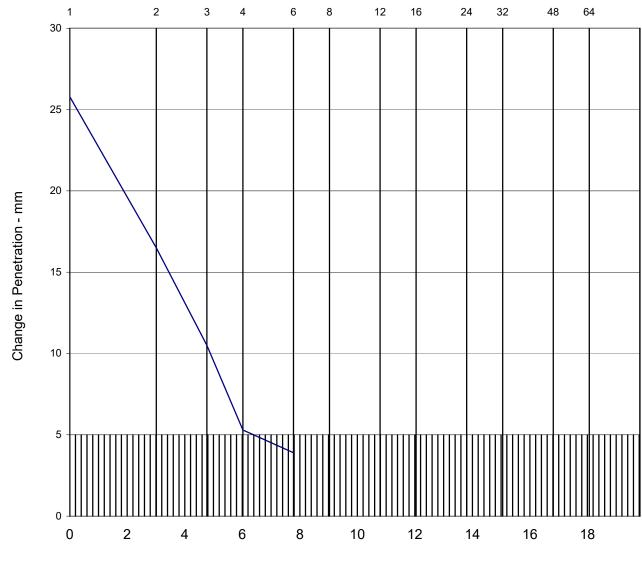
Contract No 26555

Hole ID TP11 Sample Ref

1.00

Depth (m) 1.00 Sample Type B

Number of Blows



Moisture Condition Value

| Non Engineering Description | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse |
|-------------------------------|-----------------------------------------------------------------------|
| Determination No | 1 |
| Moisture Condition Value | 6.1 |
| Moisture Content % | 14 |
| Method of determining MCV | Steepest fit line |
| Mass retained on 20mm sieve % | 11.0 |
| Notes | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

MOISTURE CONDITION VALUE



1430 - MCV TP19 01.10 B - A15044-2-2013068.xls : Sample ID 2013068



Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

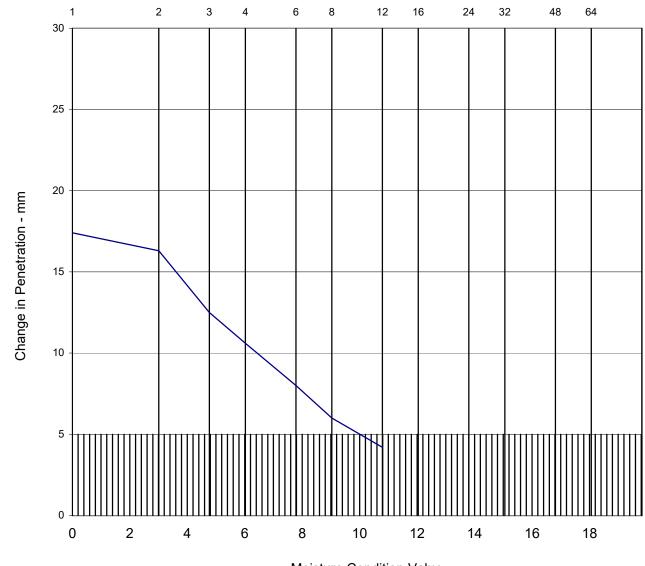
26555 **Contract No**

Hole ID TP19

Sample Ref Depth (m)

1.10 Sample Type В





Moisture Condition Value

| Non Engineering Description | Brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse |
|-------------------------------|-----------------------------------------------------------------------|
| Determination No | 1 |
| Moisture Condition Value | 8.2 |
| Moisture Content % | 17 |
| Method of determining MCV | Steepest fit line |
| Mass retained on 20mm sieve % | 7.0 |
| Notes | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

MOISTURE CONDITION VALUE





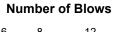
Client SHE Transmission plc

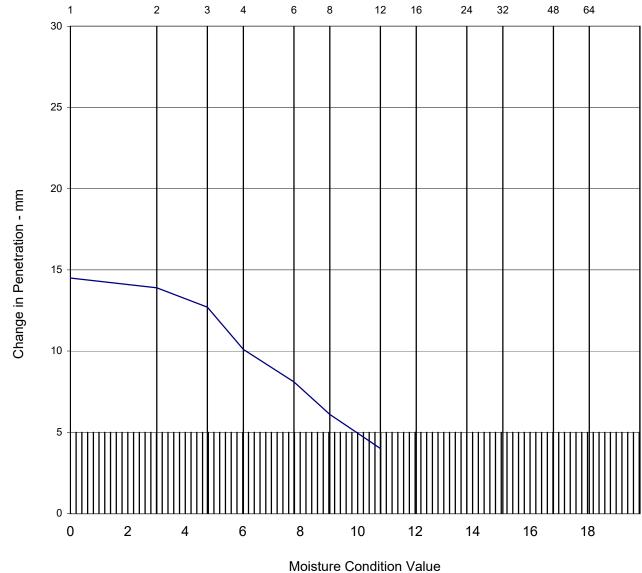
Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID Sample Ref Depth (m) TP20 1.40

Depth (m) 1.40 Sample Type B





| Non Engineering Description | Brown clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse |
|-----------------------------|---------------------------------------------------------------------|
| Determination No | 1 |
| Moisture Condition Value | 8.5 |
| Moisture Content | 6 18 |
| Method of determining MCV | Steepest fit line |
| Mass retained on 20mm sieve | 6 33.0 |
| Notes | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 18/01/2024 |

MOISTURE CONDITION VALUE





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-3

Issue No 01

LABORATORY TEST REPORT

| Project Name LT520 BRACO WEST SUBSTATION Project Number A15044-3 Date samples received Your Ref 26555 Date written instructions received Purchase Order 26555 Date testing commenced | | 13/12/2023 | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------|-----------------------------------------------------------|-------------------------|
| | | 26555 | | 13/12/2023 |
| | | | | |
| Purchase C | Jider | 26555 | Date testing commenced ed the results as summarised below | 18/12/2023 |
| | | Tiease illia eliciose | the results as summarised below | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited |
| | 9 | Determination of Water Co | ntent | Yes |
| | 5 | Particle Size Distribution | | Yes |
| | 4 | Moisture Content / Dry Density Relationship | | Yes |
| | 4 | Moisture Condition Value | | Yes |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Remarks:

Issued by: C Donnelly Date of Issue: 19/01/2024 Key to symbols used in this report

S/C: Testing was sub-contracted

(,)

Approved Signatories : 19/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

This report should not be reproduced except in full without the written approval of the laboratory.

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory.

The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

Feedback on the this report may be left via our website www.igne.com/contact







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www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton

| Version 026 - 01/09/2023 | 1212 Moisture Content Table A15041 3 vis |
|--------------------------|------------------------------------------|
| | |



SHE Transmission plc

Engineer

SSE Perth Inveralmond HSE

| ıt Tal | | | E | ngineer | SSE Perth Inv | veralmond HSE | ı |
|-----------------------------------------------|---------------------|--------------------|---------------|----------------|-----------------------------------------------------------|-----------------------------------------------------------------------------|--------------------|
| onten | 5 | Sample Identifi | cation | | | | |
| 1212 - Moisture Content Tak | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | TP04 | 0.60 | | В | 2012986 | Brown slightly grvaelly slighty sandy clayey SILT. Gravel is fine to coarse | 13.7 |
| | TP04 | 0.60 | | D | 2012984 | Brown slightly grvaelly slighty sandy clayey SILT. Gravel is fine to coarse | 9.7 |
| | TP04 | 1.60 | | В | 2012989 | Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse | 16.9 |
| | TP04 | 1.60 | | D | 2012987 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 20.1 |
| | TP05 | 2.00 | | В | 2012990 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 13.9 |
| | TP09 | 0.60 | | В | 2012991 | Brown slightly silty very sandy fine to coarse GRAVEL | 18.4 |
| | TP09 | 0.60 | | В | 2012992 | Brown slightly silty very sandy fine to coarse GRAVEL | 17.5 |
| | TP09 | 1.00 | | В | 2012993 | Brown slightly silty very sandy fine to coarse GRAVEL with cobbles | 15.5 |
| | TP09 | 1.50 | | В | 2012994 | Brown slightly silty very sandy fine to coarse GRAVEL | 17.3 |
| | | | | | | | |
| | | | | | | | |
| 2:15:56 | | | | | | | |
| Lab Project No A15044-3 : 19/01/2024 12:15:56 | | | | | | | |
| 044-3:19/ | Notes | | | | | | |
| , A150 | Notes | ı | ı | | | | |
| Project No A1504 | Originator | Checked Approve | | D | Determination of the Water Content BS EN ISO 17892-1:2014 | | |
| Lab F | TP | 19/01/202 | 24 | | | | Sheet 1 of 1 |

62 Rochsolloch Road, Airdrie, ML6 9BG



Contract No

26555



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref

Depth (m) 0.60 Sample Type

В

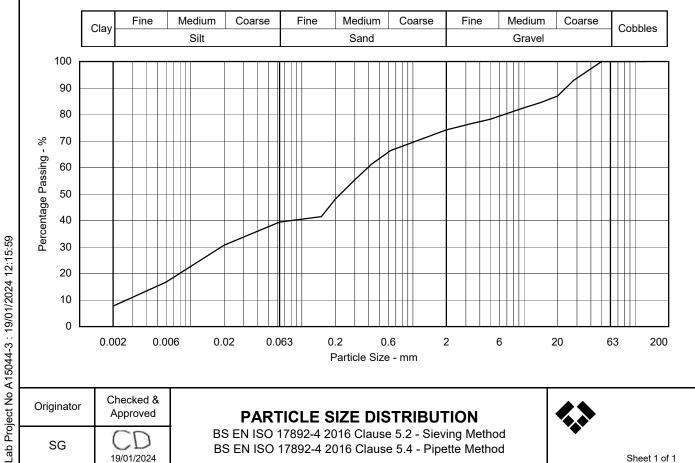
TP04

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 100 97 93 87 84 83 80 78 77 74 71 66 61 55 48 41 39 31 17 8 |
| | |

| Non Engineering Description | | |
|-----------------------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|--------|--|--|--|
| Cobbles | 0.0 | | | |
| Gravel | 25.8 | | | |
| Sand | 35.4 | | | |
| Silt | 31.1 | | | |
| Clay | 7.6 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 | 50 | | | |
| D60 | 0.39 | | | |
| D10 | 0.0027 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 144.4 | | | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

TP04 Hole Sample Ref Depth (m)

1.60 Sample Type В

| Particle Size | % Passing |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 200 µm | % Passing 100 100 87 83 81 78 76 68 68 67 65 63 60 56 51 45 39 35 28 23 19 15 |
| 6 μm 2 μm | 8 4 |

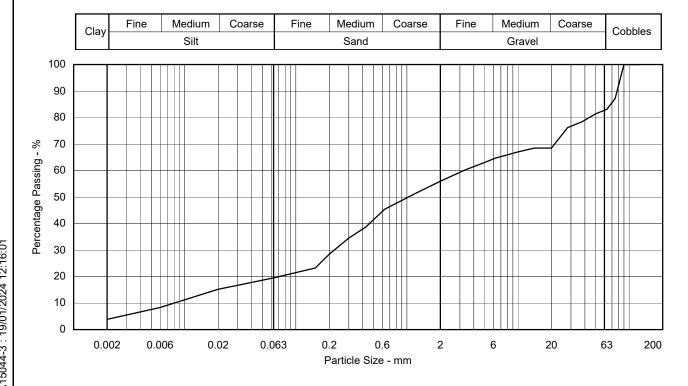
Non Engineering Description

Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

| Sample Proportions - % | | | |
|-------------------------------------------------------------------|--------|--|--|
| Cobbles | 16.9 | | |
| Gravel | 27.1 | | |
| Sand | 36.8 | | |
| Silt | 15.4 | | |
| Clay | 3.8 | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | |
| Particle Diameter - mm | | | |
| D100 | 90 | | |
| D60 | 3.3 | | |
| D10 | 0.0081 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 407.4 | | |

Notes

Sedimentation sample not pre-treated



Checked & Originator Approved RF 19/01/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





| te LT520 BRACO WEST SUBSTATION | e | LT520 BRACO WEST SUBSTATION |
|--------------------------------|---|-----------------------------|
|--------------------------------|---|-----------------------------|

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP05 Sample Ref

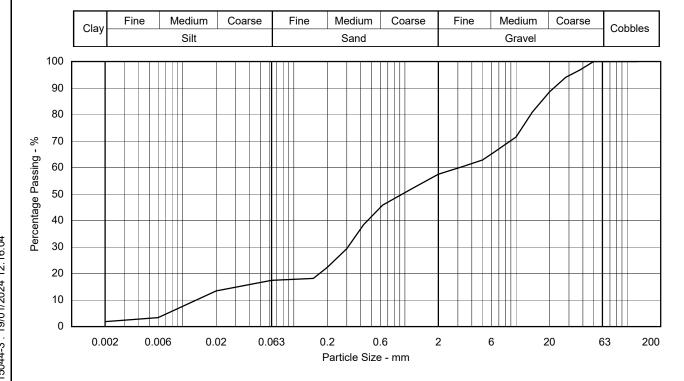
Depth (m) 2.00 Sample Type B

| Particle Size | % Passing |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 200 µm 150 µm 63 µm 20 µm | 100 100 100 100 100 97 94 89 81 72 66 63 60 57 52 46 38 29 22 18 17 13 3 |
| | |

| Non Engineering Description | | | |
|-------------------------------------------------------|--|--|--|
| | | | |
| Brown silty SAND and GRAVEL. Gravel is fine to coarse | | | |

| Sample Proportions - % | | | |
|-------------------------------------------------------------------|-------|--|--|
| Cobbles | 0.0 | | |
| Gravel | 42.6 | | |
| Sand | 40.3 | | |
| Silt | 15.4 | | |
| Clay | 1.8 | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | |
| Particle Diameter - mm | | | |
| D100 | 50 | | |
| D60 | 3.1 | | |
| D10 | 0.013 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 238.5 | | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





| ite | LT520 BRACO W | EST SUBSTATION |
|-------|---------------|-----------------|
| ILC . | | LOI GODO IATION |

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref

0.60

TP09

Depth (m) Sample Type В

| Particle Size | % Passing |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| | |
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm | 100 100 100 100 79 74 69 62 49 42 34 30 28 26 25 21 17 12 7 |

| Non | Engi | neering | Description | |
|-----|------|---------|-------------|--|
| | | | | |

Brown slightly silty very sandy fine to coarse GRAVEL

| Sample Proportions - % | | | | | | |
|-------------------------------------------------------------------|------|--|--|--|--|--|
| Cobbles | 0.0 | | | | | |
| Gravel | 74.0 | | | | | |
| Sand | 23.6 | | | | | |
| Silt & Clay | 2.4 | | | | | |
| | | | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | | |
| Particle Diameter - mm | | | | | | |
| D100 | 63 | | | | | |
| D60 | 19 | | | | | |
| D10 | 0.26 | | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 73.1 | | | | | |

Notes

requirements

| | | Clay | Fine | Medium | Coarse | Fine | Medium | Coarse | Fine | Medium | Coarse | Cobbles |
|------------------------|-------|--------------------|------|--------|---------|-------------------|--------|--------|----------|--------|-----------------------------------|---------|
| | | Olay | | Silt | | | Sand | | | Gravel | | CODDICS |
| | 100 г | | | | | I II I I I | | | <u> </u> | | | |
| | 90 | | | | | | | | | | | |
| | 80 | | | | | | | | | | $ \cdot \cdot \mathcal{J} $ | |
| vo. | 70 | | | | | | | | | | | |
| Percentage Passing - % | | | | | | | | | | | | |
| assir | 60 | | | | | | | | | | | |
| Je P | 50 | | | | | | | | | | | |
| entaç | 40 | | | | | | | | | | | |
| Perce | 30 | | | | | | | | | | | |
| ш | | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | ا ٥ | | | | | | | | | | | |
| | | 0.00 | 0.0 | 006 0 | .02 0.0 | | .2 0 | | 2 (| 6 2 | 20 6 | 3 200 |
| | | Particle Size - mm | | | | | | | | | | |

Checked & Originator Approved SG 19/01/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method



Sheet 1 of 1



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP09 Sample Ref

Depth (m) 1.00 Sample Type B

| Particle Size | % Passing |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm | 100 100 94 91 79 60 48 41 36 32 29 28 27 26 24 21 18 14 10 7 |
| 150 μm 63 μm | |
| | |

| Non Engineering Description |
|--------------------------------------------------------------------|
| Brown slightly silty very sandy fine to coarse GRAVEL with cobbles |

| Sample Proportions - % | | | | | | |
|-------------------------------------------------------------------|-------|--|--|--|--|--|
| Cobbles | 9.1 | | | | | |
| Gravel | 64.8 | | | | | |
| Sand | 20.0 | | | | | |
| Silt & Clay | 6.1 | | | | | |
| | | | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | | |
| Particle Diameter - mm | | | | | | |
| D100 | 90 | | | | | |
| D60 | 38 | | | | | |
| D10 | 0.20 | | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 190.0 | | | | | |

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass
requirements

| | | Clay | Fine | Medium | Coarse | Fine | Medium | Coarse | Fine | Medium | Coarse | Cobbles |
|------------------------|-------|------|-------|--------|----------|------|------------------------|--------|----------|--------|--------------------------|---------|
| | | Olay | | Silt | | | Sand | | | Gravel | | CODDICS |
| | 100 — | | | | | | | | <u> </u> | | | |
| | 90 | | | | | | | | | | | |
| | 80 | | | | | | | | | | $\bot \bot \bot \diagup$ | |
| % | 70 | | | | | | | | | | $\bot\bot\bot\bot$ | |
| Percentage Passing - % | 60 | | | | | | | | | | + / / + | |
| e Pas | 50 | | | | | | | | | | | |
| entag | 40 | | | | | | | | | | $\angle \Box \Box$ | |
| Perc | 30 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | ٥L | | | | | | | | | | | |
| | | 0.00 | 2 0.0 | 06 0 | 0.02 0.0 | | 0.2 0 Particle Size | | 2 | 6 | 20 6 | 33 200 |
| | | | | | | | | | | | | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SG | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method



| Alrarie, ML6 9BG | ab Project No A15044-3 · 19/01/2024 12·16·12 |
|--------------------------------------|----------------------------------------------|
| z Kocnsolloch Koad, Airdrie, ML6 966 | b Project No A15044 |
| N | π |

2.10 - Comp TP04 00.60 B - A15044-3-2012986 xls : Sample ID 2012986 xls : Samp

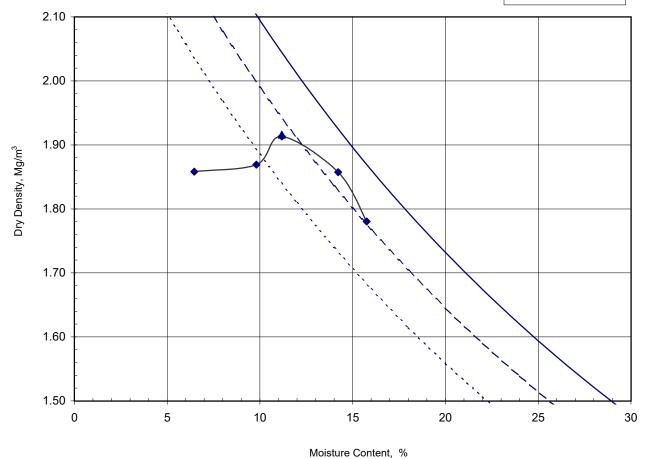
Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP04
Sample Ref
Depth (m) 0.60
Sample Type B



| Non Engineering Description | | Brown slightly grvaelly slighty sandy clayey SILT. Gravel is fine to coarse |
|--------------------------------|-------|--------------------------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 4 |
| Mass Retained on 20.0 mm Sieve | % | 10 |
| Particle Density - Assumed | Mg/m³ | 2.65 |
| Natural Moisture Content | % | 14 |
| Maximum Dry Density | Mg/m³ | 1.92 |
| Optimum Moisture Content | % | 11.2 |

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 19/01/2024 |

Moisture Content / Dry Density Relationship



| Site | LT520 BRACO WEST SUBSTATION |
|------|-----------------------------|
| | |

SHE Transmission plc

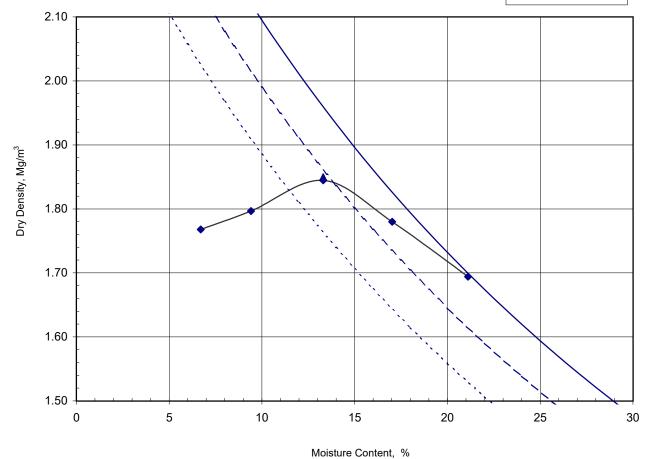
Engineer SSE Perth Inveralmond HSE **Contract No** 26555

TP04 Hole Sample Ref Depth (m) 1.60 Sample Type

Non-standard test due to % retained on 20mm/37.5mm sieve

0 % Air Voids 5 % Air Voids - - - - 10 % Air Voids

В



| Non Engineering Description | | Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse |
|--------------------------------|-------|-----------------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 19 |
| Mass Retained on 20.0 mm Sieve | % | 28 |
| Particle Density - Assumed | Mg/m³ | 2.65 |
| Natural Moisture Content | % | 17 |
| Maximum Dry Density | Mg/m³ | 1.85 |
| Optimum Moisture Content | % | 13.3 |

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 19/01/2024 |



| Site | LT520 BRACO WEST SUBSTATION |
|------|-----------------------------|
| | |

Client SHE Transmission plc

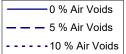
Engineer SSE Perth Inveralmond HSE

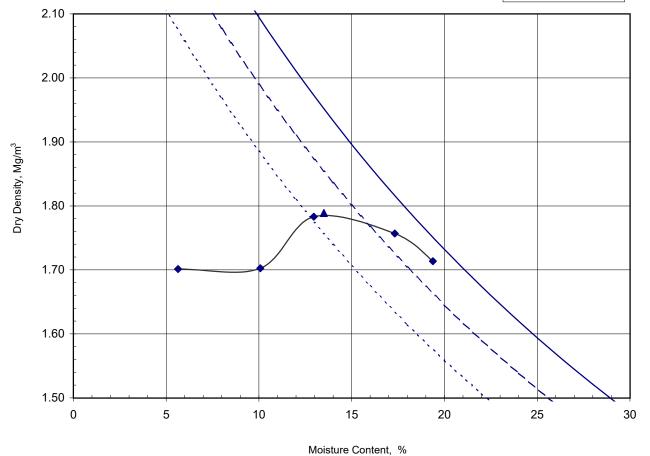
Contract No 26555

Hole TP09 Sample Ref Depth (m) 0.60

Depth (m) 0.60 Sample Type B

Non-standard test due to % retained on 20mm/37.5mm sieve

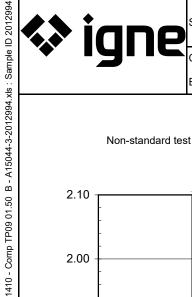




| Non Engineering Description | | Brown slightly silty very sandy fine to coarse GRAVEL |
|--------------------------------|-------|---------------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | 4.5kg Rammer for soils with some coarse gravel-size particles |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 24 |
| Mass Retained on 20.0 mm Sieve | % | 37 |
| Particle Density - Assumed | Mg/m³ | 2.65 |
| Natural Moisture Content | % | 18 |
| Maximum Dry Density | Mg/m³ | 1.79 |
| Optimum Moisture Content | % | 13.5 |

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |





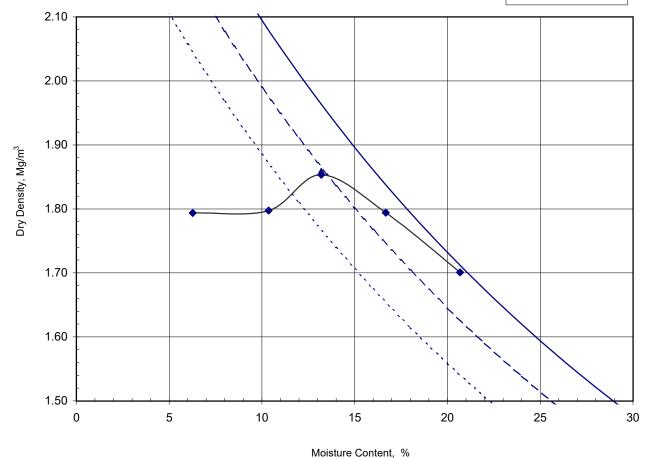
Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole TP09
Sample Ref
Depth (m) 1.50
Sample Type B

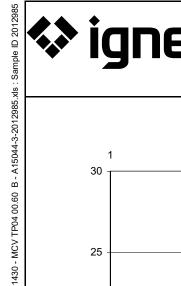
Non-standard test due to % retained on 20mm/37.5mm sieve



| Non Engineering Description | | Brown slightly silty very sandy fine to coarse GRAVEL |
|--------------------------------|-------|-------------------------------------------------------|
| Preparation | | Oven dried |
| Test Method | | - |
| Samples Used | | Single |
| Mass Retained on 37.5 mm Sieve | % | 16 |
| Mass Retained on 20.0 mm Sieve | % | 30 |
| Particle Density - Assumed | Mg/m³ | 2.65 |
| Natural Moisture Content | % | 17 |
| Maximum Dry Density | Mg/m³ | 1.86 |
| Optimum Moisture Content | % | 13.2 |

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD 19/01/2024 |





Client SHE Transmission plc

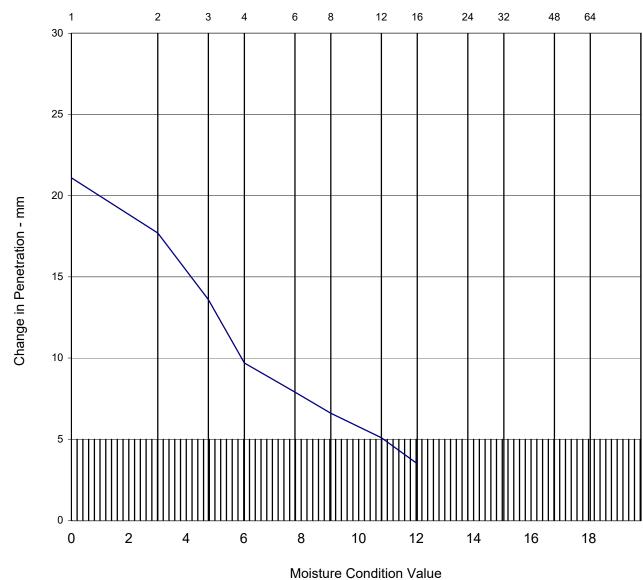
Engineer SSE Perth Inveralmond HSE

Contract No 2

26555

Hole ID Sample Ref Depth (m) Sample Type TP04 0.60 B

Number of Blows



| Non Engineering Description | Brown slightly grvaelly slightly sandy clayey SILT. Gravel is fine to coarse |
|-------------------------------|------------------------------------------------------------------------------|
| Determination No | 1 |
| Moisture Condition Value | 7.5 |
| Moisture Content 9 | 6 17 |
| Method of determining MCV | Steepest fit line |
| Mass retained on 20mm sieve % | 28.0 |
| Notes | |

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| SM | CD 19/01/2024 | |

MOISTURE CONDITION VALUE BS1377:Part 4:1990 Clause 5.4



Sheet 1 of 1

62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-3 : 19/01/2024 12:16:23 1430 - MCV TP04 01.60 B - A15044-3-2012988.xls : Sample ID 2012988



Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

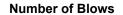
Engineer SSE Perth Inveralmond HSE

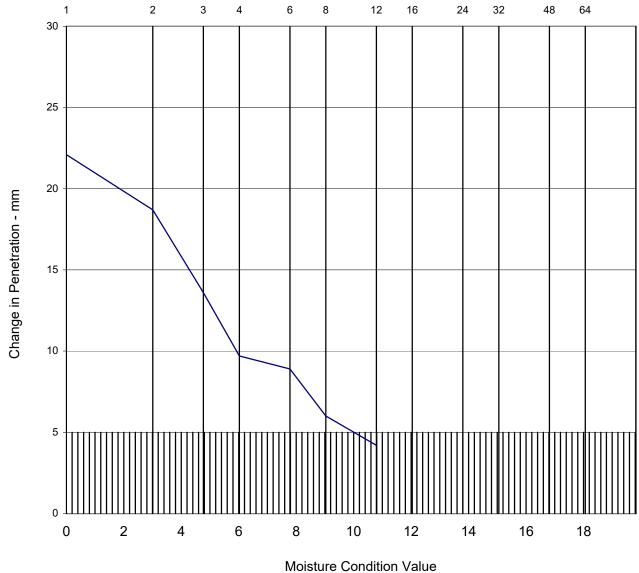
Contract No 26555

Hole ID TP Sample Ref

TP04

Depth (m) 1.60 Sample Type B





| Non Engineering Description | | Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse |
|-----------------------------|---|--------------------------------------------------------------------|
| Determination No | | 1 |
| Moisture Condition Value | | 7.5 |
| Moisture Content | % | 16 |
| Method of determining MCV | | Steepest fit line |
| Mass retained on 20mm sieve | % | 28.0 |
| Notes | | |

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| SM | CD 19/01/2024 | |

MOISTURE CONDITION VALUE BS1377:Part 4:1990 Clause 5.4



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-3: 19/01/2024 12:16:26

Client SHE Transmission plc

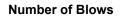
Engineer SSE Perth Inveralmond HSE

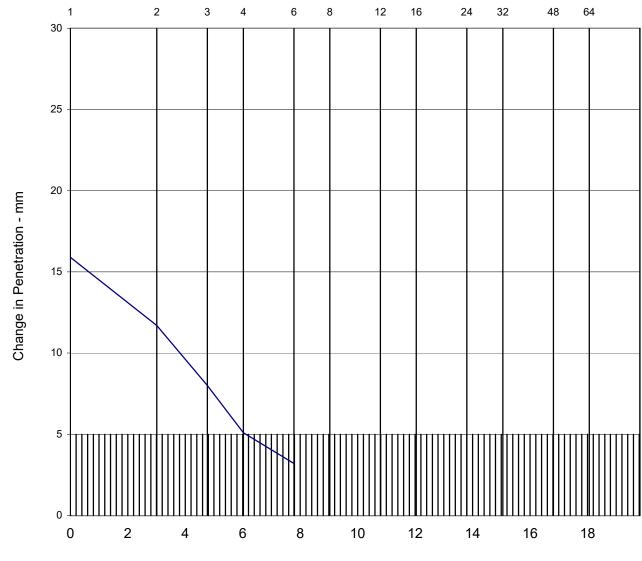
Contract No 2

26555 TP09

Hole ID Sample Ref Depth (m) Sample Type

0.60 B





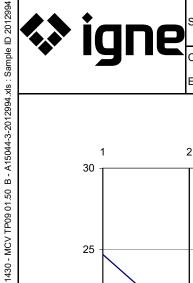
Moisture Condition Value

| Non Engineering Description | | Brown slightly silty very sandy fine to coarse GRAVEL |
|-----------------------------|---|-------------------------------------------------------|
| Determination No | | 1 |
| Moisture Condition Value | | 6.1 |
| Moisture Content | % | 21 |
| Method of determining MCV | | Steepest fit line |
| Mass retained on 20mm sieve | % | 31.3 |
| Notes | | |

| Originator | Checked & Approved | |
|------------|-----------------------|--|
| SM | CD | |

MOISTURE CONDITION VALUE





Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

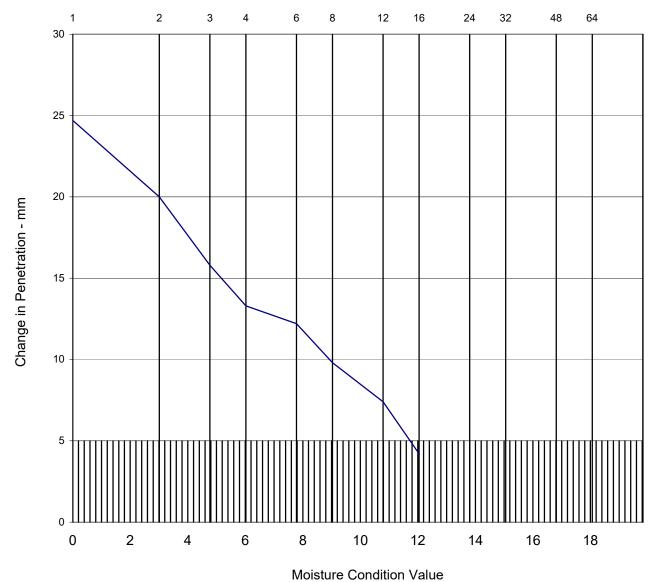
Contract No 26555

Hole ID Sample Ref

TP09

Depth (m) 1.50 Sample Type B

Number of Blows



| Non Engineering Description | | Brown slightly silty very sandy fine to coarse GRAVEL |
|-----------------------------|---|-------------------------------------------------------|
| Determination No | | 1 |
| Moisture Condition Value | | 11.7 |
| Moisture Content | % | 18 |
| Method of determining MCV | | Steepest fit line |
| Mass retained on 20mm sieve | % | 28.4 |
| Notes | | |

| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD |

MOISTURE CONDITION VALUE





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

> Report No: A15044-4

01 Issue No

LABORATORY TEST REPORT

| Project Nar Project Nur | | A15044-4 | Date samples received | 13/12/2023 |
|----------------------------|------------------|--------------------------------|------------------------------------|-------------------------|
| - | libei | | | |
| Your Ref | | 26555 | Date written instructions received | 13/12/2023 |
| Purchase (| Order | 26555 | Date testing commenced | 18/12/2023 |
| | ı | Please find enclosed the | results as summarised below | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited |
| | 2 | Determination of Water Content | | Yes |
| | 2 | Atterberg Limit | | Yes |
| | 2 | Particle Size Distribution | | Yes |
| | 1 | Chemical Analysis | | s/c - Yes |
| | | | | |
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Key to symbols used in this report Issued by: C Donnelly Date of Issue: 22/01/2024 S/C : Testing was sub-contracted

Approved Signatories:

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date. All results contained in this report are provisional unless signed by an approved signatory This report should not be reproduced except in full without the written approval of the laboratory.

