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**BRE_AO5 AREA
EXPORT CABLE
GEOTECHNICAL SURVEY**

BRE_LsM_TEC_63_FACTUAL
REPORT - GEOTECHNICAL
SURVEY – AO5 EC
AREA_0.1_A

PROJECT No.
113401272

FACTUAL REPORT

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ABBREVIATIONS

°C	Degrees Centigrade
AAA	Anti-Aircraft Artillery
ALARP	As Low as Reasonably Practicable
Bft	Beaufort
C'	Cohesion
Cm	Centimetre
CoG	Center of Gravity
CPT	Cone penetration test
CPT	Cone Penetration Test
CRP	Common Reference Point
DEMOB	Demobilisation
DGEC	Direction Générale de l'Énergie et du Climat
DPR	Daily production report
DS	Direct Shear
EC	Export Corridor
FLO	Fishing Lines and gears Observation
GPS	Global Positioning System
KP	Kilometric point
kPa	Kilo Pascals
LAT	Low Astronomical Tide
LSA	Land Service Ammunition
m	Meters
MAG	Magnetometer
MBES	Multibeam echosounder
MMO	Marine Mammals Observation
MOB	Mobilisation
MRU	Motion Reference Unit
PI	Plasticity Index
PL	Plasticity limit
POB	Personnel On Board

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PP	Penetrometer
PPS	Pulse Per Second
pUXO	Possible unexploded ordnance
QA	Quality Assurance
QC	Quality Control
ROTV	Remotely operated towed vehicle
RPL	Route Position List
RTE	Réseau de Transport d'Électricité
RTK	Real Time Kinematics
s	Second
SBP	Sub bottom profiler
SIT	Surrogate Item Trials
SRB	Sulphate Reducing Bacteria
SRF	Ship's Reference Frame
SSS	Side Scan Sonar
SVP	Sound Velocity Profiler
SVS	Sound Velocity Sensor
TBC	To be confirmed
TRT	Thermal Response Test
TV	Torvane
USBL	Ultra-Short Base Line
UTC	Universal time clock
UTM	Universal Transverse Mercator
UU	Undrained shear strength
Uur	Undrained shear strength remoulded
UXO	Unexploded ordnance
VC	Vibrocore
WGS84	World Geodetic System 1984
WT	Work time
ZH	Zero Hydrographic to the ellipsoid

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1. EXECUTIVE SUMMARY

TECNOAMBIENTE has been contracted by RTE to undertake geotechnical marine investigation for the AO5 Windfarm export cable installation.

This Factual report summarises and integrate the offshore geotechnical data and the laboratory testing results, for the survey conducted by Tecnoambiente with the S/V Nora-B in the BRE_AO5 area (Bretagne).

The geotechnical survey consisted in the acquisition of 56 CPT locations (with 12 retests) and 56 Vibrocore locations (with 9 retest) in order to characterise the shallow geotechnical conditions of the export cable corridor.

In general, there is good correlation among the in-situ and lab tests performed and the soil profiles are suitable for further integration with the geophysical data.

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2. PROJECT PREVIOUS DOCUMENTATION

The information in this report should be read in conjunction with the supplementary reports and references presented in Table 1. References used for the report are specified in Table 2.

Table 1 Survey documentation reference names for Tecnoambiente and RTE.

Document type	Name
Scope of Work	SOS-01 - Scope Of Service AO5 ENG
Project Execution Plan	BRE_TEC_33_PEP_1.4.pdf
Offshore Geotechnics Mobilisation Report	BRE_TEC_56_Mobilisation Report Geotechnical_1.1.pdf
Offshore Geotechnics Operational Report	BRE_TEC_53_Operational report - Geotechnical survey - AO5 EC area 01.pdf
Offshore Geophysical Factual Report	BRE_TEC_52_Results report - Reconnaissance survey - AO5 EC area 0.1.pdf

Table 2 References used for completing this report.

Document type	Name
Geologic study	2020-136_Expertise géologique_AO5_V2.pdf

3. SCOPE OF WORK

3.1. SURVEY AREA

The area of interest is located in Morbihan, in the south of Brittany, close to western coast of Belle-Île-en-Mer and the southern coast of Île de Groix (Figure 1). The area of interest is approximately 50 km x 1 to 4 km and according to the SHOM bathymetry, the site is located in water depths ranging from 5 m to 90 m.

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The AO5 survey area is divided in three sites (Figure 2):

- Offshore Substation (OSS) (3.99 km²)
- Windfarm area (OWF) (232.81 km²)
- **Export cable (EC) (93.281 km²)**

This report covers the EC corridor based on the RPL provided by RTE “BRE_SCL_ART_00006_Preliminary_Cable_Routes_rev00 “(version produced on the 22/09/2022).

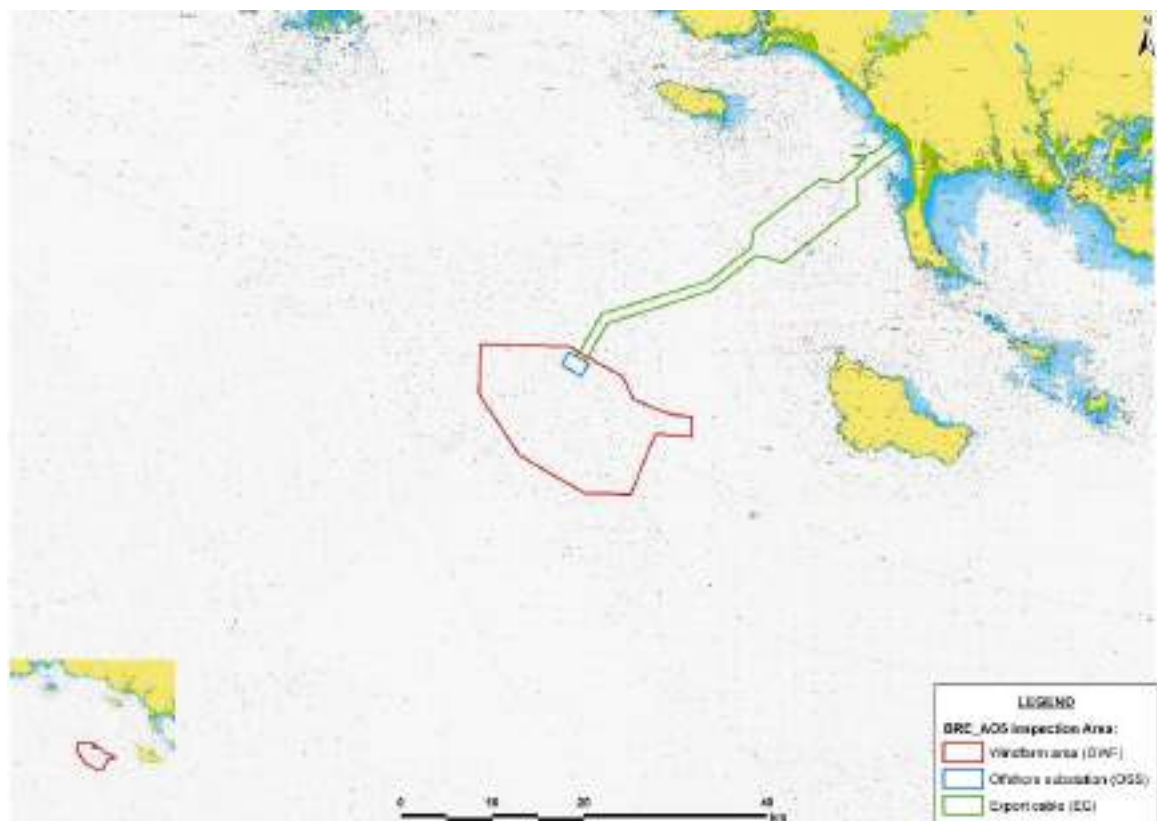


Figure 1 BRE_AO5 Survey area.

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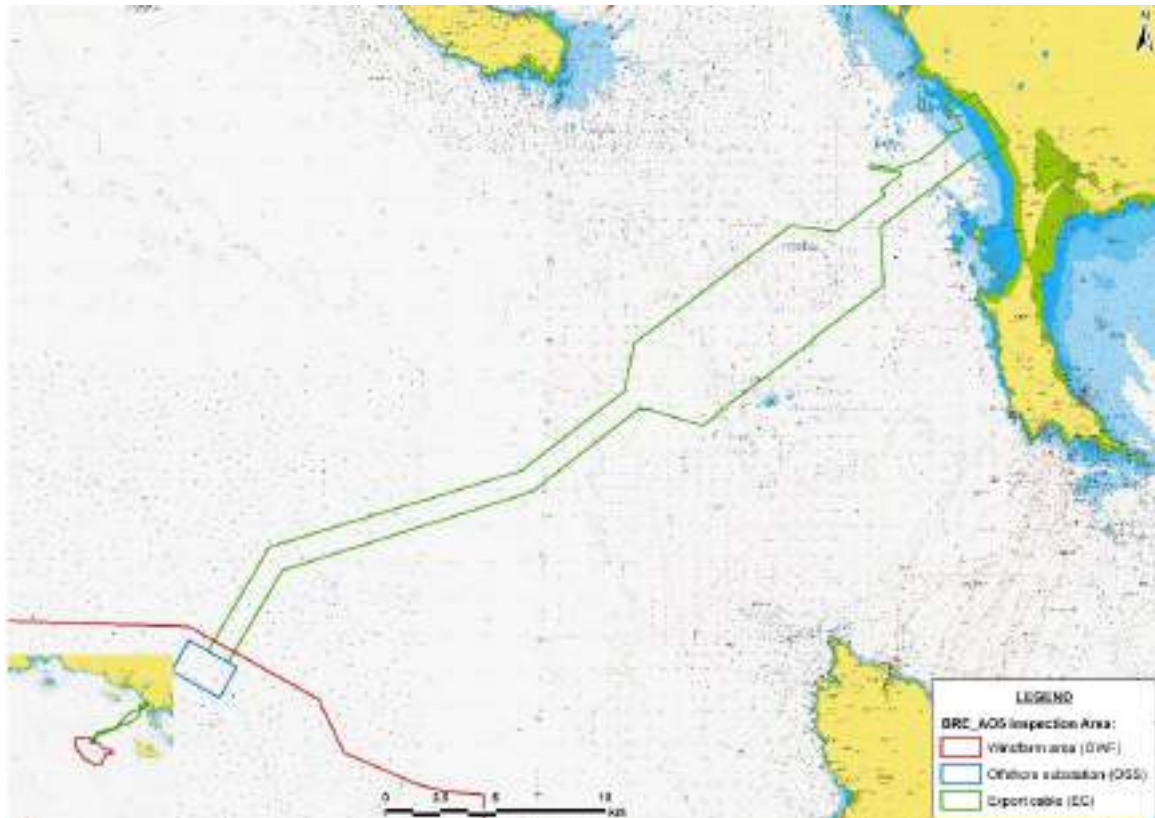


Figure 2 Windfarm area (OWF), Offshore Substation (OSS) and Export cable (EC) in the BRE_AO5 Survey area.

3.2. SURVEY PERIOD

Commencing with the transit to the BRE_AO5 area Port call alongside Lorient (France) and ending on the EC block 4 CPT coring; survey operations for the export cable area were carried out between the 25th of June and the 06th of July 2022. Demobilisation occurred the 7th of July with the end of project.

3.3. KP PROTOCOL

The corridor surveyed during the project comprises three routes included at the file “BRE_SCL_ART_00006_Preliminary_Cable_Routes_rev00.shp” (version produced the 22/09/22). Three RPL routes have been issued (Table 3):

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The routes are approximately 45 km long. The route has KP increasing from the onshore area at Plouharnel towards offshore to the AO5 Bretagne Windfarm area, where the first KP0 is located nearshore and the last between KP44 and KP45 for the different routes is located at the offshore substation (OSS). The route KPs refer to RPL version 1 (22/09/2022). These routes propose three different itineraries based on the different sediment and morphological characteristics of the seafloor. The southern route has been envisaged because of the expected more favourable soil conditions (sediment cover) suggested by the previously acquired geophysical data.

Table 3 Preliminary cable routes provided for the EC route for AO5

RPL Route name	Length (m)	Reference file
<i>North</i>	43931.04	BRE_SCL_ART_220922_Center_KP_rev00.shp
<i>Center</i>	44203.10	BRE_SCL_ART_220922_North_KP_rev00.shp
<i>South</i>	45786.59	BRE_SCL_ART_220922_South_KP_rev00.shp

3.4. GEOTECHNICAL SURVEY PLAN

The distribution of the geotechnical locations along the export cable area of BRE_AO5 has been carried out over the theoretical route of the windfarm evacuation cable from the offshore marine substation (Figure 3). In the central part of the study area, the distribution of the geotechnical locations was placed along the south RPL Route. An amount of 56 geotechnical sites (

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Table 4) have been sampled for the export cable area (EC). Each geotechnical location includes a CPT point and a VC point (that have a separation between 3 to 10 m). Targeted depth for geotechnical locations was up to 6m or refusal.

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Table 4: Summary for the number of geotechnical locations in the Export cable area of BRE_AO5.

SUMMARY OF NUMBER OF GEOTECH LOCATIONS ON SITE			
Operation	Locations planned	Re-attempts (Data processed)	Total
AO5 EC CPT	56	12	68
AO5 EC Vibrocore	56	9	65

In Figure 3 there is a general overview of the geotechnical locations, and Figure 4, Figure 5 and Figure 6 show a close-up of the survey area.

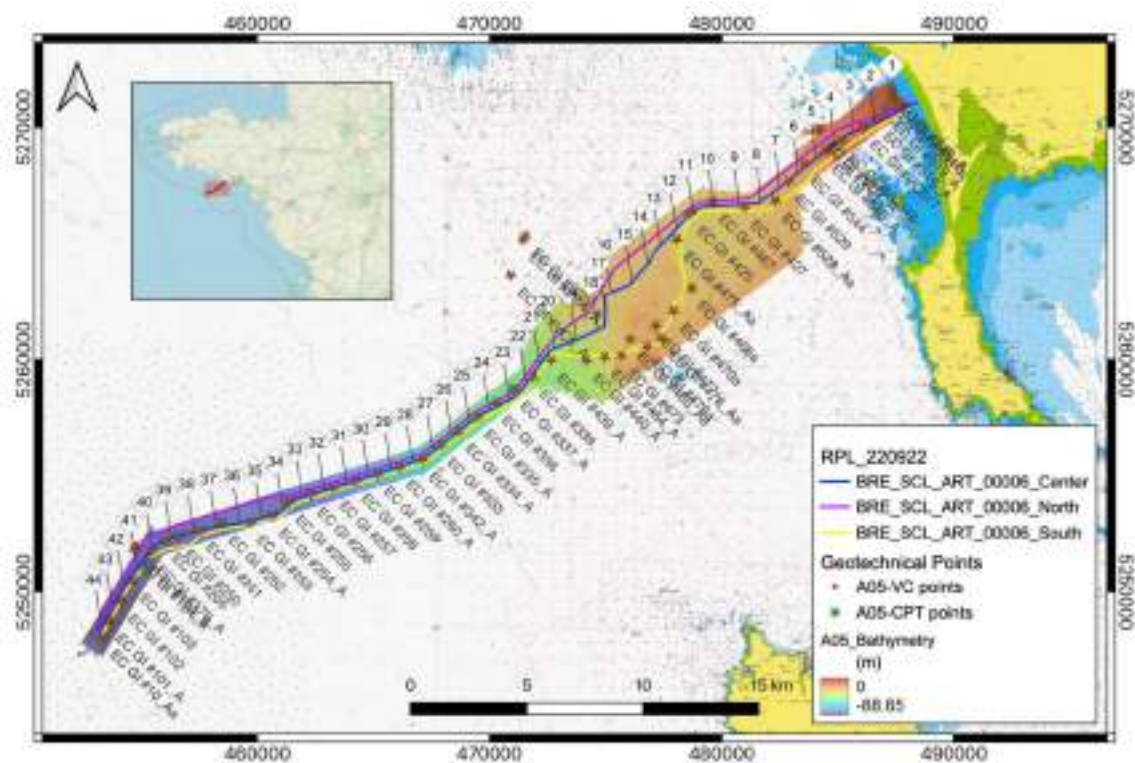


Figure 3 General overview from the BRE AO5 study area with the KPs and the geotechnical locations represented.

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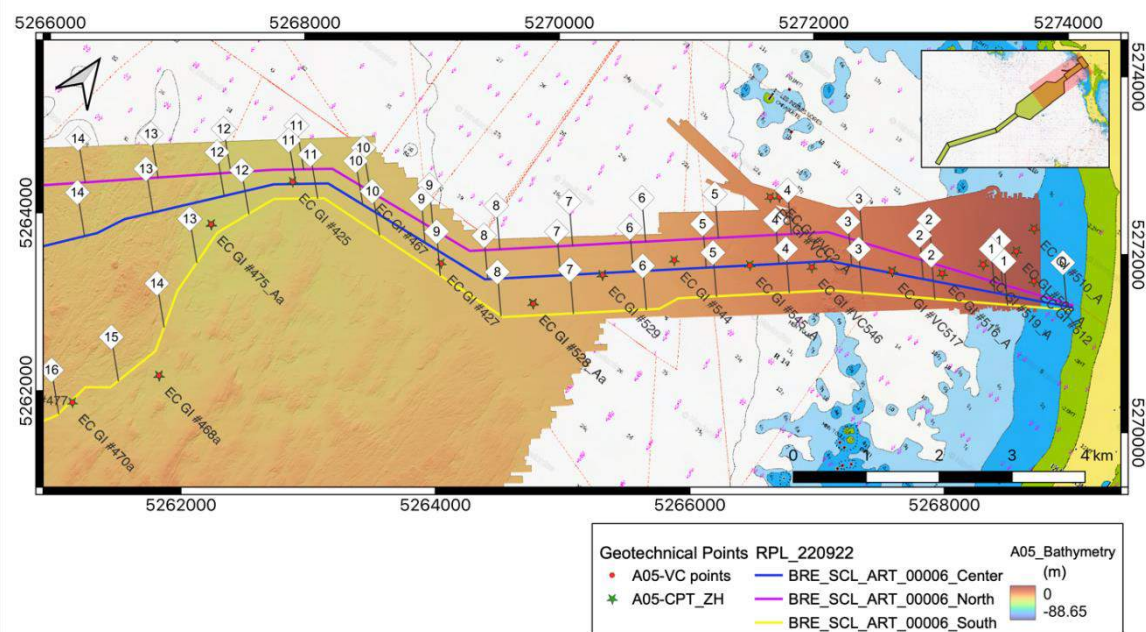


Figure 4 Geotechnical locations at the BRE_AO5 Export cable area from KP0 to KP14 from the central route.

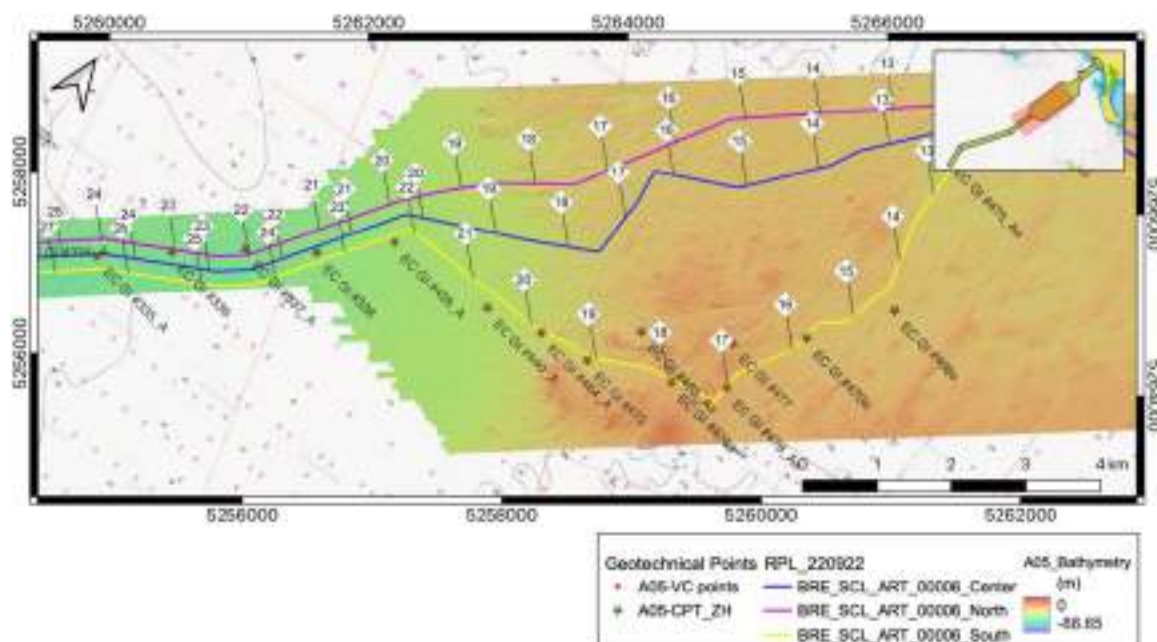


Figure 5 Geotechnical locations at the BRE_AO5 Export cable area from KP11 to KP25 from the central route.

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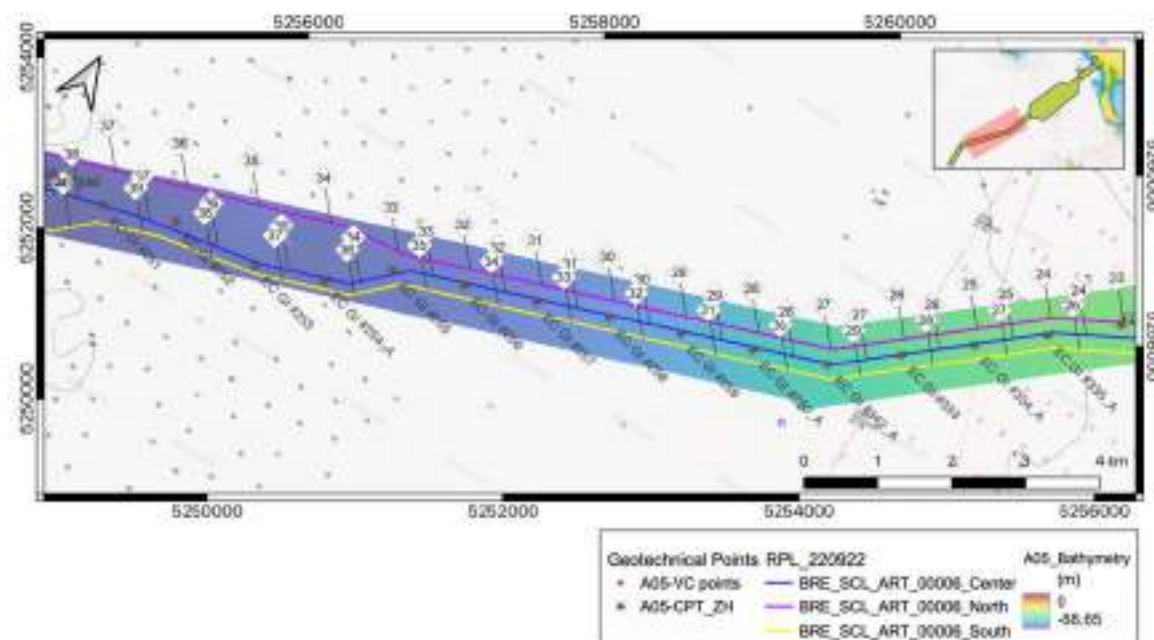


Figure 6 Geotechnical locations at the BRE_AO5 Export cable area from KP24 to KP38 from the central route.

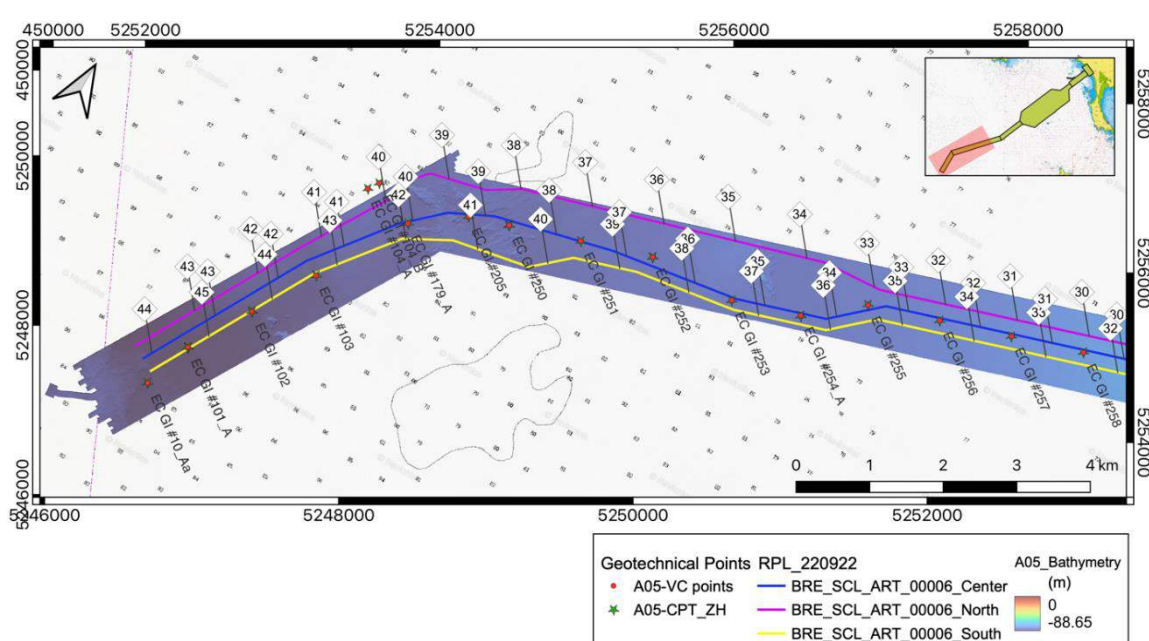


Figure 7 Geotechnical locations at the BRE_AO5 Export cable area from KP30 to KP44 from the central route.

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3.5. GEOTECHNICAL LABORATORY TESTING

The following section presents the results and parameters recorded and obtained during the AO5 Geotechnical Ground Investigation and subsequent onshore laboratory testing. Tests performed onboard during the geotechnical survey are summarized in Table 5. Onshore geotechnical laboratory testing program is summarized in Table 6.

The laboratory testing schedule was developed by the lead engineer and then approved by client. The amount of geotechnical testing undertaken was in line with industry standards relative to cable laying, with sampling targeting the first two meters of soil and has been adapted to the geological conditions encountered on the study area.

Table 5 Summary of geotechnical tests performed onboard.

Type	Test	N° of tests performed
Chemical	SRB	65
Undrained Shear Strength	Torvane	6
	Pocket Penetrometer	3
Thermal	TRT	207

Table 6 Summary of onshore geotechnical laboratory testing program scheduled and performed.