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory. The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

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| ntent Table - A15044-4.xls | 4 \$ | ian | Si | te | LT520 BRA | CO WEST SUBSTATION | Contract No |
|--------------------------------------------------------------------------|---------------------|---------------------------|---------------|----------------|------------------|-------------------------------------------|--------------|
| e - A15(| igne Site Client | | lient | SHE Transmi | | | |
| nt Tabl | Engineer | | | | SSE Perth In | veralmond HSE | |
| version uzo - 01709/zuzz 1212 - Moisture Content Table - A15044 4.xls | Exploratory Hole | Sample Identifi Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | n |
| | BH01 | 1.20 | | D | 2012996 | Brown silty SAND and GRAVEL. Gravel is fi | ne to coarse |
| | BH01 | 2.70 | | D | 2012998 | Brown silty SAND and GRAVEL. Gravel is fi | ne to coarse |
| : 22/01/2024 14:17:47 | | | | | | | |

62 Rochsolloch Road, Aird Lab Project No A15044-4:

Notes

Checked & Originator Approved 22/01/2024 TP

Determination of the Water Content BS EN ISO 17892-1:2014



Sheet 1 of 1

26555

Water Content

20.5

15.8



SHE Transmission plc Client

SSE Perth Inveralmond HSE Engineer

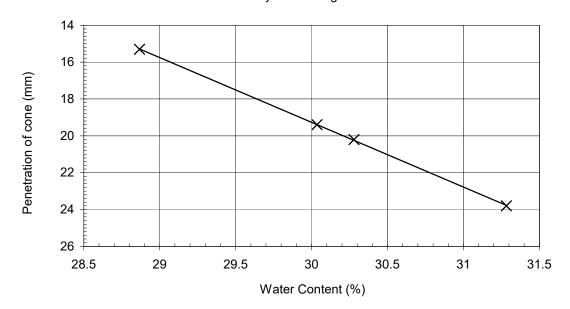
Contract No. 26555

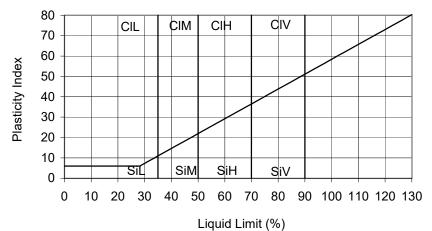
Hole ID BH01 Sample Ref Depth (m)

1.20 Sample Type D

Non Engineering Description: Brown silty SAND and GRAVEL. Gravel is fine to coarse

Preparation: Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Sample was determined to be Non-Plastic after preparation Liquid Limit was determined by mixing using increasing water content and 30° cone Results:

> As Received Water Content: (BS EN ISO 17892-1:2014) 20.5 % Percentage retained on 425µm sieve : 66 % Liquid Limit: 30 % Plastic Limit: Non-Plastic %

> Equivalent water content of material passing 425µm sieve : 60.3 %

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | <u>CD</u> |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No. 26555

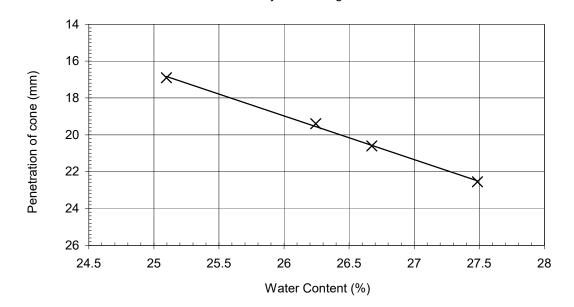
D

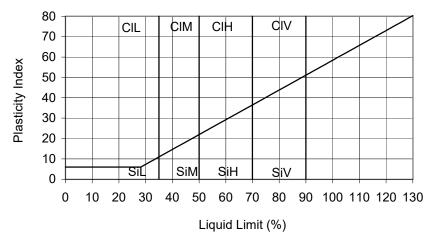
Hole ID BH01 Sample Ref Depth (m) 2.70

Sample Type

Non Engineering Description: Brown silty SAND and GRAVEL. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Sample was determined to be Non-Plastic after preparation Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content : (BS EN ISO 17892-1:2014) 15.8 % Percentage retained on 425 μ m sieve : 43 % Liquid Limit : 26 % Plastic Limit : Non-Plastic %

Equivalent water content of material passing 425µm sieve : 27.7 %

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | <u>CD</u> 22/01/2024 |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5





| | ite | LT520 BRACO WEST SUBSTATION |
|--|-----|-----------------------------|
|--|-----|-----------------------------|

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole BH01 Sample Ref

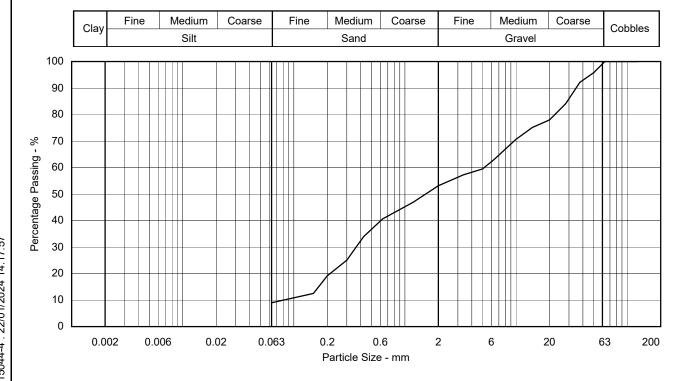
Depth (m) 1.20 Sample Type B

| Non | Engineering | Description |
|-----|-------------|-------------|
|-----|-------------|-------------|

Brown silty SAND and GRAVEL. Gravel is fine to coarse

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|-------|--|--|--|
| Cobbles 0.0 | | | | |
| Gravel | 46.9 | | | |
| Sand | 44.1 | | | |
| Silt & Clay | 9.0 | | | |
| | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 63 | | | | |
| D60 | 5.2 | | | |
| D10 | 0.082 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 63.4 | | | |

Notes



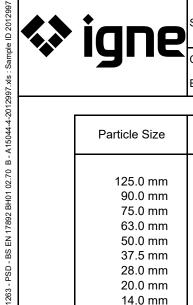
| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method



Sheet 1 of 1



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

BH01 Hole Sample Ref

Depth (m) 2.70 Sample Type

В

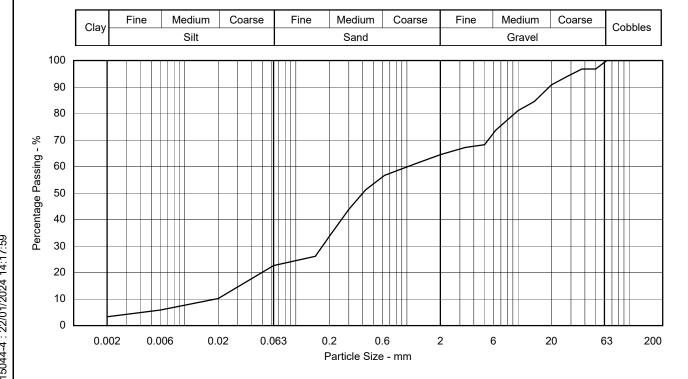
| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 97 97 94 91 85 81 74 68 67 64 61 57 51 44 34 26 23 10 6 |
| | |

| Non | Engineering | Description |
|-----|-------------|-------------|
| | | |

Brown silty SAND and GRAVEL. Gravel is fine to coarse

| Sample Proportions - % | | | | | |
|-------------------------------------------------------------------|-------|--|--|--|--|
| Cobbles 0.0 | | | | | |
| Gravel | 35.5 | | | | |
| Sand | 42.7 | | | | |
| Silt | 18.5 | | | | |
| Clay | 3.2 | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | |
| Particle Diameter - mm | | | | | |
| D100 63 | | | | | |
| D60 | 1.0 | | | | |
| D10 | 0.019 | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 52.6 | | | | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method



Sheet 1 of 1



Summary of Chemical Analysis Soil Samples

Our Ref 23-29978 Client Ref A15044-4 Contract Title

| Lab No | 2280106 |
|----------------------|---------|
| .Sample ID | BH01 |
| Depth | 1.20 |
| Other ID | 2012996 |
| Sample Type | SOIL |
| Sampling Date | n/s |
| Sampling Time | n/s |

| Test | Method | LOD | Units | |
|----------------|-------------|-----|-------|-----|
| Inorganics | | | | |
| Organic matter | DETSC 2002# | 0.1 | % | 4.7 |



Inappropriate

Information in Support of the Analytical Results

Our Ref 23-29978 Client Ref A15044-4 Contract

Containers Received & Deviating Samples

| | | Date | Date | | |
|---------|----------------|---------|----------------------------|---------------------------------------------------|-------|
| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| 2280106 | BH01 1.20 SOIL | | PT 500ml | Sample date not supplied, Organic Matter (Manual) | |
| | | | | (28 days) | |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :- Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Rihcard Butler

Report No: A15044-5

Issue No 01

LABORATORY TEST REPORT

| Project Nai | | LT520 BRACO WEST SUBSTATION | JN . | | |
|-------------------|------------------|--------------------------------|------------------------------------|-------------------------|--|
| Project Number | | A15044-5 Date samples received | | 13/12/2023 | |
| Your Ref | | 26555 | Date written instructions received | 13/12/2023 | |
| Purchase (| Order | 26555 | Date testing commenced | 08/01/2024 | |
| | _ | Please find enclosed the | results as summarised below | | |
| Figure / Table | Test Quantity | Description | | ISO 17025 Accredited | |
| | 1 | Determination of Water Content | | Yes | |
| | 1 | Bulk Density | | Yes | |
| | 1 | Particle Size Distribution | | Yes | |
| | | | | | |
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Approved Signatories : 22/01/2024

Date of Issue: 22/01/2024

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

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Issued by: C Donnelly





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airdrie@igne.com
www.igne.com
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Offices in Airdrie, Birmingham and Aston Clinton

Key to symbols used in this report

S/C : Testing was sub-contracted

| ntent Table - A15044-5.xls | 4 5 | ian | S | ite | LT520 BRA | CO WEST SUBSTATION | Contract No 20 |
|----------------------------------------------|---------------------|----------------|---------------|----------------|------------------|--------------------------------------------------------|-----------------------|
| - A15C | | | | lient | SHE Transmi | | |
| : Table | | | | ngineer | SSE Perth In | veralmond HSE | |
| e Content | Ş | Sample Identif | ication | 1 | | | |
| 1212 - Moisture Content Table - A15044-5.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Descriptio | n |
| | BH02 | 1.55 | | В | 2012999 | Brown silty SAND and GRAVEL with organi fine to coarse | c material. Gravel is |
| | | | | | | | |
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Notes

Originator Checked & Approved

TP CD 22/01/2024

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

26555

Water Content

45.8

| Client SHE Transmission plc | | | | | | | | |
|-----------------------------|------------------------|---------------|----------------|------------------|-----------------------------------------------------------------------------|-----------------|----------------|------------------|
| Engineer | | | ngineer | SSE Perth In | veralmond HSE | | | |
| Hole ID | Sample Identifi Depth | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Bulk Density | Dry Density | Water Content |
| | m | | | | | Mg/m³ | Mg/m³ | % |
| BH02 | 1.55 | | В | 2012999 | Brown silty SAND and GRAVEL with organic material. Gravel is fine to coarse | 2.11 | 1.45 | 45.8 |
| | | | | | | | | |
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| Notes | <u> </u> | | | <u> </u> | | | | |

Lab Project No A15044-5: 22/01/2024 17:07:23 62 Rochsolloch Road, Airdrie, ML6 9BG

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> |

BULK DENSITY

BS EN ISO 17892-2 Determination of bulk density Linear measurement method



Contract No

26555



| te LT520 BRACO WEST SUBSTATION |
|--------------------------------|
|--------------------------------|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH02 Hole Sample Ref

Depth (m) 1.55 Sample Type В

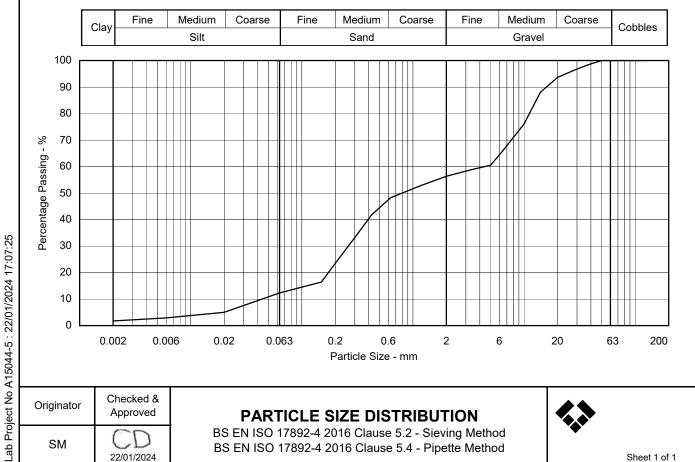
| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm | 100 100 100 100 100 98 96 94 88 76 65 60 59 56 53 48 42 33 23 16 12 5 |
| 2 µm | 2 |

Non Engineering Description

Brown silty SAND and GRAVEL with organic material. Gravel is fine to coarse

| Sample Proportions - % | | | | | |
|-------------------------------------------------------------------|-------|--|--|--|--|
| Cobbles | 0.0 | | | | |
| Gravel | 43.7 | | | | |
| Sand | 44.6 | | | | |
| Silt | 10.0 | | | | |
| Clay | 1.7 | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | |
| Particle Diameter - mm | | | | | |
| D100 | 50 | | | | |
| D60 | 4.5 | | | | |
| D10 | 0.044 | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 102.3 | | | | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-6

Issue No 01

LABORATORY TEST REPORT

| Project Name Project Number | | LT520 BRACO WEST SUBSTATION A15044-6 | Date samples received | 13/12/2023 |
|----------------------------------|-------|--------------------------------------|------------------------------------|-------------------------|
| | libei | | | |
| Your Ref | | 26555 | Date written instructions received | 13/12/2023 |
| Purchase C | Order | 26555 Date testing commenced | | 18/12/2023 |
| | T | Please find enclosed the | e results as summarised below | |
| Figure / Test Table Quantity | | | Description | ISO 17025 Accredited |
| 2 Determination of Water Content | | | | Yes |
| 1 Atterberg Limit | | | | Yes |
| 1 Particle Size Distribution | | | | Yes |
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Issued by: C Donnelly Date of Issue: 19/01/2024 Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories : 19/01/20

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

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airdrie@igne.com
www.igne.com
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Offices in Airdrie, Birmingham and Aston Clinton

| tent Table - A15044-6.xls | 45 | | | ite | LT520 BRA | CO WEST SUBSTATION Contract No | 26555 |
|----------------------------------------------|-----------------------|------------|---------------|----------------|------------------|---------------------------------------------------------------------------|-------|
| - A150 | | y i | | lient | SHE Transmi | ssion plc | |
| Table | | | | ngineer | SSE Perth Inv | veralmond HSE | |
| re Content | Sample Identification | | | | | | |
| 1212 - Moisture Content Table - A15044-6.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water |
| | BH03 | 1.20 | | D | 2013002 | Brown gravelly very silty SAND with organic material. Grav fine to coarse | el is |
| | ВН03 | 2.00 | | D | 2013003 | Brown gravelly very silty SAND. Gravel is fine to coarse | |
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Notes

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | CD 19/01/2024 |

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

Water Content

32.5

14.1



LT520 BRACO WEST SUBSTATION

SHE Transmission plc Client

Engineer SSE Perth Inveralmond HSE Contract No. 26555

Hole ID **BH03** Sample Ref Depth (m)

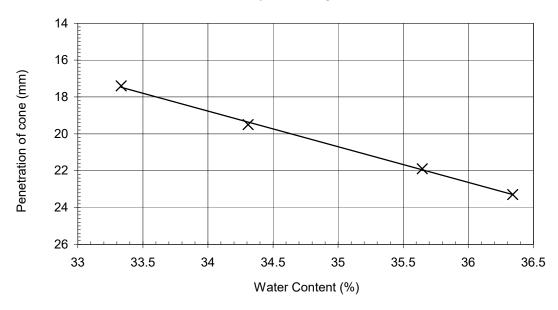
1.20 Sample Type D

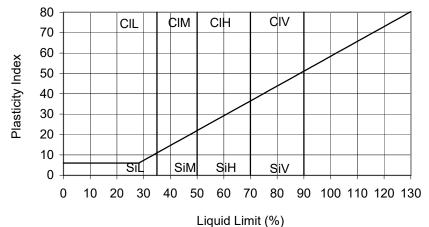
Non Engineering Description: Brown gravelly very silty SAND with organic material. Gravel is

fine to coarse

Preparation: Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Sample was determined to be Non-Plastic after preparation Liquid Limit was determined by mixing using increasing water content and 30° cone Results:

> As Received Water Content: (BS EN ISO 17892-1:2014) 32.5 % Percentage retained on 425µm sieve : 21 % Liquid Limit: 35 % Plastic Limit: Non-Plastic %

> Equivalent water content of material passing 425µm sieve : 41.1 %

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | <u>CD</u> |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5





LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH03 Hole Sample Ref

0

| epth (m) | 2.00 |
|-------------|------|
| Sample Type | В |

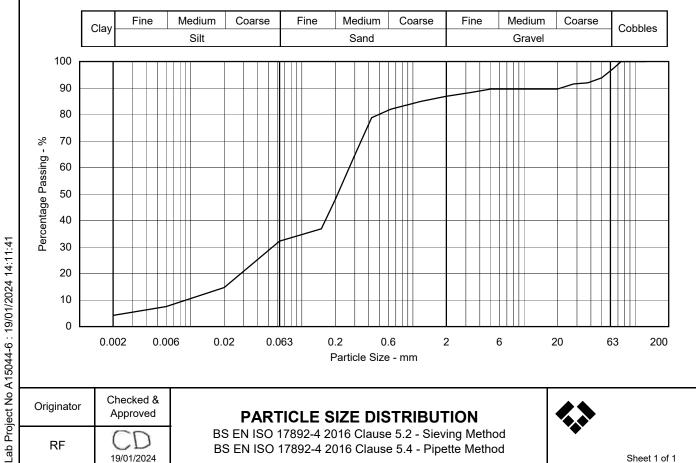
| Particle Size | % Passing |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 200 µm 150 µm 63 µm 20 µm | 100 100 100 97 94 92 92 90 90 90 90 90 90 88 87 85 82 79 65 48 37 32 15 7 |
| · | |

Non Engineering Description

Brown gravelly very silty SAND with cobbles. Gravel is fine to coarse

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|--------|--|--|--|
| Cobbles | 2.8 | | | |
| Gravel | 10.3 | | | |
| Sand | 55.9 | | | |
| Silt | 26.8 | | | |
| Clay | 4.2 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diamete | r - mm | | | |
| D100 | 75 | | | |
| D60 | 0.27 | | | |
| D10 | 0.0091 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 29.7 | | | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-7

Issue No 01

LABORATORY TEST REPORT

| Project Name | | LT520 BRACO WEST SUBSTATIO | | |
|----------------------------------------------|------------------|--------------------------------|------------------------------------|-------------------------|
| Project Number Your Ref Purchase Order | | A15044-7 Date samples received | | 13/12/2023 |
| | | 26555 | Date written instructions received | 13/12/2023 |
| | | 26555 | Date testing commenced | 18/12/2023 |
| | | Please find enclosed the | results as summarised below | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited |
| | 3 | Determination of Water Content | | Yes |
| | 3 | Particle Size Distribution | | Yes |
| | | | | |
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S/C : Testing was sub-contracted

Date of Issue: 19/01/2024

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory
This report should not be reproduced except in full without the written approval of the laboratory.
tisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) labora

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory.

The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

Feedback on the this report may be left via our website www.igne.com/contact



Issued by: C Donnelly

Approved Signatories:





62 Rochsolloch Road, Airdrie, ML6 9BG
Tel: +44 (0)1236 747 949 Fax: +44 (0)1236 747 849
airdrie@igne.com
www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton

Key to symbols used in this report

| Sample Ider Exploratory Depth Hole m | 1 |
|---------------------------------------|---|
| Exploratory Depth Hole m | |
| | |
| BH04 1.00 | |
| BH04 1.20 | |
| BH04 2.00 | |
| | |

| Site | LT520 BRACO WEST SUBSTATION | Contract No | 26555 | |
|----------|-----------------------------|-------------|-------|--|
| Client | SHE Transmission plc | | | |
| Engineer | SSE Perth Inveralmond HSE | | | |

| sion | | | Er | ngineer | SSE Perth Inv | veralmond HSE | |
|----------------------------------------------------------------------------------------|---------------------|--------------------|----------------|----------------|------------------|-----------------------------------------------------------------------|--------------------|
| Version Content Tak | | Sample Identifi | cation | | | <u> </u> | |
| Version 1212 - Moisture Content Tak | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | BH04 | 1.00 | | D | 2013005 | Brown slightly gravelly sandy SILT. Gravel is fine to coarse | 25.9 |
| | BH04 | 1.20 | | D | 2013007 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 12.2 |
| | BH04 | 2.00 | | D | 2013009 | Brown silty very gravelly SAND with cobbles. Gravel is fine to coarse | 12.9 |
| | | | | | | | |
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| 3:30 | | | | | | | |
| 62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-7 : 19/01/2024 14:23:30 | | | | | | | |
| 62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-7 : 19/01/2024 1 | | | | | | | |
| oad, A 5044- | Notes | | | | | | |
| solloch Reect No A1 | Originator | Checked Approve | | De | etermina | tion of the Water Content | |
| 62 Roch Lab Proj | TP | 19/01/202 |) 24 | | | S EN ISO 17892-1:2014 | Sheet 1 of 1 |

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | 19/01/2024 |





Site LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole BH04 Sample Ref

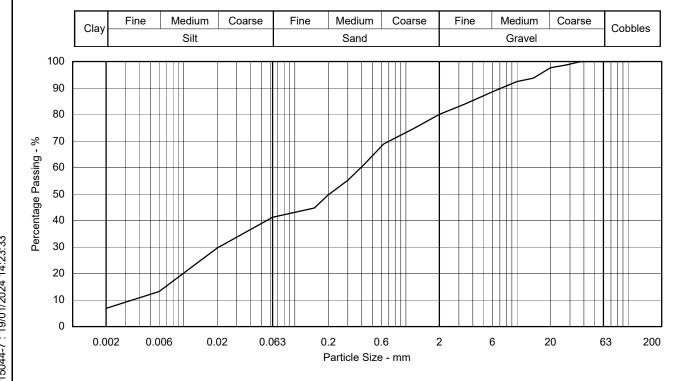
| Depth (m) | 1.00 |
|-------------|------|
| Sample Type | В |

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 100 100 99 98 94 92 89 87 84 80 75 69 61 55 50 45 41 30 13 |
| , | |

| Non Engineering Description | |
|--------------------------------------------------------------|--|
| Brown slightly gravelly sandy SILT. Gravel is fine to coarse | |

| Sample Proportions - % | |
|-------------------------------------------------------------------|--------|
| Cobbles | 0.0 |
| Gravel | 19.9 |
| Sand | 39.7 |
| Silt | 33.6 |
| Clay | 6.8 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 38 |
| D60 | 0.39 |
| D10 | 0.0035 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 111.4 |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





| NC |
|----|
| |

SHE Transmission plc

28

22

18

10 5

3

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH04 Hole Sample Ref

Depth (m) 1.20 Sample Type В

| Particle Size | % Passing |
|---------------|-----------|
| | |
| 125.0 mm | 100 |
| 90.0 mm | 100 |
| 75.0 mm | 100 |
| 63.0 mm | 100 |
| 50.0 mm | 94 |
| 37.5 mm | 88 |
| 28.0 mm | 84 |
| 20.0 mm | 79 |
| 14.0 mm | 77 |
| 10.0 mm | 72 |
| 6.30 mm | 64 |
| 5.00 mm | 61 |
| 3.35 mm | 58 |
| 2.00 mm | 55 |
| 1.18 mm | 52 |
| 630 µm | 48 |
| 425 µm | 41 |
| 300 µm | 33 |

200 µm

150 µm

63 µm

20 µm

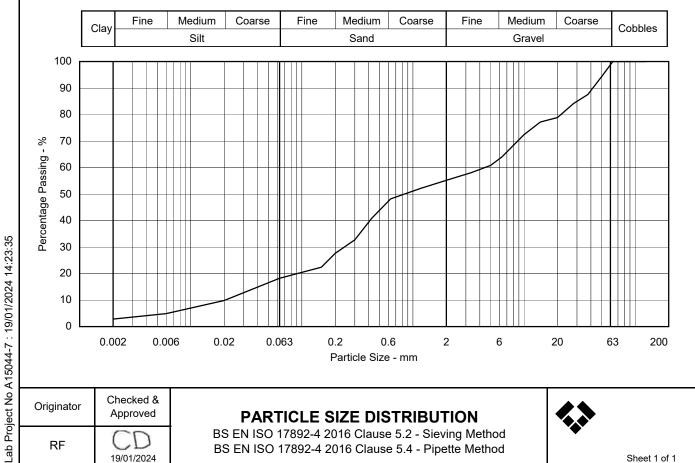
6 µm

2 µm

| Non Engineering Description | |
|-------------------------------------------------------|--|
| | |
| | |
| Brown silty SAND and GRAVEL. Gravel is fine to coarse | |

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 44.8 |
| Sand | 37.6 |
| Silt | 14.8 |
| Clay | 2.8 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 4.5 |
| D10 | 0.021 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 214.3 |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





te LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole BH04 Sample Ref

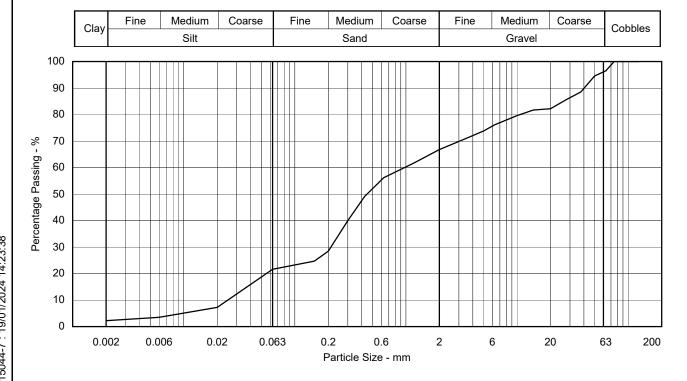
Depth (m) 2.00 Sample Type B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 97 95 88 86 82 82 80 76 74 71 67 62 56 49 40 28 25 22 7 |
| | |

| Non Engineering Description |
|-----------------------------------------------------------------------|
| Brown silty very gravelly SAND with cobbles. Gravel is fine to coarse |

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|-------|--|--|--|
| Cobbles | 3.5 | | | |
| Gravel | 29.8 | | | |
| Sand | 46.2 | | | |
| Silt | 18.4 | | | |
| Clay | 2.2 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 | 75 | | | |
| D60 | 0.97 | | | |
| D10 | 0.025 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 38.8 | | | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-8

Issue No 01

LABORATORY TEST REPORT

| Project Nar Project Nur | | A15044-8 | Date samples received | 13/12/2023 | |
|----------------------------|------------------|------------------------------------------------------------------------------------|------------------------------------|------------|--|
| | libei | | | | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | |
| Purchase (| Order | 26555 Date testing commenced Please find enclosed the results as summarised below | | 08/01/2024 | |
| | T | Please find enclosed the | results as summarised below | | |
| Figure / Table | Test Quantity | Description | | | |
| | 3 | Determination of Water Content | | Yes | |
| | 1 | Atterberg Limit Ye | | | |
| | 3 | Particle Size Distribution | Yes | | |
| | | | | | |
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Issued by: C Donnelly Date of Issue: 22/01/2024 Key to symbols used in this report

S/C: Testing was sub-contracted

Approved Signatories : 22/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

This report should not be reproduced except in full without the written approval of the laboratory.

Under multisite accreditation, testing in this report may have been performed at another Terra Tek Ltd (Trading as igne) laboratory.

The enclosed results remain the property of Terra Tek Limited (Trading as igne) and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions

Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.

Feedback on the this report may be left via our website www.igne.com/contact







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airdrie@igne.com
www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton

|)44-8.xls | 4 > 1 | ian | | Site | LT520 BRA | со |
|----------------------------------------------|---------------------|-----------------|---------------|----------------|------------------|------|
| e - A150 | | Ign | | Client | SHE Transm | ssio |
| t Table | | | I | Engineer | SSE Perth In | vera |
| Sonten | \$ | Sample Identifi | cation | _ | | |
| 1212 - Moisture Content Table - A15044-8.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | |
| | BH05 | 1.00 | | D | 2013011 | В |
| | BH05 | 1.20 | | D | 2013014 | В |
| | BH05 | 2.00 | | D | 2013015 | В |
| 1/2024 14:31:14 | | | | | | |

Contract No 26555 WEST SUBSTATION n plc

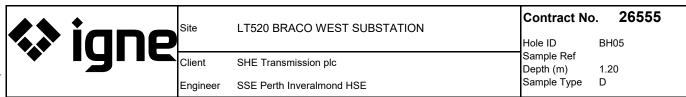
| apic | | | | Engineer | SSE Perth In | veralmond HSE | | |
|----------------------|---------------------|-----------------|--------------|------------------|------------------|------------------------------------------------------|-------------------|--------------------|
| OILCILL | 5 | Sample Identifi | cation | | | | | |
| O SIEST - MOISIGNE O | Exploratory Hole | Depth m | Sampl Ref | e Sample Type | Lab Sample ID | Non Enginering Description | | Water Content % |
| | BH05 | 1.00 | | D | 2013011 | Brown silty very gravelly SAND with rootlets. coarse | Gravel is fine to | 28.2 |
| | BH05 | 1.20 | | D | 2013014 | Brown slightly sandy slightly gravelly CLAY. Coarse | Gravel is fine to | 20.0 |
| | BH05 | 2.00 | | D | 2013015 | Brown very silty SAND and GRAVEL. Gravel | is fine to coarse | 18.2 |
| | | | | | | | | |
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| - | Notes | | <u> </u> | 1 | | | | |

Checked & Originator Approved 22/01/2024 TP

Determination of the Water Content BS EN ISO 17892-1:2014



Sheet 1 of 1

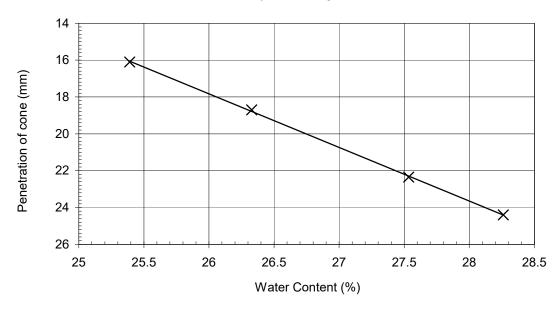


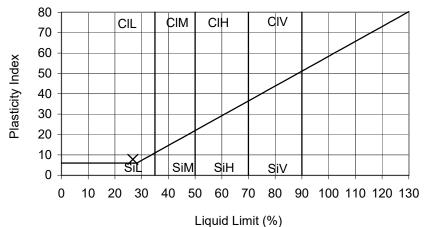
Non Engineering Description : Brown slightly sandy slightly gravelly CLAY. Gravel is fine to

coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content : (BS EN ISO 17892-1:2014) 20.0 % Percentage retained on 425 μ m sieve : 45 % Liquid Limit : 27 % Plastic Limit : 19 % Plasticity Index : 8.0

Equivalent water content of material passing 425µm sieve : 36.4 % Liquidity Index : 2.18

| Originator | Checked & Approved | Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index |
|------------|-----------------------|------------------------------------------------------------------------------------------------------|
| NW | CD | BS EN ISO 17892-12:2018 Clause 5.3 |
| | 22/01/2024 | BS EN ISO 17892-12:2018 Clause 5.5 |





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH05 Hole Sample Ref

Depth (m) 1.00 Sample Type В

| Particle Size | % Passing | | |
|---------------|-----------|--|--|
| | | | |
| 125.0 mm | 100 | | |
| 90.0 mm | 100 | | |
| 75.0 mm | 100 | | |
| 63.0 mm | 100 | | |
| 50.0 mm | 100 | | |
| 37.5 mm | 99 | | |
| 28.0 mm | 96 | | |
| 20.0 mm | 95 | | |
| 14.0 mm | 90 | | |
| 10.0 mm | 88 | | |
| 6.30 mm | 85 | | |
| 5.00 mm | 82 | | |
| 3.35 mm | 79 | | |
| 2.00 mm | 75 | | |
| 1.18 mm | 71 | | |
| 630 µm | 63 | | |
| 425 μm | 54 | | |
| 300 μm | 42 | | |
| 200 μm | 33 | | |
| 150 µm | 24 | | |
| 63 µm | 20 | | |
| 20 μm | 9 | | |
| 6 µm | 5 | | |
| 2 μm | 3 | | |
| | | | |

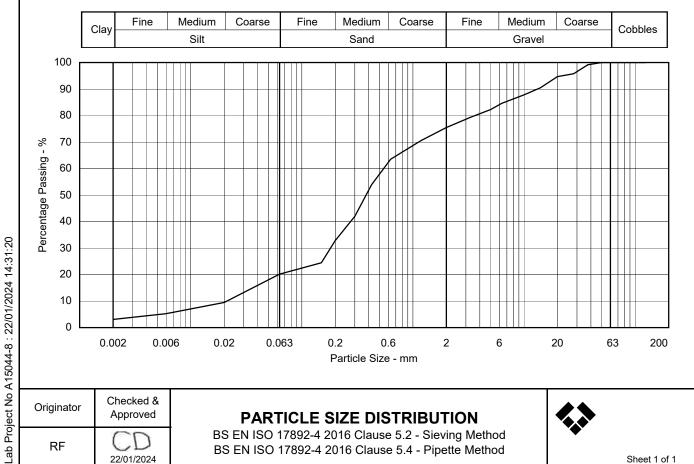
| Non Engineering | Description |
|-----------------|-------------|
| | |