Type	Test	N° of tests performed	Lab. standard / specifications used
Classification	EN-ISO soil description with PP and TV in cohesive material plus photograph - if weathered rock petrographic description	213m	EN ISO 14688-1:2018; EN ISO 14688-2:2018
	Water content	174	BS EN ISO 17892-1: 2014
	Dry and Wet density	9	BS EN ISO 17892-2: 2014
	Submerged Unit weight	88	BS EN ISO 17892-3:2015
	Atterberg limits	6	BS EN ISO 17892-12:2018
	PSD wet sieve (sedimentation if fines are more than 15%)	162 (92)	BS EN ISO 17892-2: 201
Strength	UU (Undrained Triaxial)	12	BS EN ISO 17892-8:2018
	Uur	1	BS EN ISO 17892-8:2018

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Type	Test	N° of tests performed	Lab. standard / specifications used
	Shear box (100, 200 and 300 kPa)	22	BS EN ISO 17892
	Point Load	5	EN ISO 17892-8:2018
Chemical and thermal	SO ₃	7	UNE EN 103201
	pH	10	UNE EN 77305
	CaCO ₃	9	UNE EN 103200
	Cl ⁻	6	UNE EN 17741
	Thermal Resistivity	11	ERS-01-A - Protocol for thermal resistivity measurement

All offshore CPT and VC results were cross correlated with onshore lab results. A list of cross correlation method is presented below:

- Updated VC soil description based on Particle size distribution (PSD), Atterberg limits and carbonate content.
- Updated VC soil description based on undrained shear strength and relative density from CPT and Triaxial UU.
- Shear strength index (PP, TV and derived from CPT) compared with Triaxial UU.
- Thermal Resistivity checked with Thermal Resistivity performed in the onshore lab.

As stated above, the comparison between field results and onshore lab results confirmed the validity of the latter on the samples tested, showing a generally good correlation.

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4. SURVEY CONTROL

4.1. GEODETIC PARAMETERS

4.1.1. Survey datum

These parameters are detailed below.

Table 7: Datum parameters table

DATUM	
Survey Datum:	WGS 84
Spheroid	GRS 1980
Semi-Major Axis (a)	6,378,137.000
Semi-Minor Axis (b)	6,356,752.31424
Inverse Flattening (1/f)	1/298.257223563

Table 8: Projection parameters table.

PROJECTION	
Projection	UTM
False Easting	500000
False Northing	0
Latitude of Origin	0°00'00.000000"
Central Meridian	3°00'00.000000"
UTM Zone	30 N
Scale Factor on CM	0.9996
Units:	Meters
VERTICAL DATUM	
Chart Datum	Bathylli v2
Surface of reference	ZH/ell (Zero Hydrographic to the ellipsoid)

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4.1.2. Vertical datum

Vertical datum applied in the QINSy navigation software is Bathyelli v2 geoid with zero hydrographic reference surface (ZH). The same geoid model was used for the seismic and geophysical/UXO surveys at AO5 in 2021 and 2022.

Lorient (Arsenal) is located in the O.L.K3-12 station, which is the reference station of the Bathyelli geoid model which belongs to the levelling network of the French IGN.

In order to transform the datasets to LAT it would be necessary to apply an offset to the Bathyelli hydrographic zero, for O.L.K3-12 location in Lorient this offset is 10 cm.

4.1.3. Tidal reduction

To carry out the survey as accurately as possible, Tecnoambiente is receiving MarineStar PPP corrections by satellite signal. When using an accurate GNSS system (RTK correction) the tidal corrections are carried out in real-time through QINSy computations, as is shown in the next figure.

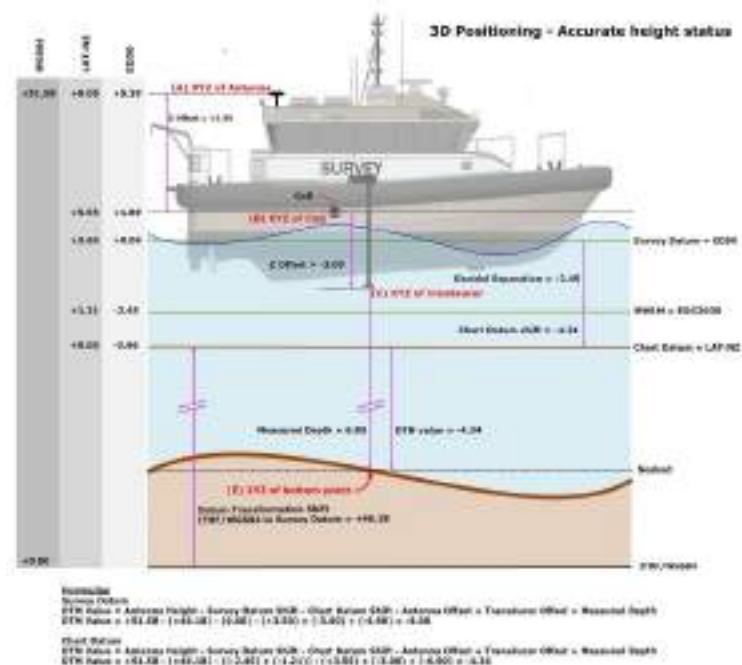


Figure 8 QINSy's method for accurate height calculation.

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5. METHODOLOGY

In this section there is a summary of the methodologies and data processing performed for the results of the onboard geotechnical survey tests and the onshore laboratory analyses.

5.1. CPT LOGS

The processing and interpretation of CPT data has been conducted by experienced geotechnical engineers in the office, using the specific software gINT with the application Datgel. Once processed the raw data a final log is presented with measured parameters during the test and the derived ones, as well as the interpreted geotechnical parameters.

The interpretation follows the recommendations of Lunne et al (1997), to derive (where appropriate) parameters including sediment type, friction ratio, pore pressure ratio, undrained shear strength and relative density. The CPT data is corrected for the 10 cm² cone sleeve/tip offset. In addition, a depth correction is applied to the data to take into account the 'air-gap' between the cone tip position within the Roson unit when the push is initiated, and the actual base level of the Roson seabed frame, i.e., the level at which the cone tip actually measures resistance as it enters the seabed. In theory, this difference is approximately 30cm including the seabed frame ballast plates, although in reality it can vary between ~5 and 45 cm depending on any settlement and/or tilt of the Roson unit on the seabed. For shear strength, Nkt factors from different authors are applied to the data. Nkt numbers used for the calculations are 15 and 20.

The derivation of relative density (Density Index) for a given granular soil is affected by inherent variability in factors which contribute to sand compressibility and material interaction with the penetrating cone, such as grain size, grain shape, mineralogy and their vertical and lateral distribution within the profile. Assignment on the CPT logs of a granular density description for a given strata is determined from the calculated Density Index (as per EN ISO 14688-2, 2018). The relative density trend lines shown on test plots are from the empirical calibrations of 1: Baldi et al. (1986); 2: Jamiolkowski et al. (2001), 3: Kulhawy and Mayne (1990). It must be pointed out that Density Index calculations often show a large

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variation and uncertainty when applied to marine granular sediments. Applying all the methods stated above can provide Density Index ranges varying by up to 40% for a single data point. In addition, the method of Kulhawy and Mayne (1990) is extremely sensitive to interpreted material type and often will not provide a result for finer grained granular material with a moderate to high cohesive component.

The final material descriptions provided on the logs are based on manual interpretation of the data, combined with the automated estimation of sediment type carried out by the software, and cross correlation with sediment descriptions from any cores carried out during the investigation at the same location as the CPT. The descriptions of the materials encountered are in general accordance with EN ISO 14688. The soil behaviour type is represented by the normalised CPT soil classification chart of Robertson et al. (1986) as it is the most sensitive to the materials that are encountered in this region.

5.2. VIBROCORE LOGS

The vibrocore logs include the results obtained from the analysis of the samples both measured offshore and on the onshore laboratory. The final material descriptions on the Vibrocore logs have been cross-correlated with the PSD, shear strength, plasticity from the Atteberg limits and carbonate concentration results obtained from the laboratory and the relative density extracted from the CPT data.

5.3. LABORATORY TESTING

During the survey, vibrocores were split into 1 m parts (when possible) and offshore in-situ measurements were taken (TRT and strength measurements with hand torvane and hand penetrometer when possible). After offshore sampling, vibrocore samples were sealed with caps and duct tape and stored vertically in a container on the deck of the vessel.

At the end of the survey, the VC samples were transported onshore to LABOCAT (Spain) in their dedicated storage crates. Following the receiving of the crates at the laboratory, samples were handled and processed in the following way:

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- The liner samples were cut open in a way to produce minimal disturbance to the enclosed sample. Samples with the presence of cohesive clay material were preserved for the laboratory strength testing.
- A colour photography was taken for all cut liners from a single vibrocore. The samples are laid out as industry standard format, with first liner (from seabed to 1.00 m) to the left, consecutive liner depths laid towards the right. The image is saved and renamed to match the unique vibrocore ID.
- Soil description: The vibrocore is logged with the descriptions of the materials encountered in accordance with EN ISO 14688.
- Thermal Resistivity (TRT) measurements were performed in some samples.
- Small samples were taken from the samples in the designated depths to perform the geotechnical tests.

Afterwards, classification testing was undertaken at a range of depth intervals on most samples. The amount of geotechnical testing undertaken is in line with industry standards and has been adapted to the geological conditions encountered along the route.

5.3.1. Classification tests

5.3.1.1. Water content

Water (moisture) content has been determined only in the lab onshore, and has been determined from intact sediment samples taken directly from the split vibrocore samples using a thin-walled stainless steel cutting ring to ensure optimal sample quality and minimal disturbance, as well as consistency between samples. Water content was also determined on samples used for more advanced tests (such as Atterberg Limits, Min-Max Density, Triaxial UU, Shear Box, etcetera.). Whilst due care is taken to ensure an undisturbed sample is utilised for moisture content determination, it must be considered that the original in-situ moisture content, especially in granular material, could have been modified by the physical act of sampling (for example vibration and grain packing/pore space readjustment), together with the potential free drainage during sample transport and storage, prior to being tested.

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5.3.1.2. Bulk and Dry Density

Natural bulk and dry densities were determined from intact samples taken directly from split vibrocore samples using a thin-walled stainless steel cutting ring to ensure optimal sample quality and minimal disturbance, as well as consistency between samples. Densities were also determined on samples used for more advanced tests (such as Atterberg Limits, Triaxial UU, Shear Box).

5.3.1.3. Atterberg Limits

The liquid (WL) and plastic (WP) limits were determined from intact samples directly from the vibrocore liners (not-split). The samples were removed from the liners as intact blocks (undisturbed) to ensure optimal sample quality and minimal disturbance.

5.3.1.4. Particle Size Distribution

Particle Size Distribution (PSD) tests were performed on a range of sediment types from the vibrocore samples, which together with the logging, provides a complete sediment description profile. The samples for PSD were taken over a representative range in any given strata. The fines component (<63mm fraction) was determined via sedimentation using the pipette method when specimen contains >15% of this fraction.

5.3.2. Strength tests

5.3.2.1. Index Shear Strength

Shear strength determination were made during logging with a manual Torvane (TV) and pocket penetrometer (PP). The results are provided on the vibrocore logs. The TV and PP data from the offshore processing have also been reviewed and presented where appropriate. As per project specifications, in addition, for soft clays (extremely to very low strengths), a lab vane on intact and remoulded soils was carried out. The results are provided, as well, on the vibrocore logs.

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5.3.2.2. Unconsolidated Undrained Triaxial (UU)

Triaxial compression testing was undertaken on eleven samples to determine the value of undrained shear strength. The test was carried out as a single stage.

5.3.2.3. Direct Shear (Shearbox)

Shear box (Direct Shear) testing was carried out on samples taken in granular strata from the vibrocores. The testing was carried out on three sub-samples to provide peak friction angles and values of cohesion (kPa). The samples were tested under in-situ stress conditions, with stages at nominal 100, 200 and 300kPa.

5.3.2.4. Point Load Testing

The Point load test is an index test by which the rock is classified according to the strength. The test determines the strength index values at a point (Is (50)).

5.3.3. Chemical properties

5.3.3.1. Sulphide-reducing bacteria (SRB)

SRB detection tests were executed on every top, if suitable. The procedure was carried out following the procedure:

1. 0.9 grams of soil is mixed in a 90 ml dilution bottle with butterfield's buffer and 3.2 grams of aquarium salt.
2. The soil is gently diluted without shaking the bottle
3. After the soil is completely diluted, 3 ml of the mixture is inoculated inside a rapid SRB detection pouch. The initial photograph is taken.
4. Sulfate-reducing bacteria are present if the pouch begins to blacken. Population can be estimated by the time from inoculation to colour change by comparison as shown in Figure 9.

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Figure 9 Example of estimation of population after 50 hours from inoculation.

5. The pouch has to be controlled every 8 hours during the first 50 hours after inoculation to check blackness.
6. The estimated population is given in CFU/ml as a preliminary result and then converted to CFU/g for soils.

The pouch can darken after more than one week after inoculation. This means that the population of sulphide-reducing bacteria is very low, but not completely non-existing (below 1 CFU/g).

5.3.3.2. SO_3

This method is used to determine the total sulphate content (expressed as sulphur trioxide SO_3 of the soil).

5.3.3.3. Calcium Carbonate Content

This test was planned to determine the carbonate content (calcium carbonate as CaCO_3) content of the soil.

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5.3.3.4. CI-

The measured chloride ions can be used to know salinity of different water sources. For sea water, it is an important parameter and indicates the extent of desalting of apparatus required.

5.3.3.1. pH

The pH test measures soil acidity or alkalinity. A pH 7.0 is considered neutral. An acid soil has a pH value below 7.0. Above pH 7.0 the soil is alkaline.

5.3.4. Thermal properties

Added to the section: "Thermal properties are measured with a Thermal Response Testing (TRT) device. Thermal conductivity was measured at the top and bottom of the first vibrocore liner sample with the hand-held thermal analysis device, the Thermtest with the TSL-100 sensor needle probe (specifications in APPENDIX V). Three measurements were collected (over a period of approximately 120 s each). The final result is the mean value of the three measurements on the same depth. The evaluation of resulting data indicated satisfactory equipment performance during testing. Testing was not conducted in soils with conditions unsuitable for insertion, or where complete contact between the probe and the surrounding material was insufficient.

Thermal Resistivity tests were required to be carried out offshore, as soon as possible after the retrieving of the samples, and onshore with the . Tests were completed onshore to acquire data from sections that were unable to be tested offshore i.e. at depths such as 0.50 m and 1.50 m, or in parts of the vibrocores where material or strata differences could be identified during logging which have the potential to impact on future cable integrity. In addition, onshore tests were carried out to validate the offshore data.

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6. BACKGROUND GEOLOGICAL INFORMATION

6.1. GEOLOGICAL FRAMEWORK

6.1.1. General context

To support a tender call for offshore wind power in area BRE_AO5, situated in the Bay of Biscay (Figure 10), Gaia- Blue Earth prepared a geological bibliographic study of Southern Brittany (Gaia - Blue Earth, 2021).

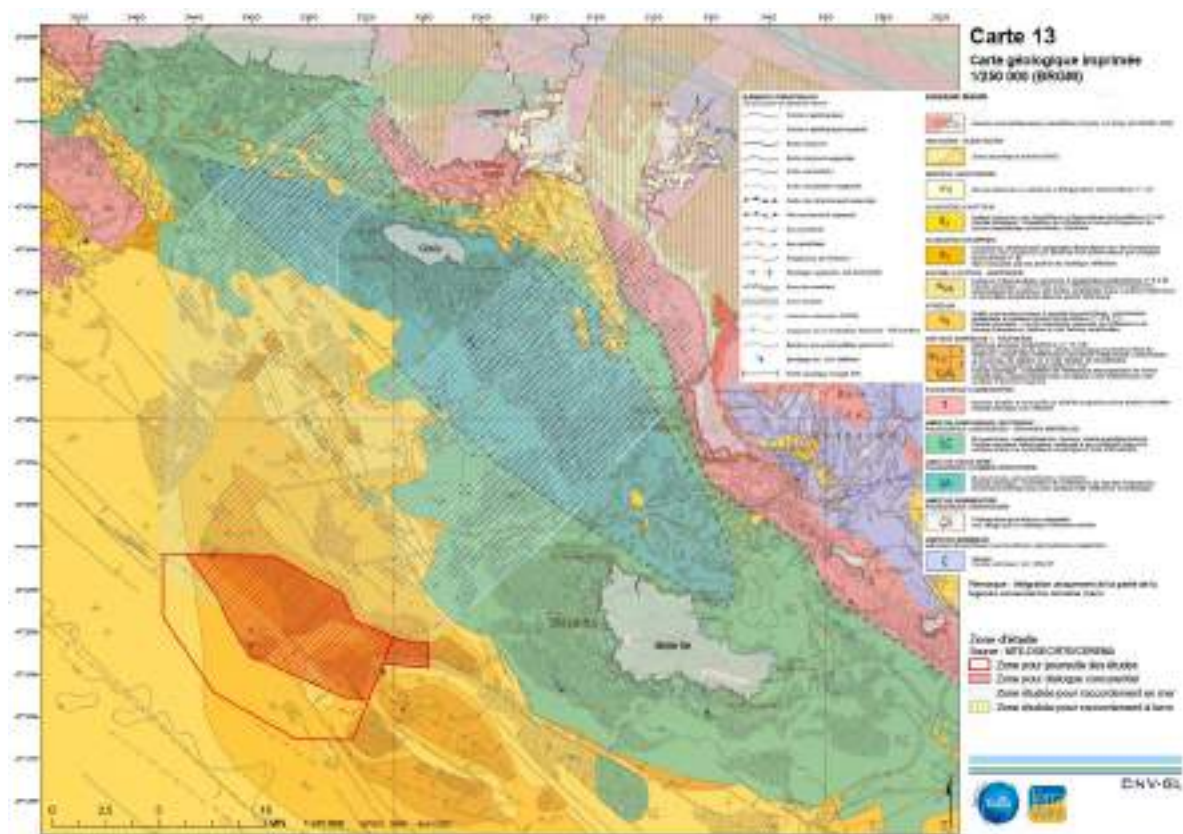


Figure 10 Location of AO5 in Southern Brittany (from GAIA, 2021).

In the Southern Brittany region, the subsurface is composed of magmatic, metamorphic, and sedimentary rocks. The geological formations of the AO5 export corridor area are from the

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Palaeozoic (Ordovician to Early Devonian (Figure 10). The Palaeozoic formation is composed of mica-schist bedrock. Limestones with nummulites (e5-6 in light yellow) are present in the west and southwest, dating from the Eocene (Lutetian-Bartonian).

Glauconious yellow sandstone with large foraminifera (e4 in dark yellow), in the central and southern regions of AO5, dating from the Ypresian. The mixture of azo dolomite with fossiliferous chalk (e1-3 / c2e1 in orange), in the central and south-eastern regions of AO5 is supposed to date Upper Cretaceous. Throughout AO5 these geological formations can outcrop and pass through the sediment layer in many areas thus forming a rocky seafloor. The sub-outcropping rocks were sampled by BRGM using a core sampler. The predominant rock type is dolomite (carbonate sediment rich in calcium and magnesium) with an abundant presence of sandstone (detrital rock composed of sand) also observed. Marl (sedimentary rock composed of limestone, clay and chalk) was sampled in the south-eastern portion of AO5.

The sediments are composed of fine sands silted up on the western part, with facies becoming more complex on the coast. It can be observed from the chalk to the coast (Trévignon, North of Groix...). The western part is mostly rocky. There are also very numerous rocky outcrops within the soft sediment filling. Sandy deposits are generally thin (between 0 and 5 m) except at the level of ancient paleovalleys where thicknesses reach 10-15 m (locally 20m). The bedrock is made up of granite in the west (pink), mica schists (light and dark green) and limestone rocks (yellow to orange).

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7. GEOTECHNICAL RESULTS

Each geotechnical location includes a CPT point and a VC point (that have a separation between 3 to 10 m).

This report includes the final CPT test with engineering description that has been cross-correlated with the results from the vibrocore. The vibrocore samples description have been updated following the laboratory testing results and EN-ISO 14688-1:2018, EN-ISO 14689-1:2018 and EN-ISO 14688-2:2018 specifications cross correlated with the relative densities extracted from CPT, strength tests, plasticity from Atterberg limits and carbonate content. CPT and VC depths have been recalculated based on the last SHOM bathymetry available from the study area, as has a good resolution of 0.1x 0.1 m. Both water depth measures are included in Table 9 and Table 10.

Final processed logs for CPT and VC can be found at APPENDIX I and APPENDIX II.

7.1. DATA QUALITY

The geotechnical data acquired fulfilled the industry standard requirements in terms of accuracy and frequency of testing along the route, although some VC and CPT locations have been acquired at a considerable distance from the final RPL, also in areas of dense gravel or weathered bedrock, CPT/VC penetration was limited in particular close to KP 39 and 17 and between KPs 11-14 approximately.

VC had minimum penetration in weathered bedrock and the shoe sample was not suitable for lab testing or TRT.

Additional rock coring investigation was subcontracted to a drilling vessel, at the time of writing laboratory tests is being undertaken and results will be reported separately and integrated in the final integration report.

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7.2. SHALLOW GEOLOGY AND UNITS CLASSIFICATION

The soils in the studied corridor mostly consist of coarse granular soils (gravelly sands and sandy gravels) mixed with silty and clayey mixtures ranging from very low to very high strength clays. In some samples, very weathered structureless Chalk unit is detected, as well as Palaeozoic bedrock formed of very weak vertical foliated mica-schist rock. A better detailed soil classification will be updated in the Integration Report along with the geophysical data.

7.2.1. CPT

The CPT survey took place between the 3h and the 6th of July and 2022. A total of 56 CPT locations were performed with 12 retests. The locations, penetration and elevation (m ZH) of every performed CPT with projected KP points are included in Table 9. CPT processed logs with engineering description are included in APPENDIX I – CPT LOGS. All CPT data is provided in APPENDIX IV – CPT DATA IN EXCEL. CPT offshore raw data is as well included in the appendix.

In summary, average CPT penetration has been of 3.53 m, with maximum penetration of 6.38 m and a minimum penetration of 0.58 m as can be seen in Figure 11. Targeted depth for geotechnical locations was up to 6m or refusal. Target depths were reached where soil conditions allowed it.

Table 9 CPT points from AO5 Export corridor geotechnical survey.

CPT point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Penetration (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #10_A	453398.61	5248049.82	89	-87.80	1.66	45.79	170.55	44.20	340.73	43.93	532.15
EC GI #101	453631.87	5248743.75	90	-88.02	1.46	45.19	16.41	43.61	183.67	43.33	383.77

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CPT point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Penetration (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #101A	453629.08	5248740.5	90	-88.05	1.72	45.19	17.26	43.61	182.81	43.34	382.91
EC GI #102	454142.31	5249603.09	90	-86.55	2.18	44.19	11.46	42.61	211.53	42.34	411.69
EC GI #102a	454139.95	5249600.37	90	-86.56	3.40	44.19	10.72	42.61	210.79	42.34	410.95
EC GI #103	454651.14	5250464.04	90	-85.52	4.82	43.19	35.00	41.57	232.81	41.32	436.69
EC GI #104_A	454670.24	5251839.68	85	-85.00	6.20	40.13	261.91	40.48	598.69	40.13	261.91
EC GI #104_B	454765.05	5251983.03	84	-84.00	4.24	39.89	240.31	40.30	612.13	39.89	240.31
EC GI #179_A	455379.27	5251703.72	85	-83.92	1.80	40.14	23.08	40.14	23.08	39.98	425.83
EC GI #205	456043.39	5252195.87	85	-83.70	0.68	39.30	30.39	39.30	30.39	38.60	414.45
EC GI #250	456581.21	5252367.37	85	-82.86	1.64	38.72	64.01	38.72	64.01	38.17	489.12
EC GI #250a	456584.98	5252366.34	85	-82.87	1.64	38.72	65.89	38.72	65.89	38.17	491.95
EC GI #251	457534.96	5252668.85	85	-81.90	3.80	37.72	4.55	37.72	4.55	37.04	500.06
EC GI #252	458489.96	5252967.98	85	-80.95	2.26	36.73	116.91	36.73	116.91	36.04	481.75
EC GI #252a	458488.85	5252966.3	85	-80.96	2.20	36.73	115.42	36.73	115.42	36.04	483.05
EC GI #253	459715.71	5252993	85	-80.35	2.28	35.52	41.81	35.52	41.81	34.86	802.78
EC GI #254_A	460633.84	5253281.5	85	-80.45	2.14	34.56	34.43	34.56	34.43	33.90	784.30
EC GI #254_Aa	460632.33	5253279.4	85	-80.45	2.24	34.56	35.97	34.56	35.97	33.90	785.89
EC GI #255	461349.49	5253870.15	83	-79.41	4.32	33.62	70.84	33.62	70.84	32.97	253.64
EC GI #256	462301.81	5254169.23	80	-78.00	5.44	32.63	34.19	32.63	34.19	32.03	234.27
EC GI #257	463252.6	5254469.67	78	-76.03	3.40	31.63	33.82	31.63	33.82	31.03	233.90
EC GI #258	464210.71	5254772.5	75	-73.02	5.70	30.63	33.38	30.63	33.38	30.03	233.46
EC GI #259	465163.62	5255072.75	72	-68.62	6.22	29.63	33.83	29.63	33.83	29.03	233.91
EC GI #260_A	466118.01	5255374.07	67	-63.25	6.08	28.63	33.71	28.63	33.71	28.03	233.78
EC GI #342_A	467097.43	5255703.92	63	-58.40	6.20	27.59	13.90	27.59	13.90	26.99	213.98
EC GI #333	467890.08	5256312.78	59	-54.58	5.14	26.59	5.49	26.59	5.49	26.07	205.57
EC GI #334_A	468681.86	5256923.46	56	-52.37	5.18	25.59	12.49	25.59	12.49	25.07	212.57
EC GI #335_A	469473.85	5257533.89	54	-51.03	6.20	24.60	19.82	24.60	19.82	24.07	219.89
EC GI #336	470264.92	5258145.6	53	-50.89	2.60	23.04	37.42	23.61	162.65	23.04	37.42
EC GI #337_A	471060.78	5258751.38	54	-51.87	2.34	22.04	77.82	22.56	277.89	22.04	77.82
EC GI #338	471867.34	5259257.74	51	-48.68	4.00	21.60	81.36	21.60	81.36	21.13	281.44

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CPT point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Penetration (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #VC5_A	470920.86	5263638.47	44	0.00	5.36	18.70	3259.49	20.27	3655.80	18.70	3259.49
EC GI #VC4_A	471430.38	5265154.85	43	0.00	6.36	16.26	4013.12	16.33	4262.47	16.26	4013.12
EC GI #VC3_A	471546.53	5265344.03	44	0.00	6.38	16.04	4015.34	16.33	4278.33	16.04	4015.34
EC GI #464_A	474958.13	5260106.46	43	-37.98	3.30	19.69	18.21	18.24	1200.81	17.88	2002.71
EC GI #439_A	472645.39	5259974.13	50	-46.57	5.52	22.19	100.34	20.57	300.42	20.10	500.50
EC GI #440_A	474171.35	5259964.13	45	-42.67	2.34	20.46	194.61	18.97	1007.73	18.91	1643.87
EC GI #473	475679.34	5260158.18	37	-34.23	2.04	18.97	42.13	17.66	1468.18	17.47	2371.28
EC GI #465_A	476051.85	5260890.1	33	-30.65	0.80	18.32	461.82	17.66	1219.12	17.42	2170.97
EC GI #476	476777.5	5260568.45	30	-28.48	0.90	17.78	34.30	17.66	2012.56	17.30	2956.88
EC GI #478_A	477423.69	5260933.37	30	-28.37	1.36	16.91	9.83	17.66	2512.06	16.65	3310.25
EC GI #477	477148.62	5261469.13	30	-27.48	1.10	16.58	395.93	15.18	2092.54	16.34	2792.21
EC GI #477a	477150.31	5261471.68	30	-27.47	0.94	16.57	395.86	15.18	2091.32	16.34	2792.29
EC GI #470	477918.01	5262097.99	34	-31.39	1.92	15.62	22.13	14.77	2177.15	14.38	3000.64
EC GI #468	478681.43	5263079.94	35	-31.51	0.80	14.39	295.09	13.89	2133.48	13.17	2714.40
EC GI #468a	478677.29	5263078.83	35	-31.48	0.72	14.39	291.42	13.89	2130.54	13.17	2712.67
EC GI #475_A	478075.87	5265190.92	38	-35.29	0.56	12.37	140.59	12.33	338.86	12.31	689.53
EC GI #475_Aa	478077.72	5265186.89	38	-35.29	0.62	12.37	137.57	12.33	342.93	12.32	693.84
EC GI #425	478654	5266309.74	38	-33.53	0.84	11.11	32.59	11.11	32.59	11.15	167.48
EC GI #475_Ab	478074.52	5265191.37	38	-35.31	0.62	12.37	142.01	12.33	337.55	12.32	688.34
EC GI #467	479600.16	5266804.91	35	-31.82	6.20	10.00	4.80	10.08	203.19	10.00	4.80
EC GI #427	480961.47	5266559.26	33	-30.12	6.22	8.73	126.08	8.73	126.08	8.66	347.29
EC GI #528_A	482311.67	5266834.55	30	-27.76	0.00	7.41	167.41	7.46	362.69	7.58	762.76
EC GI #528_Aa	482311.75	5266825.22	30	-27.79	5.94	7.41	160.01	7.47	370.10	7.59	770.16
EC GI #529	482867.09	5267695.87	28	-26.00	2.42	6.49	26.17	6.49	26.17	6.61	426.12
EC GI #529a	482862.73	5267695.65	28	-26.00	2.34	6.50	23.66	6.50	23.66	6.62	423.61
EC GI #544	483556.83	5268425.37	27	-23.58	6.36	5.50	123.69	5.50	123.69	5.62	276.14
EC GI #545_A	484444.86	5268964.81	22	-19.46	6.36	4.47	1.58	4.47	1.58	4.59	398.13
EC GI #VC1	484138.8	5269887.41	21	-18.68	6.28	4.26	517.59	4.14	917.26	4.26	517.59
EC GI #VC2_A	484238.44	5269962.56	21	-18.50	3.22	4.14	515.42	4.02	915.09	4.14	515.42

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CPT point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Penetration (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #546	485159.11	5269425.7	20	-17.51	4.20	3.62	75.34	3.62	75.34	3.74	474.96
EC GI #517	486090.28	5270014.63	18	-14.85	2.46	2.51	24.37	2.51	24.37	2.50	263.10
EC GI #517A	486092.45	5270017.45	18	-14.87	3.42	2.50	26.06	2.50	26.06	2.50	261.10
EC GI #516_A	486675.09	5270378.57	15	-11.17	6.20	1.83	101.61	1.82	116.78	1.83	101.61
EC GI #512	487759.67	5271019.26	9	-4.38	6.20	0.60	165.33	0.57	256.88	0.60	165.33
EC GI #510_A	487349.43	5271609.52	9	-4.56	6.20	0.80	854.98	0.70	963.69	0.80	854.98
EC GI #508_A	487329.5	5271216.64	9	-5.56	6.20	0.94	488.18	0.88	613.33	0.94	488.18
EC GI #519_A	487059.69	5270805.63	11	-7.43	2.55	1.33	182.84	1.30	348.85	1.33	182.84



Figure 11 CPT penetration along the studied corridor. Horizontal axis not in scale.

7.2.2. VC

The Vibrocorer (VC) sampling took place the 27th of June and the 2nd of July 2022. A total of 56 VC locations were performed with 9 retests. The locations, penetration, recuperation, and elevation (m ZH) of every performed VC with projected KP points are included in Table 10. VC. processed vibrocore logs (including offshore and onshore laboratory tests

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performed in VC subsamples) are included in APPENDIX II – VIBROCORER LOGS. All VC and laboratory data is provided in APPENDIX III – LABORATORY AND VC RESULTS EXCEL.

In summary, average VC sample recovery has been of 2.96 m, with maximum recovery of 5.85 m and a minimum recovery of 0.50 m Figure 12. Targeted depth for geotechnical locations was up to 6m or refusal. Target depths were reached where soil conditions allowed it. Some VC samples have a higher recovery compared to the penetration. This is caused due to the bulking/swelling factor of soil (called running sand).

Table 10 VC points from AO5 Export corridor geotechnical survey.

VC point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Recovery (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #512	487758.35	5271020.64	9	-4.35	2.5	0.60	167.06	0.57	258.68	0.60	167.06
EC GI #510_A	487349.62	5271609.19	9	-4.56	4	0.80	854.60	0.70	963.31	0.80	854.60
EC GI #508_A	487327.45	5271214.12	10	-5.57	2.5	0.95	486.44	0.89	611.87	0.95	486.44
EC GI #519_A	487060.2	5270804.75	11	-7.42	2.4	1.33	181.84	1.30	347.84	1.33	181.84
EC GI #516_A	486669.3	5270383.75	14	-11.15	4.5	1.83	94.87	1.83	123.88	1.83	94.87
EC GI #VC517	486086.33	5270012.56	17	-14.85	4.5	2.51	24.11	2.51	24.11	2.50	263.82
EC GI #VC546	485157.85	5269429.89	20	-17.47	3.25	3.62	71.26	3.62	71.26	3.74	470.88
EC GI #VC2_A	484237.03	5269964.31	21	-18.49	2.7	4.14	517.67	4.02	917.33	4.14	517.67
EC GI #VC1	484137.47	5269889.1	21	-18.67	4.5	4.26	519.74	4.14	919.41	4.26	519.74
EC GI #545_A	484446.45	5268961.03	24	-19.48	5.4	4.47	2.38	4.47	2.38	4.59	402.09
EC GI #544	483558.03	5268423.59	28	-23.58	5.75	5.50	121.55	5.50	121.55	5.62	278.29
EC GI #529	482866.85	5267697.93	31	-25.96	4	6.49	24.40	6.49	24.40	6.61	424.35
EC GI #528_Aa	482314.77	5266829.67	32	-27.77	2.55	7.41	161.65	7.46	368.45	7.58	768.51
EC GI #528_A	482311.11	5266829	32	-27.74	2.1	7.41	163.38	7.47	366.72	7.58	766.79
EC GI #427	480962.9	5266554.3	34	-30.14	5.85	8.73	131.13	8.73	131.13	8.66	352.34
EC GI #467	479600.1	5266799.51	35	-31.87	3.8	10.00	10.19	10.08	197.81	10.00	10.19
EC GI #425	478657.57	5266308.08	36	-33.55	5	11.11	29.15	11.11	29.15	11.15	170.92

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VC point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Recovery (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #475_A	478075.05	5265188.52	37	-35.32	0.7	12.37	140.61	12.33	339.85	12.32	690.89
EC GI #475_Aa	478073.88	5265189.32	37	-35.34	0.6	12.37	141.97	12.33	338.45	12.32	689.53
EC GI #468a	478678.14	5263079.37	34	-31.48	2	14.39	292.09	13.89	2130.98	13.17	2712.78
EC GI #468	478677.9	5263078.28	34	-31.48	2.25	14.39	292.16	13.89	2131.34	13.17	2713.48
EC GI #470a	477919.17	5262096.19	34	-31.40	0.5	15.62	23.59	14.77	2179.21	14.38	3002.77
EC GI #470	477919.55	5262093.7	34	-31.39	1.25	15.63	24.42	14.77	2181.14	14.38	3004.95
EC GI #VC3_A	471538.54	5265343.73	41	0.00	4.5	16.04	4021.95	16.33	4284.53	16.04	4021.95
EC GI #VC4_A	471434.08	5265154.63	41	0.00	4.7	16.26	4009.87	16.33	4259.28	16.26	4009.87
EC GI #477	477146.64	5261472.25	31	-27.46	3.4	16.58	399.27	15.18	2088.84	16.34	2788.87
EC GI #478_Aa	477422.62	5260933.52	32	-28.37	0.8	16.91	8.75	17.66	2510.98	16.65	3309.27
EC GI #478_A	477422.48	5260930.73	32	-28.40	0.5	16.91	8.97	17.66	2511.40	16.65	3310.63
EC GI #476a	476775.8	5260569.09	33	-28.49	0.6	17.78	33.42	17.66	2010.75	17.30	2955.10
EC GI #476	476775.38	5260567.24	33	-28.54	1.2	17.78	35.20	17.66	2011.17	17.31	2955.73
EC GI #465_Aa	476053.31	5260889.6	36	-30.65	3.1	18.32	460.74	17.66	1220.65	17.42	2172.48
EC GI #465_A	476053.67	5260886.05	35	-30.65	1.22	18.32	457.38	17.66	1222.58	17.42	2174.67
EC GI #VC5_A	470921.02	5263642.91	43	0.00	5.7	18.70	3262.58	20.27	3659.69	18.70	3262.58
EC GI #473	475676.24	5260158.3	38.5	-34.23	2.7	18.97	40.70	17.66	1466.57	17.47	2369.23
EC GI #464_A	474956.05	5260109.78	42	-38.00	2.75	19.69	14.52	18.24	1196.92	17.88	1998.80
EC GI #440_A	474169.79	5259965.08	46	-42.66	3.55	20.46	193.75	18.97	1006.24	18.91	1642.10
EC GI #338	471865.6	5259253.83	54	-48.66	3.3	21.60	82.21	21.60	82.21	21.14	282.28
EC GI #337_A	471058	5258751.43	57	-51.89	2.3	22.04	79.55	22.57	279.63	22.04	79.55
EC GI #439_A	472642.38	5259973.25	51	-46.50	4.75	22.19	98.40	20.57	298.48	20.10	498.55
EC GI #336	470261.63	5258145.56	46	-50.86	3.75	23.04	36.01	23.61	164.07	23.04	36.01
EC GI #335_A	469474.09	5257533.28	54	-51.04	4.5	24.60	20.45	24.60	20.45	24.07	220.52
EC GI #334_A	468681.43	5256921.16	54	-52.41	4.6	25.60	14.04	25.60	14.04	25.07	214.12
EC GI #333	467891.62	5256312.85	56	-54.60	4.4	26.59	6.39	26.59	6.39	26.07	206.46
EC GI #342_A	467099.05	5255705.51	61	-58.37	4.7	27.59	12.87	27.59	12.87	26.99	212.95
EC GI #260_A	466117.22	5255374.26	67	-63.26	4	28.63	33.29	28.63	33.29	28.03	233.36
EC GI #259	465161.06	5255072.89	73	-68.65	4.66	29.63	32.93	29.63	32.93	29.03	233.00

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VC point ID	Easting (m)	Northing (m)	Water Depth from Vessel (m)	Water Depth from SHOM ZH (m)	Recovery (m)	SOUTH RPL		CENTER RPL		NORTH RPL	
						KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)	KP closets to point	Distance to KP (m)
EC GI #258	464213.14	5254770.08	78	-73.02	5.32	30.62	36.42	30.62	36.42	30.03	236.50
EC GI #257	463254.64	5254473.18	78	-76.04	4	31.63	31.09	31.63	31.09	31.03	231.17
EC GI #256	462300.84	5254171.85	80	-78.00	4.8	32.63	31.40	32.63	31.40	32.03	231.48
EC GI #255	461351.2567	5253867.585	83	-79.41	4.8	33.62	67.75	33.62	67.75	32.97	256.32
EC GI #254_A	460632.5317	5253284.807	85	-80.45	3.8	34.56	30.88	34.56	30.88	33.90	780.75
EC GI #253	459714.85	5252994.25	85	-80.33	2.64	35.52	40.44	35.52	40.44	34.86	801.34
EC GI #252	458487.65	5252967.8	85	-80.99	4.57	36.73	117.08	36.73	117.08	36.04	481.27
EC GI #251	457530.65	5252670.05	85	-81.91	4.8	37.73	6.73	37.73	6.73	37.05	497.69
EC GI #250	456581.52	5252367.06	84	-82.86	3.25	38.72	64.38	38.72	64.38	38.17	489.54
EC GI #205	456042.08	5252194.87	85	-83.70	2	39.30	30.73	39.30	30.73	38.60	415.12
EC GI #104_B	454763.63	5251980.67	83.5	-83.5	4	39.89	241.09	40.31	611.79	39.89	241.09
EC GI #104_A	454667.48	5251837.26	84	-84	4.9	40.14	263.01	40.48	599.37	40.14	263.01
EC GI #179_A	455376.15	5251700.28	87	-83.95	1.8	40.15	23.49	40.15	23.49	39.98	423.96
EC GI #103	454650.25	5250461.16	89	-85.48	3.25	43.19	36.09	41.57	233.88	41.32	437.42
EC GI #102	454141.21	5249600.21	90	-86.55	3.6	44.19	11.90	42.61	211.97	42.34	412.13
EC GI #101_A	453630.19	5248743.57	92	-88.03	2.3	45.19	17.79	43.61	182.29	43.34	382.39
EC GI #101	453630.66	5248740.43	93	-88.05	1.3	45.19	15.85	43.61	184.23	43.34	384.33
EC GI #10_A	453398.27	5248048.43	92	-87.80	0.85	45.79	171.81	44.20	341.59	43.93	532.84
EC GI #10_Aa	453400.1	5248049.27	92	-87.81	2.55	45.79	171.46	44.20	342.11	43.93	533.62

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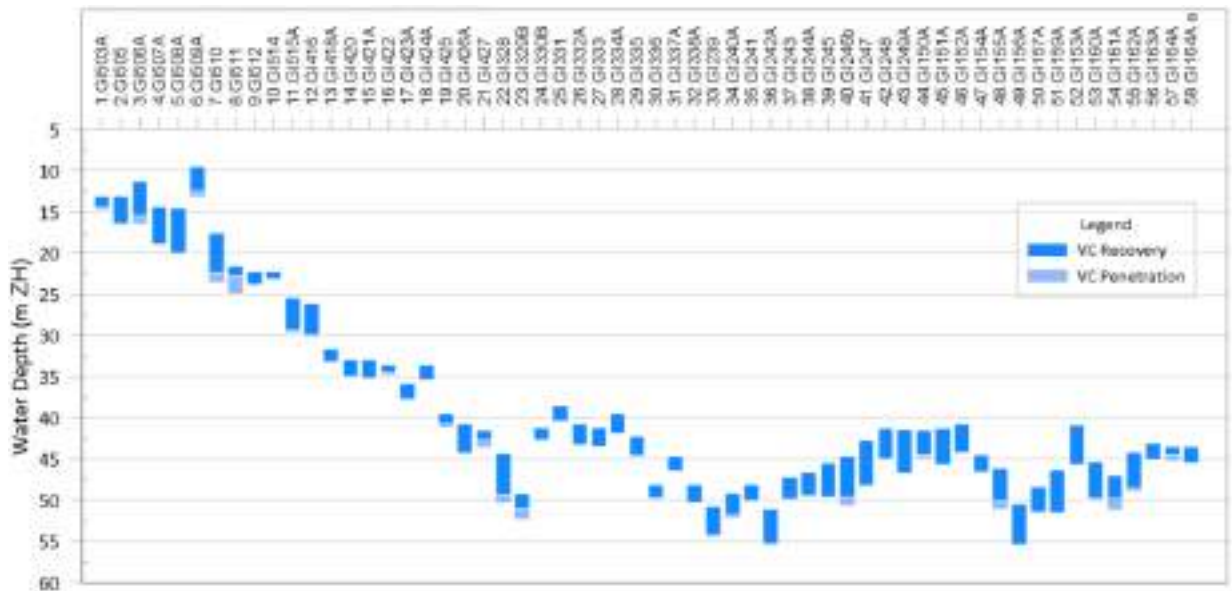


Figure 12 VC penetration and recovery along the studied corridor. Horizontal axis not in scale.

7.3. GEOTECHNICAL LABORATORY TESTING RESULTS

The following section presents the results and parameters recorded and obtained during the AO5 Geotechnical Ground Investigation and subsequent onshore laboratory testing program at certified laboratory LABOCAT. The result certificates produced from the tests conducted in the onshore laboratory are included in APPENDIX VI – LABORATORY.

7.3.1. Classification tests

7.3.1.1. Water content

Water content present in the studied samples ranges between 1 and 69 %, with an average value of 17.5% Figure 13.

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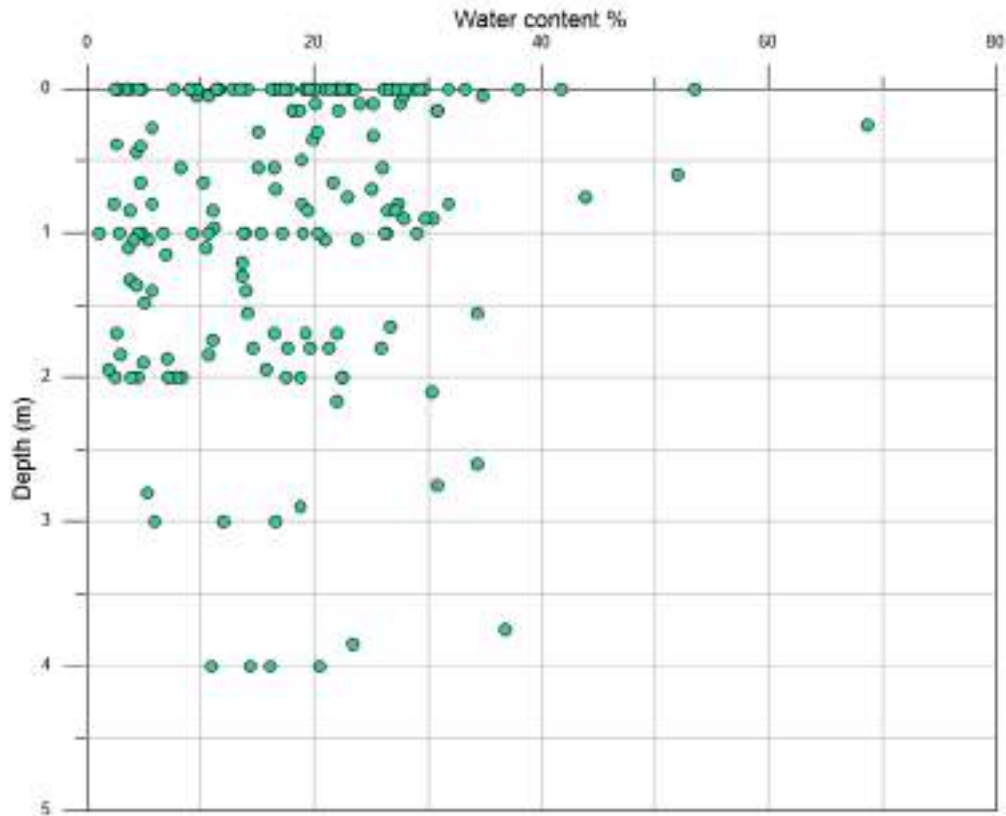


Figure 13 Moisture / Water content for AO5 soil samples.

7.3.1.2. Bulk density and unit weight

Average particle density of the studied samples is 2.5 Mg/m³, with values that vary between 1 and 3 Mg/m³. Average bulk density is 1.9 Mg/m³, with values that vary between 1.7 and 2.0 Mg/m³ (Figure 14).

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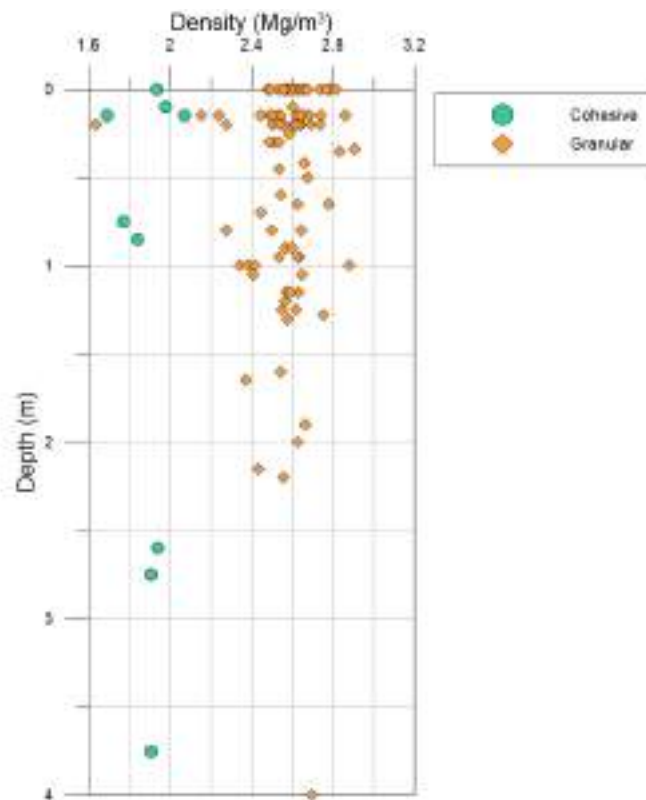


Figure 14 Bulk density (cohesive materials) and Particle density (granular materials) from AO5 study area.

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7.3.1.3. Atterberg Limits

A total of six samples were analysed for plasticity index calculation.

Three samples are classified as Low plasticity Silts and one is classified as medium plasticity Silt. Two programmed samples (EC GI #253 and EC GI #255) were not possible to analyse due to the sandy nature of the sediment (no plastic samples).

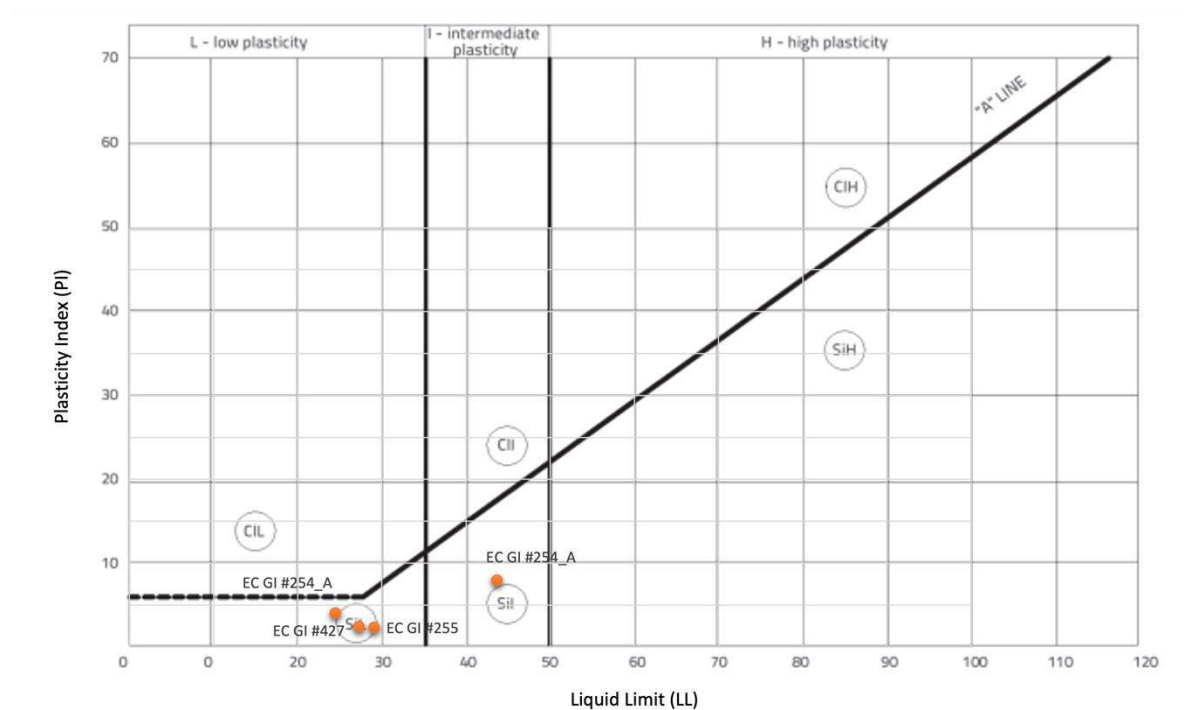


Figure 15 Plasticity diagram for the classification of soil according to principles set in EN ISO 14688-2 with AO5 vibrocore samples.

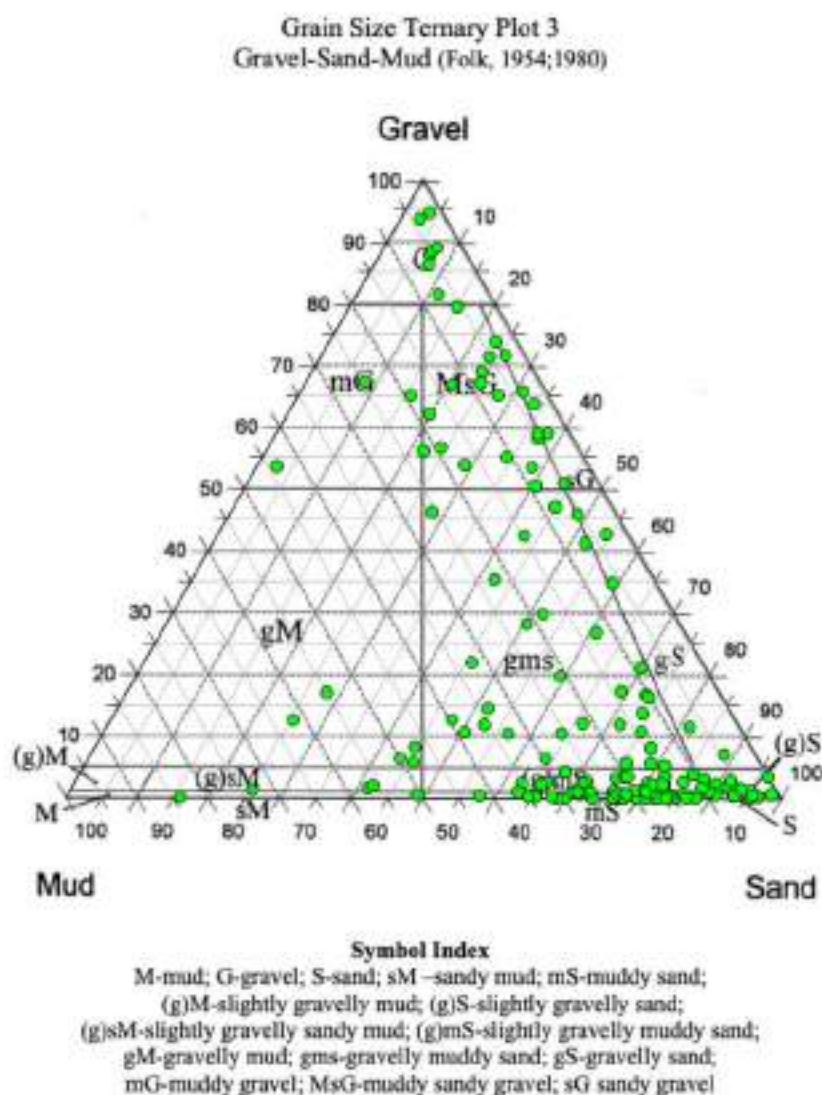
7.3.1.4. Particle Size Distribution (PSD)

A total of 95 PSD samples were analysed in order to characterise the grain size materials of the export cable corridor for AO5.