Brown silty very gravelly SAND with rootlets. Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|-------|
| Cobbles | 0.0 |
| Gravel | 24.5 |
| Sand | 56.1 |
| Silt | 16.4 |
| Clay | 3.0 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 50 |
| D60 | 0.55 |
| D10 | 0.021 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 26.2 |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method



Sheet 1 of 1



Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole BH05 Sample Ref

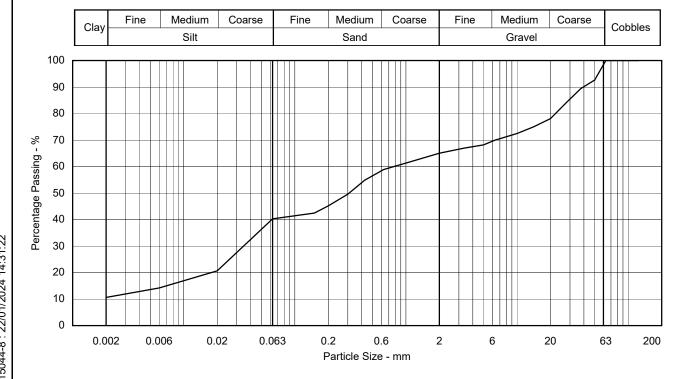
Depth (m) 1.20 Sample Type B

| Particle Size | % Passing |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm | 100 100 100 100 93 89 84 75 72 70 68 67 65 62 59 55 50 45 42 40 21 |
| 6 μm 2 μm | 14 11 |

| Non Engineering Description | |
|-----------------------------------------------------------------------|--|
| Brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse | |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|------|--|
| Cobbles | 0.0 | |
| Gravel | 35.0 | |
| Sand | 26.1 | |
| Silt | 28.3 | |
| Clay | 10.6 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 63 | |
| D60 | 0.78 | |
| D10 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | N/A | |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |
| | |



| Originator | Checked & Approved |
|------------|-----------------------|
| JM | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH05 Hole Sample Ref

| Depth (m) | 1.90 |
|-------------|------|
| Sample Type | В |

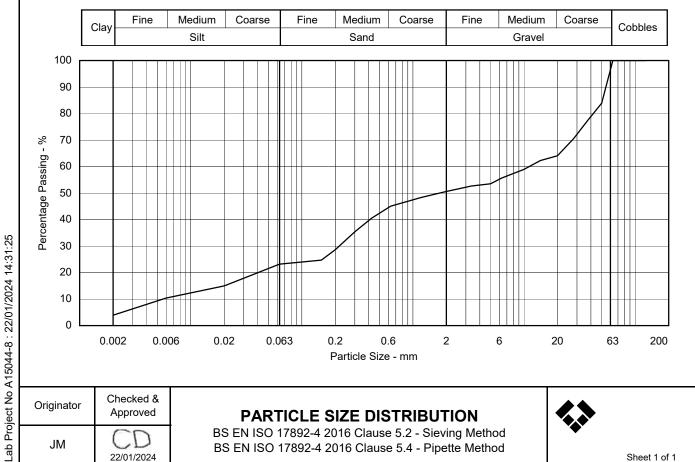
| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 84 77 70 64 62 59 56 54 53 51 48 45 40 35 29 25 23 15 10 4 |
| | |

Non Engineering Description

Brown silty very sandy fine to coarse GRAVEL. Gravel is fine to coarse

| Sample Proportions - % | |
|-------------------------------------------------------------------|--------|
| Cobbles | 0.0 |
| Gravel | 49.4 |
| Sand | 28.0 |
| Silt | 18.7 |
| Clay | 3.9 |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diameter - mm | |
| D100 | 63 |
| D60 | 11 |
| D10 | 0.0057 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 1929.8 |

Notes requirements Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| JM | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-9

Issue No 01

LABORATORY TEST REPORT

| Project Number Your Ref Purchase Order | | A15044-9 Date samples received | | 14/12/2023 |
|----------------------------------------|---|--------------------------------|------------------------------------|-------------------------|
| | | 26555 | Date written instructions received | 14/12/2023 |
| | | 26555 Date testing commenced | | 08/01/2024 |
| | | Please find enclosed the re | esults as summarised below | |
| Figure / Test Table Quantity | | Description | | ISO 17025 Accredited |
| | 2 | Determination of Water Content | | Yes |
| | 2 | Particle Size Distribution | | Yes |
| | | | | |
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C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Date of Issue: 19/01/2024

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

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Feedback on the this report may be left via our website www.igne.com/contact



Issued by: C Donnelly

Approved Signatories:





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www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton

Key to symbols used in this report

S/C: Testing was sub-contracted

| ntent Table - A15044-9.xls | 4 > i | ian | Si | te | LT520 BRA | CO WEST SUBSTATION | Contract No |
|----------------------------------------------|---------------------|----------------|---------------|------------------|------------------|--------------------------------------------|----------------|
| Table - A150 | | ign | | lient ngineer | SHE Transmi | ission plc veralmond HSE | |
| - Content | | Sample Identif | ication | | | | |
| 1212 - Moisture Content Table - A15044-9.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | on |
| | BH07 | 1.20 | | D | 2013019 | Brown silty very sandy fine to coarse GRA\ | /EL |
| | BH07 | 2.00 | | D | 2013018 | Brown silty SAND and GRAVEL. Gravel is | fine to coarse |
| one; wito 9DG 9: 19/01/2024 13:15:31 | | | | | | | |

Notes

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> |

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

26555

Water Content

7.1

8.4



te LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole BH07 Sample Ref

Depth (m) 1.20 Sample Type B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 95 90 81 76 67 60 60 56 53 50 47 43 39 34 28 22 18 13 13 6 3 |
| Ζ μιτι | 2 |

Non Engineering Description

Brown silty very sandy fine to coarse GRAVEL with cobbles

| Sample Proportions - % | | | |
|-------------------------------------------------------------------|--------|--|--|
| Cobbles | 10.2 | | |
| Gravel | 46.3 | | |
| Sand | 31.3 | | |
| Silt | 10.6 | | |
| Clay | 1.5 | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | |
| Particle Diamete | r - mm | | |
| D100 | 90 | | |
| D60 | 14 | | |
| D10 | 0.040 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 350.0 | | |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |

| | | Clay | Fine | Medium | Coarse | Fine | Medium | Coarse | Fine | Medium | Coarse | Cobbles |
|------------------------|-------|------|------|--------|--------|----------|---------------|--------|------|--------|------------------|---------|
| | | Clay | | Silt | | | Sand | | | Gravel | | Copples |
| | 100 г | | | | | I | | | | | | |
| | | | | | | | | | | | | |
| | 90 | | | | | | | | | | | |
| | 80 | | | | | | | | | | $++ \mathcal{V}$ | |
| ٠.0 | 70 | | | | | | | | | | | |
| Percentage Passing - % | 70 | | | | | | | | | | | |
| ssinę | 60 | | | | | | | | | | \leftarrow | |
| Pas | 50 | | | | | | | | | | | |
| age | | | | | | | | | | | | |
| cent | 40 | | | | | | | | | | | |
| Per | 30 | | | | | | | 1111 | | | | |
| | 20 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
| | 10 | | | | | | | | | | | |
| | 0 | | | | | | | | | | | |
| | J | 0.00 | 0.0 | 06 0. | 02 0.0 | 063 0 | 0.2 0. | .6 | 2 | 6 | 20 6 | 3 200 |
| | | | | | | | Particle Size | | | | | |

| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method



Sheet 1 of 1



Particle Size

125.0 mm

90.0 mm

75.0 mm

63.0 mm

50.0 mm

37.5 mm

28.0 mm

20.0 mm

14.0 mm

10.0 mm

6.30 mm

5.00 mm

3.35 mm

2.00 mm

1.18 mm

630 µm

425 µm

300 µm

200 µm

150 µm

63 µm

20 µm

6 µm

2 µm

LT520 BRACO WEST SUBSTATION

SHE Transmission plc

% Passing

100

100

100

97

90

83

77

69

68

65

60

57

54

50

46

41

36

30

23

15

11

5 2

1

SSE Perth Inveralmond HSE Engineer

26555 Contract No

Hole **BH07** Sample Ref

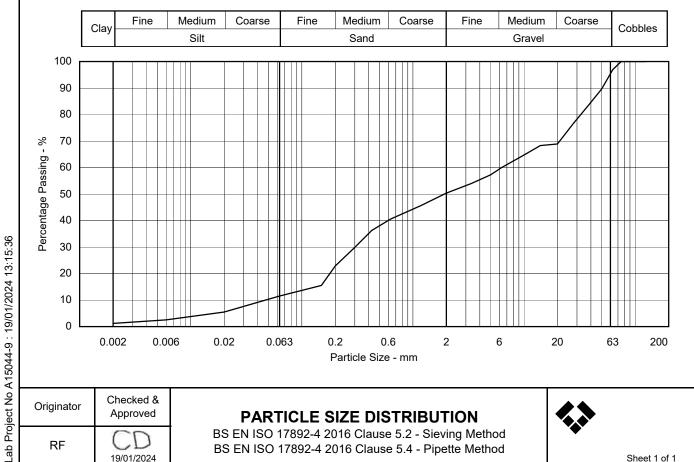
2.00 Depth (m) Sample Type В

| Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse |
|--------------------------------------------------------------------|
| |

Non Engineering Description

| Sample Proportions - % | | | |
|-------------------------------------------------------------------|-------|--|--|
| Cobbles | 3.0 | | |
| Gravel | 46.7 | | |
| Sand | 39.3 | | |
| Silt | 9.9 | | |
| Clay | 1.1 | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | |
| Particle Diameter - mm | | | |
| D100 | 75 | | |
| D60 | 6.3 | | |
| D10 | 0.048 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 131.3 | | |

| Notes | | | | |
|--------------------------------------|--|--|--|--|
| Sedimentation sample not pre-treated | | | | |
| | | | | |



Checked & Originator Approved RF 19/01/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-10

Issue No 01

LABORATORY TEST REPORT

| Project Nar | | LT520 BRACO WEST SUBSTATION | | | | | |
|------------------------------|-------|------------------------------------------|-----------------------------|-------------------------|--|--|--|
| Project Number Your Ref | | A15044-10 | Date samples received | 14/12/2023 | | | |
| | | 26555 Date written instructions received | | 14/12/2023 | | | |
| Purchase C | Order | 26555 | Date testing commenced | 09/01/2024 | | | |
| | | Please find enclosed the | results as summarised below | | | | |
| Figure / Test Table Quantity | | Description | | ISO 17025 Accredited | | | |
| | 1 | Determination of Water Content | | Yes | | | |
| | 1 | Particle Size Distribution | | Yes | | | |
| | | | | | | | |
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S/C : Testing was sub-contracted

Date of Issue: 19/01/2024

Approved Signatories : 19/01/2024

Issued by: C Donnelly

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

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Key to symbols used in this report

| /09/2023 44-10.xls | 4 > 1 | ian | Si | ite | LT520 BRA | CO WEST SUBSTATION | Contract No | 26555 |
|---------------------------------------------------------------------------|---------------------|----------------|---------------|------------------|------------------------------------------------|-------------------------------------------------------------------------|--------------------|----------|
| Version 026 - 01/09/2023 ent Table - A15044-10.xls | igne | | | lient ngineer | SHE Transmission plc SSE Perth Inveralmond HSE | | | |
| Vers re Content T | : | Sample Identif | ication | | | | | |
| Version 026 - 01/09/2023 1212 - Moisture Content Table - A15044-10.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | | Wate |
| | BH08 | 0.90 | | D | 2013091 | Brown silty very gravelly SAND with pockets Gravel is fine to coarse | of clay and rootle | ets. |
| | | | | | | | | |
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| IM 0/6 | | | | | | | | <u> </u> |

Notes

Originator Checked & Approved

TP CD
19/01/2024

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

Water Content

18.6



LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref BH08

Depth (m) Sample Type

| | 0.90 |
|---|------|
| , | В |

| Particle Size | % Passing |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm 20 µm 6 µm 20 µm | 100 100 100 100 100 98 95 93 89 86 81 78 74 68 62 57 50 43 35 26 20 7 6 |
| | |

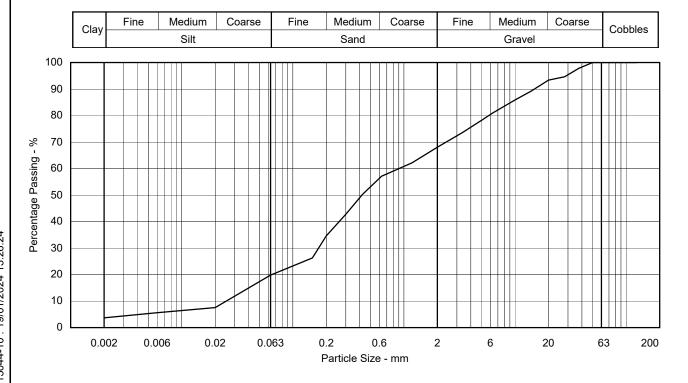
Non Engineering Description

Brown silty very gravelly SAND with pockets of clay and rootlets. Gravel is fine to coarse

| Sample Proportions - % | | | | | | |
|-------------------------------------------------------------------|-------|--|--|--|--|--|
| Cobbles | 0.0 | | | | | |
| Gravel | 32.0 | | | | | |
| Sand | 49.1 | | | | | |
| Silt | 15.3 | | | | | |
| Clay | 3.6 | | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | | |
| Particle Diameter - mm | | | | | | |
| D100 | 50 | | | | | |
| D60 | 0.90 | | | | | |
| D10 | 0.025 | | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 36.0 | | | | | |

Notes

Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-11

Issue No 01

LABORATORY TEST REPORT

| Project Nar | | LT520 BRACO WEST SUBSTATION | | | | | | |
|-------------------|---------------------|-----------------------------|------------------------------------|-------------------------|--|--|--|--|
| Project Nur | mber | A15044-11 | Date samples received | 13/12/2023 | | | | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | | | | |
| Purchase C | Order | 26555 | Date testing commenced | 09/01/2024 | | | | |
| | | Please find enclosed | the results as summarised below | | | | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | | | | |
| | 2 | Determination of Water Con | tent | Yes | | | | |
| | 2 | Particle Size Distribution | | Yes | | | | |
| | 2 Chemical Analysis | | | | | | | |
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Issued by: C Donnelly Date of Issue: 22/01/2024 Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories : 22/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

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www.igne.com
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| 1212 - Moisture Content Table - A15044-11.xls | E |
|-----------------------------------------------|-----------------------------------------|
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| | |
| | - Moisture Content Table - A15044-11.xl |

| ⇔ igne |
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|---------------|

Site LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer

SSE Perth Inveralmond HSE

| rersion int Tabl | | | E | ngineer | SSE Perth In | veralmond HSE | | |
|----------------------------------------------------------------------------------------|----------------------------------|------------|---------------|----------------|------------------|----------------------------------------------------|----------------|--------------------|
| vers | Sample Identification | | | | | | | |
| version 1212 - Moisture Content Tabl | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | | Water Content % |
| | ВН09 | 1.00 | | D | 2013021 | Brown slightly gravelly sandy CLAY. Gravel is | fine to coarse | 24.4 |
| | BH09 | 2.00 | | D | 2013023 | Brown silty SAND and GRAVEL. Gravel is fine | e to coarse | 9.9 |
| | | | | | | | | |
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| oz Rochsolioch Road, Allahe, MLO 955 Lab Project No A15044-11 : 22/01/2024 14:37:55 | | | | | | | | |
| oz Rochsolloch Road, Alfahe, MLO 95-9 Lab Project No A15044-11 : 22/01/2024 | Notes | | | | | | | |
| A15(| 140162 | | . 1 | | | | <u> </u> | |
| Project No | Originator Checked & Approved De | | | | | tion of the Water Content S EN ISO 17892-1:2014 | | |
| uz r Lab | TP 22/01/2024 | | | | Sheet 1 of 1 | | | |

62 Rochsolloch Road, Airdrie, ML6 9BG



Contract No

26555

1263 - PSD - BS EN 17892 BH09 01.00 B - A15044-11-2013020.xls : Sample ID 2013020



| ite | LT520 BRACO WEST SUBSTATION |
|-----|-----------------------------|
|-----|-----------------------------|

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole B Sample Ref

BH09

Depth (m) 1.00 Sample Type B

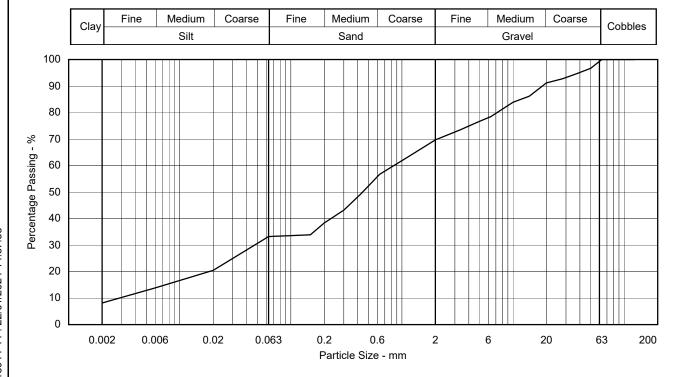
| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 97 95 93 91 86 84 78 77 73 70 64 57 49 43 38 34 33 20 14 |
| · | |

| Non Engineering Description | |
|-----------------------------|--|
| | |

Brown slightly gravelly sandy CLAY. Gravel is fine to coarse

| Sample Proportions - % | | | | | |
|-------------------------------------------------------------------|--------|--|--|--|--|
| Cobbles 0.0 | | | | | |
| Gravel | 30.3 | | | | |
| Sand | 37.4 | | | | |
| Silt | 24.2 | | | | |
| Clay | 8.1 | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | | |
| Particle Diameter - mm | | | | | |
| D100 63 | | | | | |
| D60 | 0.85 | | | | |
| D10 | 0.0029 | | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 293.1 | | | | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| RF | CD 22/01/2024 | |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-11 : 22/01/2024 14:37:58

Sheet 1 of 1



| ite | LT520 BRACO WEST SUBSTATION |
|-----|-----------------------------|
| | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole Sample Ref

BH09

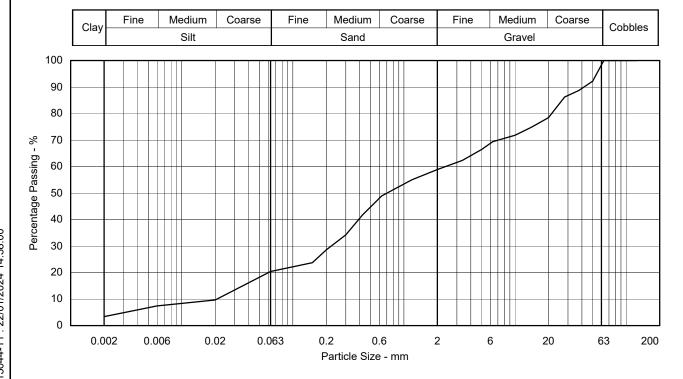
Depth (m) 2.00 Sample Type B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 92 89 86 78 75 72 69 66 62 59 55 49 42 34 29 24 20 10 7 |
| | |

| Non Engineering Description |
|-------------------------------------------------------|
| |
| Brown silty SAND and GRAVEL. Gravel is fine to coarse |

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|-------|--|--|--|
| Cobbles | 0.0 | | | |
| Gravel | 41.1 | | | |
| Sand | 39.2 | | | |
| Silt | 16.3 | | | |
| Clay | 3.3 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 | 63 | | | |
| D60 | 2.4 | | | |
| D10 | 0.021 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 114.3 | | | |

| Notes | | | | |
|--------------------------------------|--|--|--|--|
| Sedimentation sample not pre-treated | | | | |
| | | | | |



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| JM | CD 22/01/2024 | |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Summary of Chemical Analysis Soil Samples

Our Ref 23-29979 Client Ref A15044-11 Contract Title

| Lab No | 2280107 | 2280108 |
|----------------------|------------|------------|
| .Sample ID | BH09 | BH09 |
| Depth | 1.00 | 2.00 |
| Other ID | 2013021 | 2013023 |
| Sample Type | SOIL | SOIL |
| Sampling Date | 23/11/2023 | 23/01/2023 |
| Sampling Time | n/s | n/s |

| Test | Method | LOD | Units | | |
|---------------------------------------|-------------|-----|-------|-----|-----|
| Inorganics | | | | | |
| рН | DETSC 2008# | | рН | 7.0 | 7.8 |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | 210 | 92 |



Inappropriate

Information in Support of the Analytical Results

Our Ref 23-29979 Client Ref A15044-11 Contract

Containers Received & Deviating Samples

| | Date | | | | container for |
|---------|----------------|----------|----------------------------|--------------------------------------------------|---------------|
| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| 2280107 | BH09 1.00 SOIL | 23/11/23 | PT 500ml x2 | pH + Conductivity (7 days) | |
| 2280108 | BH09 2.00 SOIL | 23/01/23 | PT 500ml x2 | Anions 2:1 (30 days), pH + Conductivity (7 days) | |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-12

Issue No 01

LABORATORY TEST REPORT

| Project Nar | | LT520 BRACO WEST SUBSTAT | | 13/12/2023 | |
|--------------------------|------------------|--------------------------------|------------------------------------|-------------------------|--|
| Project Number A15044-12 | | A15044-12 | Date samples received | | |
| Your Ref | | 26555 | Date written instructions received | 13/12/2023 | |
| Purchase (| Order | 26555 | Date testing commenced | 08/01/2024 | |
| | | Please find enclosed th | ne results as summarised below | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | |
| | 2 | Determination of Water Content | | Yes | |
| | 2 | Atterberg Limit | | Yes | |
| | 2 | Particle Size Distribution | | Yes | |
| | | | | | |
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Issued by: C Donnelly Date of Issue: 19/01/2024 Key to symbols used in this report

S/C: Testing was sub-contracted

Approved Signatories : 19/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

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airdrie@igne.com
www.igne.com
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Offices in Airdrie, Birmingham and Aston Clinton

| V 61 SIOTI 020 - 0 1/03/2023 | 44-12.xls | 4 > | ign | 6 | Site | LT520 BRA | (|
|------------------------------|-----------------------------------------------|---------------------|-----------------|---------------|------------------|------------------|---|
| | . A150 | | 1911 | | Client | SHE Transmi | S |
| -aple | | | | | Engineer | SSE Perth In | V |
| T toptu | | Ş | Sample Identifi | cation | | | |
| | 1212 - Moisture Content Table - A15044-12.xls | Exploratory Hole | Depth m | Sample Ref | e Sample Type | Lab Sample ID | |
| | | BH13 | 2.00 | | D | 2013027 | |
| | | BH13 | 2.70 | | D | 2013025 | |
| | | | | | | | |
| | 2024 14:51:30 | | | | | | |

Contract No 26555 CO WEST SUBSTATION ssion plc

| | | | Eı | ngineer | SSE Perth In | veralmond HSE | | |
|---------------------|---------------------|-----------------|---------------|----------------|------------------|-------------------------------------------|----------------|--------------------|
| | (| Sample Identifi | cation | | | | | |
| O SINGISIAI - ZI ZI | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | | Water Content % |
| | BH13 | 2.00 | | D | 2013027 | Brown clayey SAND and GRAVEL. Gravel is t | fine to coarse | 22.5 |
| | BH13 | 2.70 | | D | 2013025 | Brown clayey SAND and GRAVEL. Gravel is t | fine to coarse | 13.9 |
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| 5 | Notes | <u></u> | | | | | | |

62 Rochsolloch Road, Airdrie, ML6 9 Lab Project No A15044-12: 19/01/2 Notes

Checked & Originator Approved 19/01/2024 TP

Determination of the Water Content BS EN ISO 17892-1:2014



Sheet 1 of 1



LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No. 26555

D

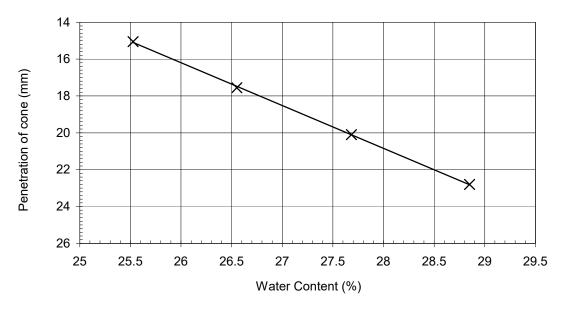
Hole ID BH13 Sample Ref Depth (m) 2.00

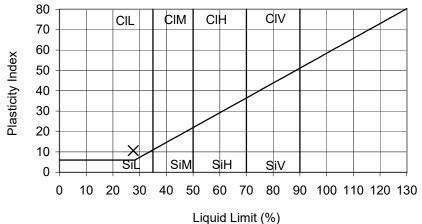
Sample Type

Non Engineering Description: Brown clayey SAND and GRAVEL. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve

measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

Equivalent water content of material passing 425µm sieve : 41.7 % Liquidity Index : 2.25

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5





LT520 BRACO WEST SUBSTATION

SHE Transmission plc

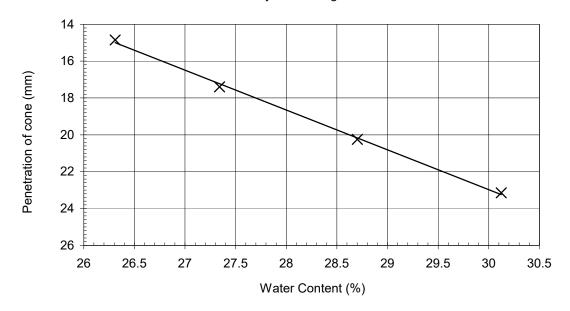
Engineer SSE Perth Inveralmond HSE

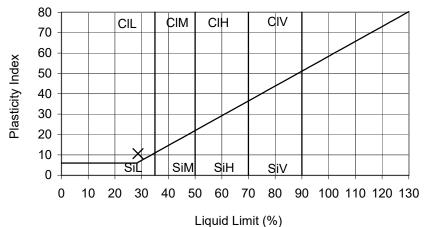
Contract No. 26555

Hole ID BH13
Sample Ref
Depth (m) 2.70
Sample Type D

Non Engineering Description: Brown clayey SAND and GRAVEL. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Liquid Limit was determined by mixing using increasing water content and 30° cone **Results**:

As Received Water Content: (BS EN ISO 17892-1:2014)

Percentage retained on 425μm sieve:

Liquid Limit:

Plastic Limit:

18 %

Plasticity Index:

11

Equivalent water content of material passing 425µm sieve : 36.6 % Liquidity Index : 1.69

| Originator | Checked & Approved |
|------------|-----------------------|
| NW | CD |

Liquid Limit (Four Point Cone Penetrometer Method) Plastic Limit, Plasticity Index & Liquidity Index

BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5





| ite | LT520 BRACO WEST SUBSTATION |
|-----|------------------------------|
| ito | LIDZO DIVACO WEGI GODGIATION |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole Sample Ref

BH13

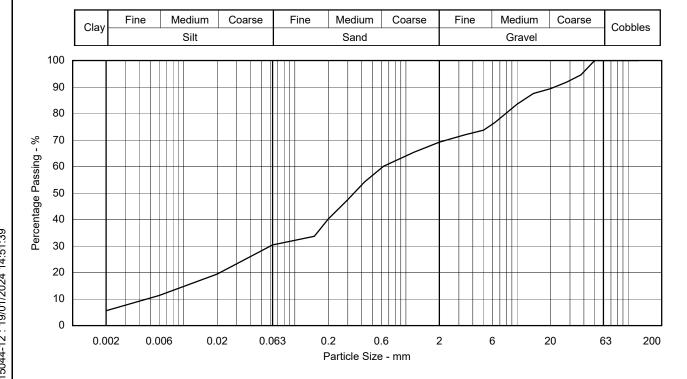
Depth (m) 2.00 Sample Type B

| Particle Size | % Passing |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm 20 µm | 100 100 100 100 100 95 92 89 88 84 77 74 72 69 65 60 54 48 40 34 30 19 |
| 2 µm | 6 |

| Non Engineering Description |
|--------------------------------------------------------|
| Brown clayey SAND and GRAVEL. Gravel is fine to coarse |

| Sample Proportion | ons - % | | |
|-------------------------------------------------------------------|---------|--|--|
| Cobbles | 0.0 | | |
| Gravel | 30.8 | | |
| Sand | 39.5 | | |
| Silt | 24.1 | | |
| Clay | 5.5 | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | |
| Particle Diameter - mm | | | |
| D100 | 50 | | |
| D60 | 0.62 | | |
| D10 | 0.0047 | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 131.9 | | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole **BH13** Sample Ref

| Jepui (III) | 2.7 |
|-------------|-----|
| Sample Type | В |

| pın (m) | 2.70 |
|-----------|------|
| mple Type | В |

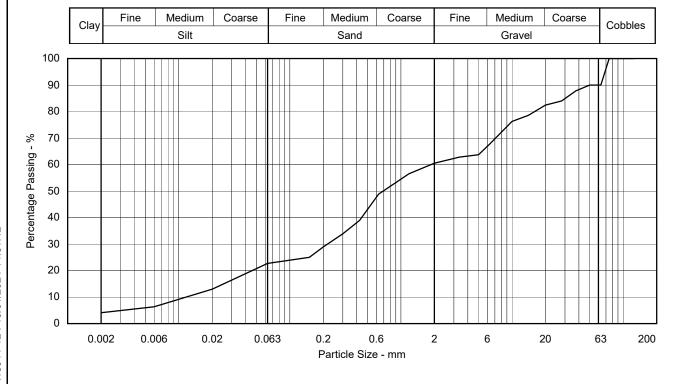
| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 63 µm 63 µm | 100 100 100 90 90 88 84 82 79 76 68 64 63 61 57 49 39 34 29 25 23 13 6 |
| 2 µm | 7 |

| Non Engineering Description | | | | | |
|-----------------------------|--|--|--|--|--|
| | | | | | |

Brown clayey SAND and GRAVEL with cobbles. Gravel is fine to coarse

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|-------|--|--|--|
| Cobbles | 10.0 | | | |
| Gravel | 29.5 | | | |
| Sand | 38.5 | | | |
| Silt | 17.9 | | | |
| Clay | 4.0 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 | 75 | | | |
| D60 | 1.9 | | | |
| D10 | 0.012 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 158.3 | | | |

Notes requirements Sedimentation sample not pre-treated



| Originator | Checked & Approved | |
|------------|-----------------------|--|
| RF | CD 19/01/2024 | |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton Whistleberry Road

Hamilton ML6 OHP

For the attention of Richard Butler

> Report No: A15044-13

01 Issue No

LABORATORY TEST REPORT

| Project Nar | | LT520 BRACO WEST SUBSTATION | | | | | |
|----------------------------------------------|------------------|-----------------------------|------------------------------------|-------------------------|--|--|--|
| Project Number Your Ref Purchase Order | | A15044-13 | Date samples received | 13/12/2023 | | | |
| | | 26555 | Date written instructions received | 15/12/2023 | | | |
| | | 26555 | Date testing commenced | 09/01/2024 | | | |
| | - | Please find enclosed the | results as summarised below | | | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | | | |
| 1 Determination of Water Content | | | | | | | |
| | Yes | | | | | | |
| | | | | | | | |
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Issued by: C Donnelly

Date of Issue: 19/01/2024

Key to symbols used in this report S/C : Testing was sub-contracted

Approved Signatories:

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor) Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

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| Version 026 - 01/09/2023 ent Table - A15044-13.xls | 45 | ian | S | ite | LT520 BRA | CO WEST SUBSTATION | Contract No |
|---------------------------------------------------------------------------|---------------------|-----------------------|---------------|----------------|------------------------------------------------|--------------------------------------------------------------------------|---------------|
| 26 - 01/ A1504 | | ⇔ igne | | | SHE Transmission plc SSE Perth Inveralmond HSE | | _ |
| sion 02 Fable - | | | | ngineer | | | |
| Vers | (| Sample Identification | | | | | |
| Version 026 - 01/09/2023 1212 - Moisture Content Table - A15044-13.xls | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Descriptio | n |
| | BH19 | 0.50 | | D | 2013170 | Dark brown slightly silty sandy fine to mediu inclusions of fibrous peat | m gravel with |
| | | | | | | | |
| ie, ML6 9BG : 19/01/2024 15:59:10 | | | | | | | |

62 Rochsolloch Road, Airdri Lab Project No A15044-13:

Notes

| Originator | Checked & Approved | | |
|------------|-----------------------|--|--|
| TP | <u>CD</u> | | |

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

26555

Water Content

568

1263 - PSD - BS EN 17892 BH19 00.50 B - A15044-13-2013169.xls : Sample ID 2013169

| | 15:59:13 |
|------------|----------------------|
| , MLO 95G | 15044-13:19/01/20241 |
| , Alrarie | 44-13:19 |
| och Road | ect No A150 |
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| te | I T520 | BRACO | WEST | SUBSTA | MOITA |
|----|--------|-------|------|--------|-------|
| | | | | | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole Sample Ref

BH19 ef

Depth (m) 0.50 Sample Type B

| | - |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Particle Size | % Passing |
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm | 100 100 100 100 100 100 100 100 97 79 51 44 30 22 16 11 9 7 |
| | |

| Non | Engine | ering | Descri | ption |
|-----|--------|-------|--------|-------|
|-----|--------|-------|--------|-------|

Dark brown slightly silty sandy fine to medium gravel with inclusions of fibrous peat

| Sample Proportion | ons - % |
|-------------------------------------------------------------------|---------|
| Cobbles | 0.0 |
| Gravel | 78.0 |
| Sand | 18.4 |
| Silt & Clay | 3.5 |
| | |
| Particle Density - Assumed (Mg/m3) | 2.65 |
| Particle Diamete | r - mm |
| D100 | 20 |
| D60 | 7.3 |
| D10 | 0.52 |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 14.0 |

Notes

| | | Clay | Fine | Medium | Coarse | Fine | Medium | Coarse | Fine | Medium | Coarse | Cobbles |
|--------------------|----------------|------|-------|--------|---------|-------|---------------|--------|----------------------|---------------------------|--------|---------|
| | | Clay | | Silt | | | Sand | | | Gravel | | Copples |
| | 100 _ | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | 90 | | | | | | | | | <i> </i> - | | |
| | 80 | | | | | | | | | | | |
| | | | | | | | | | | | | |
| % - | 70 | | | | | | | | | + + N | | |
| ing | 60 | | | | | | | | | | | |
| Percentage Passing | | | | | | | | | | / | | |
| Эе | 50 | | | | | | | | | / | | |
| ntaç | 40 | | | | | | | | $\perp \perp \prime$ | | | |
| ice | | | | | | | | | / | | | |
| ď | 30 | | | | | | | | | | | |
| | 20 | | | | | | | | | | | |
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| | _o L | | | | | | | | | | | |
| | - | 0.00 | 2 0.0 | 006 0 | .02 0.0 | 063 0 | 0.2 0. | 6 | 2 | 6 2 | 20 6 | 3 200 |
| | | | | | | | Particle Size | | | | | |

| Originator | Checked & Approved |
|------------|-----------------------|
| JM | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

> Report No: A15044-16

01 Issue No

LABORATORY TEST REPORT

| Project Na | | LT520 BRACO WEST SUBSTATION | | | | | | | |
|-------------------|------------------|--------------------------------|------------------------------------|-------------------------|--|--|--|--|--|
| Project Nui | mber | A15044-16 | Date samples received | | | | | | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | | | | | |
| Purchase (| Order | 26555 | Date testing commenced | 09/01/2024 | | | | | |
| | | Please find enclosed the r | results as summarised below | | | | | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | | | | | |
| | 2 | Determination of Water Content | | Yes | | | | | |
| | 2 | Particle Size Distribution | | Yes | | | | | |
| | 1 | Chemical Analysis | | s/c - Yes | | | | | |
| | | | | | | | | | |
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Issued by: C Donnelly

Date of Issue: 19/01/2024

Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories:

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date. All results contained in this report are provisional unless signed by an approved signatory This report should not be reproduced except in full without the written approval of the laboratory.