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The ternary diagram of coarse-grained (Figure 16) and fine-grained (Figure 17) textural classes after Folk (1954) represent a visual classification of the materials encountered along the corridor.



Folk, R.L., 1954. The distinction between grain size and mineral composition in sedimentary rocks. *Journal of Geology*, 62, 344-359.

Figure 16 Ternary diagram (Folk, 1954) of coarse-grained samples.

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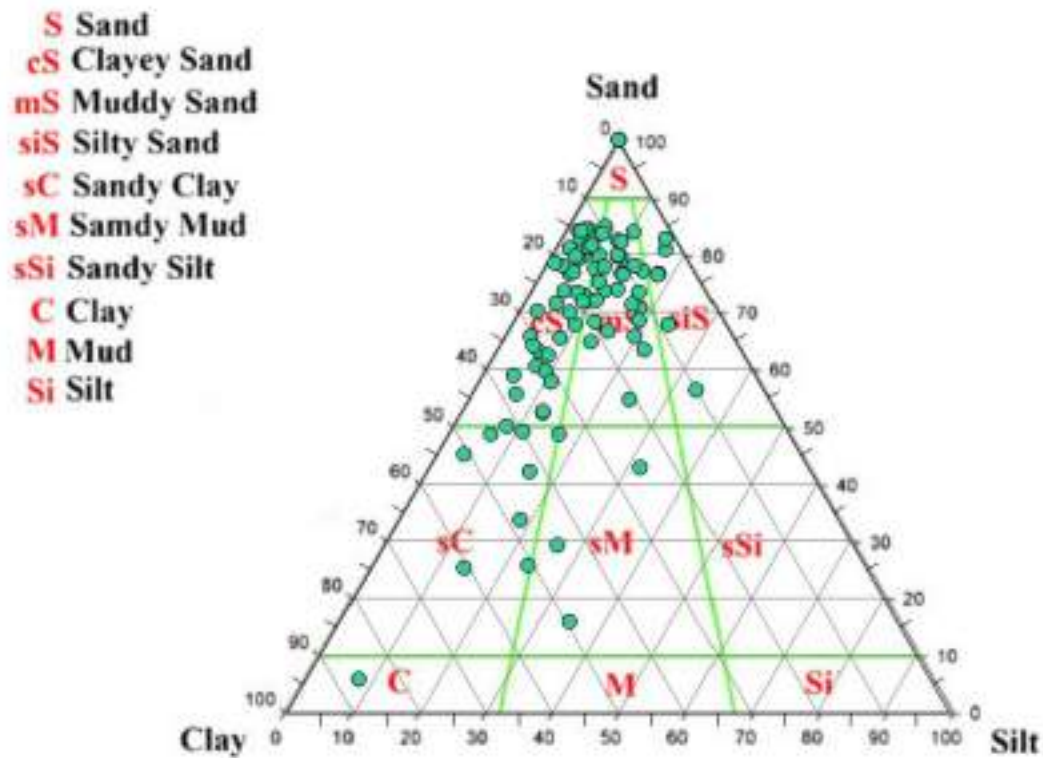


Figure 17 Ternary diagram (Folk, 1954) of fine-grained samples.

The particle size distribution of the samples obtained from AO5 show a great variability with very well graded materials as can be observed in the next Figure 18:

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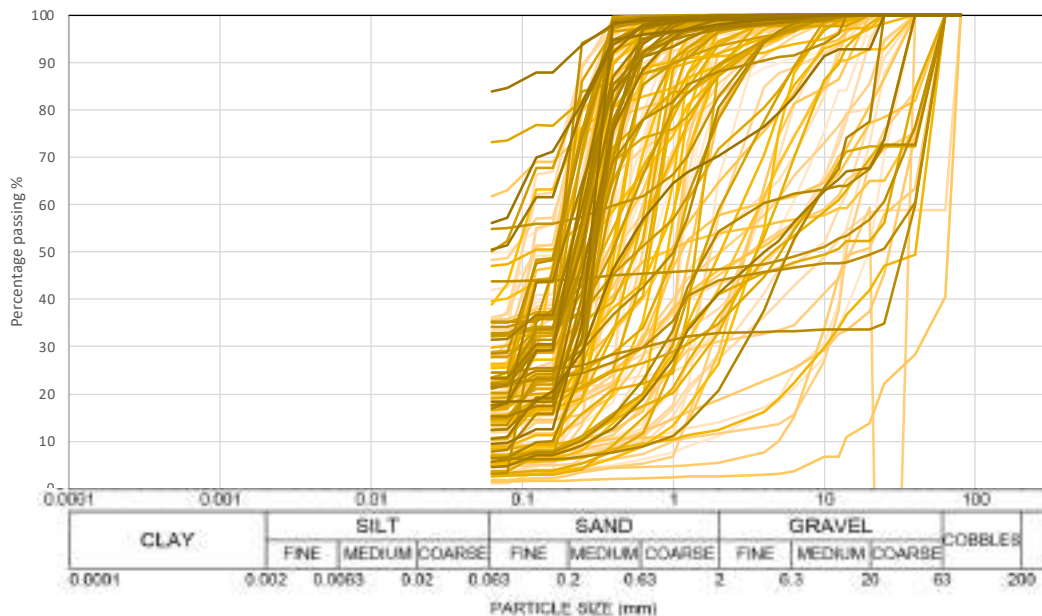


Figure 18 Particle size distribution curves for all the samples on AO5.

7.3.2. Strength tests

7.3.2.1. Index Shear Strength

A total of nine shear strength values were obtained offshore and twenty-four more samples from the laboratory in order to check field measurements. In Figure 19 shear strength values are plotted against depth.

Some of the obtained values presented anomalous low values and were dismissed. Dismissed values will not be considered for further analysis.

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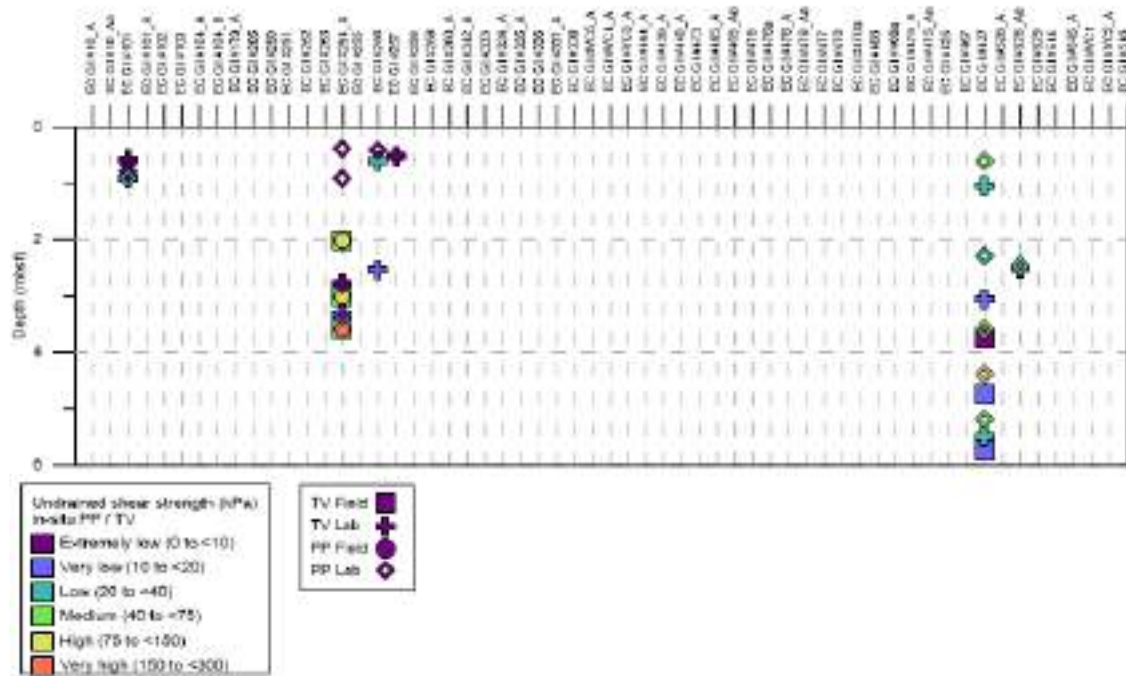


Figure 19 Comparison between hand Torvane and Penetrometer measurements from offshore and laboratory tests.

7.3.2.2. Unconsolidated Undrained Triaxial (UU)

Unconsolidated undrained (UU) triaxial tests were carried out on representative cohesive soil from eleven samples from the vibrocores.

The total stress strength parameters derived from UU triaxial tests for the cohesive samples is plotted in Figure 20.

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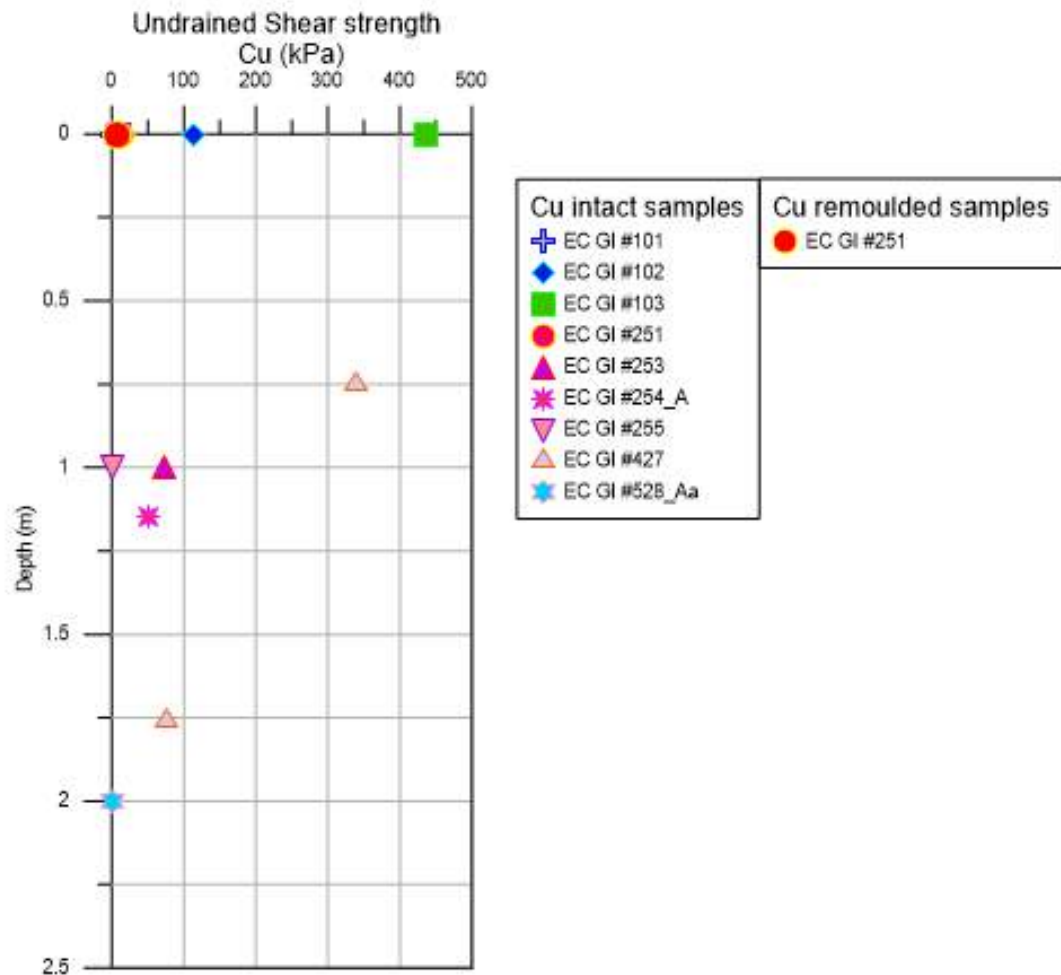


Figure 20 Strength test parameters derived from UU tests from cohesive soils.

7.3.2.3. Direct Shear (Shearbox)

Direct shear (shearbox) tests were carried out on representative non-cohesive soil and structureless chalk material from twenty-three samples of the vibrocores.

Shear box (Direct Shear) testing was carried out on samples taken in granular strata from the vibrocores. The testing was carried out on three sub-samples to provide peak friction angles and values of cohesion (kPa) in terms of total stresses. The samples were tested under in-situ stress conditions, with stages at nominal 100, 200 and 300kPa.

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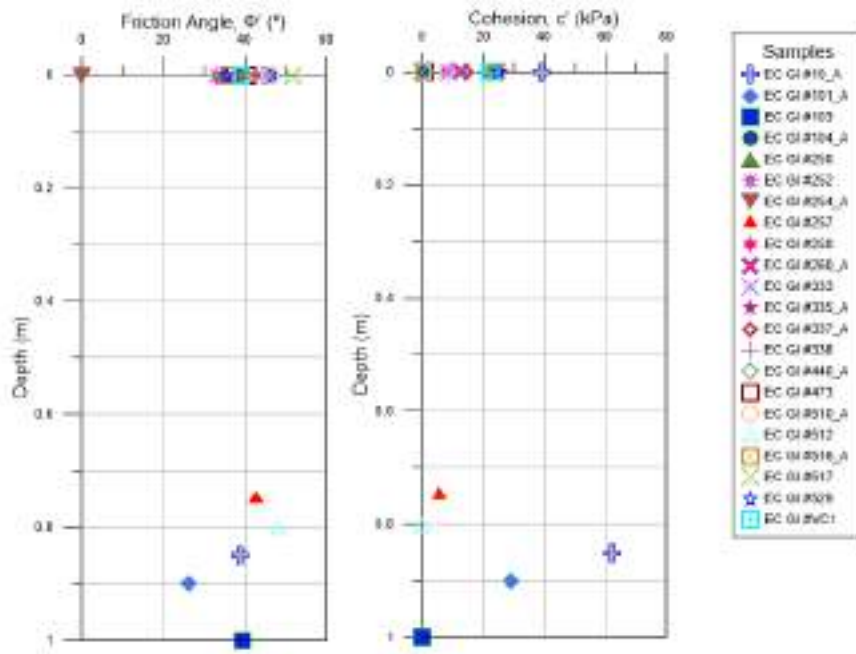


Figure 21 Strength test parameters derived from DS tests from non-cohesive soils.

7.3.2.4. Point Load Testing

Point load testing was carried out on irregular medium size, very weathered rock samples found on the study area. Five samples were taken to study (Table 11). Only one sample (EC GI#478_A) was analysed (Table 11) with the sample composed by vertical foliated weak mica-schist ROCK. To the other samples the point load test was not performed because the rock was composed of disaggregated sand.

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Table 11 AO5 Point Load test results.

Point ID	Sample top (m)	Sample bot (m)	Mean value Is(50) (Mpa)
EC GI#478_A	0.5	0.6	6.59
EC GI#470		toe bag	Test not performed because sample is a disaggregated sand
EC GI#478_Aa		toe bag	Test not performed because sample is a disaggregated sand
EC GI#468		toe bag	Test not performed because sample is a disaggregated sand
EC GI#475Aa		toe bag	Test not performed because sample is a disaggregated sand

7.3.3. Chemical properties

Results obtained for carbonate concentrations, Chloride concentrations and Sulphate concentrations in percentage are plotted in Figure 22.

Carbonate concentration in the samples ranges between 13 and 30% with an average value of 19.5%. Chloride concentrations are approximately 0.8% for all the analysed samples. Sulphate concentration in the analysed samples averages 0.05% with a maximum value of 0.14%.

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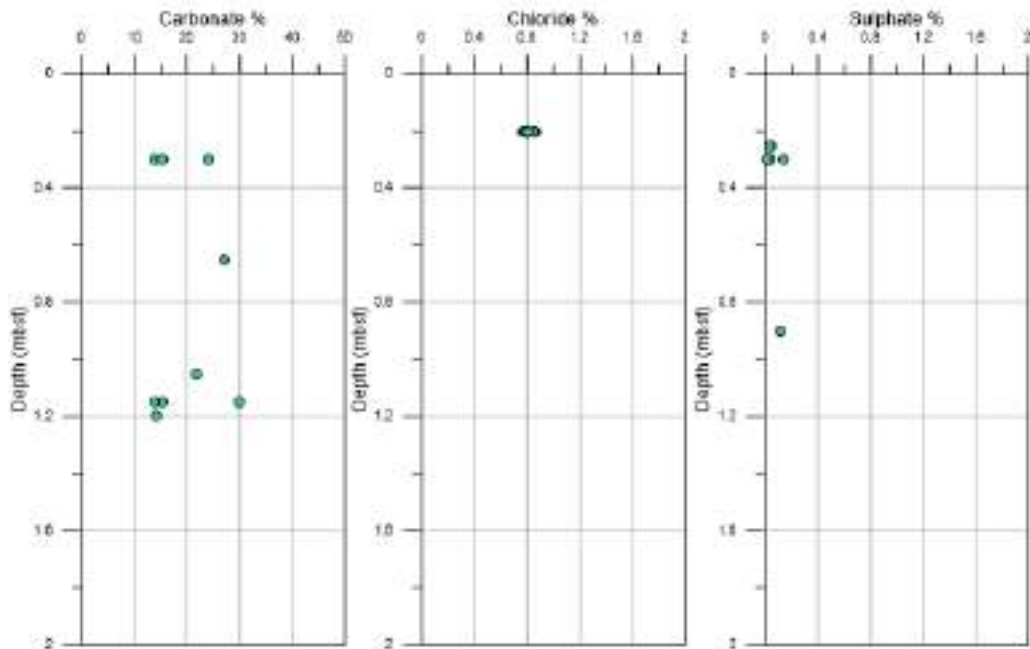


Figure 22 Chemical results from Carbonate, Chloride, organic content and Sulphate analysis in AO5 soils.

7.3.3.1. SRB field tests

SRB tests were undertaken offshore for sampling the superficial water to analyse the sulphate reduction bacteria present on the seafloor.

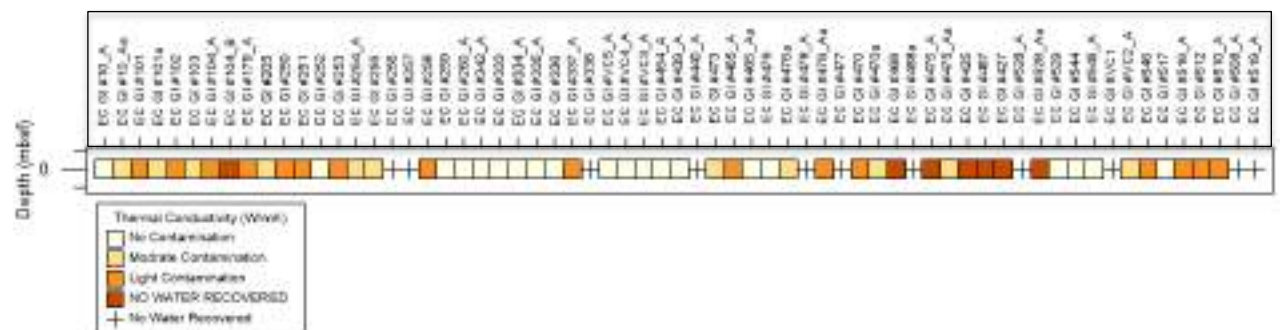


Figure 23 Field offshore results from rapid tests on SRB in AO5 water from seabed soil.

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7.3.3.2. pH

Soils tested for pH result in a mainly alkaline soil pH (between 8 and 10), as can be seen in Figure 24.

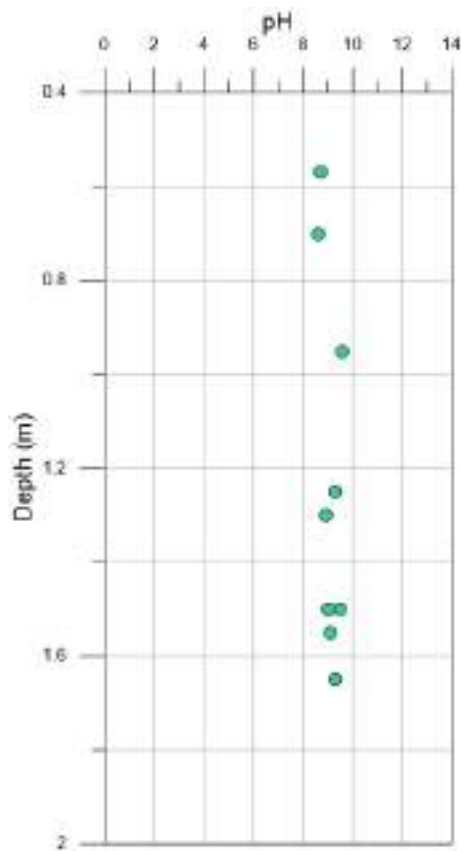


Figure 24 pH results on AO5 soil samples.

7.3.4. Thermal properties

Thermal properties data have been assessed at top and bottom of the vibrocore samples during offshore operations. Extra TRT samples were measured in the lab in order to check thermal properties.

Figure 25 shows TRT measurements with the classification scheme used to evaluate the thermal resistivity data. TRT measurements in the left and central part of the figure are missing due to the low recovery of the vibrocores in that area, as well as to the gravelly

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nature of the samples where TRT measurements cannot be taken. Correlation in between lab and insitu TRT is deemed to be good, in some cases difference of more than 0.5 k m/W can be attributed to soil variability, rather than the changes in humidity and temperature form the lab and offshore conditions. Offshore field values are considered more reliable for design.

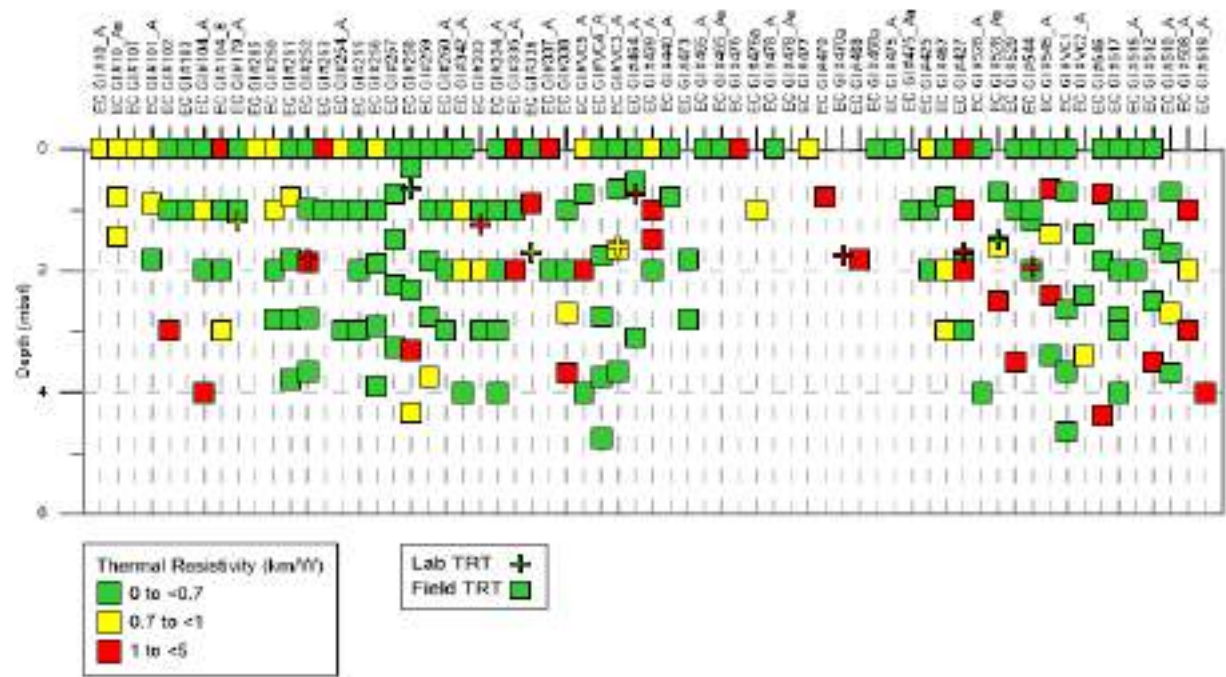


Figure 25 TRT thermal conductivity values measured offshore.

7.4. CPT ENGINEERING PARAMETERS

Engineering parameters as relative density for non-cohesive granular soils has been assessed based on seabed CPT tests performed along the export cable route. The average relative density over 0.50 m depth intervals is calculated for each CPT location (Table 12 and Table 13).

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Relative density summarised here is calculated through the formula of Jamiolkowski et al. (2001).

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Table 12 Summary of Relative density between 0.5 m intervals, derived from CPT data, part 1.

Depth (m)	EC GI #10_A	EC GI #101	EC GI #101A	EC GI #102	EC GI #102a	EC GI #103	EC GI #104_A	EC GI #104_B	EC GI #179_A	EC GI #205	EC GI #250	EC GI #250a	EC GI #251	EC GI #252	EC GI #252a	EC GI #253	EC GI #254_A	EC GI #254_Aa	EC GI #255	EC GI #256	EC GI #257	EC GI #258	EC GI #259	EC GI #260_A	EC GI #333	EC GI #334_A	EC GI #335_A	EC GI #336	EC GI #337_A	EC GI #338	EC GI #342_A	EC GI #425	EC GI #427	EC GI #429_A	
0-0.5							28.53	48.93		1.68					0.35								6.13	30.48	80.05	61.60	33.03	34.32	24.75	55.21	76.30		42.72	35.38	
0.5-1	13.06			9.64	41.58	7.94	83.99	86.82			50.14	41.38		65.65	73.72	76.25							4.79	44.55	89.21	97.82	91.17	98.25	87.38	76.15	84.58	75.20	57.56	47.77	
1-1.5	21.15	51.54	72.28	78.25	84.79	67.08	93.91	88.20	84.70		74.95	74.13	79.94	71.02	82.34	67.86							5.85	56.81	87.67	96.76	88.20	102.71	80.05	85.07	73.14		46.62	41.09	
1.5-2			118.74	108.94	103.70	66.92	97.16	88.83	128.88				91.33	85.08	94.96	106.80	55.62	57.40					4.38	61.51	83.78	96.34	87.26	104.33	89.80	86.86	69.68		64.80	42.02	
2-2.5					110.28	89.76	88.02	83.24					80.07			129.33	75.20	68.18		46.58	18.21			52.00	96.63	98.94	88.72	123.71		93.70	62.30		46.90	40.62	
2.5-3					110.35	97.02	82.60	78.27					83.24						62.66	85.22	95.13	39.04		25.73	94.70	99.30	93.38			99.94	63.66			50.52	
3-3.5					108.20	70.83	91.50	100.82					78.26						91.40	80.99	116.68	56.23		34.22	93.32	97.36	94.16			114.88	79.35			53.54	
3.5-4						27.36	79.40	106.94					96.58						71.21	83.52		81.69	5.39	67.90	91.42	105.94	93.14				84.35			89.30	
4-4.5						92.37	80.73												66.18	77.50		50.38	37.89	84.89	111.53	110.48	94.66				73.11			105.79	
4.5-5						93.66	101.03													41.40		85.12	48.21	102.11	103.55	115.31	100.40				103.06				
5-5.5							97.90												84.58		97.26	38.36	105.33			95.13				100.28					
5.5-6							94.43																73.42	103.20			84.87				107.94				
6-6.5																																			

-	<15%	15-35%	35-65%	65-85%	>85%
N/A	VERY LOOSE	LOOSE	MEDIUM DENSE	DENSE	VERY DENSE

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Table 13 Summary of Relative density between 0.5 m intervals, derived from CPT data, part 2.

Depth (m)	EC GI #440_A	EC GI #464_A	EC GI #465_A	EC GI #467	EC GI #468	EC GI #468a	EC GI #470	EC GI #473	EC GI #475_A	EC GI #475_Aa	EC GI #475_Ab	EC GI #476	EC GI #477	EC GI #477a	EC GI #478_A	EC GI #508_A	EC GI #510_A	EC GI #512	EC GI #516_A	EC GI #517	EC GI #517A	EC GI #519_A	EC GI #528_Aa	EC GI #529	EC GI #529a	EC GI #544	EC GI #545_A	EC GI #546	EC GI #VC1	EC GI #VC2_A	EC GI #VC3_A	EC GI #VC4_A	EC GI #VC5_A
0-0.5	23.41	40.65	38.14		94.73	62.27	61.54	28.52	89.19	280.22		88.91	52.55	90.33	68.84	66.72	77.20	74.26	70.17	26.08	49.62	41.92	13.08	53.14	69.14		54.63	45.01	20.97	22.08	22.63	25.06	
0.5-1	68.48	99.38		60.75			51.94	84.81	80.43				128.55		100.16	82.43	98.56	100.41	75.28	55.12	57.48	59.14	65.14	95.31	98.11	7.97	49.60	77.81	61.30	75.01	41.00	52.61	58.28
1-1.5	66.08	95.97		81.38			63.73	105.35	92.93							86.60	95.68	95.92	78.37	46.42	48.84	62.63	68.64	97.03	94.38	79.51	35.78	78.94	48.86	74.56	49.51	41.02	86.78
1.5-2	67.25	88.20		77.33				126.37	80.70							96.25	97.71	89.34	76.50	62.75	93.21	35.33	78.66	99.95	101.64	56.40	71.80	86.53	70.92	73.63	36.59	30.93	97.55
2-2.5		104.61		82.22					82.84							94.57	87.28	90.19	86.31	98.57	89.95	46.57	47.45			78.13	55.27	93.45	57.40	66.47	32.73	34.16	102.97
2.5-3		113.12		92.27					80.76							90.51	80.38	89.30	83.48		114.24	83.79	39.98			85.61	55.38	100.68	73.99	84.56	59.92	40.42	98.96
3-3.5				83.93												89.52	76.76	92.35	74.57			80.77	24.35			88.81	41.26	88.30	84.62		81.73	49.10	102.24
3.5-4				90.90												79.83	75.43	86.79	45.36			64.48	56.00			46.82	36.16	101.89	86.37		75.23	71.21	102.27
4-4.5				84.10												84.52	75.89	74.52	40.39			81.52	98.17			60.44	46.06		73.28		71.72	72.51	98.34
4.5-5				84.72												77.06	74.61	83.20	52.90			86.10	84.49			100.75	70.35		25.29		73.57	65.60	97.99
5-5.5				82.66												71.89	79.77	70.88	89.78			70.98	82.33			104.03	88.45		48.00		63.73	50.86	108.83
5.5-6				73.79												81.38	74.22	77.95	87.60			58.55				77.68	87.51		103.57		54.26	67.02	
6-6.5																															43.60	63.40	

-	<15%	15-35%	35-65%	65-85%	>85%
N/A	VERY LOOSE	LOOSE	MEDIUM DENSE	DENSE	VERY DENSE

Absence of relative density values are due to low QC values and partially drained conditions at shallow depth.

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8. SUMMARY CONCLUSIONS

Overall, the lithology found along the survey for AO5 export corridor is mostly medium dense to dense and very dense SAND and GRAVELS with some cobbles over very low to very high shear strength, occasionally extremely high, CLAY and SILT. Some Gravels and Clay appear as blackish soils, very organic. Occasionally weathered clayish GRAVELS are recovered as very weathered structureless CHALK, observed on the following vibrocore EC GI #251. Bedrock composed of vertical foliated weak mica-schist ROCK has been encountered as well in the vibrocores EC GI #464_A, EC GI #468, EC GI #470, EC GI #470a, EC GI #473, EC GI #475_Aa, EC GI #478_A and EC GI #478_Aa.

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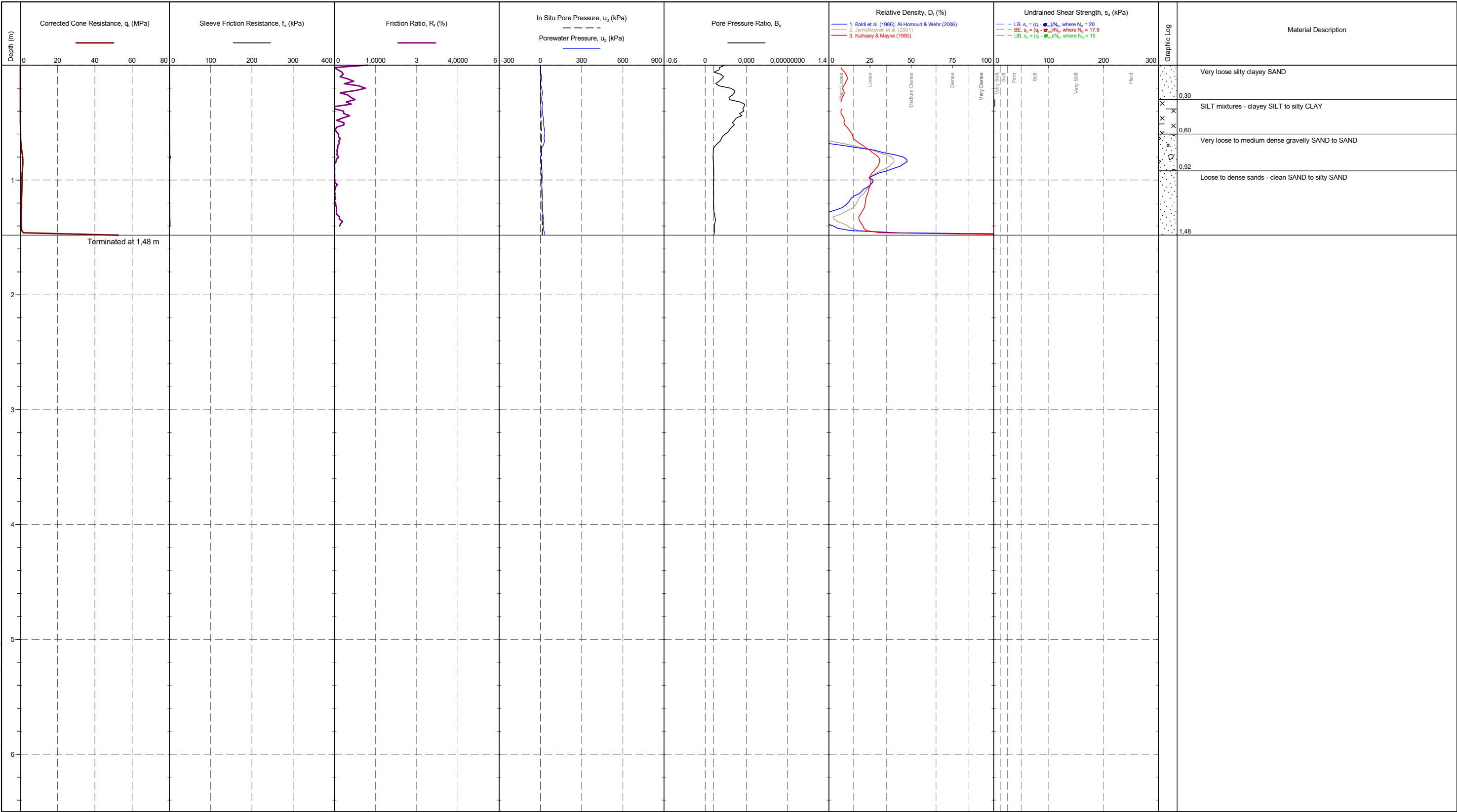
APPENDIX I – CPT LOGS

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PointID

EC GI #10_A

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 453398,6 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5248049,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -93,87 m ZH				

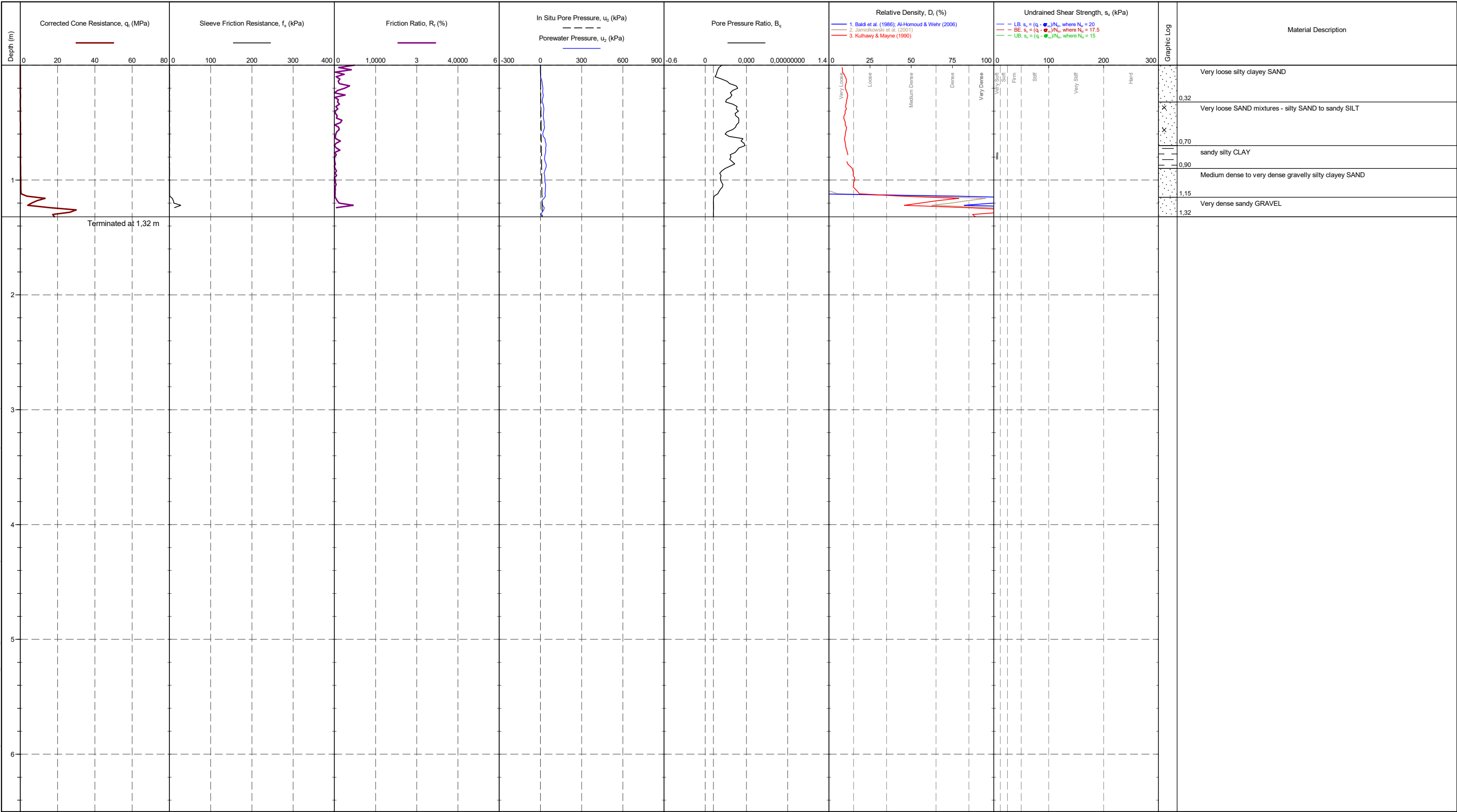


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #101

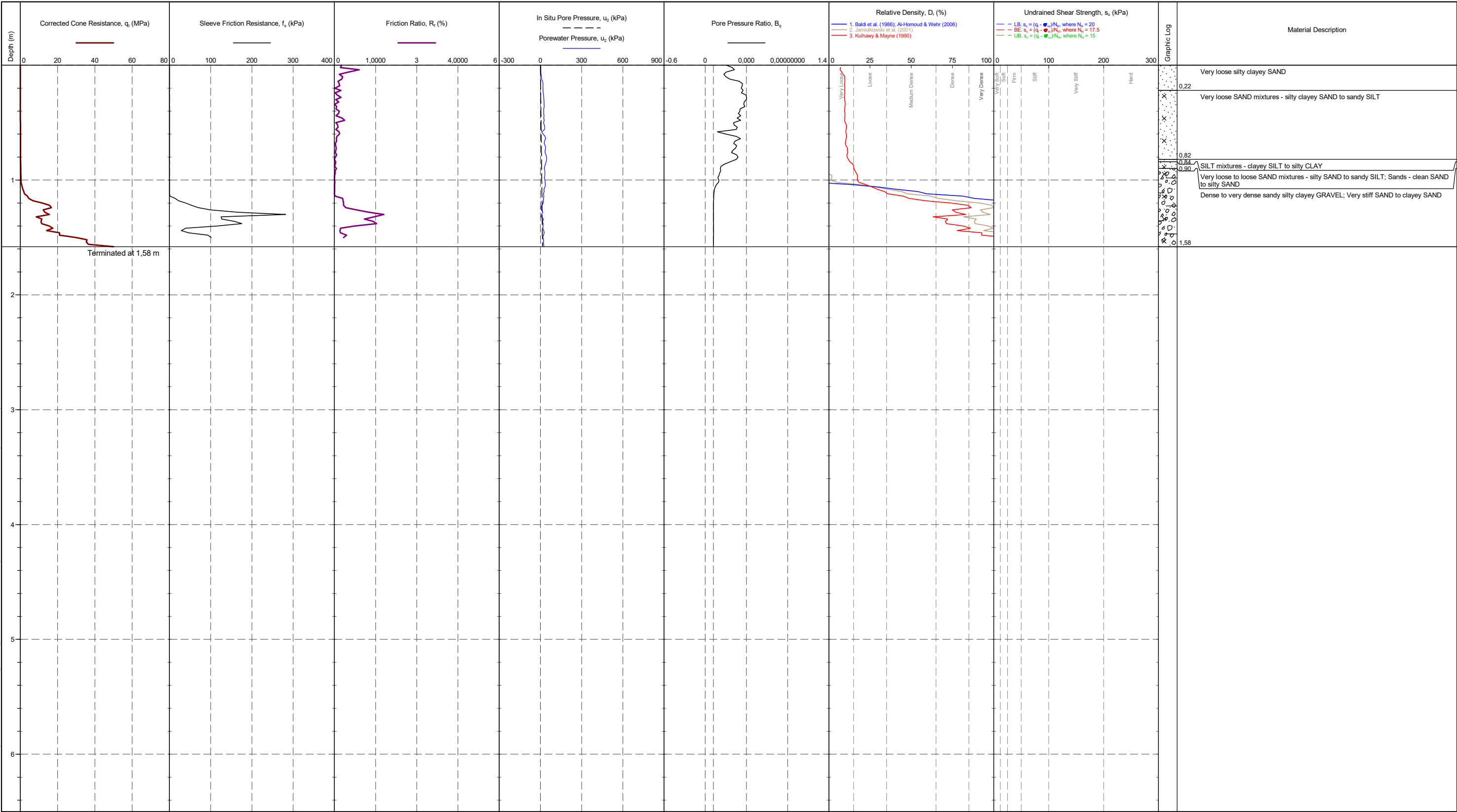
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ENGINEER : RM	EASTING : 453631,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5248743,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -95,43 m ZH				



Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID
EC GI #101A

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 453629,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5248740,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -95,96 m ZH				

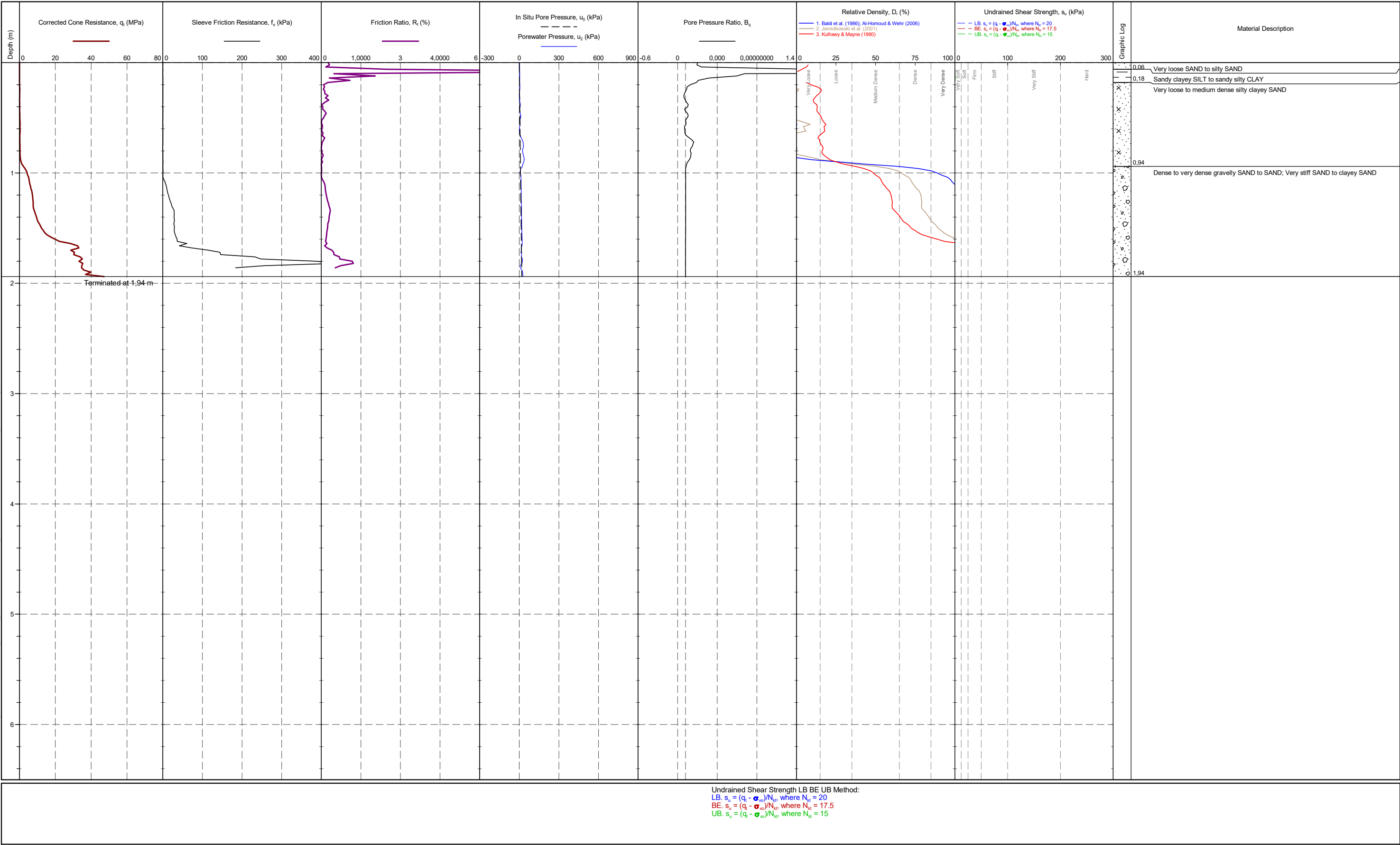


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #102

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 454142,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5249603,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -94,94 m ZH				

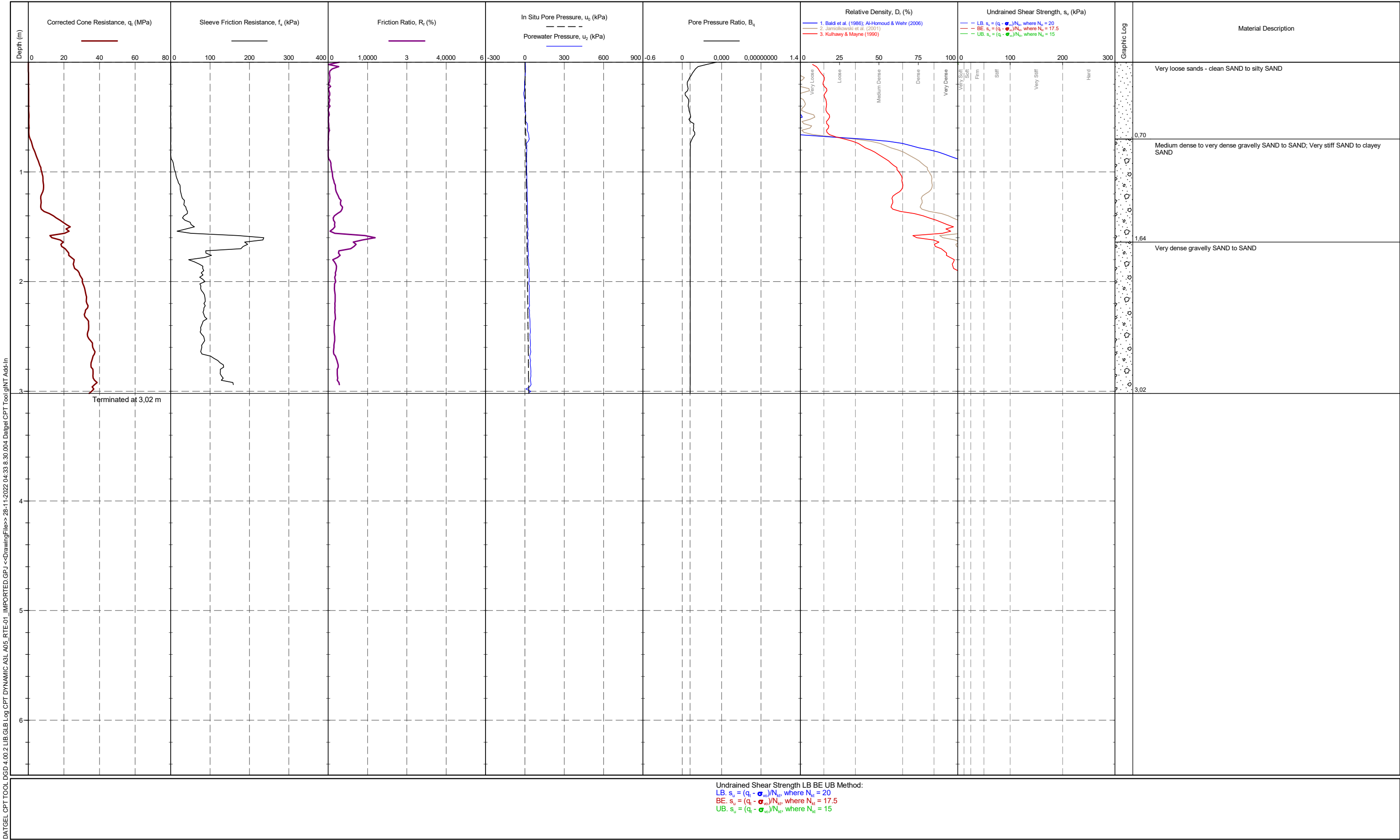


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:32 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #102a

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 454140,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5249600,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -95,17 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:33 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

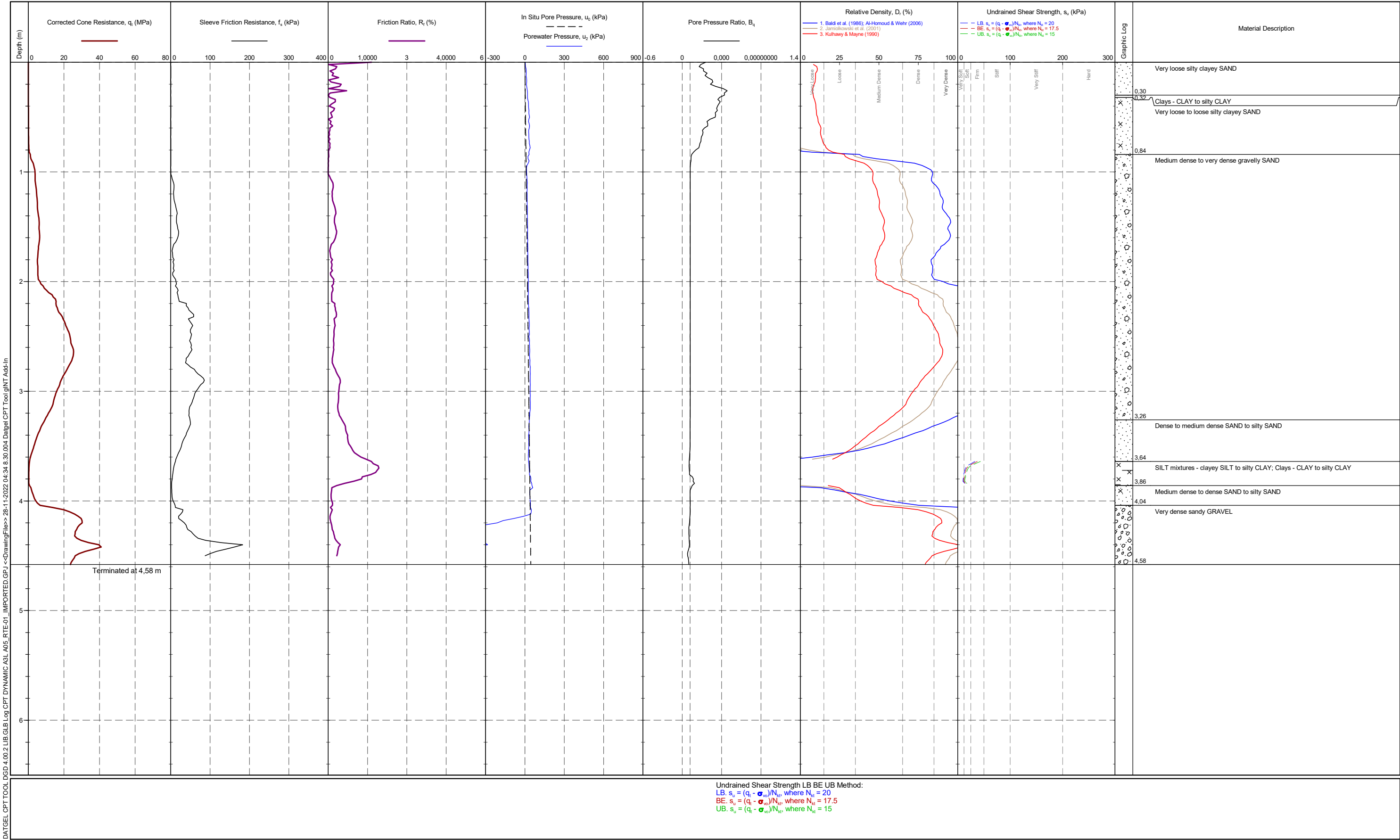
EC GI #103

SHEET : 1 OF 1

STATUS : Final

DATE : 3-7-2022

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 454651,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5250464,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -94,79 m ZH				