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| LA CALLO CONTROL OF CALL | | | | | |
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Client SHE Transmission plc

Engineer SSF Perth Inversalmond HSF

| version u ent Table | | | E | ngineer | SSE Perth In | veralmond HSE | |
|----------------------------------------------------------------------------------------|---------------------|--------------------|---------------|----------------|------------------|--------------------------------------------------------------------|--------------------|
| ver: ntent ⁻ | (| Sample Identifi | cation | | | | |
| version of 1212 - Moisture Content Table | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | BH06 | 0.60 | | D | 2013093 | Brown fibrous PEAT | 489 |
| | BH06 | 1.20 | | D | 2013095 | Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse | 41.1 |
| | | | | | | | |
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| 04:35 | | | | | | | |
| oz Rochsolioch Road, Allahe, MLO 355 Lab Project No A15044-16 : 19/01/2024 15:04:35 | | | | | | | |
| oz Rochsolloch Road, Alfahe, MLO 95-9 Lab Project No A15044-16 : 19/01/2024 | | | | | | | |
| 71504. | Notes | | | | | | |
| roject No A | Originator | Checked Approve | | D | | tion of the Water Content S EN ISO 17892-1:2014 | |
| Lab P | TP | 19/01/202 |) 24 | | | | Sheet 1 of 1 |

62 Rochsolloch Road, Airdrie, ML6 9BG

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | CD 19/01/2024 |



Contract No 26555



| ite | LT520 BRACO WEST SUBSTATION |
|-----|-----------------------------|
| | |

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole BH06 Sample Ref

Depth (m) 0.60

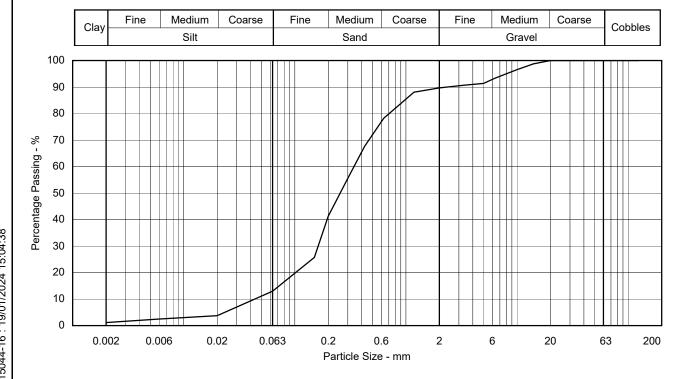
| Sample | Туре | В |
|--------|------|---|
| | | |

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 100 100 100 100 99 97 93 91 91 90 88 78 68 56 41 26 13 4 2 |
| | |

| Non Engineering Description |
|-----------------------------|
| Brown fibrous PEAT |

| Sample Proportions - % | | |
|-------------------------------------------------------------------|-------|--|
| Cobbles | 0.0 | |
| Gravel | 10.4 | |
| Sand | 77.4 | |
| Silt | 11.2 | |
| Clay | 1.1 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 20 | |
| D60 | 0.34 | |
| D10 | 0.044 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 7.7 | |

| Notes | |
|--------------------------------------|--|
| Sedimentation sample not pre-treated | |
| | |



| Originator | Checked & Approved |
|------------|-----------------------|
| JM | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





| | ite | LT520 BRACO WEST SUBSTATION |
|--|-----|-----------------------------|
|--|-----|-----------------------------|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

BH06 Hole Sample Ref

Depth (m) Sa

| :pin (m) | 1.20 |
|-----------|------|
| mple Type | В |

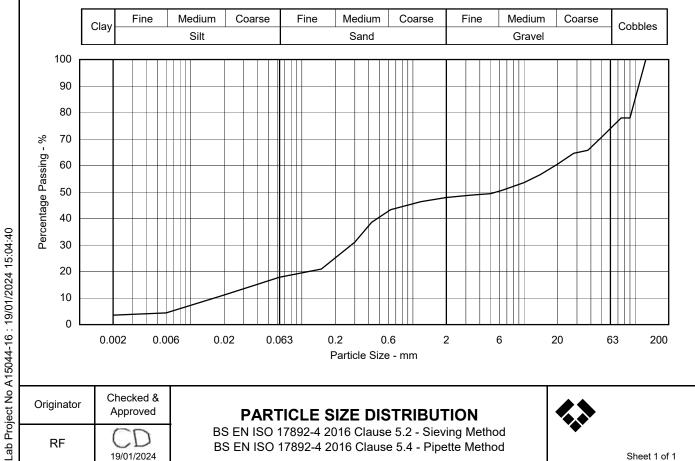
| Particle Size | % Passing |
|---------------|-----------|
| | |
| 125.0 mm | 100 |
| 90.0 mm | 78 |
| 75.0 mm | 78 |
| 63.0 mm | 75 |
| 50.0 mm | 71 |
| 37.5 mm | 66 |
| 28.0 mm | 65 |
| 20.0 mm | 60 |
| 14.0 mm | 57 |
| 10.0 mm | 54 |
| 6.30 mm | 51 |
| 5.00 mm | 49 |
| 3.35 mm | 49 |
| 2.00 mm | 48 |
| 1.18 mm | 46 |
| 630 µm | 43 |
| 425 µm | 39 |
| 300 µm | 31 |
| 200 μm | 25 |
| 150 µm | 21 |
| 63 µm | 18 |
| 20 µm | 11 |
| 6 μm | 4 |
| 2 µm | 3 |
| | |
| | |

Non Engineering Description

Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

| Sample Proportions - % | | |
|-------------------------------------------------------------------|--------|--|
| Cobbles | 25.1 | |
| Gravel | 27.0 | |
| Sand | 30.6 | |
| Silt | 13.8 | |
| Clay | 3.5 | |
| Particle Density - Assumed (Mg/m3) | 2.65 | |
| Particle Diameter - mm | | |
| D100 | 125 | |
| D60 | 19 | |
| D10 | 0.016 | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 1187.5 | |

Notes Sedimentation sample not pre-treated



| Originator | Checked & Approved |
|------------|-----------------------|
| RF | CD 19/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Summary of Chemical Analysis Soil Samples

Our Ref 23-29977 Client Ref A15044-16 Contract Title

| Lab No | 2280105 |
|---------------|---------|
| .Sample ID | BH06 |
| Depth | 0.60 |
| Other ID | 2013093 |
| Sample Type | SOIL |
| Sampling Date | n/s |
| Sampling Time | n/s |

| Test | Method | LOD | Units | |
|---------------------------------------|-------------|-----|-------|-----|
| Inorganics | • | | | |
| рН | DETSC 2008# | | рН | 3.4 |
| Sulphate Aqueous Extract as SO4 (2:1) | DFTSC 2076# | 10 | mg/l | 150 |



Inappropriate

Information in Support of the Analytical Results

Our Ref 23-29977 Client Ref A15044-16 Contract

Containers Received & Deviating Samples

| | | Date | | | container for |
|---------|----------------|---------|----------------------------|------------------------------------------------------|---------------|
| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| 2280105 | BH06 0.60 SOIL | | PT 500ml | Sample date not supplied, Anions 2:1 (30 days), pH + | |
| | | | | Conductivity (7 days) | |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|----|---------|-------------------------------|--------------------|
| J | | | |
| 70 | Client: | SHE Transmission plc | |
| 10 | Engine | er: SSE Perth Inveralmond HSE | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:28:01 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-18

Issue No 01

LABORATORY TEST REPORT

| Project Nar | | LT520 BRACO WEST SUBSTAT | | 40/40/0000 | |
|-------------------|------------------|--------------------------------|------------------------------------|------------|--|
| Project Nur | nber | A15044-18 | Date samples received | 13/12/2023 | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | |
| Purchase C | Order | 26555 | Date testing commenced | 10/01/2024 | |
| | | Please find enclosed th | ne results as summarised below | | |
| Figure / Table | Test Quantity | | Description | | |
| | 1 | Determination of Water Content | | Yes | |
| | 1 | Bulk Density | | Yes | |
| | 1 | Particle Size Distribution | | Yes | |
| | | | | | |
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Issued by: C Donnelly Date of Issue: 22/01/2024 Key to symbols used in this report

S/C: Testing was sub-contracted

(,)

Approved Signatories : 22/01/202

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

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Feedback on the this report may be left via our website www.igne.com/contact







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www.igne.com
Terra Tek Ltd is registered in Scotland No. 121594
Offices in Airdrie, Birmingham and Aston Clinton

| 1212 - Moisture Content Table - A15044-18.xls | | ign | • |
|-----------------------------------------------|---------------------|-----------------|-----|
| ontent Ta | | Sample Identifi | cat |
| 1212 - Moisture G | Exploratory Hole | Depth m | S |
| 17:18:57 | BH11 NEW | 0.50 | |

| ane | Site | LT520 BRACO WEST SUBSTATION | Contract No | 26555 |
|-----|----------|-----------------------------|-------------|-------|
| 3 | Client | SHE Transmission plc | | |
| | Engineer | SSE Perth Inveralmond HSE | | |

| Version 02 tent Table | | | Eı | ngineer | SSE Perth In | veralmond HSE | |
|-----------------------------------------------------------------------------------------|---------------------|--------------------|---------------|----------------|-----------------------|-----------------------------------------------------------------------------|--------------------|
| Ver | S | Sample Identifi | cation | | | | |
| Version 03 1212 - Moisture Content Table | Exploratory Hole | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Water Content % |
| | BH11 NEW | 0.50 | | D | 2013108 | Brown silty SAND and GRAVEL with organic material. Gravel is fine to coarse | 36.4 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| G 4 17:18:57 | | | | | | | |
| 62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-18 : 22/01/2024 17:18:57 | Notes | | | | | | |
| 62 Rochsolloch R. Lab Project No A1 | Originator | Checked Approve | d) | D | etermina BS | Sheet 1 of 1 | |

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> 22/01/2024 |



| Ie - A I 5044- I 8.XIS | | ig | ne |
|------------------------|--|----|----|
|------------------------|--|----|----|

| Client | | | Client | SHE Transm | ission plc | | | |
|----------|-----------------|---------------|----------------|------------------|--------------------------------------------------------------------------------|-----------------|----------------|------------------|
| | Engineer | | SSE Perth In | veralmond HSE | | | | |
| | Sample Identifi | cation | | | | | | |
| Hole ID | Depth | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Bulk Density | Dry Density | Water Content |
| | m | | | | | Mg/m³ | Mg/m³ | % |
| BH11 NEW | 0.50 | | В | 2013107 | Brown silty SAND and GRAVEL with organic material. Gravel is fine to coarse | 2.09 | 1.53 | 36.4 |
| | | | | | | | | |
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| Notes | | - | - | - | | | | |

Lab Project No A15044-18 : 22/01/2024 17:18:59

62 Rochsolloch Road, Airdrie, ML6 9BG

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> |

BULK DENSITY

BS EN ISO 17892-2 Determination of bulk density Linear measurement method



Contract No

26555

1263 - PSD - BS EN 17892 BH11 NEW 00.50 B - A15044-18-2013107.xls : Sample ID 201310



ite LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole Sample Ref BH11 NEW

Sample Ref Depth (m) Sample Type

0.50 B

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm | 100 100 100 100 100 93 88 82 78 70 67 64 60 54 47 38 26 17 10 8 |
| σο μπι | |
| | |

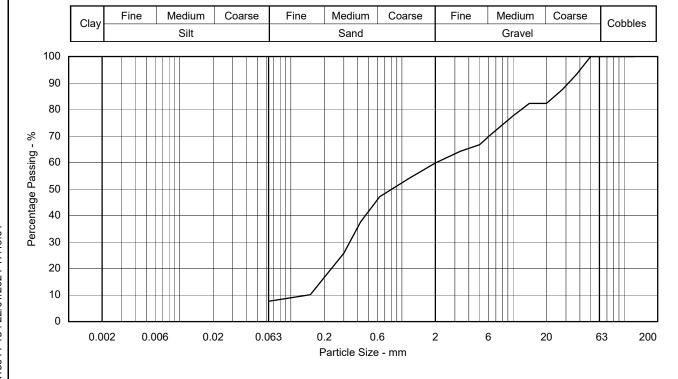
Non Engineering Description

Brown silty SAND and GRAVEL with organic material.

Gravel is fine to coarse

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|--------|--|--|--|
| Cobbles | 0.0 | | | |
| Gravel | 40.2 | | | |
| Sand | 52.2 | | | |
| Silt & Clay | 7.6 | | | |
| | | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diamete | r - mm | | | |
| D100 | 50 | | | |
| D60 | 2.0 | | | |
| D10 | 0.14 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 14.3 | | | |

Notes



Originator Checked & Approved

SM CD
22/01/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method



62 Rochsolloch Road, Airdrie, ML6 9BG Lab Project No A15044-18 : 22/01/2024 17:19:01



Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-19

Issue No 01

LABORATORY TEST REPORT

| Project Name LT520 BRACO WEST SUBSTATION | | | | | |
|------------------------------------------|------------------|------------------------------------|------------------------------------|------------|--|
| Project Nu | mber | A15044-19 | Date samples received | 13/12/2023 | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | |
| Purchase (| Order | 26555 | Date testing commenced | 10/01/2024 | |
| | | Please find enclosed | the results as summarised below | | |
| Figure / Table | Test Quantity | Description ISO 17 Accred | | | |
| | 1 | Determination of Water Content Yes | | | |
| | 1 | Bulk Density Yes | | | |
| | 1 | Particle Size Distribution | Yes | | |
| | | | | | |
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Issued by: C Donnelly Date of Issue: 22/01/2024 Key to symbols used in this report

S/C: Testing was sub-contracted

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

All results contained in this report are provisional unless signed by an approved signatory

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Feedback on the this report may be left via our website www.igne.com/contact



Approved Signatories:





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airdrie@igne.com
www.igne.com
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Offices in Airdrie, Birmingham and Aston Clinton

| 14-19.xls | 4 5 | ian | Si | te | LT520 BRA | CO WEST SUBSTATION | Contract No |
|-----------------------------------------------|----------------------|------------------------|------------------------------------------------|--------|------------|------------------------------------------|---------------|
| ent Table - A15044-19.xls | Site Client Engineer | | SHE Transmission plc SSE Perth Inveralmond HSE | | | | |
| 1212 - Moisture Content Table - A15044-19.xls | Exploratory | Sample Identifi Depth | Sample | Sample | Lab Sample | Non Enginering Descriptio | n |
| 121 | Hole | m | Ref | Type | ID | | |
| | BH12 NEW | 1.00 | | D | 2013110 | Brown silty SAND and GRAVEL. Gravel is f | ine to coarse |
| | | | | | | | |
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| : 22/01/2024 17:23:43 | | | | | | | |
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Notes

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> 22/01/2024 |

Determination of the Water ContentBS EN ISO 17892-1:2014



Sheet 1 of 1

26555

Water Content

10.1

| | '' | | Client | SHE Transm | ission plc | | | |
|----------|-----------------|---------------|----------------|------------------|-------------------------------------------------------|-----------------|----------------|------------------|
| | | E | Engineer | SSE Perth In | veralmond HSE | | | |
| | Sample Identifi | cation | _ | | | | | |
| Hole ID | Depth | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Bulk Density | Dry Density | Water Content |
| | m | | | | | Mg/m³ | Mg/m³ | % |
| BH12 NEW | 0.70 | | В | 2013109 | Brown silty SAND and GRAVEL. Gravel is fine to coarse | 2.11 | 1.92 | 10.1 |
| | | | | | | | | |
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| Notes | - | - | - | - | · | | | |

Lab Project No A15044-19: 22/01/2024 17:23:46

62 Rochsolloch Road, Airdrie, ML6 9BG

| Originator | Checked & Approved |
|------------|-----------------------|
| TP | <u>CD</u> |

BULK DENSITY

BS EN ISO 17892-2 Determination of bulk density Linear measurement method



Contract No

26555



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

Hole Sample Ref

BH12 NEW

Depth (m) Sample Type

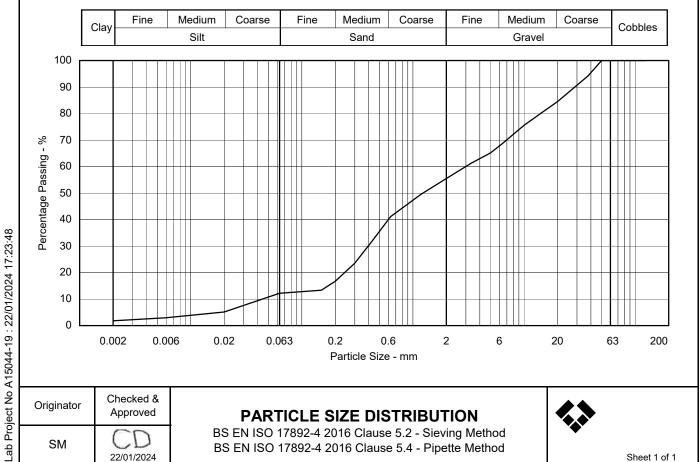
0.70 В

| Particle Size | % Passing |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 125.0 mm 90.0 mm 75.0 mm 63.0 mm 50.0 mm 37.5 mm 28.0 mm 20.0 mm 14.0 mm 10.0 mm 6.30 mm 5.00 mm 3.35 mm 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 63 µm 20 µm 63 µm 20 µm | 100 100 100 100 100 94 90 84 80 76 68 65 61 55 49 41 32 23 17 13 12 5 |
| 2.00 mm 1.18 mm 630 µm 425 µm 300 µm 200 µm 150 µm 63 µm 20 µm 6 µm | 55 49 41 32 23 17 13 12 5 |

| Non Engineering Description | | |
|-------------------------------------------------------|--|--|
| | | |
| Brown silty SAND and GRAVEL. Gravel is fine to coarse | | |

| Sample Proportions - % | | | | |
|-------------------------------------------------------------------|-------|--|--|--|
| Cobbles | 0.0 | | | |
| Gravel | 44.5 | | | |
| Sand | 43.8 | | | |
| Silt | 9.9 | | | |
| Clay | 1.7 | | | |
| Particle Density - Assumed (Mg/m3) | 2.65 | | | |
| Particle Diameter - mm | | | | |
| D100 | 50 | | | |
| D60 | 3.0 | | | |
| D10 | 0.045 | | | |
| Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5) | 66.7 | | | |

| Notes |
|--------------------------------------|
| Sedimentation sample not pre-treated |
| |



| Originator | Checked & Approved |
|------------|-----------------------|
| SM | CD 22/01/2024 |

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method





Raeburn (Trading as igne) Hamilton

Whistleberry Road Hamilton ML6 OHP

For the attention of Richard Butler

Report No: A15044-R1

Issue No 01

LABORATORY TEST REPORT

| Project Nar | | | LT520 BRACO WEST SUBSTATION | | | | | | |
|-------------------|------------------|-----------------------------|----------------------------------------|-------------------------|--|--|--|--|--|
| Project Nur | mber | A15044-R1 | Date samples received | 09/01/2024 | | | | | |
| Your Ref | | 26555 | Date written instructions received | 14/12/2023 | | | | | |
| Purchase 0 | Order | 26555 | Date testing commenced | 10/01/2024 | | | | | |
| | | Please find enclose | ed the results as summarised below | | | | | | |
| Figure / Table | Test Quantity | | Description | ISO 17025 Accredited | | | | | |
| | 7 | Water Content of Rock | Yes | | | | | | |
| | 7 | Bulk Density | | Yes | | | | | |
| | 7 | Resistance to Fragmentation | on by Los Angeles Method | Yes | | | | | |
| | 340 | Point Load Index | | Yes | | | | | |
| | 37 | Uniaxial Compressive Stre | ngth | Yes | | | | | |
| | 37 | Photographs of Post-UCS | Photographs of Post-UCS Test Specimens | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: Interim results. Chemistry to follow

Issued by : C Donnelly Date of Issue : 25/01/2024 Key to symbols used in this report

S/C : Testing was sub-contracted

Approved Signatories : 25/01/20

C Donnelly (Laboratory Coordinator), C Loudon (Quality Manager), I McMillan (Site Supervisor), S Gilchrist (Quality Supervisor), S McDonagh (Laboratory Supervisor)

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.

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Offices in Airdrie, Birmingham and Aston Clinton

Sample Identification

| Site | LT520 BRACO | WEST SUBSTATION | NC |
|------|-------------|-----------------|----|

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE Contract No 26555

| | | ĺ | |
|--|---|----------|--|
| | N | D-4- OI- | |

| Location / Depth Sample Sample Origin m Ref Type | | | | | | | | i |
|--------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| Location / Origin | Depth m | Sample Ref | Sample Type | Lab Sample ID | Non Engineering Sample Description | Date Sample Received | Moisture Content | Comments |
| | | | | | | | % | |
| BH02 | 3.90-4.00 | | С | 2013883 | Reddish Brown Rock Core | 08.01.24 | 16.0 | ~ |
| вноз | 2.70-5.10 | | С | 2013126 | Reddish Brown Rock Core | 08.01.24 | 6.7 | ~ |
| BH04 | 4.20-5.70 | | С | 2013131 | Reddish Brown Rock Core | 08.01.24 | 5.7 | ~ |
| BH05 | 2.70-5.40 | | С | 2013136 | Reddish Brown Rock Core | 08.01.24 | 6.3 | ~ |
| BH09 | 3.73-3.84 | | С | 2013708 | Reddish Brown Rock Core | 08.01.24 | 3.4 | ~ |
| BH14 | 4.20-5.70 | | С | 2013160 | Reddish Brown Rock Core | 08.01.24 | 7.1 | ~ |
| BH15 | 5.50-7.00 | | С | 2013163 | Reddish Brown Rock Core | 08.01.24 | 7.8 | ~ |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | I . | | <u> </u> | | UKAS accre | dited test Yes | |
| Notes O | pinions and inte | erpretatior | ns are out | side the so | cope of UKAS accreditation. | • | | |
| | 1 | 1 | | | | | 1 | |
| Originator | Approve | d | | | STIMMADY OF MOISTURE O | ONTENT | | |
| | | | | • | | | | , |
| DW | 25/01/202 | 24 | | | | | | Sheet 1 of 1 |
| | BH02 BH03 BH05 BH09 BH14 BH15 | Location / Origin Depth on M BH02 3.90-4.00 BH03 2.70-5.10 BH04 4.20-5.70 BH09 3.73-3.84 BH14 4.20-5.70 BH15 5.50-7.00 Notes Opinions and interest Originator Approve DW C.D. | Location / Origin Depth m Sample Ref BH02 3.90-4.00 Image: Control of the Ref BH03 2.70-5.10 Image: Control of Ref BH04 4.20-5.70 Image: Control of Ref BH09 3.73-3.84 Image: Control of Ref BH15 5.50-7.00 Image: Control of Ref Notes Opinions and interpretation Originator Approved | Location / Origin Depth m Sample Ref Sample Type BH02 3.90-4.00 C BH03 2.70-5.10 C BH04 4.20-5.70 C BH09 3.73-3.84 C BH14 4.20-5.70 C BH15 5.50-7.00 C Notes Opinions and interpretations are outs Originator Approved DW CD | Location / Origin Depth m Sample Ref Sample Type Lab Sample ID BH02 3.90-4.00 C 2013883 BH03 2.70-5.10 C 2013126 BH04 4.20-5.70 C 2013131 BH09 3.73-3.84 C 2013708 BH14 4.20-5.70 C 2013160 BH15 5.50-7.00 C 2013163 Notes Opinions and interpretations are outside the score of the second of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of the score of t | Location / Origin Depth m Sample Ref Sample Type Lab Sample ID Non Engineering Sample Description BH02 3.90-4.00 C 2013883 Reddish Brown Rock Core BH03 2.70-5.10 C 2013126 Reddish Brown Rock Core BH04 4.20-5.70 C 2013131 Reddish Brown Rock Core BH09 3.73-3.84 C 2013708 Reddish Brown Rock Core BH14 4.20-5.70 C 2013160 Reddish Brown Rock Core BH15 5.50-7.00 C 2013163 Reddish Brown Rock Core Notes Opinions and interpretations are outside the scope of UKAS accreditation. Originator Approved SUMMARY OF MOISTURE C BS1377 : 1990 : Part : | Depth Sample Sample Color Depth Mere Sample Received Description D | Depth Chiginal Depth Chiginator Depth C |

| Originator | Approved |
|------------|------------------|
| DW | CD 25/01/2024 |

62 Rochsolloch Road, Airdrie, ML6 9BG



SHE Transmission plc

| | ''' | С | lient | SHE Transmi | ission plc | | | |
|----------|------------------------|---------------|----------------|------------------|----------------------------|-----------------|----------------|------------------|
| Engineer | | | | SSE Perth In | veralmond HSE | | | |
| Hole ID | Sample Identifi Depth | Sample Ref | Sample Type | Lab Sample ID | Non Enginering Description | Bulk Density | Dry Density | Water Content |
| | m | | | | | Mg/m³ | Mg/m³ | % |
| BH03 | 2.70-5.10 | | С | 2013126 | | 2.52 | 2.48 | 1.5 |
| BH04 | 4.67-4.75 | | С | 2013707 | | 2.46 | 2.42 | 1.6 |
| BH05 | 2.70-5.40 | | С | 2013136 | | 2.42 | 2.37 | 1.9 |
| BH09 | 3.73-3.84 | | С | 2013708 | | 2.4 | 2.38 | 0.9 |
| BH14 | 4.20-5.70 | | С | 2013160 | | 2.17 | 2.08 | 4.1 |
| BH15 | 5.50-7.00 | | С | 2013163 | | 2.29 | 2.25 | 1.7 |
| | | | | | | | | |
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| Notes | | | | | | | | |

| Originator | Checked & Approved | | |
|------------|-----------------------|--|--|
| DW | <u>CD</u> | | |

Lab Project No A15044-R1: 25/01/2024 16:37:12

62 Rochsolloch Road, Airdrie, ML6 9BG

BULK DENSITY

BS EN ISO 17892-2 Determination of bulk density Linear measurement method



Contract No

26555

🥸 iane

LT520 BRACO WEST SUBSTATION

| | '9'' | | lient | SHE Trai | nsmission plc | | | | |
|----------|-------------------------------|---------------|----------------|---------------------|-----------------------------------------------------|------------------------------------|----------------------------|--------------|-----------|
| Engineer | | | SSE Perf | th Inveralmond H | ISE | | | | |
| Hole ID | Sample Identifi Depth m | Sample Ref | Sample Type | Lab Sample ID | 10-14mm Size Fraction Passing 11.2mm Sieve | Particle Density (8-12.5 mm) | Los Angeles Coefficient | Impact Value | Test Date |
| | | | | | % | Mg/m³ | LA | SZ | |
| BH02 | 3.30-4.80 | | С | 2013123 | 35 | ~ | 30 | ~ | ~ |
| ВН03 | 2.70-5.10 | | С | 2013126 | 35 | ~ | 25 | ~ | ~ |
| BH04 | 4.20-5.70 | | С | 2013131 | 35 | ~ | 23 | ~ | ~ |
| BH05 | 2.70-5.40 | | С | 2013136 | 35 | ~ | 22 | ~ | ~ |
| ВН09 | 2.90-5.04 | | С | 2013149 | 35 | ~ | 28 | ~ | ~ |
| BH14 | 4.20-5.70 | | С | 2013160 | 35 | ~ | 23 | ~ | ~ |
| BH15 | 5.50-7.00 | | С | 2013163 | 35 | ~ | 24 | ~ | ~ |
| | | | | | UKAS | accredited test | Yes | No | |

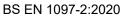
Notes Opinions and interpretations are outside the scope of UKAS accreditation.

| Originator | Approved |
|------------|----------------------|
| DW | <u>CD</u> 25/01/2024 |

Lab Project No A15044-R1 : 25/01/2024 16:37:14

62 Rochsolloch Road, Airdrie, ML6 9BG

RESISTANCE TO FRAGMENTATION BY LOS ANGELES AND IMPACT TEST METHODS





Contract No

26555

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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| - A1504 | Sample Identification | | | | | | | | 1 |
|------------------|-----------------------|-------------|---------------------------|----------------|----------------------|-----------------------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH01 | 4.20-4.40 | Axial | 101.0 | 70.0 | 0.1 | 0.01 | 0.01 | |
| | BH01 | 4.20-4.40 | Axial | 101.0 | 60.0 | 0.4 | 0.05 | 0.07 | |
| | BH01 | 4.20-4.40 | Axial | 101.0 | 45.0 | 0.2 | 0.03 | 0.04 | |
| | BH01 | 4.20-4.40 | Axial | 101.0 | 65.0 | 0.2 | 0.02 | 0.03 | |
| | BH01 | 4.20-4.40 | Axial | 101.0 | 29.0 | 0.1 | 0.03 | 0.03 | |
| | BH01 | 4.20-4.40 | Diametral | 175.0 | 101.0 | 0.4 | 0.04 | 0.05 | |
| | BH01 | 4.20-4.40 | Diametral | 120.0 | 101.0 | 0.3 | 0.03 | 0.04 | |
| _ | BH01 | 4.20-4.40 | Diametral | 75.0 | 101.0 | 0.2 | 0.02 | 0.03 | |
| _ab Prc | BH01 BH01 | 4.20-4.40 | Diametral | 65.0 | 101.0 | 0.3 | 0.03 | 0.04 | |
| ject No | BH01 | 4.20-4.40 | Diametral | 40.0 | 101.0 | 0.4 | 0.04 | 0.05 | |
| ΑO | Notes | 1 Dimonsion | A= Minimum Width for Lump | Toete | 2 Moisture Content o | of comple , coturated | | | _ |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| xploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
|--------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH01 | 6.30-6.60 | Axial | 100.0 | 49.0 | 3.6 | 0.58 | 0.71 | |
| BH01 | 6.30-6.60 | Axial | 101.0 | 65.0 | 11.1 | 1.33 | 1.74 | |
| BH01 | 6.30-6.60 | Axial | 100.0 | 86.0 | 13.3 | 1.21 | 1.69 | |
| BH01 | 6.30-6.60 | Axial | 100.0 | 64.0 | 11.7 | 1.44 | 1.87 | |
| BH01 | 6.30-6.60 | Axial | 100.0 | 54.0 | 5.4 | 0.79 | 0.99 | |
| BH01 | 6.30-6.60 | Diametral | 310.0 | 100.0 | 7.3 | 0.73 | 1.00 | |
| BH01 | 6.30-6.60 | Diametral | 144.0 | 101.0 | 6.4 | 0.63 | 0.86 | |
| BH01 | 6.30-6.60 | Diametral | 199.0 | 100.0 | 2.9 | 0.29 | 0.40 | |
| BH01 | 6.30-6.60 | Diametral | 117.0 | 100.0 | 4.8 | 0.48 | 0.66 | |
| BH01 | 6.30-6.60 | Diametral | 96.0 | 101.0 | 4.0 | 0.39 | 0.54 | |
| | BH01 BH01 BH01 BH01 BH01 BH01 BH01 BH01 | Hole m BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 BH01 6.30-6.60 | Hole m BH01 6.30-6.60 Axial BH01 6.30-6.60 Axial BH01 6.30-6.60 Axial BH01 6.30-6.60 Axial BH01 6.30-6.60 Diametral BH01 6.30-6.60 Diametral BH01 6.30-6.60 Diametral BH01 6.30-6.60 Diametral | March Depth Depth March Marc | Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark Mark 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Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| Sample Id | entification | · | | | | | | • |
|---------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH02 | 3.20-3.60 | Lump | 91.0 | 46.0 | 0.9 | 0.17 | 0.20 | |
| BH02 | 3.20-3.60 | Lump | 93.0 | 58.0 | 2.0 | 0.29 | 0.37 | |
| BH02 | 3.20-3.60 | Lump | 71.0 | 50.0 | 2.2 | 0.49 | 0.56 | |
| BH02 | 3.20-3.60 | Lump | 72.0 | 46.0 | 3.2 | 0.76 | 0.85 | |
| BH02 | 3.20-3.60 | Lump | 63.0 | 39.0 | 1.2 | 0.38 | 0.40 | |
| BH02 | 3.20-3.60 | Lump | 76.0 | 33.0 | 1.8 | 0.56 | 0.60 | |
| BH02 | 3.20-3.60 | Lump | 69.0 | 25.0 | 1.9 | 0.87 | 0.84 | |
| BH02 | 3.20-3.60 | Lump | 47.0 | 30.0 | 0.4 | 0.22 | 0.21 | |
| BH02 | 3.20-3.60 | Lump | 59.0 | 29.0 | 0.7 | 0.32 | 0.31 | |
| BH02 | 3.20-3.60 | Lump | 52.0 | 32.0 | 1.1 | 0.52 | 0.50 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| Sample Id | lentification | | | | | | | |
|---------------------|---------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH02 | 5.40-5.60 | Lump | 94.0 | 52.0 | 4.4 | 0.71 | 0.87 | |
| BH02 | 5.40-5.60 | Lump | 73.0 | 35.0 | 1.1 | 0.34 | 0.36 | |
| BH02 | 5.40-5.60 | Lump | 92.0 | 45.0 | 1.0 | 0.19 | 0.22 | |
| BH02 | 5.40-5.60 | Lump | 88.0 | 20.0 | 0.7 | 0.31 | 0.30 | |
| BH02 | 5.40-5.60 | Lump | 80.0 | 34.0 | 1.1 | 0.32 | 0.34 | |
| BH02 | 5.40-5.60 | Lump | 79.0 | 48.0 | 1.8 | 0.37 | 0.43 | |
| BH02 | 5.40-5.60 | Lump | 97.0 | 31.0 | 0.9 | 0.24 | 0.26 | |
| BH02 | 5.40-5.60 | Lump | 85.0 | 54.0 | 1.5 | 0.26 | 0.31 | |
| BH02 | 5.40-5.60 | Lump | 47.0 | 25.0 | 1.8 | 1.20 | 1.07 | |
| BH02 | 5.40-5.60 | Lump | 56.0 | 29.0 | 1.4 | 0.68 | 0.65 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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lient SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | | | | | | | _ |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH02 | 6.00-6.50 | Lump | 86.0 | 65.0 | 5.1 | 0.72 | 0.91 | |
| | BH02 | 6.00-6.50 | Lump | 90.0 | 52.0 | 2.1 | 0.35 | 0.43 | |
| | BH02 | 6.00-6.50 | Lump | 89.0 | 48.0 | 3.9 | 0.72 | 0.85 | |
| | BH02 | 6.00-6.50 | Lump | 68.0 | 35.0 | 0.9 | 0.30 | 0.31 | |
| | BH02 | 6.00-6.50 | Lump | 69.0 | 38.0 | 4.1 | 1.23 | 1.31 | |
| | BH02 | 6.00-6.50 | Lump | 58.0 | 41.0 | 2.1 | 0.69 | 0.72 | |
| | BH02 | 6.00-6.50 | Lump | 74.0 | 62.0 | 2.9 | 0.50 | 0.60 | |
| _ | BH02 | 6.00-6.50 | Lump | 88.0 | 32.0 | 0.7 | 0.20 | 0.21 | |
| _ab Pro | BH02 | 6.00-6.50 | Lump | 56.0 | 21.0 | 1.5 | 1.00 | 0.89 | |
| ject No | BH02 BH02 | 6.00-6.50 | Lump | 78.0 | 39.0 | 2.3 | 0.59 | 0.66 | |
| 7 0 | NI 1 | 4 Dimension | Λ = Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE ~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Identification | | | | | | | | 1 |
|------------------|-----------------------|-------------|---------------------------|----------------|----------------------|-----------------------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH03 | 3.10-3.20 | Axial | 100.0 | 32.0 | 1.9 | 0.47 | 0.52 | |
| | BH03 | 3.10-3.20 | Axial | 99.0 | 16.0 | 0.9 | 0.45 | 0.43 | |
| | BH03 | 3.10-3.20 | Axial | 99.0 | 36.0 | 2.4 | 0.53 | 0.60 | |
| | BH03 | 3.10-3.20 | Axial | 100.0 | 21.0 | 2.1 | 0.79 | 0.80 | |
| | BH03 | 3.10-3.20 | Axial | 100.0 | 29.0 | 1.5 | 0.41 | 0.44 | |
| | BH03 | 3.10-3.20 | Diametral | 70.0 | 100.0 | 0.4 | 0.04 | 0.05 | |
| | BH03 | 3.10-3.20 | Diametral | 120.0 | 100.0 | 1.2 | 0.12 | 0.16 | |
| | BH03 | 3.10-3.20 | Diametral | 136.0 | 100.0 | 0.7 | 0.07 | 0.10 | |
| _ab Prc | BH03 BH03 | 3.10-3.20 | Diametral | 89.0 | 99.0 | 1.5 | 0.15 | 0.21 | |
| ject No | BH03 | 3.10-3.20 | Diametral | 98.0 | 100.0 | 0.6 | 0.06 | 0.08 | |
| δ | Notos | 1 Dimonsion | A= Minimum Width for Lump | Tests | 2 Moisture Content (| of cample , caturated | | | |

1. Dimension A= Minimum Width for Lump Tests Notes

Dimension A=Length for Diametral Tests Dimension A=Diameter for Axial Tests Dimension B=Platen Separation

2. Moisture Content of sample: saturated

- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| 1504 | Sample Identification | | | | | | | | |
|------------------|-----------------------|-------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH03 | 5.42-5.92 | Axial | 101.0 | 79.0 | 14.8 | 1.46 | 2.00 | |
| | BH03 | 5.42-5.92 | Axial | 101.0 | 56.0 | 12.5 | 1.74 | 2.20 | |
| | вноз | 5.42-5.92 | Axial | 101.0 | 66.0 | 11.6 | 1.37 | 1.80 | |
| | ВН03 | 5.42-5.92 | Axial | 100.0 | 45.0 | 12.7 | 2.22 | 2.67 | |
| | ВН03 | 5.42-5.92 | Axial | 101.0 | 33.0 | 13.0 | 3.06 | 3.45 | |
| | ВН03 | 5.42-5.92 | Diametral | 157.0 | 101.0 | 13.8 | 1.35 | 1.86 | |
| | ВН03 | 5.42-5.92 | Diametral | 73.0 | 101.0 | 9.8 | 0.96 | 1.32 | |
| | ВН03 | 5.42-5.92 | Diametral | 83.0 | 101.0 | 8.5 | 0.83 | 1.14 | |
| Lab Project No | ВН03 | 5.42-5.92 | Diametral | 112.0 | 101.0 | 10.1 | 0.99 | 1.36 | |
| ect No | BH03 | 5.42-5.92 | Diametral | 109.0 | 101.0 | 10.9 | 1.07 | 1.47 | |
| D | Natas | 1 Dimonoion | A - Minimum Width for Lump | T4- | 2 Maisture Centent | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample : saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| Sample | Identification | | | | | | | |
|-------------------|----------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| Explorato Hole | ry Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH04 | 4.80-5.00 | Axial | 100.0 | 68.0 | 5.9 | 0.68 | 0.90 | |
| BH04 | 4.80-5.00 | Axial | 100.0 | 35.0 | 17.4 | 3.90 | 4.45 | |
| BH04 | 4.80-5.00 | Axial | 100.0 | 39.0 | 10.1 | 2.03 | 2.37 | |
| BH04 | 4.80-5.00 | Axial | 100.0 | 45.0 | 16.3 | 2.84 | 3.43 | |
| BH04 | 4.80-5.00 | Axial | 100.0 | 40.0 | 14.5 | 2.85 | 3.34 | |
| BH04 | 4.80-5.00 | Diametral | 79.0 | 100.0 | 14.1 | 1.41 | 1.93 | |
| BH04 | 4.80-5.00 | Diametral | 88.0 | 101.0 | 13.5 | 1.32 | 1.82 | |
| BH04 | 4.80-5.00 | Diametral | 70.0 | 100.0 | 14.2 | 1.42 | 1.94 | |
| BH04 | 4.80-5.00 | Diametral | 102.0 | 100.0 | 12.1 | 1.21 | 1.65 | |
| BH04 | 4.80-5.00 | Diametral | 123.0 | 100.0 | 13.6 | 1.36 | 1.86 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Identification | | | | | | | | • |
|------------------|-----------------------|-------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH05 | 2.83-3.10 | Axial | 100.0 | 53.0 | 2.8 | 0.41 | 0.52 | |
| | BH05 | 2.83-3.10 | Axial | 100.0 | 55.0 | 7.3 | 1.04 | 1.31 | |
| | BH05 | 2.83-3.10 | Axial | 100.0 | 64.0 | 18.1 | 2.22 | 2.90 | |
| | BH05 | 2.83-3.10 | Axial | 100.0 | 50.0 | 19.7 | 3.09 | 3.82 | |
| | BH05 | 2.83-3.10 | Axial | 100.0 | 42.0 | 15.9 | 2.97 | 3.53 | |
| | BH05 | 2.83-3.10 | Diametral | 133.0 | 100.0 | 15.8 | 1.58 | 2.16 | |
| | BH05 | 2.83-3.10 | Diametral | 109.0 | 100.0 | 1.1 | 0.11 | 0.15 | |
| _ | BH05 | 2.83-3.10 | Diametral | 99.0 | 100.0 | 10.2 | 1.02 | 1.39 | |
| _ab Pro | BH05 | 2.83-3.10 | Diametral | 56.0 | 100.0 | 5.6 | 0.56 | 0.76 | |
| ject No | BH05 BH05 | 2.83-3.10 | Diametral | 89.0 | 100.0 | 3.6 | 0.36 | 0.49 | |
| 7 6 | NI 1 | 1 Dimensian | A = Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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| • | 13.16 | Client |

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

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Notes

1. Dimension A= Minimum Width for Lump Tests
Dimension A=Length for Diametral Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

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|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A1504 | Sample Ide | entification | | | | | | | |
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH06 | 3.05-3.30 | Axial | 102.0 | 46.0 | 0.7 | 0.12 | 0.14 | |
| | вно6 | 3.05-3.30 | Axial | 101.0 | 36.0 | 0.3 | 0.06 | 0.07 | |
| | вно6 | 3.05-3.30 | Axial | 102.0 | 40.0 | 0.1 | 0.02 | 0.02 | |
| | ВН06 | 3.05-3.30 | Axial | 102.0 | 56.0 | 0.1 | 0.01 | 0.02 | |
| | ВН06 | 3.05-3.30 | Axial | 102.0 | 32.0 | 0.4 | 0.10 | 0.11 | |
| | вно6 | 3.05-3.30 | Diametral | 101.0 | 102.0 | 0.6 | 0.06 | 0.08 | |
| | ВН06 | 3.05-3.30 | Diametral | 126.0 | 102.0 | 0.5 | 0.05 | 0.07 | |
| _ | ВН06 | 3.05-3.30 | Diametral | 89.0 | 102.0 | 0.2 | 0.02 | 0.03 | |
| ab Proj | ВН06 | 3.05-3.30 | Diametral | 81.0 | 102.0 | 0.2 | 0.02 | 0.03 | |
| Lab Project No | ВН06 | 3.05-3.30 | Diametral | 56.0 | 102.0 | 0.6 | 0.06 | 0.08 | |
| \rightarrow | Notos | 1 Dimonoion | A - Minimum Width for Lump | T4- | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504. | Sample Ide | entification | | | | | | | 1 |
|-----------------|-------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| | oloratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH06 | 6.05-6.30 | Axial | 102.0 | 61.0 | 12.7 | 1.60 | 2.08 | |
| | BH06 | 6.05-6.30 | Axial | 102.0 | 54.0 | 5.6 | 0.80 | 1.01 | |
| | ВН06 | 6.05-6.30 | Axial | 102.0 | 55.0 | 11.8 | 1.65 | 2.09 | |
| | ВН06 | 6.05-6.30 | Axial | 102.0 | 35.0 | 10.5 | 2.31 | 2.64 | |
| | ВН06 | 6.05-6.30 | Axial | 102.0 | 46.0 | 9.6 | 1.61 | 1.95 | |
| | ВН06 | 6.05-6.30 | Diametral | 212.0 | 102.0 | 4.3 | 0.41 | 0.57 | |
| | ВН06 | 6.05-6.30 | Diametral | 130.0 | 103.0 | 4.0 | 0.38 | 0.52 | |
| _ | ВН06 | 6.05-6.30 | Diametral | 95.0 | 102.0 | 12.2 | 1.17 | 1.62 | |
| ab Pro | ВН06 | 6.05-6.30 | Diametral | 56.0 | 103.0 | 5.9 | 0.56 | 0.77 | |
| ab Project No A | ВН06 | 6.05-6.30 | Diametral | 66.0 | 102.0 | 8.6 | 0.83 | 1.14 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample : saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | | | | | | | • |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH07 | 3.70-4.00 | Axial | 99.0 | 36.0 | 3.4 | 0.75 | 0.86 | |
| | BH07 | 3.70-4.00 | Axial | 99.0 | 41.0 | 1.3 | 0.25 | 0.30 | |
| | BH07 | 3.70-4.00 | Axial | 99.0 | 45.0 | 5.7 | 1.00 | 1.21 | |
| | BH07 | 3.70-4.00 | Axial | 99.0 | 61.0 | 8.6 | 1.12 | 1.44 | |
| | BH07 | 3.70-4.00 | Axial | 99.0 | 54.0 | 6.2 | 0.91 | 1.14 | |
| | BH07 | 3.70-4.00 | Diametral | 111.0 | 99.0 | 7.7 | 0.79 | 1.07 | |
| | BH07 | 3.70-4.00 | Diametral | 114.0 | 99.0 | 10.9 | 1.11 | 1.51 | |
| _ | BH07 | 3.70-4.00 | Diametral | 107.0 | 100.0 | 9.2 | 0.92 | 1.26 | |
| _ab Pro | BH07 | 3.70-4.00 | Diametral | 85.0 | 100.0 | 8.4 | 0.84 | 1.15 | |
| ject No | BH07 BH07 | 3.70-4.00 | Diametral | 124.0 | 99.0 | 8.0 | 0.82 | 1.11 | |
| 7 | NI 1 | 1 Dimensian | A - Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504. | Sample Ide | entification | | | | | | | |
|------------------|---------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH07 | 5.10-5.50 | Axial | 102.0 | 82.0 | 15.7 | 1.47 | 2.04 | |
| | BH07 | 5.10-5.50 | Axial | 102.0 | 74.0 | 17.0 | 1.77 | 2.39 | |
| | BH07 | 5.10-5.50 | Axial | 102.0 | 60.0 | 9.4 | 1.21 | 1.56 | |
| | BH07 | 5.10-5.50 | Axial | 102.0 | 45.0 | 5.8 | 0.99 | 1.20 | |
| | BH07 | 5.10-5.50 | Axial | 102.0 | 50.0 | 8.9 | 1.37 | 1.70 | |
| | BH07 | 5.10-5.50 | Diametral | 117.0 | 102.0 | 8.2 | 0.79 | 1.09 | |
| | BH07 | 5.10-5.50 | Diametral | 120.0 | 102.0 | 11.7 | 1.12 | 1.55 | |
| _ | BH07 | 5.10-5.50 | Diametral | 107.0 | 103.0 | 10.5 | 0.99 | 1.37 | |
| ab Pro | BH07 | 5.10-5.50 | Diametral | 85.0 | 103.0 | 11.0 | 1.04 | 1.44 | |
| iect No | BH07 BH07 | 5.10-5.50 | Diametral | 98.0 | 103.0 | 13.5 | 1.27 | 1.76 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved | |
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| DW | <u>CD</u> 25/01/2024 | |



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | • | | | | | | |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|-----------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH08 | 4.32-4.57 | Lump | 103.0 | 60.0 | 1.0 | 0.13 | 0.16 | |
| | BH08 | 4.32-4.57 | Lump | 100.0 | 30.0 | 2.4 | 0.63 | 0.69 | |
| | BH08 | 4.32-4.57 | Lump | 96.0 | 45.0 | 1.4 | 0.25 | 0.30 | |
| | BH08 | 4.32-4.57 | Lump | 92.0 | 47.0 | 1.5 | 0.27 | 0.33 | |
| | BH08 | 4.32-4.57 | Lump | 100.0 | 43.0 | 1.9 | 0.35 | 0.41 | |
| | BH08 | 4.32-4.57 | Lump | 85.0 | 40.0 | 0.3 | 0.07 | 0.08 | |
| | BH08 | 4.32-4.57 | Lump | 95.0 | 42.0 | 1.1 | 0.22 | 0.25 | |
| ٦ | BH08 | 4.32-4.57 | Lump | 88.0 | 56.0 | 1.7 | 0.27 | 0.33 | |
| .ab Pro | BH08 | 4.32-4.57 | Lump | 98.0 | 42.0 | 1.4 | 0.27 | 0.32 | |
| Lab Project No | BH08 | 4.32-4.57 | Lump | 70.0 | 36.0 | 1.3 | 0.41 | 0.43 | |
| 7 | Motos | 1 Dimensian | A - Minimum Width for Lump | T4- | 2 Maiatura Contant | • • • • • | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Identification | | - | | | | | | 1 |
|------------------|-----------------------|------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | kploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH08 | 4.72-4.90 | Axial | 100.0 | 48.0 | 17.7 | 2.90 | 3.54 | |
| | BH08 | 4.72-4.90 | Axial | 100.0 | 34.0 | 14.3 | 3.30 | 3.74 | |
| | BH08 | 4.72-4.90 | Axial | 100.0 | 46.0 | 20.7 | 3.53 | 4.28 | |
| | BH08 | 4.72-4.90 | Axial | 100.0 | 35.0 | 16.3 | 3.66 | 4.17 | |
| | BH08 | 4.72-4.90 | Axial | 100.0 | 46.0 | 17.4 | 2.97 | 3.60 | |
| | BH08 | 4.72-4.90 | Diametral | 143.0 | 100.0 | 18.3 | 1.83 | 2.50 | |
| | BH08 | 4.72-4.90 | Diametral | 78.0 | 100.0 | 20.7 | 2.07 | 2.83 | |
| _ | BH08 | 4.72-4.90 | Diametral | 68.0 | 100.0 | 10.6 | 1.06 | 1.45 | |
| ah Pro | BH08 | 4.72-4.90 | Diametral | 103.0 | 100.0 | 15.5 | 1.55 | 2.12 | |
| Lab Project No A | BH08 | 4.72-4.90 | Diametral | 87.0 | 100.0 | 16.9 | 1.69 | 2.31 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | • |
|------------------|---------------------|--------------|---------------------------|----------------|----------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH09 | 3.84-4.05 | Axial | 100.0 | 62.0 | 10.5 | 1.33 | 1.72 | |
| | BH09 | 3.84-4.05 | Axial | 100.0 | 44.0 | 13.2 | 2.36 | 2.83 | |
| | BH09 | 3.84-4.05 | Axial | 100.0 | 24.0 | 6.2 | 2.03 | 2.12 | |
| | BH09 | 3.84-4.05 | Axial | 100.0 | 40.0 | 13.6 | 2.67 | 3.13 | |
| | BH09 | 3.84-4.05 | Axial | 100.0 | 48.0 | 18.1 | 2.96 | 3.62 | |
| | BH09 | 3.84-4.05 | Diametral | 188.0 | 100.0 | 15.2 | 1.52 | 2.08 | |
| | BH09 | 3.84-4.05 | Diametral | 91.0 | 101.0 | 11.6 | 1.14 | 1.56 | |
| | BH09 | 3.84-4.05 | Diametral | 92.0 | 100.0 | 6.4 | 0.64 | 0.87 | |
| ab Pro | BH09 BH09 | 3.84-4.05 | Diametral | 125.0 | 100.0 | 11.2 | 1.12 | 1.53 | |
| piect No | ВН09 | 3.84-4.05 | Diametral | 82.0 | 101.0 | 9.5 | 0.93 | 1.28 | |
| ا A کا | Notos | | A= Minimum Width for Lumn | | 2 Moisture Content (| | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | | | | | | | • |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH10 | 1.85-2.10 | Lump | 64.0 | 21.0 | 0.7 | 0.41 | 0.38 | |
| | BH10 | 1.85-2.10 | Lump | 67.0 | 23.0 | 0.6 | 0.31 | 0.29 | |
| | BH10 | 1.85-2.10 | Lump | 99.0 | 20.0 | 0.9 | 0.36 | 0.36 | |
| | BH10 | 1.85-2.10 | Lump | 71.0 | 44.0 | 0.2 | 0.05 | 0.06 | |
| | BH10 | 1.85-2.10 | Lump | 62.0 | 39.0 | 0.7 | 0.23 | 0.24 | |
| | BH10 | 1.85-2.10 | Lump | 66.0 | 35.0 | 1.0 | 0.34 | 0.35 | |
| | BH10 | 1.85-2.10 | Lump | 82.0 | 19.0 | 0.4 | 0.20 | 0.19 | |
| _ | BH10 | 1.85-2.10 | Lump | 84.0 | 33.0 | 0.8 | 0.23 | 0.24 | |
| _ab Pro | BH10 | 1.85-2.10 | Lump | 55.0 | 29.0 | 0.5 | 0.25 | 0.23 | |
| ject No | BH10 BH10 | 1.85-2.10 | Lump | 96.0 | 36.0 | 0.8 | 0.18 | 0.21 | |
| 7 0 | NI 1 | 1 Dimension | A - Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | 25/01/2024 |



Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | • |
|------------------|---------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH10 | 2.80-3.10 | Axial | 101.0 | 25.0 | 0.8 | 0.25 | 0.26 | |
| | BH10 | 2.80-3.10 | Axial | 101.0 | 40.0 | 0.2 | 0.04 | 0.05 | |
| | BH10 | 2.80-3.10 | Axial | 101.0 | 21.0 | 0.4 | 0.15 | 0.15 | |
| | BH10 | 2.80-3.10 | Axial | 101.0 | 26.0 | 0.2 | 0.06 | 0.06 | |
| | BH10 | 2.80-3.10 | Axial | 101.0 | 35.0 | 0.3 | 0.07 | 0.08 | |
| | BH10 | 2.80-3.10 | Diametral | 136.0 | 101.0 | 0.4 | 0.04 | 0.05 | |
| | BH10 | 2.80-3.10 | Diametral | 89.0 | 102.0 | 0.2 | 0.02 | 0.03 | |
| _ | BH10 | 2.80-3.10 | Diametral | 95.0 | 102.0 | 0.3 | 0.03 | 0.04 | |
| .ab Pro | BH10 | 2.80-3.10 | Diametral | 56.0 | 101.0 | 0.2 | 0.02 | 0.03 | |
| Lab Project No / | BH10 | 2.80-3.10 | Diametral | 42.0 | 101.0 | 0.1 | 0.01 | 0.01 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | | | | | | | • |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH10 | 3.10-3.50 | Axial | 99.0 | 27.0 | 6.7 | 1.97 | 2.11 | |
| | BH10 | 3.10-3.50 | Axial | 99.0 | 29.0 | 6.4 | 1.75 | 1.91 | |
| | BH10 | 3.10-3.50 | Axial | 99.0 | 24.0 | 5.8 | 1.92 | 2.00 | |
| | BH10 | 3.10-3.50 | Axial | 99.0 | 32.0 | 10.1 | 2.50 | 2.79 | |
| | BH10 | 3.10-3.50 | Axial | 99.0 | 25.0 | 4.6 | 1.46 | 1.54 | |
| | BH10 | 3.10-3.50 | Diametral | 77.0 | 99.0 | 8.4 | 0.86 | 1.17 | |
| | BH10 | 3.10-3.50 | Diametral | 87.0 | 99.0 | 1.4 | 0.14 | 0.19 | |
| _ | BH10 | 3.10-3.50 | Diametral | 71.0 | 99.0 | 7.0 | 0.71 | 0.97 | |
| _ab Prc | BH10 | 3.10-3.50 | Diametral | 71.0 | 99.0 | 7.5 | 0.77 | 1.04 | |
| ject No | BH10 BH10 | 3.10-3.50 | Diametral | 85.0 | 99.0 | 7.9 | 0.81 | 1.10 | |
| 7 6 | NI 1 | 1 Dimensian | A - Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | 25/01/2024 |





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| Sample Ide | entification | | | | | | | • |
|---------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|---------------------------------------|---------------------|------------|
| Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH11 | 2.45-2.68 | Axial | 102.0 | 62.0 | 14.0 | 1.74 | 2.26 | |
| BH11 | 2.45-2.68 | Axial | 102.0 | 44.0 | 4.2 | 0.73 | 0.89 | |
| BH11 | 2.45-2.68 | Axial | 102.0 | 23.0 | 4.2 | 1.41 | 1.46 | |
| BH11 | 2.45-2.68 | Axial | 102.0 | 49.0 | 7.5 | 1.18 | 1.45 | |
| BH11 | 2.45-2.68 | Axial | 102.0 | 47.0 | 13.7 | 2.24 | 2.74 | |
| BH11 | 2.45-2.68 | Diametral | 193.0 | 102.0 | 5.8 | 0.56 | 0.77 | |
| BH11 | 2.45-2.68 | Diametral | 137.0 | 102.0 | 2.3 | 0.22 | 0.30 | |
| BH11 | 2.45-2.68 | Diametral | 120.0 | 103.0 | 4.5 | 0.42 | 0.59 | |
| BH11 | 2.45-2.68 | Diametral | 95.0 | 103.0 | 2.9 | 0.27 | 0.38 | |
| BH11 | 2.45-2.68 | Diametral | 91.0 | 103.0 | 6.5 | 0.61 | 0.85 | |
| | Exploratory Hole BH11 BH11 BH11 BH11 BH11 BH11 BH11 BH | Hole m BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 BH11 2.45-2.68 | Exploratory Hole Depth m Orientation of Test m Axial BH11 2.45-2.68 Axial BH11 2.45-2.68 Axial BH11 2.45-2.68 Axial BH11 2.45-2.68 Axial BH11 2.45-2.68 Diametral BH11 2.45-2.68 Diametral | Exploratory Hole | Depth Hole | Dimension Dimension Dimension B | Depth Hole | Depth Hole |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Identification | | • | | | | | | • |
|------------------|-----------------------|------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH12 | 2.70-2.85 | Axial | 100.0 | 59.0 | 14.7 | 1.96 | 2.51 | |
| | BH12 | 2.70-2.85 | Axial | 100.0 | 65.0 | 15.3 | 1.85 | 2.42 | |
| | BH12 | 2.70-2.85 | Axial | 100.0 | 49.0 | 9.4 | 1.51 | 1.85 | |
| | BH12 | 2.70-2.85 | Axial | 100.0 | 57.0 | 13.1 | 1.81 | 2.29 | |
| | BH12 | 2.70-2.85 | Axial | 100.0 | 24.0 | 3.4 | 1.11 | 1.16 | |
| | BH12 | 2.70-2.85 | Diametral | 164.0 | 100.0 | 13.6 | 1.36 | 1.86 | |
| | BH12 | 2.70-2.85 | Diametral | 134.0 | 100.0 | 14.4 | 1.44 | 1.97 | |
| _ | BH12 | 2.70-2.85 | Diametral | 98.0 | 100.0 | 10.8 | 1.08 | 1.48 | |
| ah Pro | BH12 | 2.70-2.85 | Diametral | 76.0 | 100.0 | 6.8 | 0.68 | 0.93 | |
| iect No | BH12 | 2.70-2.85 | Diametral | 90.0 | 100.0 | 11.2 | 1.12 | 1.53 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample : saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| Sample Identification | | | | | | | | |
|-----------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|-------|---------------------|------------------------------------------------------------------------------------|
| Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH12 | 5.15-5.50 | Axial | 100.0 | 56.0 | 23.3 | 3.27 | 4.14 | |
| BH12 | 5.15-5.50 | Axial | 100.0 | 59.0 | 20.6 | 2.74 | 3.51 | |
| BH12 | 5.15-5.50 | Axial | 100.0 | 45.0 | 21.5 | 3.75 | 4.52 | |
| BH12 | 5.15-5.50 | Axial | 100.0 | 61.0 | 19.2 | 2.47 | 3.19 | |
| BH12 | 5.15-5.50 | Axial | 100.0 | 40.0 | 19.0 | 3.73 | 4.38 | |
| BH12 | 5.15-5.50 | Diametral | 186.0 | 101.0 | 18.0 | 1.76 | 2.42 | |
| BH12 | 5.15-5.50 | Diametral | 145.0 | 101.0 | 17.8 | 1.74 | 2.39 | |
| BH12 | 5.15-5.50 | Diametral | 193.0 | 100.0 | 19.0 | 1.90 | 2.60 | |
| BH12 | 5.15-5.50 | Diametral | 112.0 | 100.0 | 16.3 | 1.63 | 2.23 | |
| BH12 | 5.15-5.50 | Diametral | 94.0 | 100.0 | 16.8 | 1.68 | 2.29 | |
| | xploratory Hole BH12 BH12 BH12 BH12 BH12 BH12 BH12 BH1 | xploratory Hole Depth m BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 BH12 5.15-5.50 | xploratory Hole Depth m Orientation of Test BH12 5.15-5.50 Axial BH12 5.15-5.50 Diametral BH12 5.15-5.50 Diametral BH12 5.15-5.50 Diametral | Depth Hole | Name | Name | Note | Depth Hole Depth Hole Dimension A Dimension B Load Is Corrected Is(50) |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | • | | | | | | |
|------------------|---------------------|--------------|----------------------------|----------------|----------------------|-----------------------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH13 | 4.20-5.20 | Lump | 132.0 | 70.0 | 2.6 | 0.22 | 0.31 | |
| | BH13 | 4.20-5.20 | Lump | 119.0 | 71.0 | 5.0 | 0.46 | 0.65 | |
| | BH13 | 4.20-5.20 | Lump | 111.0 | 59.0 | 2.5 | 0.30 | 0.39 | |
| | BH13 | 4.20-5.20 | Lump | 104.0 | 46.0 | 1.4 | 0.23 | 0.28 | |
| | BH13 | 4.20-5.20 | Lump | 85.0 | 35.0 | 0.8 | 0.21 | 0.23 | |
| | BH13 | 4.20-5.20 | Lump | 81.0 | 40.0 | 3.5 | 0.85 | 0.95 | |
| | BH13 | 4.20-5.20 | Lump | 88.0 | 25.0 | 0.6 | 0.21 | 0.22 | |
| _ | BH13 | 4.20-5.20 | Lump | 69.0 | 32.0 | 0.6 | 0.21 | 0.22 | |
| _ab Prc | BH13 | 4.20-5.20 | Lump | 79.0 | 42.0 | 2.9 | 0.69 | 0.77 | |
| Lab Project No | BH13 | 4.20-5.20 | Lump | 62.0 | 30.0 | 1.1 | 0.46 | 0.46 | |
| 7 | Notes | 4 Di | A - Minimum Width for Lump | Tasta | 0.14 : 1 . 0 . 1 . 1 | of comple , coturated | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|-----------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH13 | 6.80-7.00 | Axial | 99.0 | 92.0 | 8.5 | 0.73 | 1.04 | |
| | BH13 | 6.80-7.00 | Axial | 99.0 | 48.0 | 5.1 | 0.84 | 1.03 | |
| | BH13 | 6.80-7.00 | Axial | 99.0 | 46.0 | 13.2 | 2.28 | 2.75 | |
| | BH13 | 6.80-7.00 | Axial | 99.0 | 41.0 | 13.6 | 2.63 | 3.10 | |
| | BH13 | 6.80-7.00 | Axial | 99.0 | 32.0 | 15.8 | 3.92 | 4.36 | |
| | BH13 | 6.80-7.00 | Diametral | 179.0 | 100.0 | 21.2 | 2.12 | 2.90 | |
| | BH13 | 6.80-7.00 | Diametral | 106.0 | 100.0 | 7.3 | 0.73 | 1.00 | |
| _ | BH13 | 6.80-7.00 | Diametral | 107.0 | 100.0 | 18.8 | 1.88 | 2.57 | |
| _ab Prc | BH13 | 6.80-7.00 | Diametral | 124.0 | 100.0 | 16.5 | 1.65 | 2.25 | |
| Lab Project No | BH13 | 6.80-7.00 | Diametral | 100.0 | 100.0 | 20.0 | 2.00 | 2.73 | |
| 7 | Notos | 1 Dimensian | A = Minimum Width for Lump | T4- | 2 Maiatura Contant | • • • • • | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | |
|--------------------|---------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| - A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH14 | 3.10-3.35 | Lump | 120.0 | 50.0 | 0.9 | 0.12 | 0.15 | |
| | BH14 | 3.10-3.35 | Lump | 134.0 | 46.0 | 2.8 | 0.36 | 0.46 | |
| | BH14 | 3.10-3.35 | Lump | 110.0 | 59.0 | 0.5 | 0.06 | 0.08 | |
| | BH14 | 3.10-3.35 | Lump | 101.0 | 40.0 | 2.0 | 0.39 | 0.46 | |
| | BH14 | 3.10-3.35 | Lump | 114.0 | 32.0 | 0.6 | 0.13 | 0.15 | |
| | BH14 | 3.10-3.35 | Lump | 119.0 | 42.0 | 0.4 | 0.06 | 0.08 | |
| | BH14 | 3.10-3.35 | Lump | 91.0 | 36.0 | 1.3 | 0.31 | 0.35 | |
| | BH14 | 3.10-3.35 | Lump | 75.0 | 42.0 | 0.9 | 0.22 | 0.25 | |
| _ab Pro | BH14 | 3.10-3.35 | Lump | 63.0 | 52.0 | 1.3 | 0.31 | 0.35 | |
| ject No | BH14 | 3.10-3.35 | Lump | 54.0 | 31.0 | 0.5 | 0.23 | 0.23 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample : saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| 1504 | Sample Ide | entification | | | | | | | 1 |
|-------------|---------------------|--------------|---------------------------|----------------|--------------------|------|-------|---------------------|----------|
| 1-P1 01 vis | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH14 | 4.20-5.70 | Axial | 100.0 | 54.0 | 0.6 | 0.09 | 0.11 | |
| | BH14 | 4.20-5.70 | Axial | 100.0 | 62.0 | 1.6 | 0.20 | 0.26 | |
| | BH14 | 4.20-5.70 | Axial | 100.0 | 32.0 | 1.2 | 0.29 | 0.33 | |
| | BH14 | 4.20-5.70 | Axial | 100.0 | 41.0 | 2.0 | 0.38 | 0.45 | |
| | BH14 | 4.20-5.70 | Axial | 100.0 | 50.0 | 1.0 | 0.16 | 0.19 | |
| | BH14 | 4.20-5.70 | Diametral | 185.0 | 100.0 | 0.9 | 0.09 | 0.12 | |
| | BH14 | 4.20-5.70 | Diametral | 142.0 | 100.0 | 1.5 | 0.15 | 0.20 | |
| | BH14 | 4.20-5.70 | Diametral | 156.0 | 100.0 | 2.0 | 0.20 | 0.27 | |
| 25.7 | BH14 | 4.20-5.70 | Diametral | 124.0 | 100.0 | 1.4 | 0.14 | 0.19 | |
| 1004 | BH14 | 4.20-5.70 | Diametral | 100.0 | 100.0 | 0.3 | 0.03 | 0.04 | |
| | lotes | 1 Dimonoion | A= Minimum Width for Lump | Toete | 2 Moisture Content | .f | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>CD</u> 25/01/2024 |