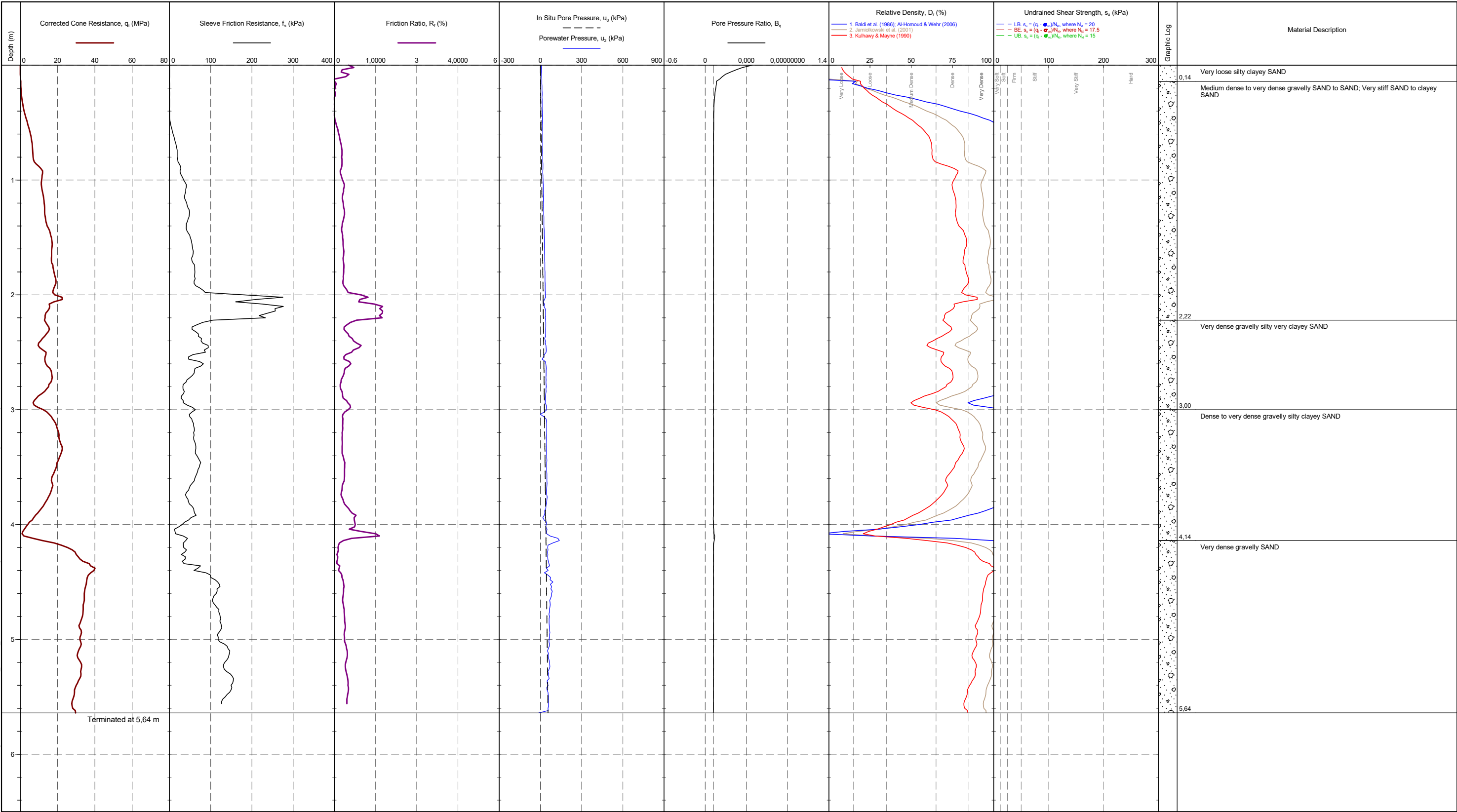


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:34 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #104_A

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 454670,2 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5251839,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -89,60 m ZH				

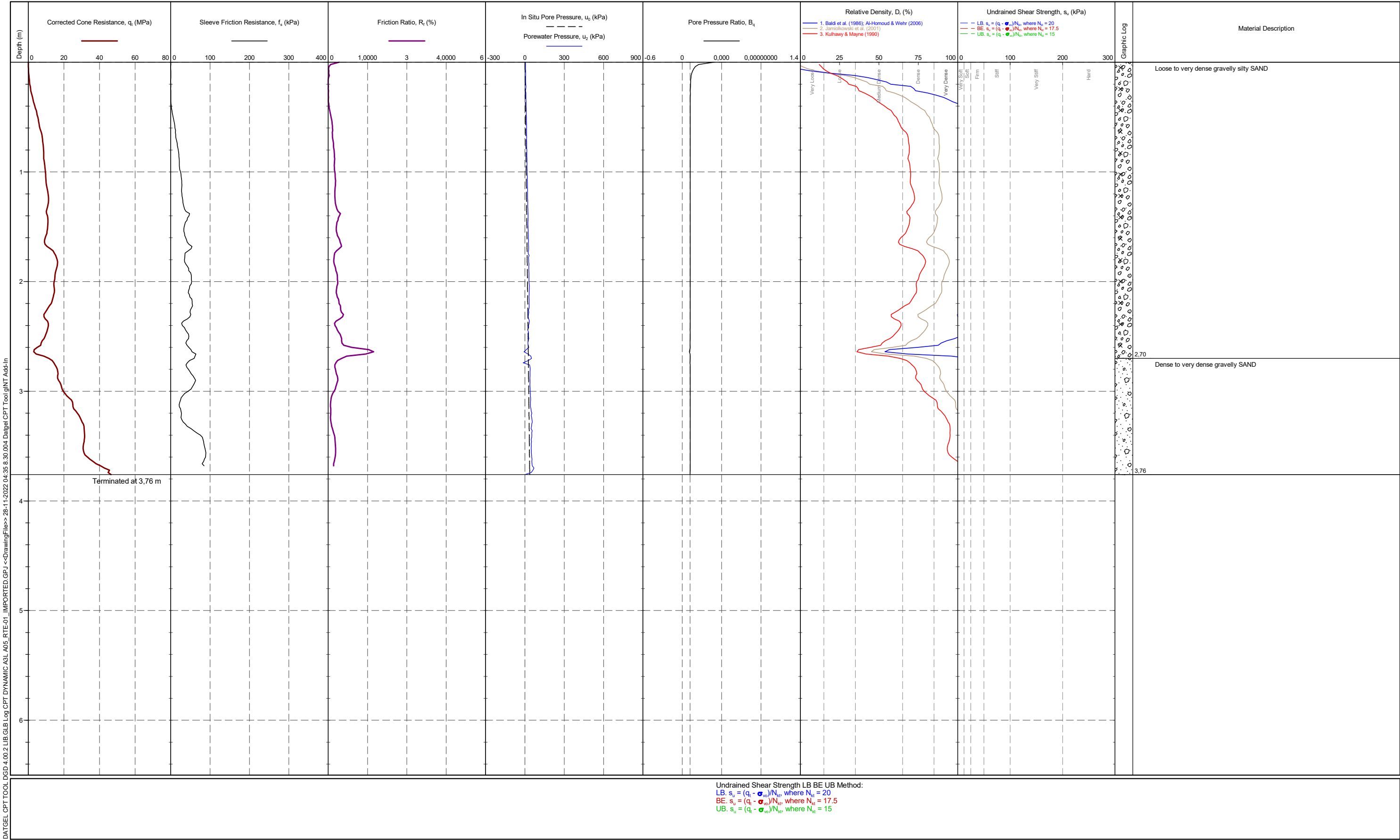


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #104_B

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 454765,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5251983,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -88,62 m ZH				

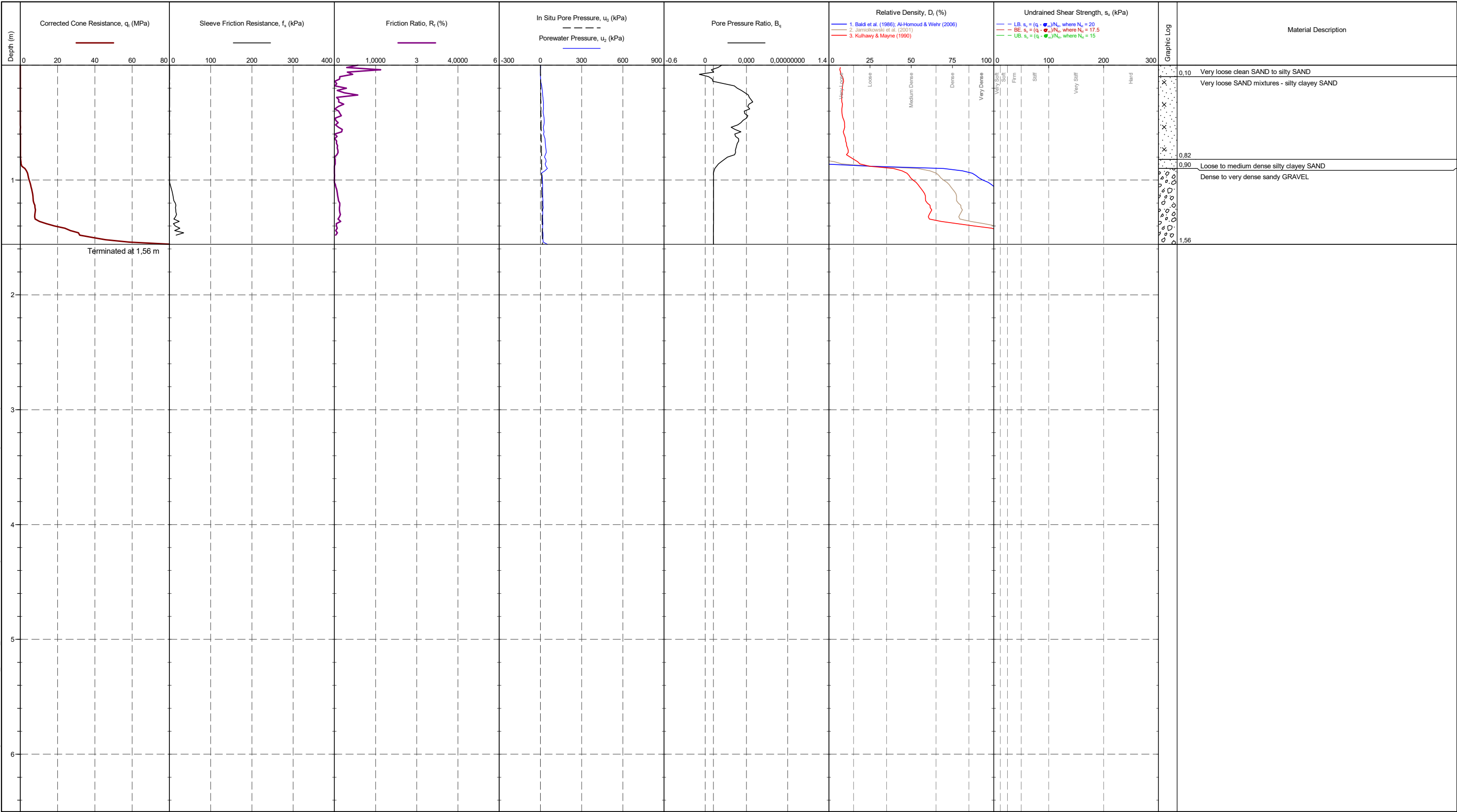


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED.GPJ <<DrawingFile>> 28-11-2022 04:35 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #179_A

CLIENT : RTE	AREA : BLOCK_A_1	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 455379,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5251703,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -91,01 m ZH				

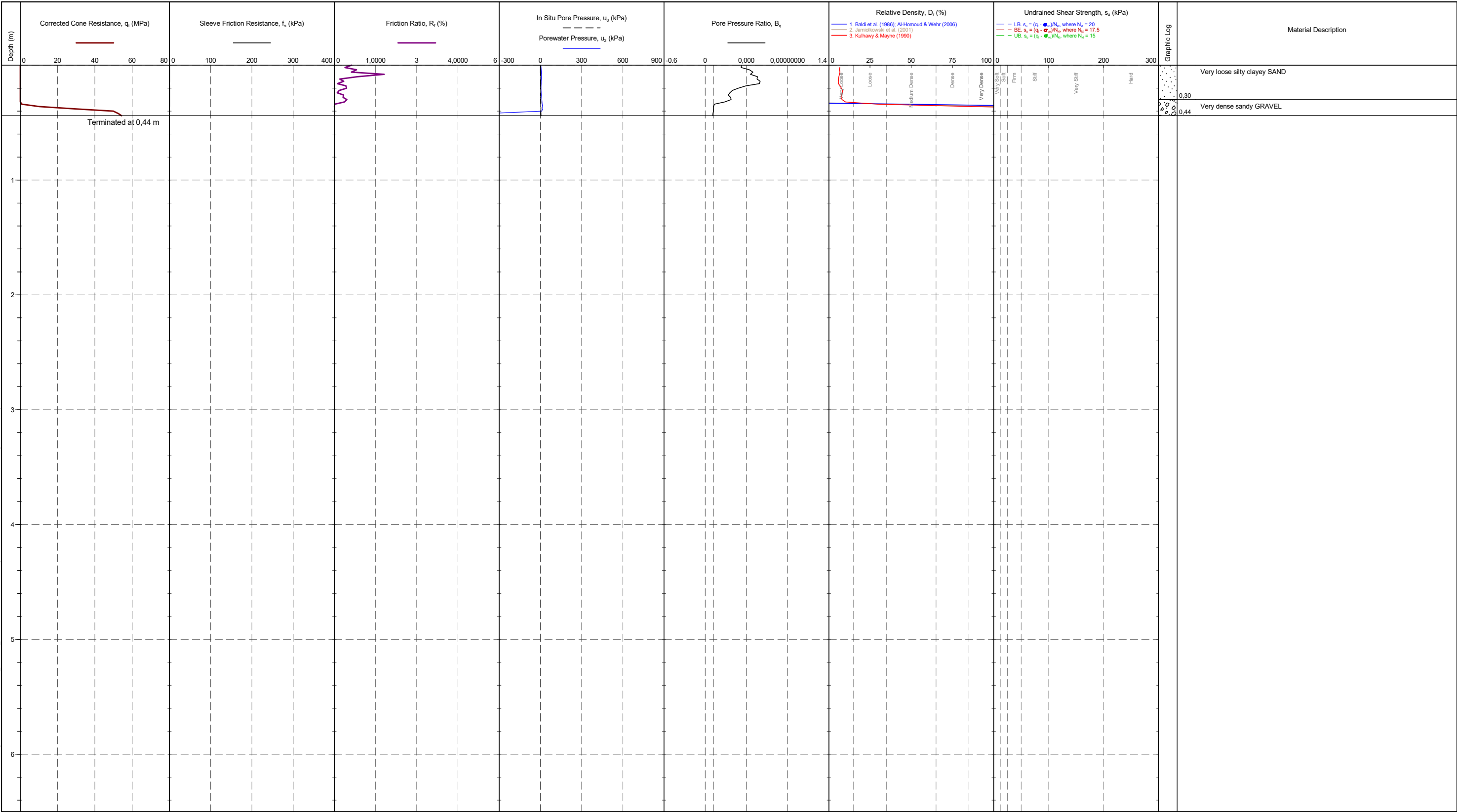


Undrained Shear Strength LB BE UB Method:
LB: s_u = (q - σ_{vo})/N₆₀, where N₆₀ = 20
BE: s_u = (q - σ_{vo})/N₆₀, where N₆₀ = 17.5
UB: s_u = (q - σ_{vo})/N₆₀, where N₆₀ = 15

PointID

EC GI #205

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 456043,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252195,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,98 m ZH				

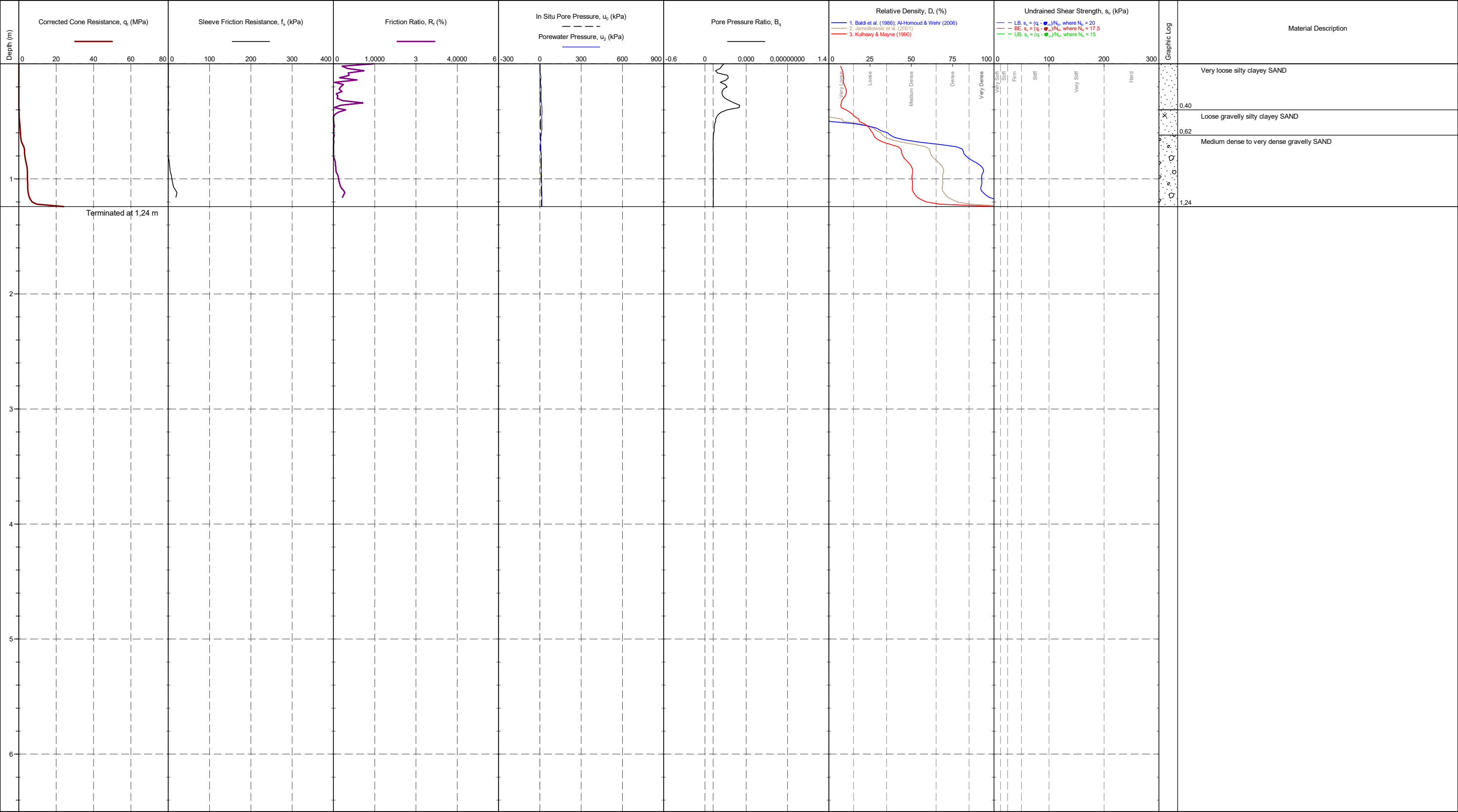


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{LB}$, where $N_{LB} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{BE}$, where $N_{BE} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{UB}$, where $N_{UB} = 15$

PointID

EC GI #250

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 456581,2 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252367,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,77 m ZH				

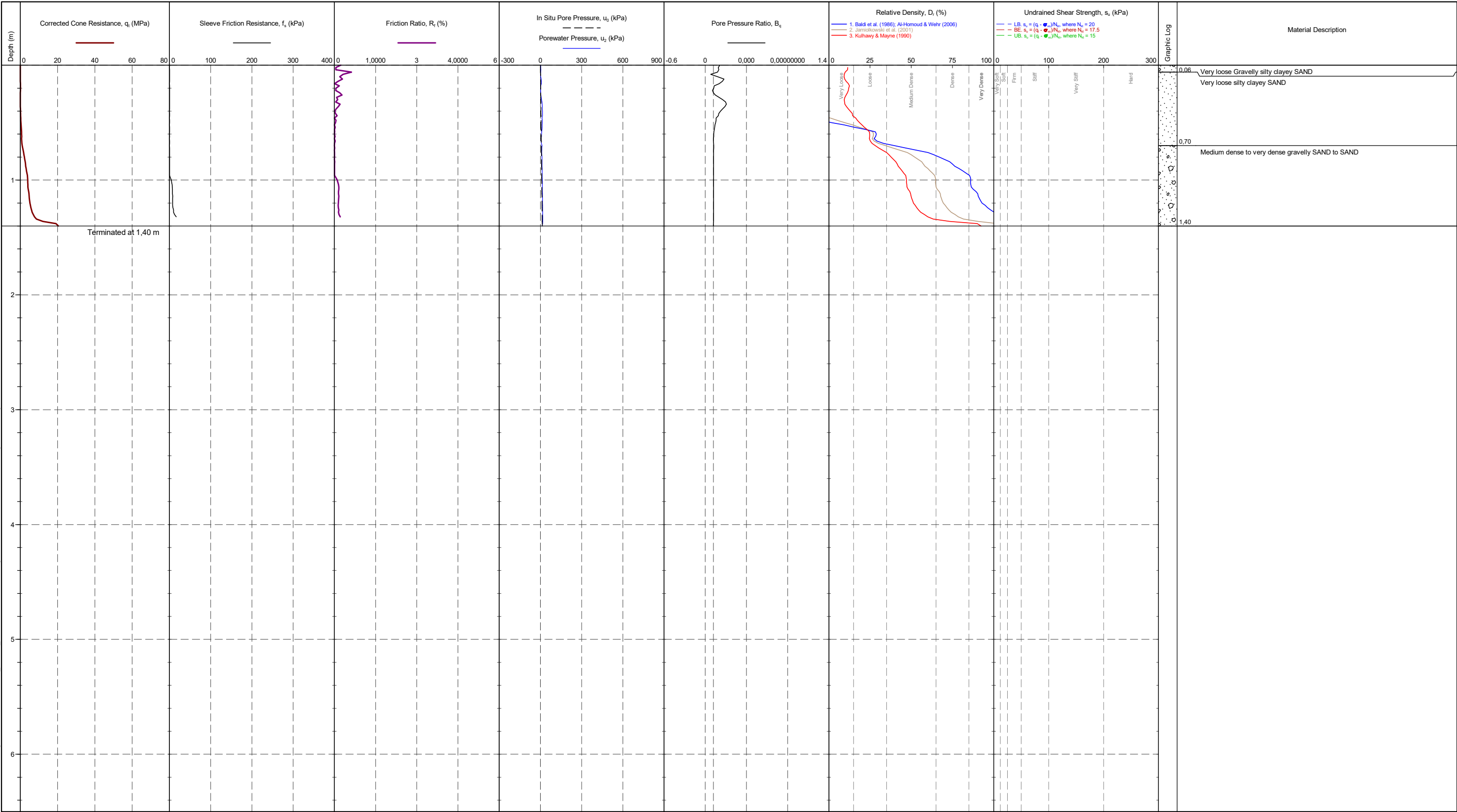


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 20$
BE. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 17.5$
UB. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 15$

PointID

EC GI #250a

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 456585,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252366,3 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,94 m ZH				

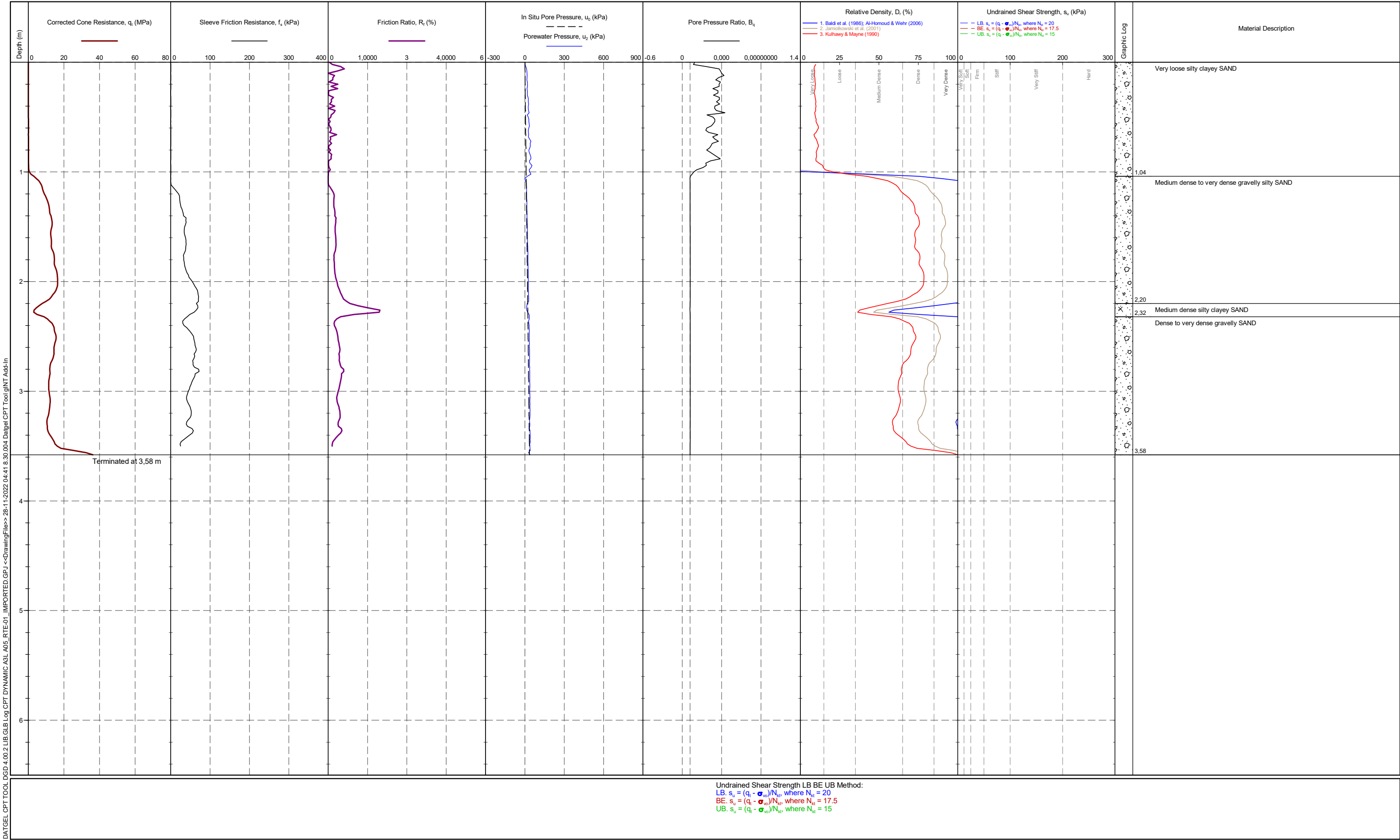


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #251

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 457535,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252668,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -91,02 m ZH				

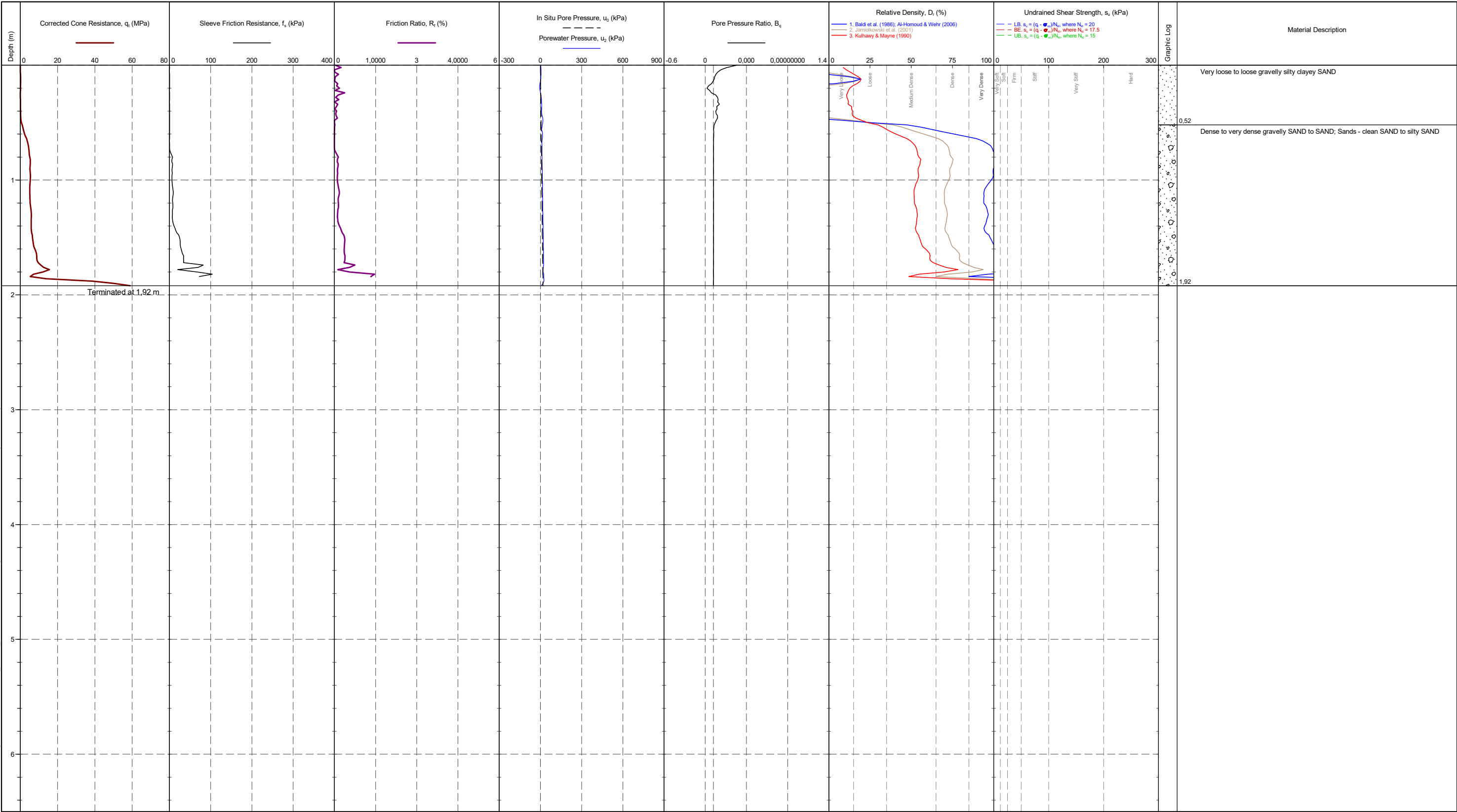


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:41 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #252

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 458490,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252968,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,32 m ZH				

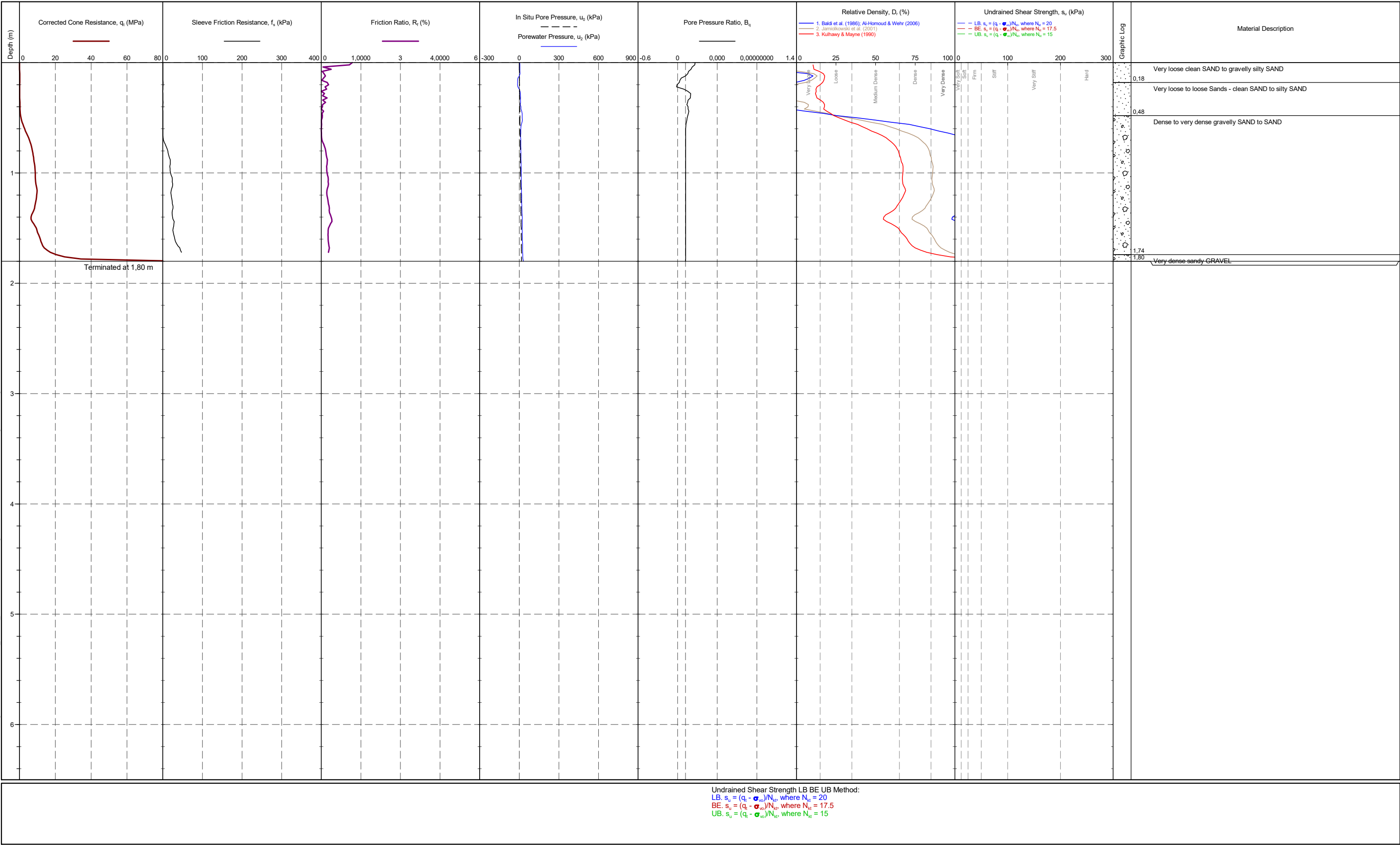


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #252a

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 458488,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252966,3 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,34 m ZH				

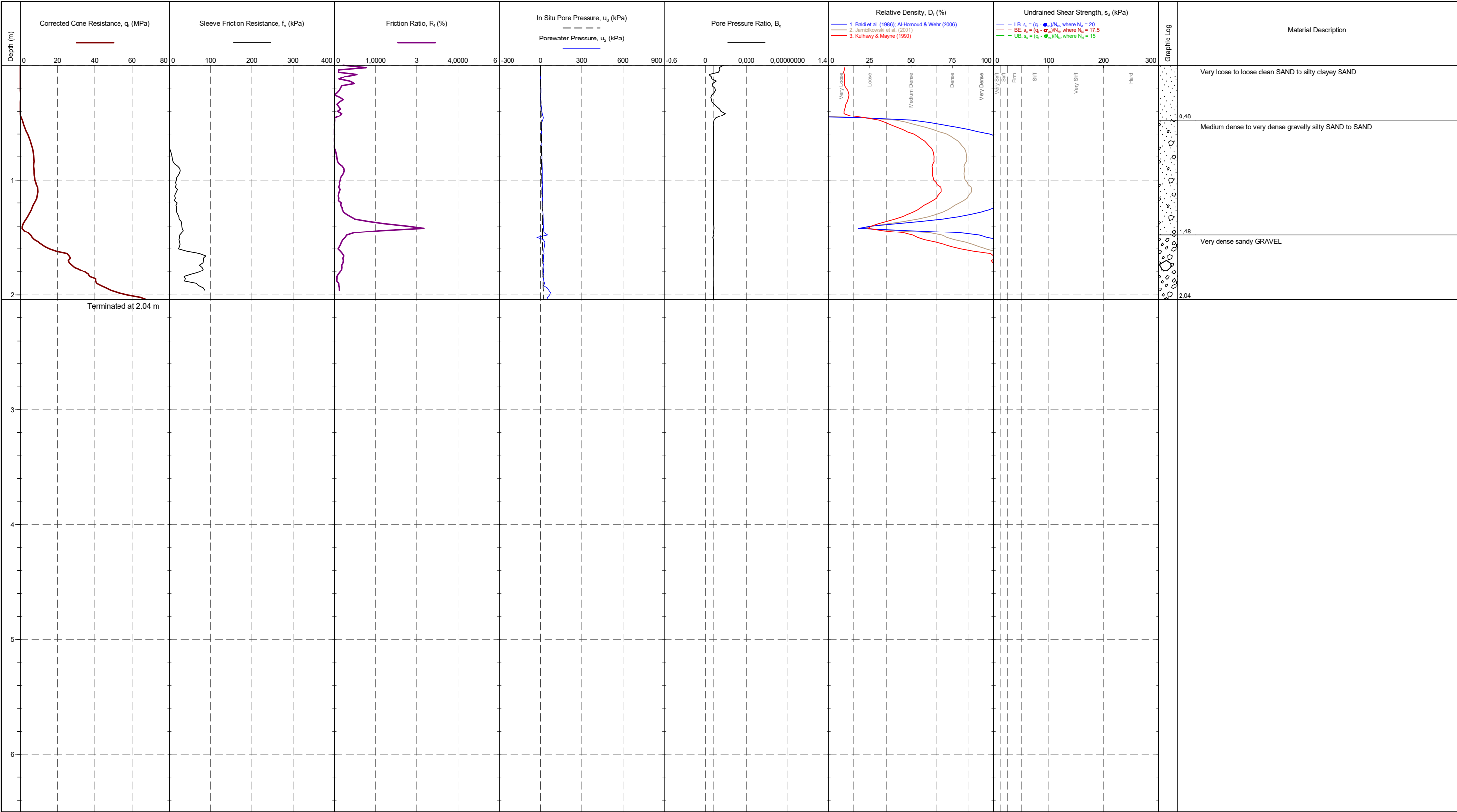


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:43 8:30:004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #253

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 459715,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5252993,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -90,04 m ZH				

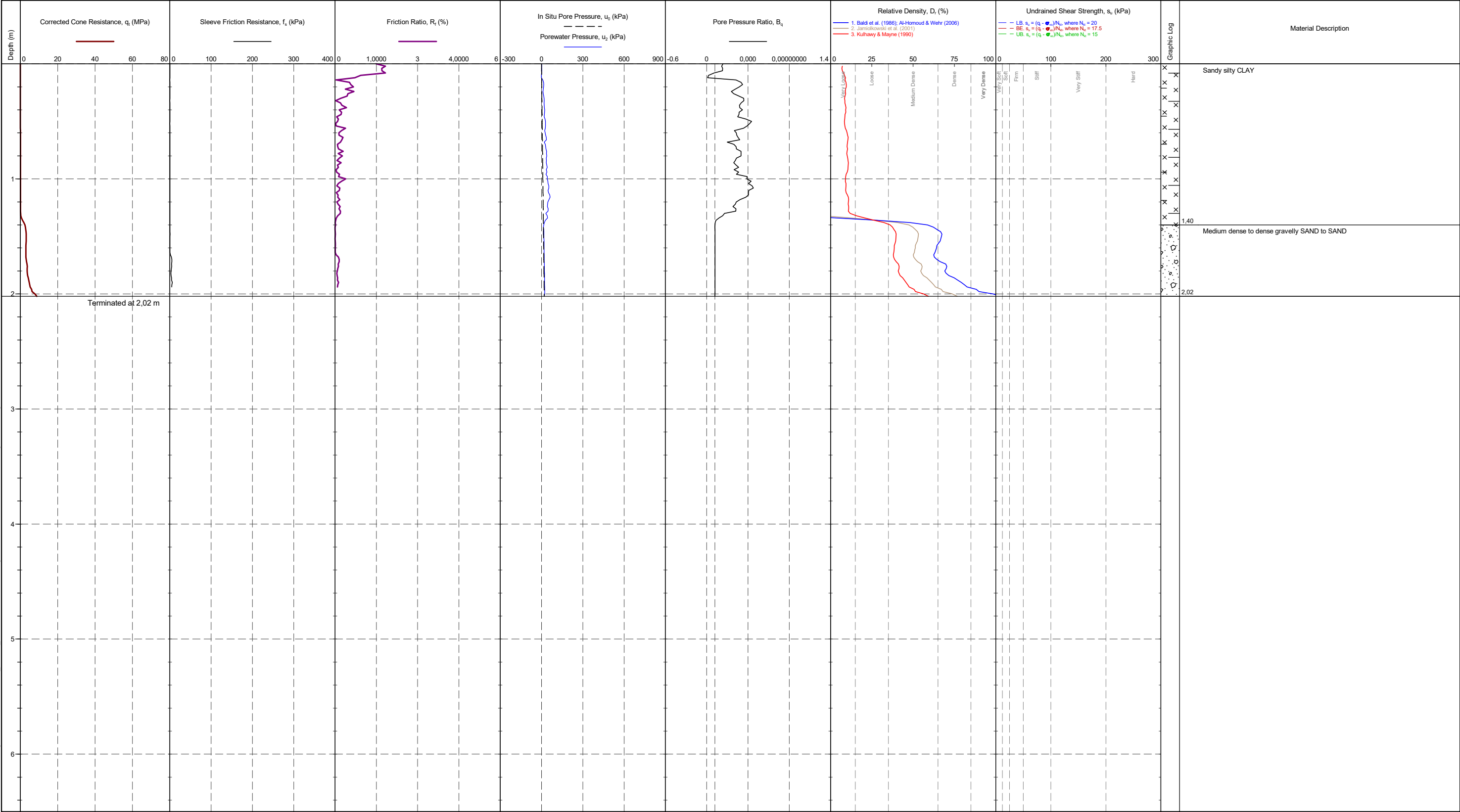


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #254_A

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 460633,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5253281,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -89,57 m ZH				

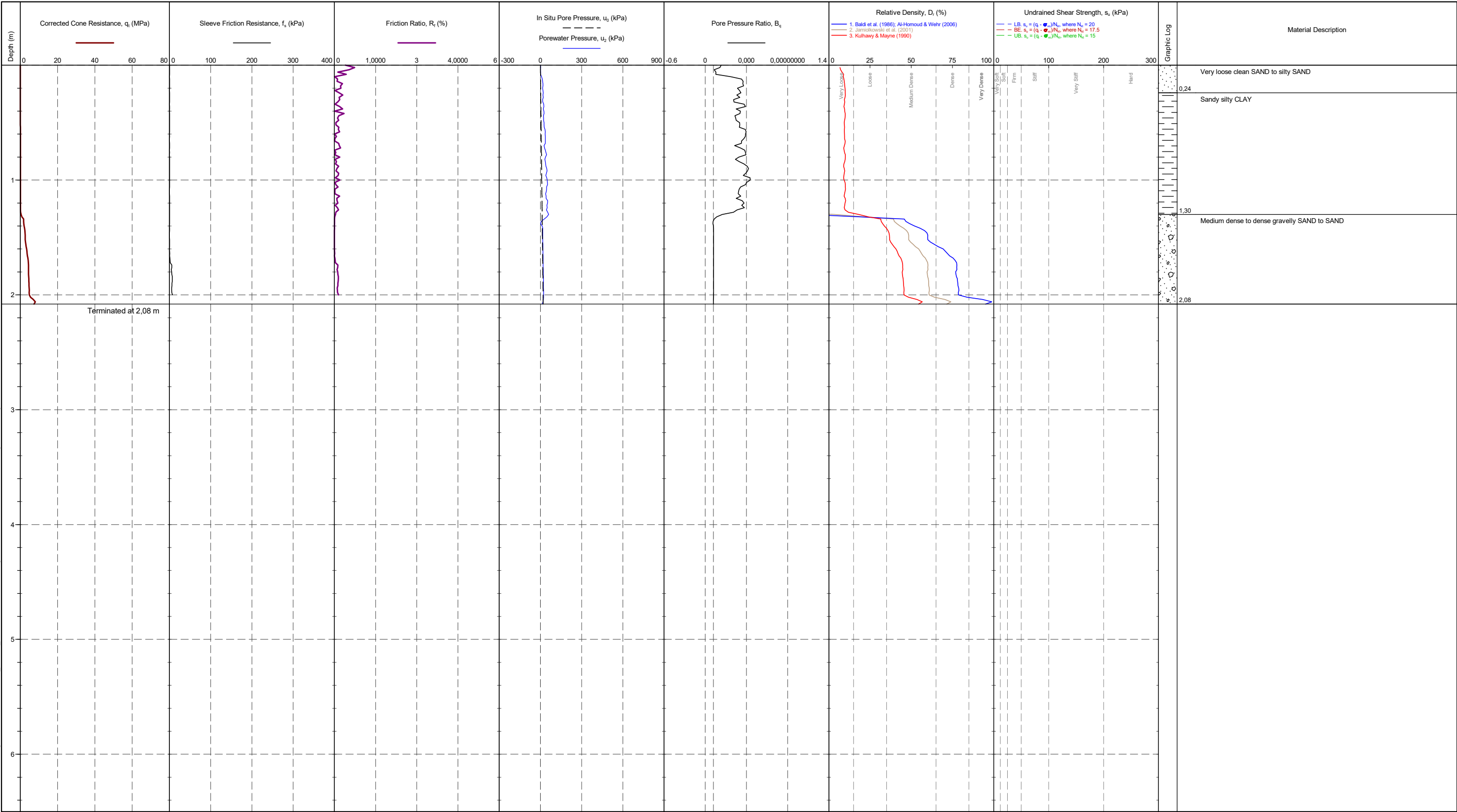


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #254_Aa

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 460632,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5253279,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -89,57 m ZH				

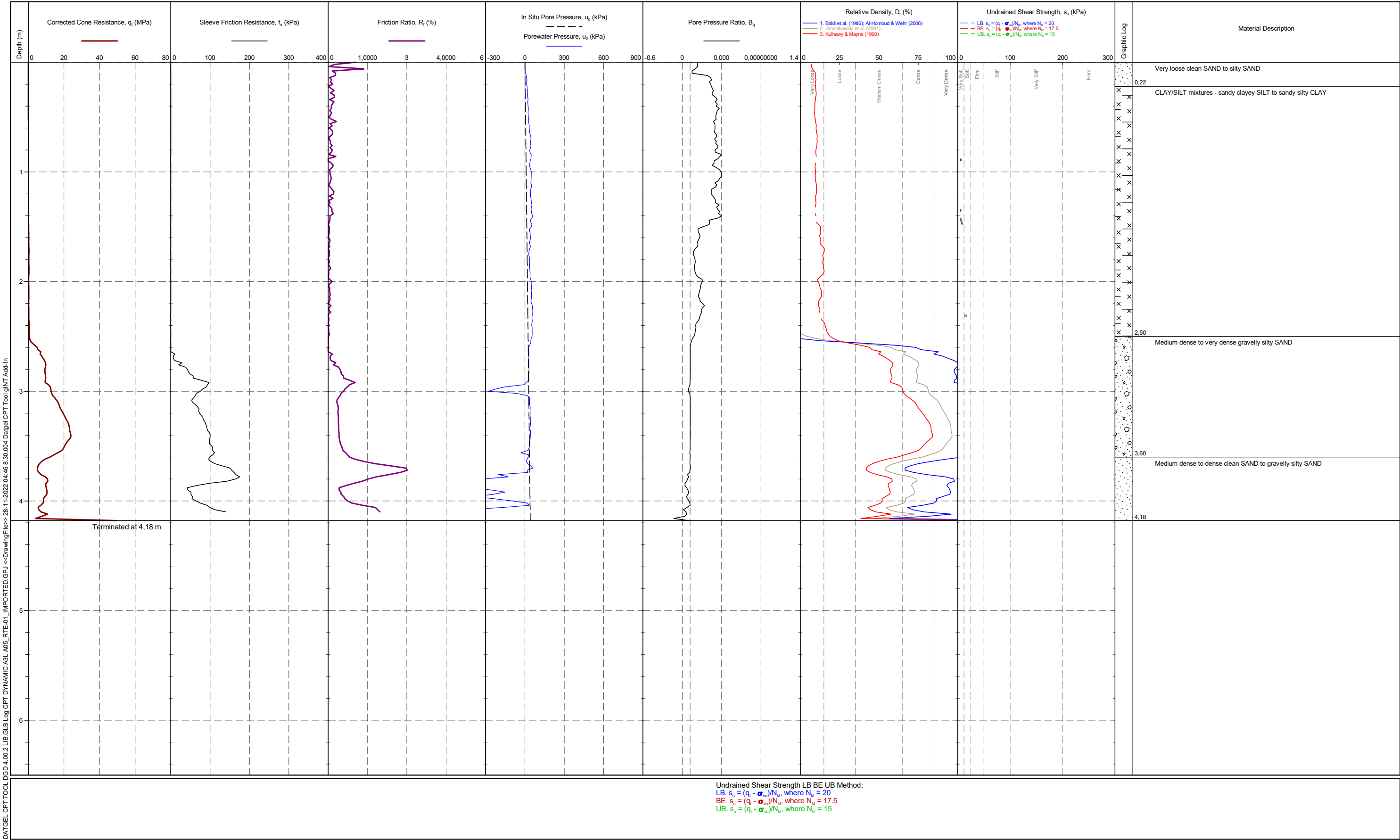


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #255

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 461349,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5253870,2 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -87,37 m ZH				

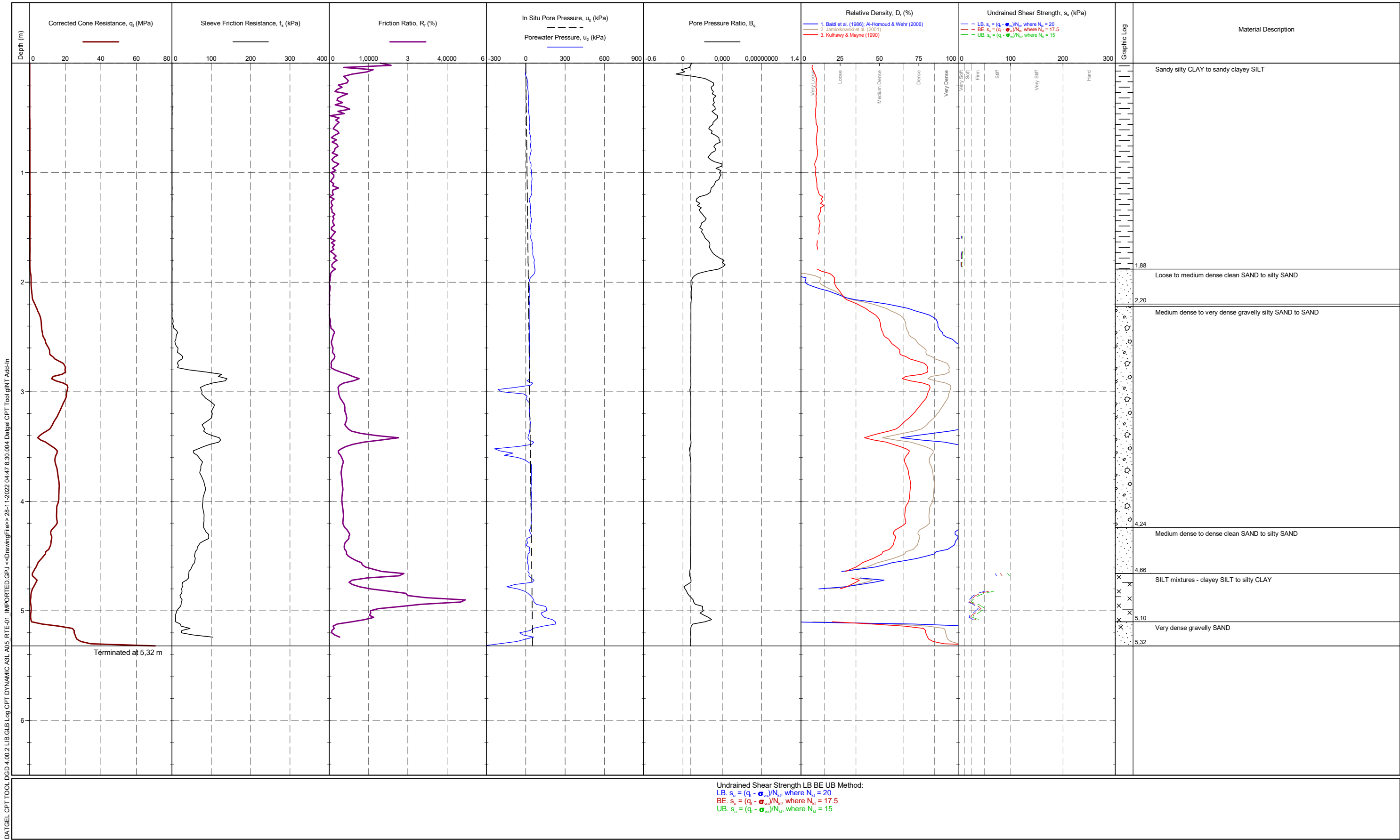


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:46 8:30:004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #256