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Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Ide | entification | • | | | | | | |
|------------------|---------------------|--------------|---------------------------|----------------|--------------------|-----------------------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH15 | 2.00-3.00 | Lump | 107.0 | 86.0 | 1.4 | 0.12 | 0.17 | |
| | BH15 | 2.00-3.00 | Lump | 94.0 | 44.0 | 5.7 | 1.08 | 1.28 | |
| | BH15 | 2.00-3.00 | Lump | 56.0 | 31.0 | 1.3 | 0.59 | 0.57 | |
| | BH15 | 2.00-3.00 | Lump | 92.0 | 45.0 | 2.0 | 0.38 | 0.45 | |
| | BH15 | 2.00-3.00 | Lump | 99.0 | 60.0 | 5.7 | 0.75 | 0.97 | |
| | BH15 | 2.00-3.00 | Lump | 87.0 | 51.0 | 1.2 | 0.21 | 0.26 | |
| | BH15 | 2.00-3.00 | Lump | 43.0 | 46.0 | 1.5 | 0.60 | 0.60 | |
| L | BH15 | 2.00-3.00 | Lump | 82.0 | 57.0 | 3.0 | 0.50 | 0.61 | |
| ab Pro | BH15 | 2.00-3.00 | Lump | 95.0 | 45.0 | 1.6 | 0.29 | 0.35 | |
| ject No | BH15 BH15 | 2.00-3.00 | Lump | 66.0 | 32.0 | 2.0 | 0.74 | 0.76 | |
| ➤ | Notos | 1 Dimension | A= Minimum Width for Lump | Toete | 2 Moisture Content | of comple : coturated | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| 1504 | Sample Ide | entification | | | | | | | |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------------------------|---------------------------------------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | Is | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH15 | 3.00-4.00 | Axial | 101.0 | 56.0 | 1.6 | 0.22 | 0.28 | |
| | BH15 | 3.00-4.00 | Axial | 101.0 | 59.0 | 1.5 | 0.20 | 0.25 | |
| | BH15 | 3.00-4.00 | Axial | 101.0 | 23.0 | 2.0 | 0.68 | 0.70 | |
| | BH15 | 3.00-4.00 | Axial | 101.0 | 34.0 | 0.9 | 0.21 | 0.23 | |
| | BH15 | 3.00-4.00 | Axial | 101.0 | 44.0 | 1.2 | 0.21 | 0.25 | |
| | BH15 | 3.00-4.00 | Diametral | 156.0 | 101.0 | 2.1 | 0.21 | 0.28 | |
| | BH15 | 3.00-4.00 | Diametral | 124.0 | 101.0 | 1.2 | 0.12 | 0.16 | |
| _ | BH15 | 3.00-4.00 | Diametral | 136.0 | 101.0 | 1.0 | 0.10 | 0.13 | |
| ab Pro | BH15 | 3.00-4.00 | Diametral | 95.0 | 101.0 | 2.5 | 0.25 | 0.34 | |
| Lab Project No | BH15 | 3.00-4.00 | Diametral | 102.0 | 101.0 | 0.9 | 0.09 | 0.12 | |
| D | Natas | 1 Dimonoion | A - Minimum Width for Lump | T4- | 2 Maisture Centent | | · | · · · · · · · · · · · · · · · · · · · | · · · · · · · · · · · · · · · · · · · |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>C</u> D 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| Sample Id | lentification | | | | | | | • |
|---------------------|---------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH15 | 4.60-4.85 | Axial | 99.0 | 47.0 | 16.5 | 2.79 | 3.38 | |
| BH15 | 4.60-4.85 | Axial | 99.0 | 44.0 | 9.7 | 1.75 | 2.09 | |
| BH15 | 4.60-4.85 | Axial | 99.0 | 42.0 | 16.9 | 3.19 | 3.78 | |
| BH15 | 4.60-4.85 | Axial | 99.0 | 50.0 | 19.9 | 3.16 | 3.89 | |
| BH15 | 4.60-4.85 | Axial | 99.0 | 55.0 | 13.8 | 1.99 | 2.50 | |
| BH15 | 4.60-4.85 | Diametral | 118.0 | 99.0 | 18.9 | 1.93 | 2.62 | |
| BH15 | 4.60-4.85 | Diametral | 76.0 | 100.0 | 9.0 | 0.90 | 1.23 | |
| BH15 | 4.60-4.85 | Diametral | 88.0 | 100.0 | 11.0 | 1.10 | 1.50 | |
| BH15 | 4.60-4.85 | Diametral | 56.0 | 100.0 | 15.4 | 1.54 | 2.10 | |
| BH15 | 4.60-4.85 | Diametral | 111.0 | 99.0 | 11.9 | 1.21 | 1.65 | _ |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests
Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>C</u> D 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| xploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
|--------------------|------------------------------------------------------------------|---------------------|----------------|------------------------------------------------|-------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| | | | mm | mm | kN | MN/m² | MN/m² | |
| BH18 | 4.90-5.50 | Lump | 87.0 | 41.0 | 4.2 | 0.92 | 1.06 | |
| BH18 | 4.90-5.50 | Lump | 66.0 | 32.0 | 3.1 | 1.15 | 1.17 | |
| BH18 | 4.90-5.50 | Lump | 153.0 | 46.0 | 4.5 | 0.50 | 0.67 | |
| BH18 | 4.90-5.50 | Lump | 88.0 | 42.0 | 1.8 | 0.38 | 0.44 | |
| BH18 | 4.90-5.50 | Lump | 78.0 | 48.0 | 1.3 | 0.27 | 0.32 | |
| BH18 | 4.90-5.50 | Lump | 89.0 | 42.0 | 2.1 | 0.44 | 0.51 | |
| BH18 | 4.90-5.50 | Lump | 91.0 | 73.0 | 5.5 | 0.65 | 0.86 | |
| BH18 | 4.90-5.50 | Lump | 189.0 | 69.0 | 6.9 | 0.42 | 0.64 | |
| BH18 | 4.90-5.50 | Lump | 98.0 | 60.0 | 1.3 | 0.17 | 0.22 | |
| BH18 | 4.90-5.50 | Lump | 96.0 | 70.0 | 2.2 | 0.26 | 0.34 | |
| | Hole BH18 Hole m BH18 | Hole m BH18 | Depth Depth Orientation of Test Hole m | Depth Orientation of Test A B | Depth Hole | Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Depth Dept | Depth Hole Depth Orientation of Fest A B Load Is Is(50) |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | |
|------------------|---------------------|--------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH18 | 6.80-7.00 | Axial | 102.0 | 56.0 | 13.4 | 1.84 | 2.34 | |
| | BH18 | 6.80-7.00 | Axial | 102.0 | 46.0 | 8.4 | 1.41 | 1.71 | |
| | BH18 | 6.80-7.00 | Axial | 102.0 | 38.0 | 12.4 | 2.51 | 2.93 | |
| | BH18 | 6.80-7.00 | Axial | 102.0 | 32.0 | 9.6 | 2.31 | 2.59 | |
| | BH18 | 6.80-7.00 | Axial | 102.0 | 45.0 | 8.8 | 1.51 | 1.82 | |
| | BH18 | 6.80-7.00 | Diametral | 204.0 | 102.0 | 3.7 | 0.36 | 0.49 | |
| | BH18 | 6.80-7.00 | Diametral | 108.0 | 102.0 | 9.8 | 0.94 | 1.30 | |
| _ | BH18 | 6.80-7.00 | Diametral | 101.0 | 103.0 | 5.6 | 0.53 | 0.73 | |
| _ab Prc | BH18 | 6.80-7.00 | Diametral | 156.0 | 103.0 | 6.5 | 0.61 | 0.85 | |
| Lab Project No | BH18 | 6.80-7.00 | Diametral | 98.0 | 103.0 | 3.9 | 0.37 | 0.51 | |
| ~ | Mataa | 1 Dimensian | A = Minimum Width for Lump | T4- | 2 Maiatura Contant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>C</u> D 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

| A1504 | Sample Ide | entification | | | | | | | |
|--------------------|---------------------|--------------|---------------------|----------------|----------------|------|-------|---------------------|----------|
| - A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH19 | 2.70-4.20 | Axial | 99.0 | 56.0 | 3.2 | 0.45 | 0.57 | |
| | BH19 | 2.70-4.20 | Axial | 99.0 | 42.0 | 3.0 | 0.57 | 0.67 | |
| | BH19 | 2.70-4.20 | Axial | 99.0 | 41.0 | 1.5 | 0.29 | 0.34 | |
| | BH19 | 2.70-4.20 | Axial | 99.0 | 35.0 | 2.6 | 0.59 | 0.67 | |
| | BH19 | 2.70-4.20 | Axial | 99.0 | 63.0 | 1.9 | 0.24 | 0.31 | |
| | BH19 | 2.70-4.20 | Diametral | 213.0 | 99.0 | 3.1 | 0.32 | 0.43 | |
| | BH19 | 2.70-4.20 | Diametral | 156.0 | 99.0 | 2.4 | 0.24 | 0.33 | |
| _ | BH19 | 2.70-4.20 | Diametral | 95.0 | 99.0 | 2.0 | 0.20 | 0.28 | |
| .ab Pro | BH19 | 2.70-4.20 | Diametral | 119.0 | 99.0 | 1.5 | 0.15 | 0.21 | |
| ject No | BH19 BH19 | 2.70-4.20 | Diametral | 85.0 | 99.0 | 4.2 | 0.43 | 0.58 | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample : saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>C</u> D 25/01/2024 |



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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

~ Indicates test not carried out

Contract No 26555

| A1504 | Sample Identification | | | | | | | | |
|------------------|-----------------------|-------------|----------------------------|----------------|--------------------|------|-------|---------------------|----------|
| A15044-R1 01.xls | Exploratory Hole | Depth m | Orientation of Test | Dimension A | Dimension B | Load | ls | Corrected Is(50) | Comments |
| | | | | mm | mm | kN | MN/m² | MN/m² | |
| | BH19 | 4.20-5.20 | Axial | 99.0 | 64.0 | 2.8 | 0.35 | 0.45 | |
| | BH19 | 4.20-5.20 | Axial | 99.0 | 46.0 | 3.1 | 0.53 | 0.65 | |
| | BH19 | 4.20-5.20 | Axial | 99.0 | 32.0 | 3.0 | 0.74 | 0.83 | |
| | BH19 | 4.20-5.20 | Axial | 99.0 | 45.0 | 1.5 | 0.26 | 0.32 | |
| | BH19 | 4.20-5.20 | Axial | 99.0 | 68.0 | 2.6 | 0.30 | 0.40 | |
| | BH19 | 4.20-5.20 | Diametral | 117.0 | 99.0 | 2.1 | 0.21 | 0.29 | |
| | BH19 | 4.20-5.20 | Diametral | 78.0 | 100.0 | 3.3 | 0.33 | 0.45 | |
| _ | BH19 | 4.20-5.20 | Diametral | 98.0 | 100.0 | 2.3 | 0.23 | 0.31 | |
| _ab Prc | BH19 | 4.20-5.20 | Diametral | 113.0 | 99.0 | 2.1 | 0.21 | 0.29 | |
| ject No | BH19 BH19 | 4.20-5.20 | Diametral | 87.0 | 99.0 | 1.9 | 0.19 | 0.26 | |
| ž | N | 4 Dimension | A = Minimum Width for Lump | Tasta | 2 Maiatura Cantant | | | | |

Notes 1. Dimension A= Minimum Width for Lump Tests

Dimension A=Length for Diametral Tests
Dimension A=Diameter for Axial Tests

Dimension B=Platen Separation

- 2. Moisture Content of sample: saturated
- 3. All preparation and testing carried out in accordance with ISRM Commission on Testing Methods 1985
- 4. Opinions and interpretations are outside the scope of UKAS accreditation
- 5. Carried out parallel/perpendicular to bedding planes where obvious otherwise core shape used to determine orientation

| Originator | Approved |
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| DW | <u>C</u> D 25/01/2024 |



SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | 1 | BH01 | BH03 | BH03 | BH03 |
|-------------------------------------|---------|---------------------------------------|-------------|--------------|--------------|
| Depth | m | 7.60-7.75 | 4.30-5.10 | 7.20-7.60 | 9.12-9.60 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 12/01/2024 | 12/01/2024 | 12/01/2024 | 12/01/2024 |
| Length | mm | 111.8 | 203.5 | 128.9 | 212.6 |
| Mean Diameter | mm | 99.7 | 100.4 | 99.4 | 100.3 |
| Length / Diameter Ratio | | 1.12 | 2.03 | 1.30 | 2.12 |
| Straightness Compliance (see notes) | Y/N | Y | Y | Y | Y |
| Flatness Compliance (see notes) | Y/N | Y | Y | Y | Y |
| Perpendicularity | mm | 0.0027 | 0.001 | 0.0019 | 0.0012 |
| Bulk Density | Mg/m³ | 2.09 | 2.48 | 2.58 | 2.53 |
| Moisture Content | % | 3.1 | 3.1 | 2.1 | 2.8 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 2mins 27secs | 2mins 3secs | 2mins 42secs | 5mins 35secs |
| Failure Load | kN | 248.8 | 198.9 | 284.4 | 614 |
| Uniaxial Compressive Strength | MPa | 31.9 | 25.1 | 36.6 | 77.7 |
| Type of Failure | | Normal | Normal | Normal | Explosive |
| Strength Classification | | Med strong | Med strong | Med strong | Strong |
| Associated Comment Numbers (see | notes) | 3 | | 3 | |
| Failure Diagram | ′ | | | | |
| j | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 4 | B |

Notes:

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
- 4. Straightness of core more than 0.50mm over length. Best effort conformance accepted tested as is.
- 5. Flatness of core ends more than 0.025mm. Best effort conformance accepted tested as is.
- 6. Perpendicularity of core more than 0.0043mm. Best effort conformance accepted tested as is.
- 7. Test duration not falling between 2 and 15 minutes. Best effort conformance accepted.
- 8. There are some rock types with physical characteristics which preclude preparing specimens to the desired tolerances. Where this is the case the specimen is evaluated to determine whether a best effort was achieved for the rock type involved. Based upon the evaluation and professional judgement a determination is made whether the specimen should be discarded, tested as is, use of capping compound or start over.
- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved | | |
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| DW | CD 25/01/2024 | | |

UNIAXIAL COMPRESSIVE STRENGTH **ASTM Methods**



SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | Ī | BH03 | BH04 | BH04 | BH04 |
|-------------------------------------|---------------|---------------|---------------|-------------|-------------|
| Depth | m | 10.65-10.93 | 5.93-6.10 | 7.50-7.80 | 9.95-10.10 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 12/01/2024 | 12/01/2024 | 12/01/2024 | 12/01/2024 |
| Length | mm | 203.4 | 135.4 | 211 | 143.6 |
| Mean Diameter | mm | 100.4 | 100.5 | 100.3 | 100 |
| Length / Diameter Ratio | | 2.03 | 1.35 | 2.10 | 1.44 |
| Straightness Compliance (see notes) | Y/N | 2:03 Y | Y | Y | Υ |
| Flatness Compliance (see notes) | Y/N | Y | Y | Y | Y |
| Perpendicularity | · | 0.0014 | 0.003 | 0.0014 | 0.0017 |
| l ' ' | mm Mar/an3 | | | | |
| Bulk Density | Mg/m³ | 2.53 | 2.43 | 2.55 | 2.57 |
| Moisture Content | % | 3 | 3.1 | 3.1 | 2.1 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 3mins 41secs | 2mins 42secs | 4mins 4secs | 4mins 0secs |
| Failure Load | kN | 383.7 | 288.7 | 432 | 440 |
| Uniaxial Compressive Strength | MPa | 48.5 | 36.4 | 54.7 | 56.0 |
| Type of Failure | | Explosive | Normal | Explosive | Normal |
| Strength Classification | | Medium strong | Medium strong | Strong | Strong |
| Associated Comment Numbers (see i | notes) | | 3 | | 3 |
| Failure Diagram | | | | | |
| | | | | | |

Notes:

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
- 4. Straightness of core more than 0.50mm over length. Best effort conformance accepted tested as is.
- 5. Flatness of core ends more than 0.025mm. Best effort conformance accepted tested as is.
- 6. Perpendicularity of core more than 0.0043mm. Best effort conformance accepted tested as is.
- 7. Test duration not falling between 2 and 15 minutes. Best effort conformance accepted.
- 8. There are some rock types with physical characteristics which preclude preparing specimens to the desired tolerances. Where this is the case the specimen is evaluated to determine whether a best effort was achieved for the rock type involved. Based upon the evaluation and professional judgement a determination is made whether the specimen should be discarded, tested as is, use of capping compound or start over.
- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved | | |
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| DW | CD 25/01/2024 | | |

UNIAXIAL COMPRESSIVE STRENGTH **ASTM Methods**



Rochsolloch Road, Airdrie, ML6 9BG



SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | | BH04 | BH05 | BH05 | BH05 |
|-------------------------------------|---------|-------------|--------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depth | m | 10.62-10.81 | 6.72-6.90 | 7.30-7.80 | 9.40-9.82 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 12/01/2024 | 12/01/2024 | 12/01/2024 | 12/01/2024 |
| Length | mm | 184.7 | 140.8 | 218.3 | 204.7 |
| Mean Diameter | mm | 100.1 | 100.6 | 100.5 | 100.2 |
| Length / Diameter Ratio | | 1.85 | 1.40 | 2.17 | 2.04 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Perpendicularity | mm | 0.0016 | 0.0018 | 0.0009 | 0.0015 |
| Bulk Density | Mg/m³ | 2.53 | 2.48 | 2.51 | 2.56 |
| Moisture Content | % | 2.8 | 2.5 | 2.4 | 2.4 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 1min 7secs | 3mins 20secs | 4mins 19secs | 4mins 24secs |
| Failure Load | kN | 101.4 | 340.2 | 477 | 514 |
| Uniaxial Compressive Strength | MPa | 12.9 | 42.8 | 60.1 | 65.2 |
| Type of Failure | | Normal | Normal | Normal | Explosive |
| Strength Classification | | Weak | Med strong | Strong | Strong |
| Associated Comment Numbers (see | notes) | 3,7 | 3 | | |
| Failure Diagram | | | | | |
| | | | 36 | | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s |
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- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
- 4. Straightness of core more than 0.50mm over length. Best effort conformance accepted tested as is.
- 5. Flatness of core ends more than 0.025mm. Best effort conformance accepted tested as is.
- 6. Perpendicularity of core more than 0.0043mm. Best effort conformance accepted tested as is.
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- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved |
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| DW | CD 25/01/2024 |

| UNIAXIAL C | OMPRESSIV | E STRENGTH |
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| | ASTM Methods | • |





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | | BH05 | BH06 | BH06 | BH07 |
|-------------------------------------|---------|--------------|--------------|-------------|--------------|
| Depth | m | 10.05-10.32 | 5.40-5.60 | 7.05-7.50 | 5.10-5.30 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 12/01/2024 | 12/01/2024 | 12/01/2024 | 12/01/2024 |
| Length | mm | 235.6 | 165.1 | 183.2 | 129.6 |
| Mean Diameter | mm | 100 | 102.9 | 102.8 | 100.4 |
| Length / Diameter Ratio | | 2.36 | 1.60 | 1.78 | 1.29 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Perpendicularity | mm | 0.0013 | 0.0015 | 0.0016 | 0.0031 |
| Bulk Density | Mg/m³ | 2.53 | 2.55 | 2.51 | 2.51 |
| Moisture Content | % | 3 | 2.3 | 3.4 | 2.3 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 3mins 44secs | 3mins 28secs | 2mins 9secs | 3mins 58secs |
| Failure Load | kN | 376.6 | 352.6 | 166 | 429 |
| Uniaxial Compressive Strength | MPa | 48.0 | 42.4 | 20.0 | 54.2 |
| Type of Failure | | Normal | Normal | Normal | Normal |
| Strength Classification | | Med strong | Med strong | Weak | Strong |
| Associated Comment Numbers (see | notes) | | 3 | 3 | 3 |
| Failure Diagram | | | | | |
| | | /~ {S | | | |
| | | | | | |

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
- 4. Straightness of core more than 0.50mm over length. Best effort conformance accepted tested as is.
- 5. Flatness of core ends more than 0.025mm. Best effort conformance accepted tested as is.
- 6. Perpendicularity of core more than 0.0043mm. Best effort conformance accepted tested as is.
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- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD 25/01/2024 |





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | | BH07 | BH08 | BH08 | BH08 |
|-------------------------------------|---------|--------------|---------------|-------------|--------------|
| Depth | m | 5.80-6.37 | 5.65-6.00 | 7.36-7.68 | 7.68-8.00 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 14/01/2024 | 14/01/2024 | 14/01/2024 | 14/01/2024 |
| Length | mm | 209 | 196.8 | 204.8 | 210.9 |
| Mean Diameter | mm | 100.1 | 99.6 | 100.4 | 100.6 |
| Length / Diameter Ratio | | 2.09 | 1.98 | 2.04 | 2.10 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Y | Y |
| Perpendicularity | mm | 0.0014 | 0.0013 | 0.0012 | 0.0019 |
| Bulk Density | Mg/m³ | 2.51 | 2.52 | 2.54 | 2.52 |
| Moisture Content | % | 1.7 | 2.5 | 1.7 | 1.4 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 5mins 13secs | 3mins 7secs | 6mins 4secs | 6mins 23secs |
| Failure Load | kN | 529 | 374 | 638 | 779 |
| Uniaxial Compressive Strength | MPa | 67.2 | 48.0 | 80.6 | 98.0 |
| Type of Failure | | Normal | Normal | Normal | Normal |
| Strength Classification | | Strong | Medium Strong | Strong | Strong |
| Associated Comment Numbers (see i | notes) | | 3 | | |
| Failure Diagram | | | | | |
| | | | | | |

Notes:

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
- 4. Straightness of core more than 0.50mm over length. Best effort conformance accepted tested as is.
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- 6. Perpendicularity of core more than 0.0043mm. Best effort conformance accepted tested as is.
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- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD 25/01/2024 |

Lab Project No A15044-R1:01/25/2024 16:41:52

Rochsolloch Road, Airdrie, ML6 9BG

UNIAXIAL COMPRESSIVE STRENGTH **ASTM Methods**





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | | BH09 | BH09 | BH09 | BH10 |
|-------------------------------------|---------|---------------|---------------|--------------|-------------|
| Depth | m | 3.38-3.59 | 4.38-4.70 | 6.20-6.90 | 5.30-5.50 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 14/01/2024 | 14/01/2024 | 14/01/2024 | 14/01/2024 |
| Length | mm | 165.5 | 181.6 | 201.2 | 195.3 |
| Mean Diameter | mm | 100.2 | 100.1 | 100.2 | 99.4 |
| Length / Diameter Ratio | | 1.65 | 1.81 | 2.01 | 1.96 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Perpendicularity | mm | 0.0018 | 0.0017 | 0.0012 | 0.002 |
| Bulk Density | Mg/m³ | 2.52 | 2.5 | 2.49 | 2.54 |
| Moisture Content | % | 2 | 2.2 | 1.9 | 1.4 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 3mins 7secs | 2mins 8secs | 5mins 24secs | 5ins 45secs |
| Failure Load | kN | 296 | 210 | 558 | 643 |
| Uniaxial Compressive Strength | MPa | 37.5 | 26.7 | 70.8 | 82.9 |
| Type of Failure | | Normal | Normal | Normal | Normal |
| Strength Classification | | Medium Strong | Medium Strong | Strong | Strong |
| Associated Comment Numbers (see | notes) | 3 | 3 | | 3 |
| Failure Diagram | | | | | |
| | | | | | |

Notes:

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
- 3. Height/diameter ratio outwith limits of 2.0 to 2.5. Best effort conformance accepted tested as is.
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- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD 25/01/2024 |

UNIAXIAL COMPRESSIVE STRENGTH **ASTM Methods**





SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555 LT520 BRACO WEST SUBSTATION

| Exploration Point | | BH10 | BH11 | BH12 | BH12 |
|-------------------------------------|---------|--------------|--------------|--------------|---------------|
| Depth | m | 8.00-8.50 | 5.00-5.40 | 3.35-3.50 | 6.10-6.35 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 14/01/2024 | 14/01/2024 | 14/01/2024 | 14/01/2024 |
| Length | mm | 221 | 143 | 165.8 | 174.8 |
| Mean Diameter | mm | 99.4 | 103 | 100.6 | 100 |
| Length / Diameter Ratio | | 2.22 | 1.39 | 1.65 | 1.75 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Y | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Y | Υ |
| Perpendicularity | mm | 0.0018 | 0.0021 | 0.0018 | 0.0011 |
| Bulk Density | Mg/m³ | 2.49 | 2.54 | 2.43 | 2.53 |
| Moisture Content | % | 1.1 | 1.8 | 1.5 | 2.5 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 6mins 43secs | 4mins 41secs | 5mins 13secs | 2mins 48secs |
| Failure Load | kN | 836 | 543 | 579 | 266 |
| Uniaxial Compressive Strength | MPa | 107.7 | 65.2 | 72.8 | 33.9 |
| Type of Failure | | Normal | Normal | Normal | Normal |
| Strength Classification | | Very Strong | Strong | Strong | Medium Strong |
| Associated Comment Numbers (see | notes) | | 3 | 3 | 3 |
| Failure Diagram | | | | | |
| | | | | | |

- 1. Prepared in accordance with ASTM D4543-08.
- 2. Tested in accordance with ASTM D7012-14: Method C
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- 9. Preparation and conformance measuring equipment: surface plate, V-block, displacement gauge assembly, feeler gauge set, vernier calipers, surface grinder and masonry saw.

| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD 25/01/2024 |



SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| | BH13 | BH14 | BH14 | BH15 |
|---------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| m | 7.50-7.65 | 6.48-6.76 | 7.20-7.90 | 6.50-6.78 |
| | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| | 14/01/2024 | 14/01/2024 | 14/01/2024 | 14/01/2024 |
| mm | 131.5 | 111.1 | 208.7 | 194.3 |
| mm | 99.2 | 100.1 | 100.2 | 99.6 |
| | 1.33 | 1.11 | 2.08 | 1.95 |
| Y/N | Υ | Υ | Υ | Υ |
| Y/N | Υ | Υ | Υ | Υ |
| mm | 0.0023 | 0.0036 | 0.0014 | 0.0013 |
| Mg/m³ | 2.42 | 2.55 | 2.55 | 2.52 |
| % | 2.4 | 1.8 | 1.7 | 1.6 |
| % | Saturated | Saturated | Saturated | Saturated |
| MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| | 2mins 57secs | 4mins 23secs | 4mins 29secs | 5mins 17secs |
| kN | 318 | 501 | 485 | 587 |
| MPa | 41.1 | 63.7 | 61.5 | 75.3 |
| | Normal | Normal | Normal | Explosive |
| | Medium Strong | Strong | Strong | Strong |
| notes) | 3 | 3 | | 3 |
| | | | | |
| | S | | | |
| | mm Y/N Y/N Mg/m³ % MPa/sec kN MPa | m 7.50-7.65 08/01/2024 14/01/2024 131.5 mm 99.2 1.33 Y/N Y Y/N Y Mm 0.0023 Mg/m³ 2.42 % 2.4 % Saturated MPa/sec 0.60 2mins 57secs kN 318 MPa 41.1 Normal Medium Strong | m 7.50-7.65 6.48-6.76 08/01/2024 08/01/2024 14/01/2024 14/01/2024 mm 131.5 111.1 mm 99.2 100.1 1.33 1.11 Y/N Y Y Y/N Y Y y Y Y Mg/m³ 2.42 2.55 % 2.4 1.8 % Saturated Saturated MPa/sec 0.60 4mins 23secs kN 318 501 MPa 41.1 63.7 Normal Normal Normal Medium Strong Strong | m 7.50-7.65 6.48-6.76 7.20-7.90 08/01/2024 08/01/2024 08/01/2024 14/01/2024 14/01/2024 14/01/2024 14/01/2024 14/01/2024 mm 131.5 111.1 208.7 mm 99.2 100.1 100.2 1.33 1.11 2.08 Y/N Y Y Y Y/N Y Y Y Mg/m³ 2.42 2.55 2.55 % 2.4 1.8 1.7 % Saturated Saturated Saturated MPa/sec 0.60 0.60 0.60 4mins 23secs 4mins 29secs kN 318 501 485 MPa 41.1 63.7 61.5 Normal Normal Normal Normal Medium Strong Strong Strong |

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| DW | CD 25/01/2024 |



SHE Transmission plc

SSE Perth Inveralmond HSE Engineer

Contract No 26555

| Exploration Point | | BH15 | BH18 | BH18 | BH19 |
|-------------------------------------|---------|--------------|--------------|--------------|-------------|
| Depth | m | 8.50-10.00 | 5.60-5.90 | 9.18-9.45 | 4.98-5.20 |
| Date Received | | 08/01/2024 | 08/01/2024 | 08/01/2024 | 08/01/2024 |
| Date Tested | | 15/01/2024 | 15/01/2024 | 15/01/2024 | 15/01/2024 |
| Length | mm | 220.1 | 199.7 | 150.2 | 170.9 |
| Mean Diameter | mm | 99.6 | 102.9 | 102.8 | 99.7 |
| Length / Diameter Ratio | | 2.21 | 1.94 | 1.46 | 1.71 |
| Straightness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Flatness Compliance (see notes) | Y/N | Υ | Υ | Υ | Υ |
| Perpendicularity | mm | 0.0014 | 0.0013 | 0.0027 | 0.0018 |
| Bulk Density | Mg/m³ | 2.49 | 2.51 | 2.54 | 2.36 |
| Moisture Content | % | 1.5 | 1.5 | 1.8 | 2.1 |
| Degree of Saturation | % | Saturated | Saturated | Saturated | Saturated |
| Stress Rate | MPa/sec | 0.60 | 0.60 | 0.60 | 0.60 |
| Test Duration | | 5mins 20secs | 3mins 12secs | 3mins 37secs | 1min 37secs |
| Failure Load | kN | 595 | 332.8 | 415 | 175.7 |
| Uniaxial Compressive Strength | MPa | 76.4 | 40.0 | 50.0 | 22.5 |
| Type of Failure | | Explosive | Normal | Normal | Normal |
| Strength Classification | | Strong | Med strong | Strong | Weak |
| Associated Comment Numbers (see | notes) | | 3 | 3 | 3,7 |
| Failure Diagram | | | | | |
| | | | | | |

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| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD 25/01/2024 |



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Contract No 26555 LT520 BRACO WEST SUBSTATION SHE Transmission plc SSE Perth Inveralmond HSE Engineer

| Exploration Point | | BH19 |
|-------------------------------------|----------|-------------|
| Depth | m | 5.50-5.70 |
| Date Received | | 08/01/2024 |
| Date Tested | | 15/01/2024 |
| Length | mm | 164 |
| Mean Diameter | mm | 99.5 |
| Length / Diameter Ratio | | 1.65 |
| Straightness Compliance (see notes) | Y/N | Υ |
| Flatness Compliance (see notes) | Y/N | Υ |
| Perpendicularity | mm | 0.0018 |
| Bulk Density | Mg/m³ | 2.45 |
| Moisture Content | % | 2.5 |
| Degree of Saturation | % | Saturated |
| Stress Rate | MPa/sec | 0.60 |
| Test Duration | | 3mins 9secs |
| Failure Load | kN | 334.3 |
| Uniaxial Compressive Strength | MPa | 43.0 |
| Type of Failure | | Normal |
| Strength Classification | | Strong |
| Associated Comment Numbers (see | e notes) | 3 |
| Failure Diagram | | |
| | | |

- 1. Prepared in accordance with ASTM D4543-08.
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| Originator | Checked & Approved |
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| DW | CD |





Revision 1.21 22/11/2016

9392 - PhotoFrame Rock BH01 07.60 C - A15044-R1-2013785.xls

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lient SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH01 Sample Ref

Depth (m) 7.60 Sample Type C



Originator

Checked & Approved

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CD
25/01/2024

Lab Project No A15044-R1



Revision 1.21 22/11/2016 9392 - PhotoFrame Rock BH03 04.30 C - A15044-R1-2013786.xls

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Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH03 Sample Ref

Depth (m) 4.30 Sample Type C

Lab Project No A15044-R1

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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH03 Sample Ref

Depth (m) 7.20 Sample Type C



Lab Project No A15044-R1

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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH03 Sample Ref

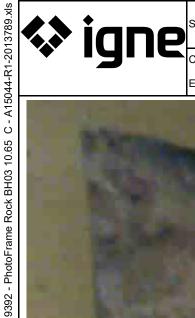
Depth (m) 9.12 Sample Type С



Lab Project No A15044-R1

Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

BH03 Hole ID Sample Ref

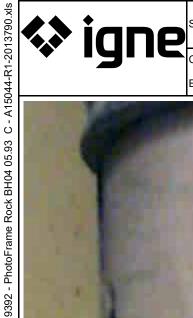
Depth (m) 10.65 Sample Type С



Lab Project No A15044-R1

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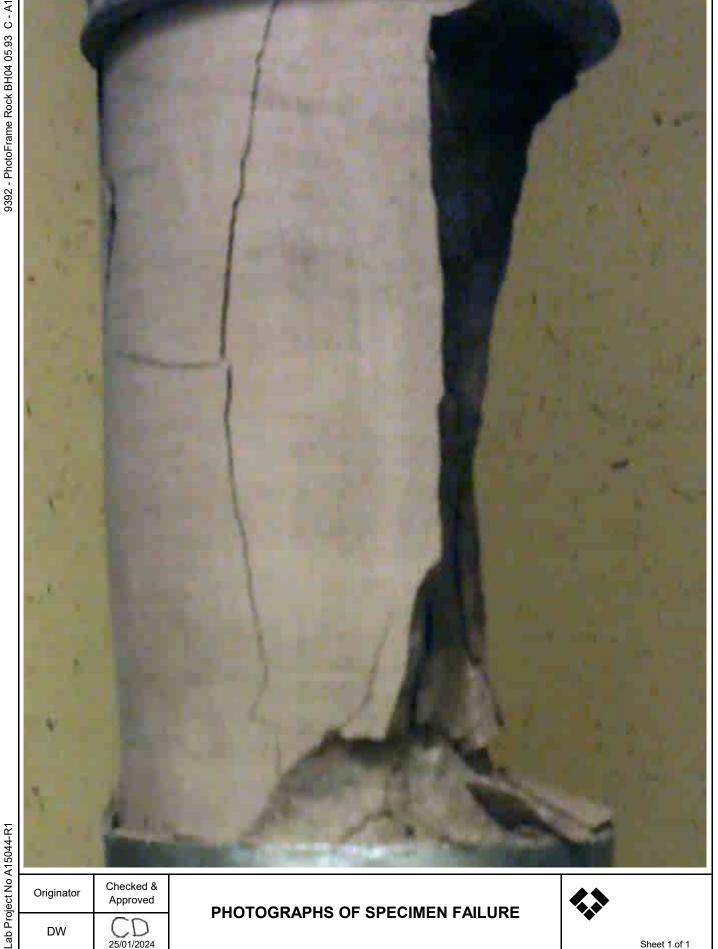
SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

Hole ID BH04 Sample Ref

Depth (m) 5.93 Sample Type С



Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH04 Sample Ref

Depth (m) 7.50 Sample Type С

Lab Project No A15044-R1

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Revision 1.21 22/11/2016 9392 - PhotoFrame Rock BH04 09.95 C - A15044-R1-2013792.xls

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ite LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH04 Sample Ref

Depth (m) 9.95 Sample Type C

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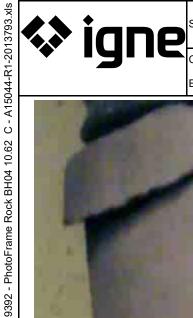
Lab Project No A15044-R1

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DW CD

25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH04 Sample Ref

Depth (m) 10.62 Sample Type С

Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

BH05 Hole ID Sample Ref

Depth (m) 6.72 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH05 Sample Ref

Depth (m) 7.30 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024



9392 - PhotoFrame Rock BH05 09.40 C - A15044-R1-2013796.xls

| Site | LT520 BRACO WEST SUBSTATION |
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Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH05 Sample Ref

Depth (m) 9.40 Sample Type C



| Originator | Checked & Approved |
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| DW | CD 25/01/2024 |

Lab Project No A15044-R1





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

Hole ID BH05 Sample Ref

Depth (m) 10.05 Sample Type С



Lab Project No A15044-R1

DW

Originator Approved

25/01/2024



Revision 1.21 22/11/2016

9392 - PhotoFrame Rock BH06 05.40 C - A15044-R1-2013798.xls

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ite LT520 BRACO WEST SUBSTATION

lient SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH06 Sample Ref

Depth (m) 5.40 Sample Type C



DW Originator

Approved

CD
25/01/2024



Revision 1.21 22/11/2016

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ite LT520 BRACO WEST SUBSTATION

Client SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

Contract No 26555

Hole ID BH06 Sample Ref

Depth (m) 7.05 Sample Type C



Lab Project No A15044-R1

Originator Checked & Approved

DW CD
25/01/2024



Revision 1.21 22/11/2016



LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

Hole ID BH07 Sample Ref

Depth (m) 5.10 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH07 Hole ID Sample Ref

Depth (m) 5.80 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

26555 **Contract No**

BH08 Hole ID Sample Ref

Depth (m)

5.65 Sample Type С

Engineer SSE Perth Inveralmond HSE

Checked & Originator Approved DW 25/01/2024

Lab Project No A15044-R1





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

BH08 Hole ID Sample Ref

Depth (m) 7.36 Sample Type С

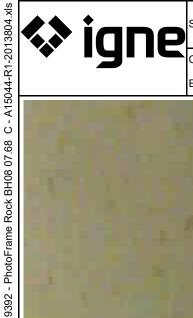


Lab Project No A15044-R1

Originator Approved DW

25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID **BH08** Sample Ref

Depth (m) 7.68 Sample Type С



Lab Project No A15044-R1 Originator DW

Checked & Approved 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH09 Sample Ref

Depth (m) 3.38 Sample Type С



Lab Project No A15044-R1 Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH09 Hole ID Sample Ref

Depth (m) 4.38 Sample Type С

Checked & Originator Approved DW

25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH09 Sample Ref

Depth (m) 6.20 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH10 Sample Ref

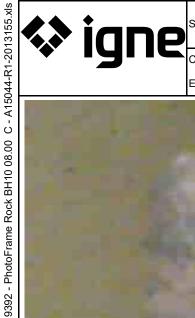
Depth (m) 5.30 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

BH10 Hole ID Sample Ref

Depth (m) 8.00 Sample Type С



Lab Project No A15044-R1

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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH11 Hole ID Sample Ref

Depth (m) 5.00 Sample Type С



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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH12 Hole ID Sample Ref

Depth (m) 3.35 Sample Type С



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Lab Project No A15044-R1

PHOTOGRAPHS OF SPECIMEN FAILURE



Sheet 1 of 1



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

BH12 Hole ID Sample Ref

Depth (m) 6.10 Sample Type С



Lab Project No A15044-R1

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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID **BH13** Sample Ref

Depth (m) 7.50 Sample Type С



Lab Project No A15044-R1

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SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH14 Hole ID Sample Ref

Depth (m) 6.48 Sample Type С

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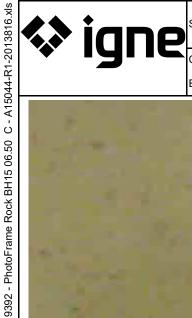
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PHOTOGRAPHS OF SPECIMEN FAILURE



Sheet 1 of 1



SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH15 Hole ID Sample Ref

Depth (m) 6.50 Sample Type С



Checked & Originator Approved DW

25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

BH15 Hole ID Sample Ref

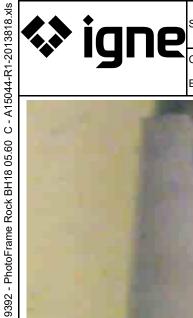
Depth (m) 8.50 Sample Type С



Checked & Originator Approved DW 25/01/2024

Lab Project No A15044-R1





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

Hole ID **BH18** Sample Ref

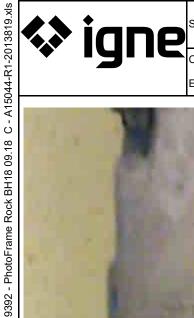
Depth (m) 5.60 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 Contract No

Hole ID **BH18** Sample Ref

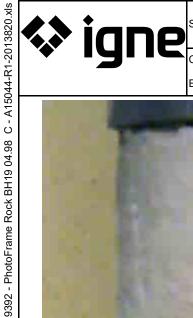
Depth (m) 9.18 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE **Contract No** 26555

Hole ID BH19 Sample Ref

Depth (m) 4.98 Sample Type С



Lab Project No A15044-R1

Checked & Originator Approved DW 25/01/2024





SHE Transmission plc

Engineer SSE Perth Inveralmond HSE

26555 **Contract No**

Hole ID BH19 Sample Ref

Depth (m) 5.50 Sample Type С



| Originator | Checked & Approved |
|------------|-----------------------|
| DW | CD |





| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|-----|---------|-------------------------------|--------------------|
| J | | | |
| TD | Client: | SHE Transmission plc | |
| 1,0 | Engine | er: SSE Perth Inveralmond HSE | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:28:47 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com



Certificate of Analysis

Issued:

12-Dec-23

Certificate Number 23-28085

Client Raeburn Drilling

East Avenue Blantyre Glasgow G72 0JB

Our Reference 23-28085

Client Reference 26555

Order No (not supplied)

Contract Title LT520 BRACO WEST SUBSTATION

Description 13 Soil samples.

Date Received 29-Nov-23

Date Started 29-Nov-23

Date Completed 12-Dec-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be

reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood General Manager







Our Ref 23-28085 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part | Contract Title LT520 BRACC | O WEST SUBSTA | ATION | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------|-------|----------|------------|------------|------------|------------|------------|------------|
| Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part Part | | | | Lab No | 2269461 | 2269462 | 2269463 | 2269464 | 2269465 | 2269466 |
| Test Method Me | | | .Sa | ample ID | TP03 | TP03 | TP06 | TP06 | TP08 | TP21 |
| Test Method Method Sampling Tate Solut So | | | | Depth | 0.50 | 1.00 | 0.60 | 1.10 | 1.00 | 0.50 |
| Test | | | | Other ID | | | | | | |
| Test Method LOD Units Units Method LOD Units Units Method Units West Method Units | | Sam | ple Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| Metals Method LOD Units Method Metals | | | Sampl | ing Date | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 |
| Arsenic | | | Sampl | ing Time | n/s | n/s | n/s | n/s | n/s | n/s |
| Arsenic | Test | Method | LOD | Units | | | | | | |
| Boron, Water Soluble (2.5:1) DETSC 2311# 0.2 mg/kg < 0.2 < 0.2 < 0.2 < 0.3 < 0.2 0.3 < 0.2 Cadmium | Metals | | | | | | | | | |
| Cadmium | | DETSC 2301# | | | | | | 2.6 | | 4.8 |
| Chromium | Boron, Water Soluble (2.5:1) | DETSC 2311# | | | | | | 0.3 | < 0.2 | 0.3 |
| Copper | | DETSC 2301# | | | | | | | | < 0.1 |
| Lead | Chromium | DETSC 2301# | | | | | | | | 25 |
| Mercury | | DETSC 2301# | | | | | | | 7.1 | |
| Nickel | | DETSC 2301# | | | | | | | | |
| Zinc | - | | 0.05 | | | | | | | |
| DETSC 2008# | | DETSC 2301# | 1 | | | | | | | |
| Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect Detect D | | DETSC 2301# | 1 | mg/kg | 37 | 40 | 38 | 36 | 30 | 39 |
| Cyanide, Total DETSC 2130# 0.1 mg/kg 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 | | | | | | | | | | |
| Organic matter DETSC 2002# 0.1 % 0.5 0.4 0.2 0.1 0.5 1.1 Sulphate Aqueous Extract as SO4 (2:1) DETSC 2076# 10 mg/l 51 24 12 10 16 11 Petroleum Hydrocarbons Aliphatic C5-C6 DETSC 3321* 0.01 mg/kg < 0.01 | - | | | | | | | | | |
| Sulphate Aqueous Extract as SO4 (2:1) DETSC 2076# 10 mg/l 51 24 12 10 16 11 | • | | | | _ | | | | | |
| Petroleum Hydrocarbons | _ | | | | | | | | | |
| Aliphatic C5-C6 | | DETSC 2076# | 10 | mg/l | 51 | 24 | 12 | 10 | 16 | 11 |
| Aliphatic C6-C8 | _ | | | , 1 | | | | | | |
| Aliphatic C8-C10 | | | | | | | | | | |
| Aliphatic C10-C12 | - | | | | | | | | | |
| Aliphatic C12-C16 | | | | | | | | | | |
| Aliphatic C16-C21 | 1 . | | | | | | | | | |
| Aliphatic C21-C35 | | | | | | | | | | |
| Aliphatic C5-C35 DETSC 3072* 10 mg/kg < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 1 | | | | | | | | | | |
| Aromatic C5-C7 DETSC 3321* 0.01 mg/kg < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < | | | | | | | | | | |
| Aromatic C7-C8 DETSC 3321* 0.01 mg/kg < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < | | | | | | | | | | |
| Aromatic C8-C10 DETSC 3321* 0.01 mg/kg < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.09 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 < 0.99 | | | | | | | | | | |
| Aromatic C10-C12 DETSC 3072# 0.9 mg/kg < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.9 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | | | |
| Aromatic C12-C16 DETSC 3072# 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | | | |
| Aromatic C16-C21 DETSC 3072# 0.6 mg/kg < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 < 0.6 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | | | |
| Aromatic C21-C35 DETSC 3072# 1.4 mg/kg < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.4 < 1.0 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 | | | | | | | | | | |
| Aromatic C5-C35 DETSC 3072* 10 mg/kg < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 | | | | | | | | | | |
| TPH Ali/Aro Total C5-C35 DETSC 3072* 10 mg/kg < 10 < 10 < 10 < 10 < 10 PAHs Naphthalene DETSC 3301 0.1 mg/kg < 0.1 | | | | | | | | | | |
| PAHs Naphthalene DETSC 3301 0.1 mg/kg < 0.1 | | | | | | | | | | |
| Naphthalene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | DE13C 3U/2* | 10 | ilig/kg | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| Acenaphthylene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | DETCC 2204 | 0.4 | m ~ /1 | -04 | -01 | 201 | 201 | 201 | -01 |
| Acenaphthene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | | | | | | | | | |
| Fluorene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | | | | | | | | | |
| Phenanthrene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | | | | | | | | | |
| Anthracene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | | | | | | | | | |
| Fluoranthene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 Pyrene DETSC 3301 0.1 mg/kg < 0.1 | | | | | | | | | | < 0.1 |
| Pyrene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | | DETSC 3301 | 0.1 | | | | | | < 0.1 | < 0.1 |
| | Fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)anthracene DETSC 3301 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 | Pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| , , , , , , , , , , , , , , , , , , , | Benzo(a)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |



Our Ref 23-28085 Client Ref 26555

| Client Ref 26555 | | | | | | | | | |
|-------------------------|-------------------|-------|----------|---------|------------|------------|------------|------------|------------|
| Contract Title LT520 BR | ACO WEST SUBSTA | ATION | | | | | | | |
| | | | Lab No | 2269461 | 2269462 | 2269463 | 2269464 | 2269465 | 2269466 |
| | | .Sa | ample ID | TP03 | TP03 | TP06 | TP06 | TP08 | TP21 |
| | | | Depth | 0.50 | 1.00 | 0.60 | 1.10 | 1.00 | 0.50 |
| | | (| Other ID | | | | | | |
| | | Sam | ple Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| | | - | _ | | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 |
| | | Sampl | ing Time | n/s | n/s | n/s | n/s | n/s | n/s |
| Test | Method | LOD | Units | | | | | | |
| Chrysene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| PAH 16 Total | DETSC 3301 | 1.6 | mg/kg | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 |
| Phenols | | | | | | | | | |
| Phenol - Monohydric | DETSC 2130# | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 | < 0.3 | < 0.3 |



Our Ref 23-28085 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Contract Title LT520 BRACO WEST SUBSTATION | | | | | | | | | | |
|--------------------------------------------|-------------------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| | | | Lab No | 2269467 | 2269468 | 2269469 | 2269470 | 2269471 | 2269472 | |
| | | .Sample ID | | TP21 | TP21 | TP23 | TP23 | TP23 | TP22 | |
| | | | Depth | 1.00 | 1.50 | 0.30 | 0.90 | 1.25 | 0.50 | |
| | | | Other ID | | | | | | | |
| | | | ple Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | |
| | | _ | _ | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | |
| | | _ | ing Time | n/s | n/s | n/s | n/s | n/s | n/s | |
| Test | Method | LOD | Units | | | | | | | |
| Metals | | | | | | | | | | |
| Arsenic | DETSC 2301# | 0.2 | mg/kg | 2.0 | 3.6 | | 5.7 | 6.7 | 3.1 | |
| Boron, Water Soluble (2.5:1) | DETSC 2311# | 0.2 | mg/kg | < 0.2 | 0.3 | | < 0.2 | < 0.2 | 0.3 | |
| Cadmium | DETSC 2301# | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Chromium | DETSC 2301# | 0.15 | mg/kg | 19 | 24 | | 25 | 34 | 33 | |
| Copper | DETSC 2301# | 0.2 | mg/kg | 6.9 | 12 | 33 | 10 | 16 | 15 | |
| Lead | DETSC 2301# | 0.3 | mg/kg | 6.1 | 7.3 | 18 | 7.6 | 11 | 12 | |
| Mercury | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | 0.08 | < 0.05 | < 0.05 | < 0.05 | |
| Nickel | DETSC 2301# | 1 | mg/kg | 15 | 21 | 28 | 20 | 30 | 26 | |
| Zinc | DETSC 2301# | 1 | mg/kg | 26 | 36 | 51 | 38 | 55 | 43 | |
| Inorganics | | | | | | | | | | |
| pH | DETSC 2008# | 0.4 | pН | 5.9 | 6.3 | | 6.0 | 6.0 | 6.3 | |
| Cyanide, Total | DETSC 2130# | 0.1 | mg/kg | < 0.1 | < 0.1 | 0.2 | 0.1 | < 0.1 | < 0.1 | |
| Organic matter | DETSC 2002# | 0.1 | % | 1.5 | 0.3 | | 1.2 | 0.8 | 0.6 | |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | < 10 | < 10 | < 10 | 22 | 15 | < 10 | |
| Petroleum Hydrocarbons | | 0.04 | /1 | . 0.01 | . 0. 04 | .0.01 | . 0.01 | .0.01 | . 0. 04 | |
| Aliphatic C5-C6 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | | < 0.01 | < 0.01 | < 0.01 | |
| Aliphatic C6-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | |
| Aliphatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | |
| Aliphatic C10-C12 | DETSC 3072# | 1.5 | mg/kg | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | |
| Aliphatic C12-C16 | DETSC 3072# | 1.2 | mg/kg | < 1.2 | < 1.2 | < 1.2 | < 1.2 | < 1.2 | < 1.2 | |
| Aliphatic C16-C21 | DETSC 3072# | 1.5 | mg/kg | < 1.5 < 3.4 | < 1.5 < 3.4 | < 1.5 < 3.4 | < 1.5 < 3.4 | < 1.5 < 3.4 | < 1.5 < 3.4 | |
| Aliphatic C21-C35 Aliphatic C5-C35 | DETSC 3072# | 3.4 | mg/kg | < 10 | < 10 | | | < 10 | | |
| Aromatic C5-C35 | DETSC 3072* DETSC 3321* | 10 0.01 | mg/kg mg/kg | < 0.01 | < 0.01 | < 10 < 0.01 | < 10 < 0.01 | < 0.01 | < 10 < 0.01 | |
| Aromatic C7-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | |
| Aromatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | |
| Aromatic C10-C12 | DETSC 3072# | 0.01 | mg/kg | < 0.01 | < 0.01 | | < 0.01 | < 0.01 | < 0.01 | |
| Aromatic C12-C16 | DETSC 3072# | 0.5 | mg/kg | < 0.5 | | | < 0.5 | | < 0.5 | |
| Aromatic C16-C21 | DETSC 3072# | 0.5 | mg/kg | < 0.6 | < 0.6 | | < 0.5 | | < 0.6 | |
| Aromatic C21-C35 | DETSC 3072# | 1.4 | mg/kg | < 1.4 | < 1.4 | | < 1.4 | < 1.4 | < 1.4 | |
| Aromatic C5-C35 | | | | < 10 | < 10 | | < 10 | | < 10 | |
| | DETSC 3072* | 10 | mg/kg | | | | | | | |
| TPH Ali/Aro Total C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | |
| PAHs Nanhthalana | DETCC 2204 | 0.1 | m = /I. = | 404 | 404 | 404 | 101 | 101 | 404 | |
| Naphthalene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | | < 0.1 | < 0.1 | < 0.1 | |
| Acenaphthylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | | < 0.1 | < 0.1 | < 0.1 | |
| Acenaphthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | | < 0.1 | < 0.1 | < 0.1 | |
| Fluorene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | | < 0.1 | < 0.1 | < 0.1 | |
| Phenanthrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(a)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| (-/ | | 0 | 010 | | | | | | | |



Our Ref 23-28085 Client Ref 26555

| Client Ref 2655 | 5 | | | | | | | | |
|------------------------|-------------------|------------|----------|---------|------------|------------|------------|------------|------------|
| Contract Title LT520 | BRACO WEST SUBSTA | ATION | | | | | | | |
| | | | Lab No | 2269467 | 2269468 | 2269469 | 2269470 | 2269471 | 2269472 |
| | | .Sample ID | | | | TP23 | TP23 | TP23 | TP22 |
| | | | Depth | 1.00 | 1.50 | 0.30 | 0.90 | 1.25 | 0.50 |
| | | (| Other ID | | | | | | |
| | | | ple Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| | | | | | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 | 21/11/2023 |
| | | | ing Time | n/s | n/s | n/s | n/s | n/s | n/s |
| Test | Method | LOD | Units | | | | | | |
| Chrysene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyren | ne DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracen | e DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| PAH 16 Total | DETSC 3301 | 1.6 | mg/kg | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 |
| Phenols | | | | | | | | | |
| Phenol - Monohydric | DETSC 2130# | 0.3 | mg/kg | < 0.3 | < 0.3 | 0.7 | 0.4 | 0.6 | 0.7 |



Our Ref 23-28085 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | 2269473 |
|----------------------|------------|
| .Sample ID | TP22 |
| Depth | 1.00 |
| Other ID | |
| Sample Type | |
| Sampling Date | 21/11/2023 |
| Sampling Time | n/s |

| Test | Method | LOD | Units | .,,5 |
|---------------------------------------|-------------|------|-------|--------|
| Metals | | | | |
| Arsenic | DETSC 2301# | 0.2 | mg/kg | 6.4 |
| Boron, Water Soluble (2.5:1) | DETSC 2311# | 0.2 | mg/kg | 0.3 |
| Cadmium | DETSC 2301# | 0.1 | mg/kg | < 0.1 |
| Chromium | DETSC 2301# | 0.15 | mg/kg | 37 |
| Copper | DETSC 2301# | 0.2 | mg/kg | 23 |
| Lead | DETSC 2301# | 0.3 | mg/kg | 12 |
| Mercury | DETSC 2325# | 0.05 | mg/kg | < 0.05 |
| Nickel | DETSC 2301# | 1 | mg/kg | 35 |
| Zinc | DETSC 2301# | 1 | mg/kg | 60 |
| Inorganics | | | | |
| рН | DETSC 2008# | | рН | 6.0 |
| Cyanide, Total | DETSC 2130# | 0.1 | mg/kg | 0.8 |
| Organic matter | DETSC 2002# | 0.1 | % | < 0.1 |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | < 10 |
| Petroleum Hydrocarbons | | | • | |
| Aliphatic C5-C6 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aliphatic C6-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aliphatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aliphatic C10-C12 | DETSC 3072# | 1.5 | mg/kg | < 1.5 |
| Aliphatic C12-C16 | DETSC 3072# | 1.2 | mg/kg | < 1.2 |
| Aliphatic C16-C21 | DETSC 3072# | 1.5 | mg/kg | < 1.5 |
| Aliphatic C21-C35 | DETSC 3072# | 3.4 | mg/kg | < 3.4 |
| Aliphatic C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 |
| Aromatic C5-C7 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aromatic C7-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aromatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 |
| Aromatic C10-C12 | DETSC 3072# | 0.9 | mg/kg | < 0.9 |
| Aromatic C12-C16 | DETSC 3072# | 0.5 | mg/kg | < 0.5 |
| Aromatic C16-C21 | DETSC 3072# | 0.6 | mg/kg | < 0.6 |
| Aromatic C21-C35 | DETSC 3072# | 1.4 | mg/kg | < 1.4 |
| Aromatic C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 |
| TPH Ali/Aro Total C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 |
| PAHs | | • | • | |
| Naphthalene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Acenaphthylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Acenaphthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Fluorene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Phenanthrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Fluoranthene | | | | |
| | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Benzo(a)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |



Summary of Chemical Analysis Soil Samples

Our Ref 23-28085 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | 2269473 |
|---------------|------------|
| .Sample ID | TP22 |
| Depth | 1.00 |
| Other ID | |
| Sample Type | SOIL |
| Sampling Date | 21/11/2023 |
| Sampling Time | n/s |

| Test | Method | LOD | Units | |
|-------------------------|-------------|-----|-------|-------|
| Chrysene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Benzo(b)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Benzo(k)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Benzo(a)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Dibenzo(a,h)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| Benzo(g,h,i)perylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 |
| PAH 16 Total | DETSC 3301 | 1.6 | mg/kg | < 1.6 |
| Phenols | | | | |
| Phenol - Monohydric | DETSC 2130# | 0.3 | mg/kg | 0.3 |



Summary of Asbestos Analysis Soil Samples

Our Ref 23-28085 *Client Ref* 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | Sample ID | Material Type | Result | Comment* | Analyst |
|---------|-----------|---------------|--------|----------|------------------|
| 2269461 | TP03 0.50 | SOIL | NAD | none | Robertas Ciparis |
| 2269462 | TP03 1.00 | SOIL | NAD | none | Robertas Ciparis |
| 2269463 | TP06 0.60 | SOIL | NAD | none | Robertas Ciparis |
| 2269464 | TP06 1.10 | SOIL | NAD | none | Robertas Ciparis |
| 2269465 | TP08 1.00 | SOIL | NAD | none | Robertas Ciparis |
| 2269466 | TP21 0.50 | SOIL | NAD | none | Robertas Ciparis |
| 2269467 | TP21 1.00 | SOIL | NAD | none | Robertas Ciparis |
| 2269468 | TP21 1.50 | SOIL | NAD | none | Robertas Ciparis |
| 2269469 | TP23 0.30 | SOIL | NAD | none | Robertas Ciparis |
| 2269470 | TP23 0.90 | SOIL | NAD | none | Robertas Ciparis |
| 2269471 | TP23 1.25 | SOIL | NAD | none | Robertas Ciparis |
| 2269472 | TP22 0.50 | SOIL | NAD | none | Robertas Ciparis |
| 2269473 | TP22 1.00 | SOIL | NAD | none | Robertas Ciparis |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * not included in laboratory scope of accreditation.



Information in Support of the Analytical Results

Our Ref 23-28085 Client Ref 26555

Contract LT520 BRACO WEST SUBSTATION

Containers Received & Deviating Samples

| | Date | | | inappropriate container for |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| TP03 0.50 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP03 1.00 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP06 0.60 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP06 1.10 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP08 1.00 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP21 0.50 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP21 1.00 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP21 1.50 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP23 0.30 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP23 0.90 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP23 1.25 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP22 0.50 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| TP22 1.00 SOIL | 21/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| | TP03 0.50 SOIL TP03 1.00 SOIL TP06 0.60 SOIL TP06 1.10 SOIL TP08 1.00 SOIL TP01 0.50 SOIL TP21 0.50 SOIL TP21 1.50 SOIL TP23 0.30 SOIL TP23 0.90 SOIL TP23 1.25 SOIL TP22 0.50 SOIL | Date Sample ID Sampled TP03 0.50 SOIL 21/11/23 TP03 1.00 SOIL 21/11/23 TP06 0.60 SOIL 21/11/23 TP06 1.10 SOIL 21/11/23 TP08 1.00 SOIL 21/11/23 TP08 1.00 SOIL 21/11/23 TP21 0.50 SOIL 21/11/23 TP21 1.50 SOIL 21/11/23 TP21 1.50 SOIL 21/11/23 TP23 0.30 SOIL 21/11/23 TP23 0.90 SOIL 21/11/23 TP23 1.25 SOIL 21/11/23 TP23 1.25 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP22 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 TP23 0.50 SOIL 21/11/23 | Sample ID Sampled Containers Received TP03 0.50 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP03 1.00 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP06 0.60 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP06 1.10 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP08 1.00 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP21 0.50 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP21 1.00 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP21 1.50 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP23 0.30 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP23 0.90 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP23 1.25 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 TP23 0.50 SOIL 21/11/23 GJ 60ml x2, PT 1L x2 | Date Sample ID Sampled Containers Received Holding time exceeded for tests |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :- Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate of Analysis

Issued:

19-Dec-23

Certificate Number 23-28676

Client Raeburn Drilling

East Avenue Blantyre Glasgow G72 0JB

Our Reference 23-28676

Client Reference 26555

Order No (not supplied)

Contract Title LT520 BRACO WEST SUBSTATION

Description 3 Soil samples.

Date Received 06-Dec-23

Date Started 06-Dec-23

Date Completed 19-Dec-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be

reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood General Manager







Summary of Chemical Analysis Soil Samples

Our Ref 23-28676 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | 2272643 | 2272644 | 2272645 |
|---------------|------------|------------|------------|
| .Sample ID | TP10 | TP10 | TP20 |
| Depth | 1.40 | 2.10 | 1.40 |
| Other ID | | | |
| Sample Type | SOIL | SOIL | SOIL |
| Sampling Date | 28/11/2023 | 28/11/2023 | 28/11/2023 |
| Sampling Time | n/s | n/s | n/s |

| | | | ing mine | 11/3 | 11/5 | 11/5 |
|---------------------------------------|-------------|------|----------|----------|--------|--------|
| Test | Method | LOD | Units | | | |
| Metals | | | | | | |
| Arsenic | DETSC 2301# | 0.2 | mg/kg | 8.0 | 7.9 | 2.7 |
| Boron, Water Soluble (2.5:1) | DETSC 2311# | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 |
| Cadmium | DETSC 2301# | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Chromium | DETSC 2301# | 0.15 | mg/kg | 33 | 31 | 31 |
| Copper | DETSC 2301# | 0.2 | mg/kg | 19 | 23 | 17 |
| Lead | DETSC 2301# | 0.3 | mg/kg | 10 | 9.6 | 10 |
| Mercury | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 |
| Nickel | DETSC 2301# | 1 | mg/kg | 28 | 28 | 25 |
| Selenium | DETSC 2301# | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Zinc | DETSC 2301# | 1 | mg/kg | 60 | 58 | 49 |
| Inorganics | -T | | | | | |
| рН | DETSC 2008# | | рН | 5.3 | 5.6 | 5.5 |
| Cyanide, Total | DETSC 2130# | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Organic matter | DETSC 2002# | 0.1 | % | 0.5 | 1.4 | 0.5 |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | 18 | < 10 | < 10 |
| Petroleum Hydrocarbons | | | | | | |
| Aliphatic C5-C6 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12 | DETSC 3072# | 1.5 | mg/kg | 3.3 | 2.4 | < 1.5 |
| Aliphatic C12-C16 | DETSC 3072# | 1.2 | mg/kg | 5.3 | 2.3 | < 1.2 |
| Aliphatic C16-C21 | DETSC 3072# | 1.5 | mg/kg | 8.1 | 3.1 | < 1.5 |
| Aliphatic C21-C35 | DETSC 3072# | 3.4 | mg/kg | 4.3 | < 3.4 | < 3.4 |
| Aliphatic C5-C35 | DETSC 3072* | 10 | mg/kg | 21 | < 10 | < 10 |
| Aromatic C5-C7 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12 | DETSC 3072# | 0.9 | mg/kg | < 0.9 | < 0.9 | < 0.9 |
| Aromatic C12-C16 | DETSC 3072# | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Aromatic C16-C21 | DETSC 3072# | 0.6 | mg/kg | < 0.6 | < 0.6 | < 0.6 |
| Aromatic C21-C35 | DETSC 3072# | 1.4 | mg/kg | < 1.4 | < 1.4 | < 1.4 |
| Aromatic C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 | < 10 | < 10 |
| TPH Ali/Aro Total C5-C35 | DETSC 3072* | 10 | mg/kg | 21 | < 10 | < 10 |
| PAHs | | | • | <u>'</u> | • | |
| Naphthalene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Fluorene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene | | | | < 0.1 | < 0.1 | < 0.1 |
| | DETSC 3301 | 0.1 | mg/kg | | | |
| Pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |



Summary of Chemical Analysis Soil Samples

Our Ref 23-28676

| Our Rej 23-28076 | | | | | | |
|---------------------------------|-------------|-------|----------|------------|------------|------------|
| Client Ref 26555 | | | | | | |
| Contract Title LT520 BRACO WEST | SUBSTATION | | | | | |
| | | | Lab No | 2272643 | 2272644 | 2272645 |
| | | .Sa | ample ID | TP10 | TP10 | TP20 |
| | | | Depth | 1.40 | 2.10 | 1.40 |
| | | (| Other ID | | | |
| | | Sam | ple Type | SOIL | SOIL | SOIL |
| | | - | _ | 28/11/2023 | 28/11/2023 | 28/11/2023 |
| | | Sampl | ing Time | n/s | n/s | n/s |
| Test | Method | LOD | Units | | | |
| Benzo(a)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Chrysene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| PAH 16 Total | DETSC 3301 | 1.6 | mg/kg | < 1.6 | < 1.6 | < 1.6 |
| Phenols | | | | | | |
| Phenol - Monohydric | DETSC 2130# | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 |



Summary of Asbestos Analysis Soil Samples

Our Ref 23-28676 *Client Ref* 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | Sample ID | Material Type | Result | Comment* | Analyst |
|---------|-----------|---------------|--------|----------|-------------|
| 2272643 | TP10 1.40 | SOIL | NAD | none | Barry Kelly |
| 2272644 | TP10 2.10 | SOIL | NAD | none | Barry Kelly |
| 2272645 | TP20 1.40 | SOIL | NAD | none | Barry Kelly |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * not included in laboratory scope of accreditation.



inappropriate

Information in Support of the Analytical Results

Our Ref 23-28676 Client Ref 26555

Contract LT520 BRACO WEST SUBSTATION

Containers Received & Deviating Samples

| | | Date | | | container for |
|---------|----------------|----------|----------------------------|---------------------------------|---------------|
| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| 2272643 | TP10 1.40 SOIL | 28/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| 2272644 | TP10 2.10 SOIL | 28/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| 2272645 | TP20 1.40 SOIL | 28/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :- Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate Number 23-28678

Issued:

19-Dec-23

Client Raeburn Drilling

East Avenue Blantyre Glasgow G72 0JB

Our Reference 23-28678

Client Reference 26555

Order No (not supplied)

Contract Title LT520 BRACO WEST SUBSTATION

Description 3 Soil samples, 2 Leachate prepared by DETS samples.

Date Received 06-Dec-23

Date Started 06-Dec-23

Date Completed 19-Dec-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be

reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood General Manager







Summary of Chemical Analysis Soil Samples

Our Ref 23-28678 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | 2272651 | 2272652 | 2272653 |
|---------------|------------|------------|------------|
| .Sample ID | TP05 | TP09 | TP09 |
| Depth | 2.00 | 0.50 | 1.00 |
| Other ID | | | |
| Sample Type | ES | ES | ES |
| Sampling Date | 27/11/2023 | 27/11/2023 | 27/11/2023 |
| Sampling Time | n/s | n/s | n/s |

| Test | Method | LOD | Units | · | | |
|---------------------------------------|-------------|------|-------|--------|--------|--------|
| Metals | | | | | | |
| Arsenic | DETSC 2301# | 0.2 | mg/kg | 3.1 | 2.2 | 2.7 |
| Boron, Water Soluble (2.5:1) | DETSC 2311# | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 |
| Cadmium | DETSC 2301# | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Chromium | DETSC 2301# | 0.15 | mg/kg | 25 | 28 | 35 |
| Copper | DETSC 2301# | 0.2 | mg/kg | 17 | 14 | 26 |
| Lead | DETSC 2301# | 0.3 | mg/kg | 9.0 | 8.2 | 8.2 |
| Mercury | DETSC 2325# | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 |
| Nickel | DETSC 2301# | 1 | mg/kg | 22 | 26 | 31 |
| Selenium | DETSC 2301# | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Zinc | DETSC 2301# | 1 | mg/kg | 42 | 51 | 48 |
| Inorganics | | | | | | |
| рН | DETSC 2008# | | рН | 5.5 | 5.3 | 5.2 |
| Cyanide, Total | DETSC 2130# | 0.1 | mg/kg | 0.1 | 0.1 | < 0.1 |
| Organic matter | DETSC 2002# | 0.1 | % | 1.0 | 0.7 | < 0.1 |
| Sulphate Aqueous Extract as SO4 (2:1) | DETSC 2076# | 10 | mg/l | < 10 | < 10 | < 10 |
| Petroleum Hydrocarbons | | | | · | | |
| Aliphatic C5-C6 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C10-C12 | DETSC 3072# | 1.5 | mg/kg | < 1.5 | < 1.5 | < 1.5 |
| Aliphatic C12-C16 | DETSC 3072# | 1.2 | mg/kg | < 1.2 | < 1.2 | < 1.2 |
| Aliphatic C16-C21 | DETSC 3072# | 1.5 | mg/kg | < 1.5 | < 1.5 | < 1.5 |
| Aliphatic C21-C35 | DETSC 3072# | 3.4 | mg/kg | < 3.4 | < 3.4 | < 3.4 |
| Aliphatic C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 | < 10 | < 10 |
| Aromatic C5-C7 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10 | DETSC 3321* | 0.01 | mg/kg | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C10-C12 | DETSC 3072# | 0.9 | mg/kg | < 0.9 | < 0.9 | < 0.9 |
| Aromatic C12-C16 | DETSC 3072# | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Aromatic C16-C21 | DETSC 3072# | 0.6 | mg/kg | < 0.6 | < 0.6 | < 0.6 |
| Aromatic C21-C35 | DETSC 3072# | 1.4 | mg/kg | < 1.4 | < 1.4 | < 1.4 |
| Aromatic C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 | < 10 | < 10 |
| TPH Ali/Aro Total C5-C35 | DETSC 3072* | 10 | mg/kg | < 10 | < 10 | < 10 |
| PAHs | | | | · | | |
| Naphthalene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Fluorene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |



Summary of Chemical Analysis Soil Samples

Our Ref 23-28678 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | 2272651 | 2272652 | 2272653 |
|---------------|------------|------------|------------|
| .Sample ID | TP05 | TP09 | TP09 |
| Depth | 2.00 | 0.50 | 1.00 |
| Other ID | | | |
| Sample Type | ES | ES | ES |
| Sampling Date | 27/11/2023 | 27/11/2023 | 27/11/2023 |
| Sampling Time | n/s | n/s | n/s |

| Test | Method | LOD | Units | | | |
|-------------------------|-------------|-----|-------|-------|-------|-------|
| Pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Chrysene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | DETSC 3301 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| PAH 16 Total | DETSC 3301 | 1.6 | mg/kg | < 1.6 | < 1.6 | < 1.6 |
| Phenols | | | | | | |
| Phenol - Monohydric | DETSC 2130# | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 |



WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-28678 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

Sample Id TP09 1.00

Sample Numbers 2272653 2272967 2272968

Date Analysed 15/12/2023

| Determinand and Method Reference | | Units | Res | sult |
|--------------------------------------------|-----------|------------|------------|------------|
| DETSC 2084# Total Organic Carbon | | % | < (| 0.5 |
| DETSC2003# Loss On Ignition | | % | | |
| DETSC 3321# BTEX | | mg/kg | < 0 | .04 |
| DETSC 3401# PCBs (7 congeners) | | mg/kg | < 0 | .01 |
| DETSC 3311# TPH (C10 - C40) | | mg/kg | < | 10 |
| DETSC 3301 PAHs | | mg/kg | < : | 1.6 |
| DETSC2008# pH | | pH Units | | |
| DETS073* Acid Neutralisation Capacity (pH4 |) | mol/kg | | |
| DETS073* Acid Neutralisation Capacity (pH7 | mol/kg | | | |
| Test Results On Leachate | | | | |
| Determinand and Method Reference | Conc in E | luate ug/l | Amount Lea | ched* mg/k |
| Determinant and wiethou Reference | 2:1 | 8:1 | LS2 | LS10 |

| WAC Limit Values | | | | |
|------------------|----------|-----------|--|--|
| Inert | SNRHW | Hazardous | | |
| Waste | SINITION | Waste | | |
| 3 | 5 | 6 | | |
| n/a | n/a | 10 | | |
| 6 | n/a | n/a | | |
| 1 | n/a | n/a | | |
| 500 | n/a | n/a | | |
| 100 | n/a | n/a | | |
| n/a | >6 | n/a | | |
| n/a | TBE | TBE | | |
| n/a | TBE | TBE | | |

WAC Limit Values

| Test Results On Leachate | | | | | | |
|-------------------------------------|-----------|---------------------|----------|-----------------------|--|--|
| Determinand and Method Reference | Conc in E | Conc in Eluate ug/l | | Amount Leached* mg/kg | | |
| Determinant and Wethou Reference | 2:1 | 8:1 | LS2 | LS10 | | |
| DETSC 2306 Arsenic as As | 3 | 0.56 | 0.006 | < 0.01 | | |
| DETSC 2306 Barium as Ba | 1.1 | 1.1 | < 0.02 | < 0.1 | | |
| DETSC 2306 Cadmium as Cd | < 0.030 | < 0.030 | < 0.004 | < 0.02 | | |
| DETSC 2306 Chromium as Cr | < 0.25 | < 0.25 | < 0.02 | < 0.1 | | |
| DETSC 2306 Copper as Cu | 0.87 | 0.5 | < 0.004 | < 0.02 | | |
| DETSC 2306 Mercury as Hg | < 0.010 | < 0.010 | < 0.0004 | < 0.002 | | |
| DETSC 2306 Molybdenum as Mo | < 1.1 | < 1.1 | < 0.02 | < 0.1 | | |
| DETSC 2306 Nickel as Ni | < 0.50 | < 0.50 | < 0.02 | < 0.1 | | |
| DETSC 2306 Lead as Pb | < 0.090 | < 0.090 | < 0.01 | < 0.05 | | |
| DETSC 2306 Antimony as Sb | < 0.17 | < 0.17 | < 0.01 | < 0.05 | | |
| DETSC 2306 Selenium as Se | < 0.25 | < 0.25 | < 0.006 | < 0.03 | | |
| DETSC 2306 Zinc as Zn | < 1.3 | < 1.3 | < 0.002 | < 0.01 | | |
| DETSC 2055 Chloride as Cl | 830 | 490 | < 20 | < 100 | | |
| DETSC 2055* Fluoride as F | < 100 | < 100 | < 0.02 | < 0.1 | | |
| DETSC 2055 Sulphate as SO4 | 1100 | 1500 | < 20 | < 100 | | |
| DETSC 2009* Total Dissolved Solids | 8300 | 10000 | 16.6 | 97.2 | | |
| DETSC 2130 Phenol Index | < 100 | < 100 | < 0.2 | < 1 | | |
| DETSC 2085 Dissolved Organic Carbon | 3100 | < 2000 | < 10 | < 50 | | |
| Additional Information | | | | | | |

| WAC LITTIL Values | | | | | |
|--------------------------------|----------|-----------|--|--|--|
| Limit values for LS10 Leachate | | | | | |
| Inert | SNRHW | Hazardous | | | |
| Waste | SINULIAN | Waste | | | |
| 0.5 | 2 | 25 | | | |
| 20 | 100 | 300 | | | |
| 0.04 | 1 | 5 | | | |
| 0.5 | 10 | 70 | | | |
| 2 | 50 | 100 | | | |
| 0.01 | 0.2 | 2 | | | |
| 0.5 | 10 | 30 | | | |
| 0.4 | 10 | 40 | | | |
| 0.5 | 10 | 50 | | | |
| 0.06 | 0.7 | 5 | | | |
| 0.1 | 0.5 | 7 | | | |
| 4 | 50 | 200 | | | |
| 800 | 15,000 | 25,000 | | | |
| 10 | 150 | 500 | | | |
| 1000 | 20,000 | 50,000 | | | |
| 4000 | 60,000 | 100,000 | | | |
| 1 | n/a | n/a | | | |
| 500 | 800 | 1000 | | | |

| Additional information | | |
|-------------------------------|-------|---|
| DETSC 2008 pH | 8.1 | |
| DETSC 2009 Conductivity uS/cm | 11.9 | |
| * Temperature* | 16.0 | |
| Mass of Sample Kg* | 0.140 | ĺ |
| Mass of dry Sample Kg* | 0.122 | |
| Stage 1 | | |
| Volume of Leachant L2* | 0.225 | ĺ |
| Volume of Eluate VE1* | 0.2 | |
| Stage 2 | | |
| Volume of Leachant L8* | 0.973 | |

Volume of Eluate VE2*

V.2.06

TBE - To Be Evaluated

SNRHW - Stable Non-Reactive

Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions.

Values are correct at time of issue.

0.92

7.6

14.7

16.0

^{*} DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.



Summary of Asbestos Analysis Soil Samples

Our Ref 23-28678 Client Ref 26555

Contract Title LT520 BRACO WEST SUBSTATION

| Lab No | Sample ID | Material Type | Result | Comment* | Analyst |
|---------|-----------|---------------|--------|----------|-------------|
| 2272651 | TP05 2.00 | SOIL | NAD | none | Barry Kelly |
| 2272652 | TP09 0.50 | SOIL | NAD | none | Barry Kelly |
| 2272653 | TP09 1.00 | SOIL | NAD | none | Barry Kelly |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * not included in laboratory scope of accreditation.



Information in Support of the Analytical Results

Our Ref 23-28678 Client Ref 26555

Contract LT520 BRACO WEST SUBSTATION

Containers Received & Deviating Samples

| | | Date | | | Inappropriate container for |
|---------|--------------------|----------|----------------------------|---------------------------------|--------------------------------|
| Lab No | Sample ID | Sampled | Containers Received | Holding time exceeded for tests | tests |
| 2272651 | TP05 2.00 SOIL | 27/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| 2272652 | TP09 0.50 SOIL | 27/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| 2272653 | TP09 1.00 SOIL | 27/11/23 | GJ 60ml x2, PT 1L x2 | pH + Conductivity (7 days) | |
| 2272967 | TP09 1.00 LEACHATE | 27/11/23 | GJ 60ml x2, PT 1L x2 | | |
| 2272968 | TP09 1.00 LEACHATE | 27/11/23 | GJ 60ml x2, PT 1L x2 | | |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|-----|--------|--------------------------------|--------------------|
| J | | | |
| TO | Client | SHE Transmission plc | |
| LID | Engin | eer: SSE Perth Inveralmond HSE | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\28555.GFJ Printed: 25/01/2024 18:29.25 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com



Site: LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555



in accordance with BSEN ISO 22476-3:2005

Raeburn Drilling & Geotechnical Whistleberry road Hamilton ML3 0HP

DRILLING & GEOTECHNICAL LTD

 SPT Hammer Ref:
 RD48 2023

 Test Date:
 31/03/2023

 Report Date:
 31/03/2023

 File Name:
 RD48 2023.spt

Test Operator: KS

Instrumented Rod Data

Diameter d_r (mm): 54 Wall Thickness t_r (mm): 6.9 Assumed Modulus E_a (GPa): 208 Accelerometer No.1: 69559

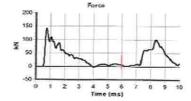
Accelerometer No.2:

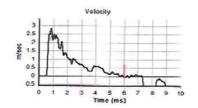
69560

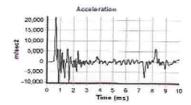
SPT Hammer Information

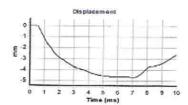
Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 14.0

Comments / Location









Calculations

 Area of Rod A (mm2):
 1021

 Theoretical Energy E_{thicor} (J):
 473

 Measured Energy E_{meas} (J):
 308

Energy Ratio E_r (%):

65

Signed: Kevin Steele Title: Head Storeman

The recommended calibration interval is 12 months

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Originator Title

RB

Chk & App Status

FINAL

FMR

SPT HAMMER ENERGY REPORT

RAEBURZ

Fig No:

H1

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Site: LT520 BRACO WEST SUBSTATION

SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

Contract No: 26555

SPT Hammer Energy Test Report in accordance with BSEN ISO 22476-3:2005

Raeburn Drilling & Geotechnical Whistleberry road Hamilton ML3 0HP

DRILLING & GEOTECHNICAL LTD

 SPT Hammer Ref:
 RD54
 23

 Test Date:
 05/05/2023

 Report Date:
 05/05/2023

 File Name:
 RD54
 23.spt

 Test Operator:
 K STEELE

Instrumented Rod Data

 Diameter d_r (mm):
 54

 Wall Thickness t_r (mm):
 6.9

 Assumed Modulus E_a (GPa):
 208

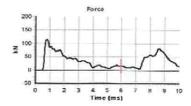
 Accelerometer No.1:
 69559

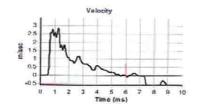
 Accelerometer No.2:
 69560

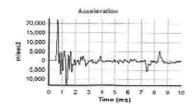
SPT Hammer Information

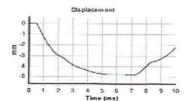
Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 14.5

Comments / Location









Calculations

 Area of Rod A (mm2):
 1021

 Theoretical Energy E_{thcor} (J):
 473

 Measured Energy E_{mcos} (J):
 304

Energy Ratio E_r (%):

64

Signed: Kevin Steele Title: Head Storeman

The recommended calibration interval is 12 months

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| | Originator | Title |
|-----------|------------|-------|
| | RB | |
| Chk & App | Status | |

FINAL

FMR

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LT520 BRACO WEST SUBSTATION Site:

SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE

DRILLING & GEOTECHNICAL LTD

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Contract No: 26555

Raeburn Drilling & Geotechnical Whistleberry road

Hamilton ML3 0HP

SPT Hammer Ref: RD70 2023

Test Date:

15/02/2023

Report Date:

15/02/2023

File Name:

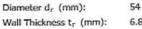
RD70 2023.spt

Test Operator:

SPT Hammer Information

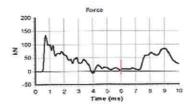
Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 14.5

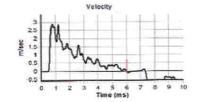
Comments / Location

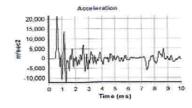


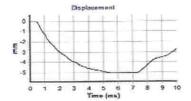
Instrumented Rod Data

6.8 Assumed Modulus Ea (GPa): 208 69559 Accelerometer No.1: 69560 Accelerometer No.2:









Calculations

Area of Rod A (mm2): 1008 473 Theoretical Energy Etheor (J): 331 Measured Energy E_{meas} (J):

Energy Ratio Er (%):

70

Signed: Kevin Steele Head Storeman

Title:

The recommended calibration interval is 12 months

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Originator RB Chk & App Status

FINAL

SPT HAMMER ENERGY REPORT



Fig No:

H3

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FMR



Contract No: 26555 LT520 BRACO WEST SUBSTATION Site:

Client: SHE Transmission plc

Engineer: SSE Perth Inveralmond HSE



O Thermtest Inc. 25 Millennium Dr., Unit 2 Hanwell, NB, E3C 2N9 Canada

QC Certificate - TLS 100mm ASTM D5334-22a

| UNIT | TLS 100mm |
|---------------------|-----------|
| SENSOR SERIAL # | 27103-454 |
| CONTROLLER SERIAL # | 30101-378 |
| HARDWARE REV. | 5 |
| FIRMWARE VERSION* | 1.7.9.54 |

^{*}For accurate results, firmware version must be equal to or newer than the listed firmware

Verification measurements:

After calibration, agar, a polymer and a Macor sample were used for verification. Three measurements were taken at room temperature, with thermal paste to ensure proper contact between the sensor and the sample. The TLS 100mm sensor is specified to record thermal conductivity with 5% accuracy and 2% repeatability. The results can be seen below:

Polymer Verification Sample #1631, Batch #53:

| Mean ambient temperature (°C) | 23.7 |
|-----------------------------------------------|--------|
| Average measured thermal conductivity (W/m-K) | 0.326 |
| Known value at room temperature (W/m K) | 0.320 |
| Accuracy | 1.74 % |
| Relative standard deviation | 1.37 % |

Macor Verification Sample:

| Mean ambient temperature (°C) | 22.9 |
|-----------------------------------------------|--------|
| Average measured thermal conductivity (W/m-K) | 1,600 |
| Known value at room temperature (W/m·K) | 1.640 |
| Accuracy | 2.44 % |
| Relative standard deviation | 0.09 % |

Certification:

This instrument is certified to have performed according to specifications.

Date: July 11th, 2023

Signed by:

Quality Control Technician

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Originator

RB

Status

FINAL

Chk & App

FMR

TLS 100mm-QC

INSITU THERMAL RESISTIVITY NEEDLE PROBE CALIBRATION

Fig No:

H4



| | Site: | LT520 BRACO WEST SUBSTATION | Contract No: 26555 |
|-----|-------------------------------------|-----------------------------|--------------------|
| TD. | | | |
| | Client: | SHE Transmission plc | |
| | Engineer: SSE Perth Inveralmond HSE | | |

Style: APPENDIX A File: P.\GINTWAPROJECTS\26555.GFJ Printed: 25/01/2024 18:30:16 Raebum Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tet: 01698-711177 E-mail: enquiries@raeburndrilling.com



Achille Igne Ltd. Whistleberry Road Blantyre Hamilton ML3 0HP Our ref 179147/JG/001 Telephone 0141 378 6248 E-mail Adarling@envirocentre.co.uk

6 November 2023

Dear Achille

Braco West Substation Pre-Works Site Walkover Survey

A pre-works site walkover survey was undertaken at the site known as Braco West Substation in Dunblane. The survey was carried out to inform upcoming ground investigation works for a proposed new substation in regards to any potential impacts the works will have on protected species or habitats within the site.

The results of the survey found no diagnostic evidence of protected species on site; however, observations of red fox, red deer, and roe deer were noted via scat and tracks throughout the site. The report provided within this letter provides recommendations for any impact avoidance and mitigation for the proposed works.

Yours sincerely for EnviroCentre Limited

(issued electronically)

Alexandra Darling Bsc(Hons) MRes Graduate Ecologist Gemma Nixon MSc CEcol MCIEEM Lead-Principal Ecologist

Enc: Braco West SubstationPre-Works Site Walkover Survey Appendix: Summary of Protected Species Legislation



VAT no. GB 348 6770 57.



BRACO WEST SUBSTATION PRE-WORKS SITE WALKOVER SURVEY

Introduction

EnviroCentre Ltd. were commissioned by Igne Ltd., on 30th October 2023 to conduct a pre-works site walkover survey on 2nd November 2023 at a site known as Braco West Substation, to inform upcoming works on the site.

The proposed works are to include ground investigation works including sonic rig boreholes, boreholes, and trial pits, for a new 400kV substation which is to be built next to the current Braco West Substation, approximately (c.) 3.8km west of the village of Braco, Dunblane.

Site Description

The site is located around Feddal Hill and Cambushinnie Hill, c. 3.8km west of the village of Braco, which is c. 8.3km north of Dunblane.

The current site plan includes two option areas – Site 2 centred at c. NN 791089 and Site 3 centred at c. NN 787091. A main access track runs between the two site options, and along the western site boundary. The existing Braco West Substation is located 300m northeast of the proposed site.

The proposed site comprises of forestry land with mature conifer plantation to the west (included in Site 3) and semi-mature and young conifer plantation covering the east (included in Site 2). Areas of felled trees are also present in both site options.

Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre Limited for review to ensure that any relevant changes in data, best practice, guidance, or legislation in the intervening period are integrated into an updated version of the report.

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EnviroCentre Limited accepts no liability for use of the report for purposes other than those for which it was originally provided, or where EnviroCentre Limited has confirmed it is appropriate for the new context.

Field Survey

Field work was undertaken by EnviroCentre Ecologist Alexandra Darling on 2nd November 2023. Weather conditions during the survey were cloudy with an average temperature of 7°C.



The walkover survey was designed using the guidelines endorsed by NatureScot and CIEEM¹ and focussed on protected species which would most likely utilise the habitats which comprise the landscape in and around the site. Notable plants, including Invasive Non-Native Species, and habitats were also considered during the survey.

Assessment of the site for a range of protected species was undertaken and noted that red squirrel (*Sciurus vulgaris*), pine marten (*Martes martes*), birds, amphibians, and invertebrates have potential to utilise the site and surrounding habitat. Legislation pertaining to these species is present in Appendix A.

Red Squirrel

A survey was undertaken based on best practice guidance² which involves a search of suitable habitat (primarily coniferous woodland) for two distinct signs of squirrel activity. It should be noted that neither of these methods accurately distinguishes between red or grey squirrels (*Sciurus carolinensis*).

- Drey count dreys are the nests made by both species of squirrel in trees. Dreys are
 distinguishable from birds' nests as they are normally 50cm in diameter and 30cm deep,
 comprise a ball shape and are usually densely constructed. The dreys are normally located
 close to the main stem of the tree at a height of 3m or more; and
- Feeding evidence where cone producing trees (conifers) are evident evidence of squirrel feeding is searched for. Although the two species of squirrel cannot be distinguished from feeding remains, the manner in which squirrels break open seeds and nuts, which are then left on the forest floor, is diagnostic.

Pine Marten

A passive sign survey was conducted for pine marten according to standard guidance³. The survey included a search for scats (e.g. on prominent features such as tree stumps, dead logs or stones), footprints and identification of any potential den sites (elevated tree cavities and between rocks or crags) as well as the presence of scats on paths, rides and track ways through woodland or rock habitats.

An assessment of the habitat was also undertaken to identify likely prey resources, which include small mammals, birds and invertebrates, and potential resting sites and commuting opportunities.

It should be noted that in areas where pine marten populations are sparse and territorial defence is relatively unimportant, searches for signs (incl. scats) may fail to detect presence simply because the animals are less likely to deposit scats as territory markers; in such situation most scats are deposited at den sites and in foraging areas.

Birds

Habitats within the survey area were assessed for their suitability to support breeding and over wintering birds. Observations of birds were noted during the survey.

Observations of birds were also noted during the survey including incidental records of the following:

- Birds present nesting or foraging on-site, flying over site, or corpses.
- Pellets/droppings.
- Nests within trees or in ground vegetation.
- Eggs intact/broken or within nest/below nest.
- Feathers adult or natal down.

¹ CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*. 2nd edition. Available at: https://cieem.net/resource/guidance-on-preliminary-ecological-appraisal-gpea/

² Gurnell, J., Lurz, P., McDonald, R. & Pepper, H. (2009) *Practical Techniques for surveying and monitoring squirrels. Forestry Commission Practice Note 11.*

³ Birks, J. (2012) Pine marten. In: Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trewhella, W.J., Wells, D. and Wray, S. (2012). *UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation*. The Mammal Society, Southampton



Amphibians

Guidance^{4,5} was used to identify direct evidence of amphibians and to assess the suitability of the habitats for common toad as follows:

- Direct sightings (including spawn, tadpoles, young and adult amphibians).
- Suitable aquatic habitat: medium (10 100m²) or large (> 100m²) ponds, on or within 500m of the site.
- Suitable terrestrial habitat: lightly grazed pasture, scrub, open woodland, gardens, and moors.
- Connectivity to additional suitable aquatic and terrestrial habitat.
- Foraging resources, for example, invertebrates.
- Hibernation sites usually below ground systems that are protected against weather and predators.

Invertebrates

A general habitat suitability survey was made of the site its suitability to host invertebrate species.

UK Habitat Classification Survey

A UK Habitat Classification (UKHab) Survey was carried out in accordance with the user manual⁶. UKHab is a hierarchical system for rapidly recording and classifying habitat via satellite imagery and field survey. The system comprises 5 levels of Primary Habitats which include ecosystems, broad habitats, priority habitats and Annex I habitats, along with non-hierarchical secondary codes which provide information on the environment, management, and origin of Primary Habitats. The secondary codes are also used to identify notable species features. The information collected is used to identify ecologically sensitive features and recommend mitigation and enhancement measures in connection with a proposed development.

The surveyor utilised the UKHab Professional edition and aimed to categorise habitats up to level 5. Where the level 5 habitat could not be determined or is not reflective of the habitat type due to a lack of indicative species, habitats were categorised to level 4 or the broader level 3 habitat.

The information is used to identify ecologically sensitive features/habitats, inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

Invasive Non-Native Species (INNS)

The survey included a check for the presence of any invasive non-native species (INNS) including but not limited to the following:

- Japanese knotweed (Reynoutria japonica).
- Giant hogweed (Heracleum mantegazzianum).
- Himalayan balsam (Impatiens glandulifera).

Constraints

Due to the nature of conifer plantations, the dense structure of the canopy made it difficult to assess the area for signs of protected species due to reduced visibility. However, the constraint is not considered to be of significant impact to have resulted in the misidentification of protected species within the site boundary.

⁴ McInerny, C. & Minting, P. (2016) The Amphibians and Reptiles of Scotland.

⁵ Beebee TJC, Griffiths RA (2000) *Amphibians and reptiles*. HarperCollins, vol 270. New Naturalist, London

⁶ UKHAB Ltd (2023). UK Habitat Classification Version 2.0 (Available at https://www.ukhab.org)



Due to the time of survey, many flowering plant species had likely died back, not allowing for full identification for some species resulting in plants being identified at genus or family level as opposed to species level. Although, the constraint is not considered to be of significant impact to have resulted in misclassification of broad habitats.

Results

Protected Species

No diagnostic evidence of any protected species was noted during the site visit. However, evidence of red fox (*Vulpes vulpes*), red deer (*Cervus elaphus*), and roe deer (*Capreolus capreolus*) were observed via tracks and scat present across the site.

Various bird species were also observed during the survey and are detailed in Table 1-1 below.

Table 1-1: Bird Species Observed on Site, November 2023

| Common Name | Latin Name | Designation | |
|----------------------|-------------------------|-------------------|--|
| Wood Pigeon | Columba paumbus | BOCC – Amber List | |
| Wren | Troglodytes troglodytes | | |
| Blackbird | Turdus merula | | |
| Buzzard | Buteo buteo | | |
| Chaffinch | Fringilla coelebs | | |
| Great Tit | Parus major | BOCC – Green List | |
| Raven | Corvus corax | | |
| Red Kite | Milvus milvus | | |
| Ring-Necked Pheasant | Phasianus colchicus | | |
| Robin | Erithacus rubecula | | |

Although site observations were not recorded during the survey, suitable habitat also exists on site for red squirrel, pine marten, amphibians, and invertebrates. The coniferous trees offer nesting opportunities for squirrels, pine marten and birds, whilst the open areas where the plantation has been previously clear-felled, and vegetation has re-established, offers foraging opportunities for a range of wildlife.

The waterlogged bogs and artificially created drains across the site also provide suitable aquatic environments for amphibians and invertebrates, which in turn provides prey resources for species such as pine marten and foxes.

Habitats

The site comprised of primarily conifer plantation (UKHAB primary code w2c – other coniferous woodland; secondary code 29 - plantation). A range of mature to semi-mature and young trees were found predominantly to the west of the site whilst areas of clear-fell were found primarily to the east.

The British Geological survey (BGS) map⁷ indicates that peat lies beneath the majority of the site and Scotland's Environment Map⁸ shows that the site has underlying blanket bog. During the site visit it was confirmed that there are areas of waterlogged bog and underlying peat across the site, primarily in the open areas bordering the mature plantation to the west. *Sphagnum* mosses dominate the wet and waterlogged bogs with abundant heather (*Erica* spp.) and rushes (*Juncus* spp.) also present alongside grasses such as purple moor grass (*Molinia caerulea*).

The bogs on site have been disrupted by human activity through plantation and changes to the structure of the bog have occurred in some areas. However, the abundance of *Sphagnum* mosses still

⁷ British Geological Survey (2023). BGS Geology Viewer Map. Available at: https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/

⁸ Scotland's Environment Map (No date). Carbon and Peatland 2016. Available at: Map | Scotland's environment web



present highlight that the bog has not yet become degraded as a result of such activities. Therefore, the bog on site has been classified as blanket bog (UKHAB primary code f1a; secondary code 57 - peat).

Blanket bogs are listed on Annex I of the Habitats Directive which have been designated as Special Areas of Conservation. Blanket bogs are also listed on the Scottish Biodiversity List as a habitat of principal importance for biodiversity conservation in Scotland.

INNS

No INNS were noted within the site boundary.

Assessment and Recommendations

The results of the survey indicate that the site is utilised by red fox, red deer, roe deer, and a variety of bird species. Whilst no diagnostic evidence was observed on site, suitable habitat also exists for red squirrel, pine marten, amphibians, and invertebrates.

The works are scheduled for winter months which are outwith the breeding season for red squirrel, pine marten, birds, deer, fox, and other protected species which may be utilising the site. Should work be delayed or extend to March when breeding, nesting, and birthing begins for wildlife⁹, this assessment will require review. If the survey is delayed or extended, further surveys may be required at additional costs, as per the proposal provided 31st October 2023.

In summary, the proposed locations of the ground investigation works within the Braco West Substation site are considered to be suitable with no ecological constraints currently present within these locations, providing that the mitigation recommendations are followed.

Mitigation

The presence of machinery, vehicles, site worker amenities, and increased human presence as a result of the works will cause disturbance to wildlife within the site, and the locale. Therefore, it is essential that the following mitigation recommendations are followed to prevent and/or minimise any potential impacts of the proposed works on protected species and wildlife within the locale:

- A toolbox talk to be provided to all personnel providing information of protected species and appropriate mitigation to be implemented prior to commencement.
- Care must be taken during planned clearance/felling of trees required for access to ensure wildlife is not harmed.
- In the event any protected species are found when the ecologist is not in attendance, works must stop, the animal must not be handled, and the project ecologist contacted immediately.
- Any temporary lighting used during the works should be designed to be 'wildlife friendly' and should not illuminate commuting, foraging or sheltering habitats such as woodland, both onsite and in the surrounding area. Low- or high-pressure sodium lamps instead of mercury and metal halide lamps are preferred for their UV filtering properties, reducing light spillage and pollution.
- Any excavations created during works should not be left open for animals to fall into.
 Appropriate covers should be fitted at the end of every working day, at the very least, a shallow sloping edge or some form of ramp should be placed in the excavations to allow any animals to climb out.

-

⁹ Timing of breeding/nesting/birthing varies dependent on species.



Bog mats should be used to avoid damaging the habitats and surrounding environment. The
mats will also provide easier access for machinery/vehicles within the waterlogged and soft
ground areas.

Future Recommended Works

Ecological data is typically considered valid for 12 months; however, due to the nature of , then updated surveys would be required if the proposed works, specifically associated with the water abstraction point, are not completed by late March 2024.

If any changes are made to the site boundary plan, or additional areas are to be included as part of the proposed works, further checks for protected species within newly proposed areas should be undertaken by an ecologist.



APPENDIX A

Summary of Protected Species Legislation

Red Squirrel and Pine Marten

Red squirrel and pine marten are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Subject to certain exceptions, it is an offence to intentionally or recklessly:

- kill, injure, or take (capture) an individual.
- damage, destroy or obstruct access to any structure or place which they use for shelter or protection.
- disturb an individual while it is occupying a structure or place which it uses for that purpose.
- possess or control, sell, offer for sale, or possess or transport for the purpose of sale any live or dead animal or any derivative of such an animal.

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

In some cases, licenses may be issued by NatureScot to enable certain otherwise illegal activities to take place for social, economic, or environmental reasons (including development) as long as:

- the licensed activity will contribute to significant social, economic, or environmental benefit.
- there is no satisfactory alternative.
- there will be no significant negative impact on the conservation status of the species.

Birds

All wild bird species in the UK are protected under the Wildlife and Countryside Act 1981 (as amended), with species listed on Schedules A1, 1 and 1A afforded additional protection.

For any wild bird species, it is an offence to intentionally or recklessly:

- kill, injure, or take a bird.
- take, damage, destroy or interfere with a nest of any bird while it is in use or being built.
- obstruct or prevent any bird from using its nest.
- take or destroy an egg of any bird.
- possess or control a living or dead wild bird.
- possess or control an egg of a wild bird (or any such derivatives).

For any wild bird species listed on Schedule 1, it's an offence to disturb:

- any bird while it is building a nest.
- any bird while it is in, on, or near a nest containing eggs or young.
- any bird while lekking.
- the dependent young of any bird.

For any wild bird species listed on Schedule 1A, it's an offence to intentionally or recklessly harass any bird.

For any wild bird species listed on Schedule A1, it's an offence to intentionally or recklessly take, damage, destroy or interfere at any time with a nest habitually used by any bird.

Licences cannot be issued for the purpose of development in relation to any of the above offences.



Deer and Red Fox

All deer species and red fox have basic protection from cruelty under the Wild Mammals Protection Act 1996 and Animal Welfare Act 2006. This makes it an offence to harm a wild mammal with intent to inflict unnecessary suffering.

Invasive Non-Native Species (Plants)

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to plant, or otherwise cause to grow, any plant in the wild at a location outside its native range.

'Native range' is defined in the 1981 Act as, "the locality to which the animal or plant of that type is indigenous and does not refer to any locality to which that type of animal or plant has been imported (whether intentionally or otherwise) by any person."

The Scottish Governments Non-natives Code of Practice¹⁰ defines 'in the wild'. Just about everywhere is wild except for:

- arable and horticultural land
- improved pasture
- · settlements; and
- private and public gardens.

In exceptional circumstances it may be possible to obtain a licence from NatureScot to permit the above offence

¹⁰ https://www.gov.scot/publications/non-native-species-code-practice/