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 462301,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5254169,2 m	CONE ID : 210107	APPROVED BY : AN		DATE : 3-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -89,44 m ZH				

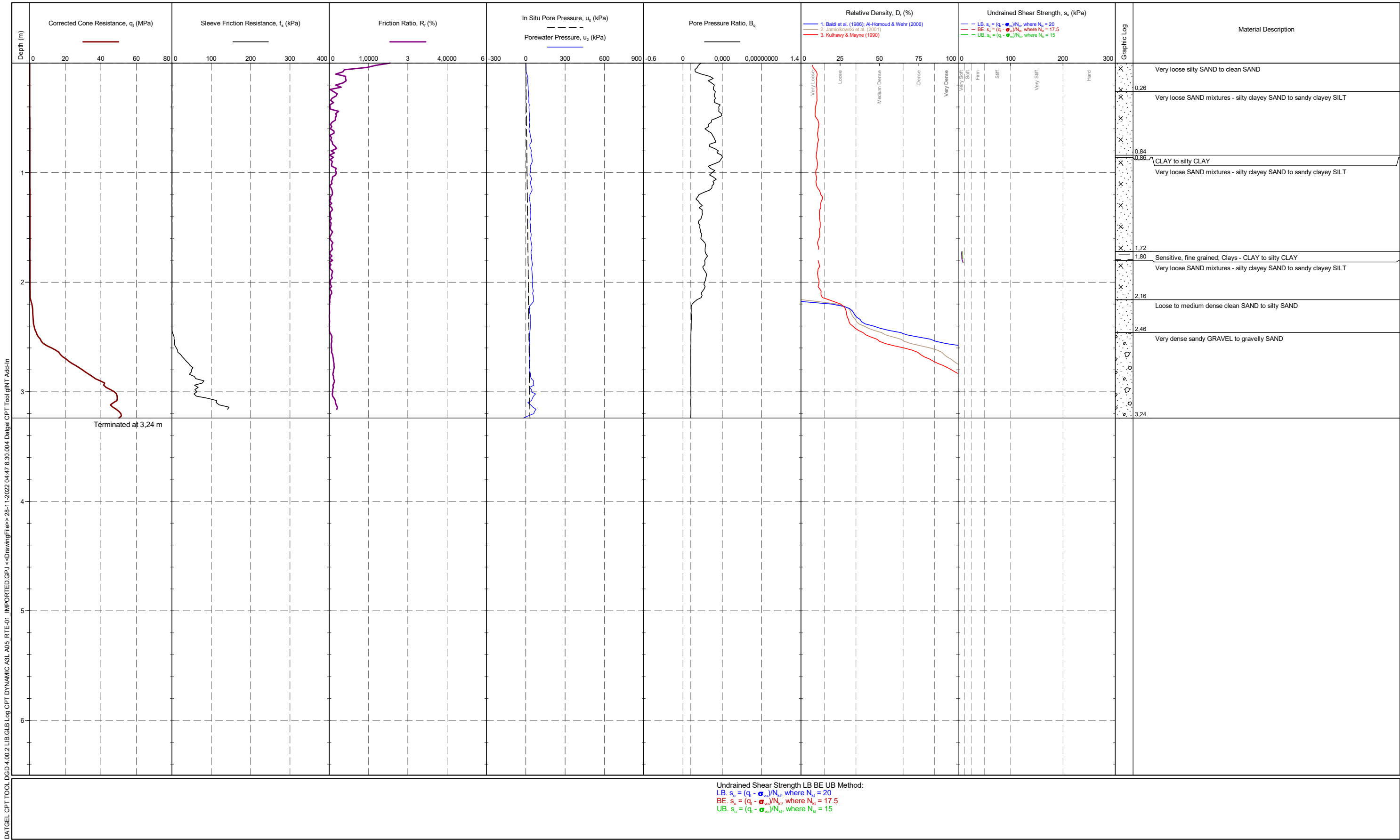


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:47 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #257

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 463252,6 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5254469,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -82,83 m ZH				

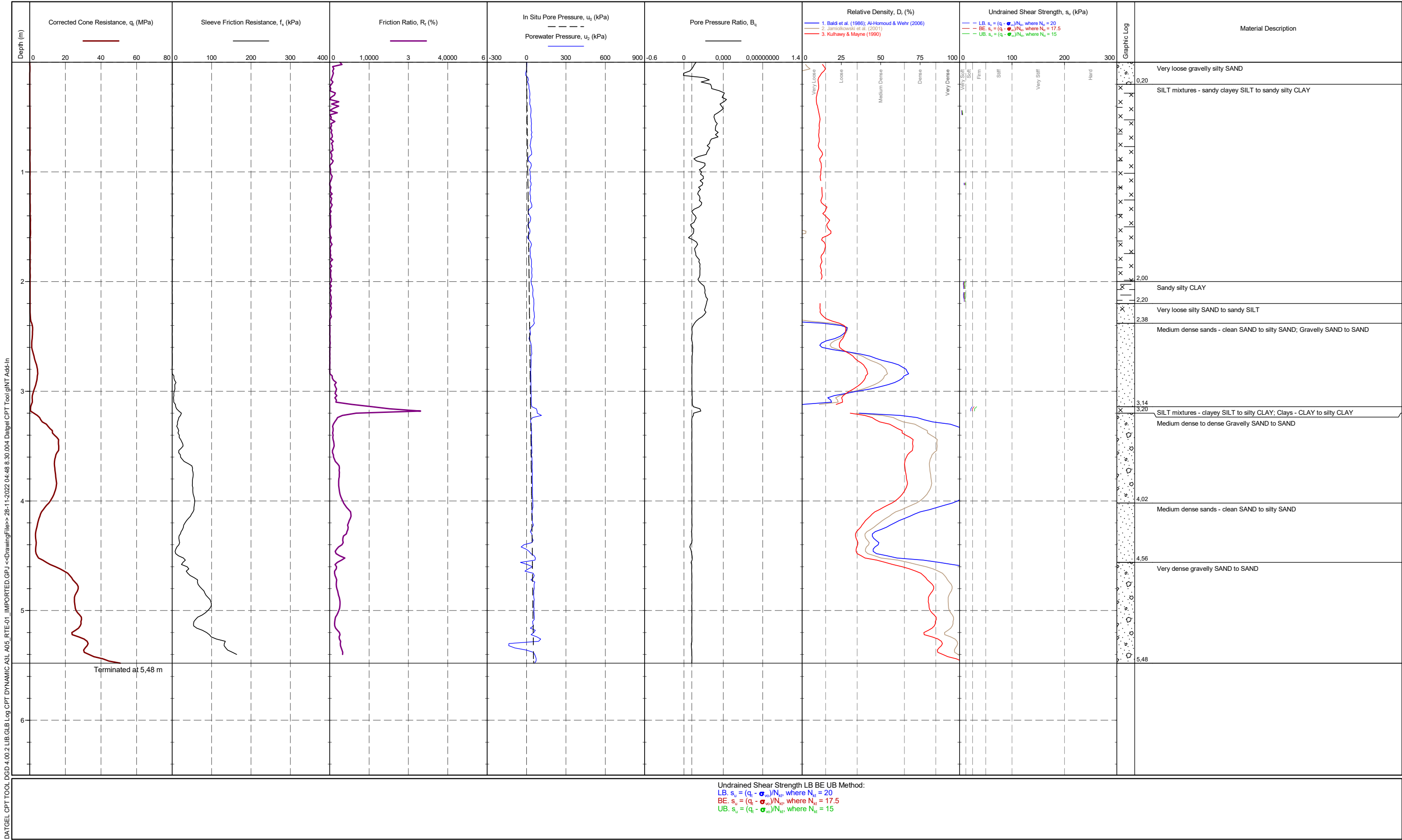


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:47 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #258

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 464210,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5254772,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -80,21 m ZH				

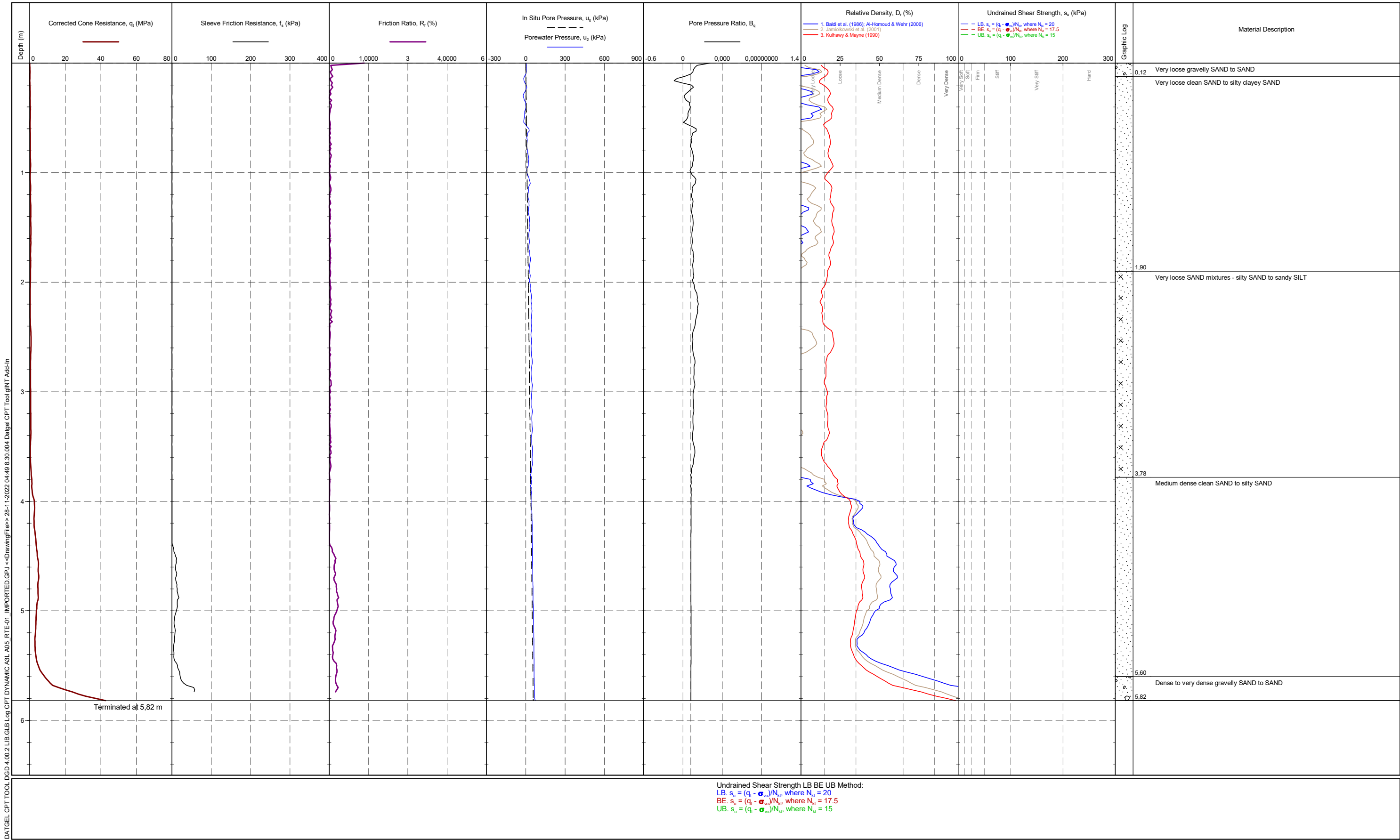


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{vc})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #259

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 465163,6 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5255072,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -76,45 m ZH				



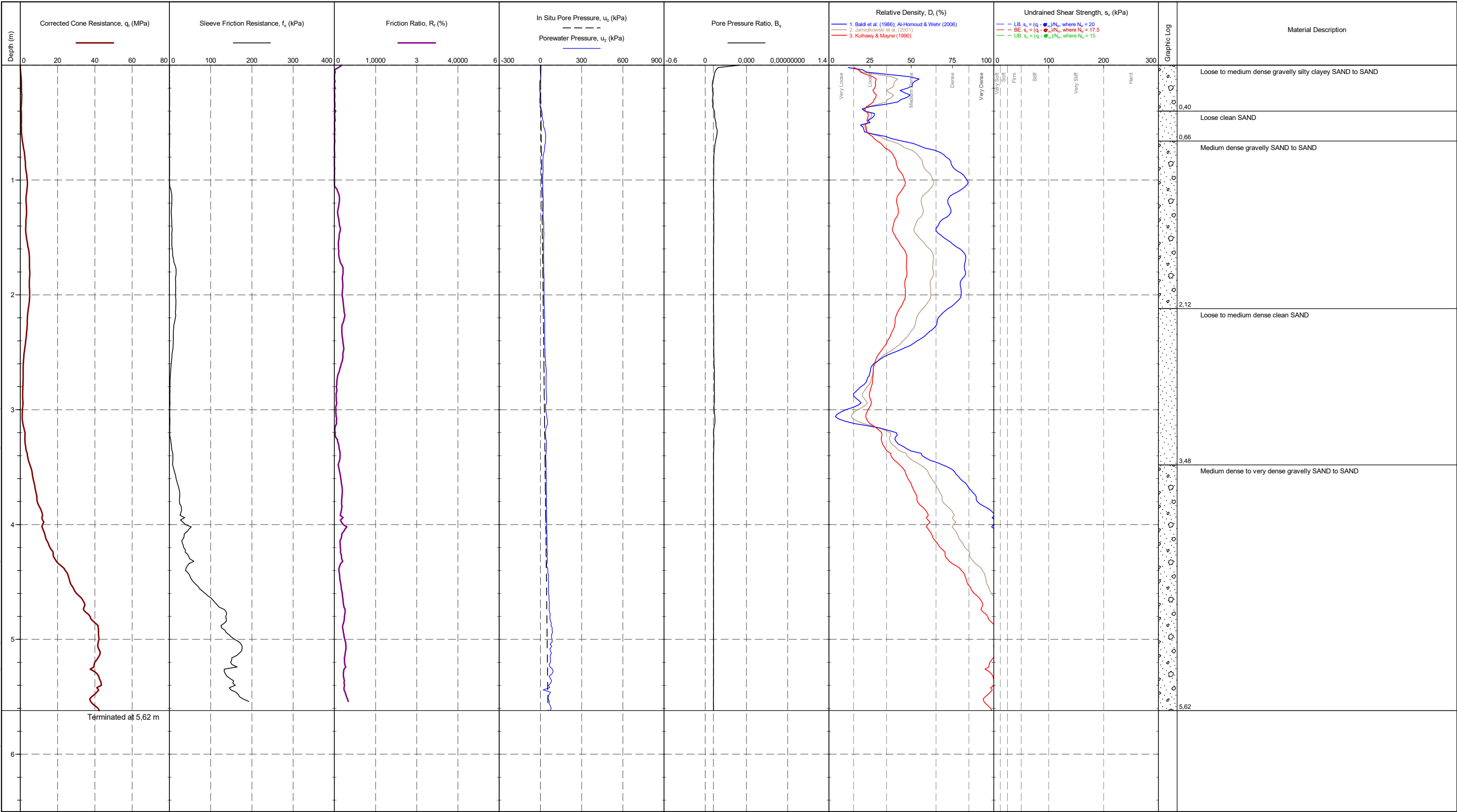
DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:49 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #260_A

CLIENT : RTE	AREA : BLOCK_B_2	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 466118,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5255374,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -71,67 m ZH				

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:50 8.30.004 Datgel CPT Tool.gINT Add-In

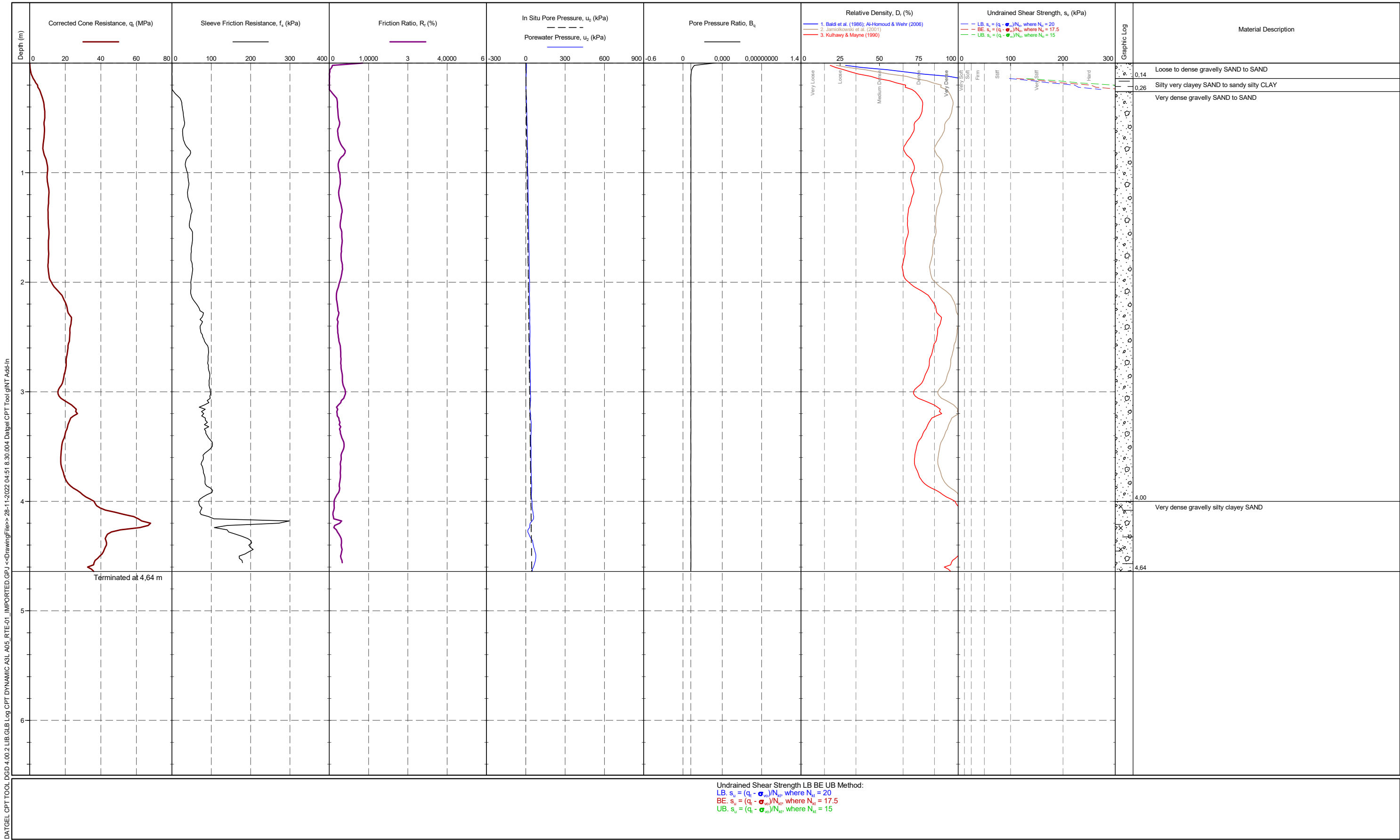


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #333

CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 467890,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5256312,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -62,44 m ZH				

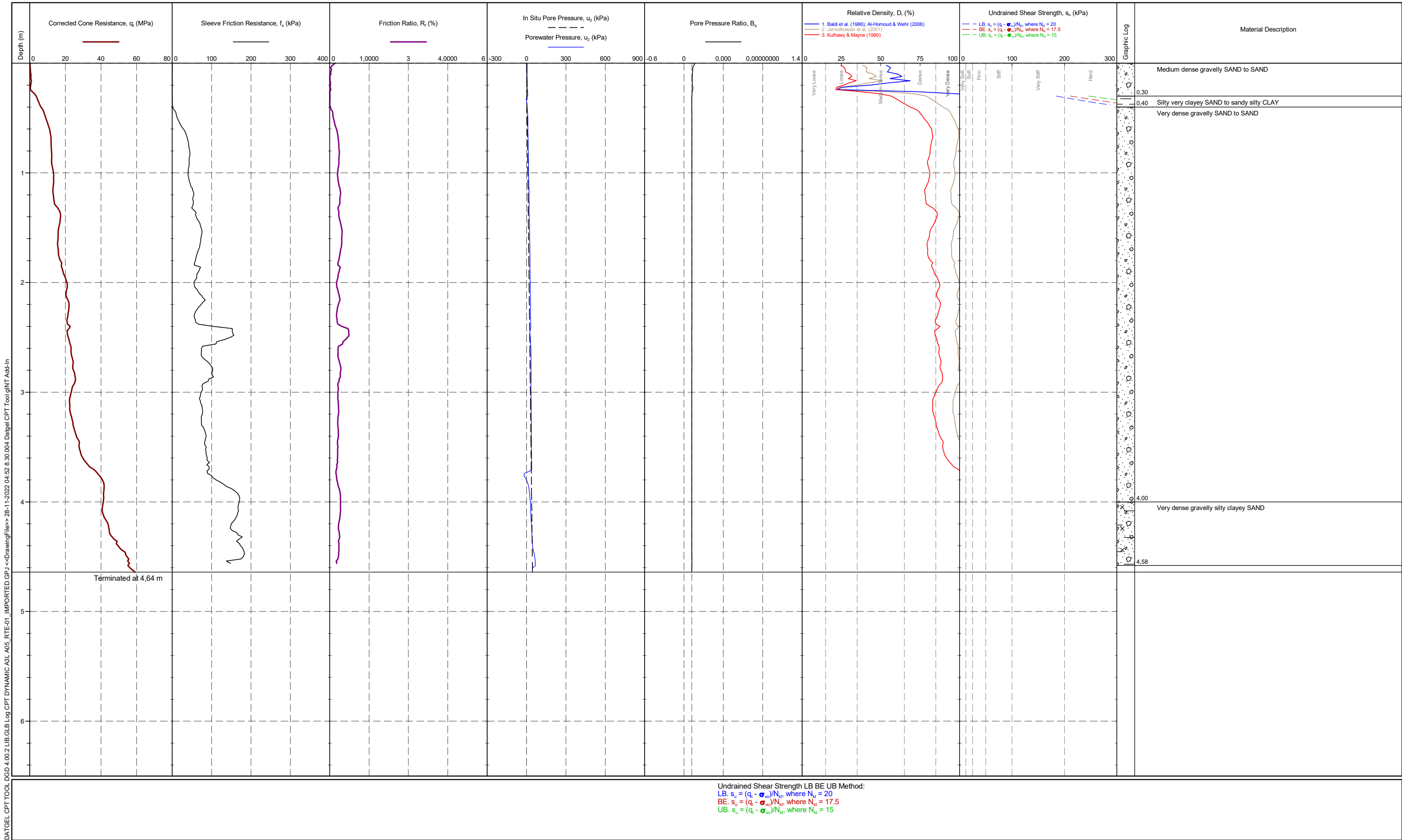


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:51 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #334_A

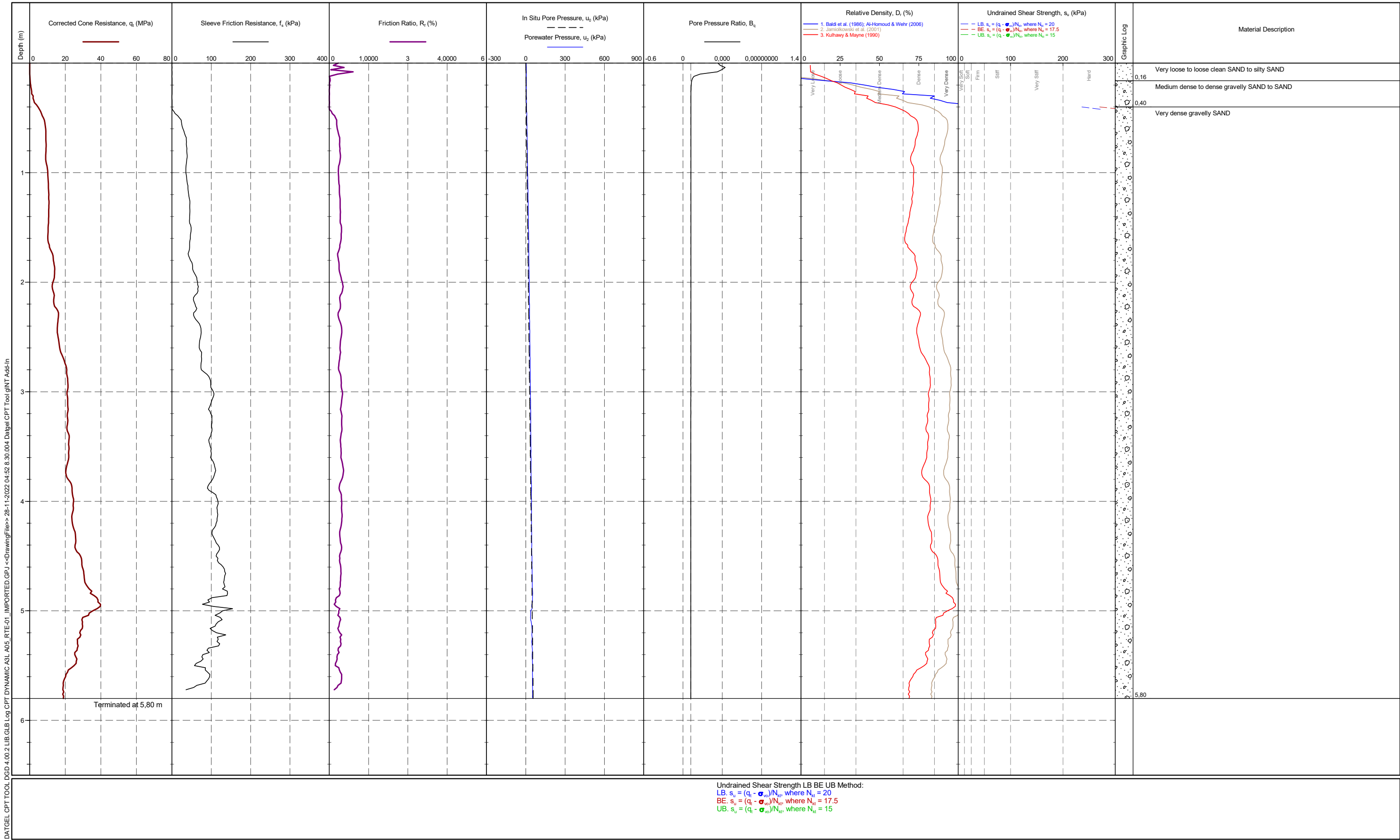
CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 468681,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5256923,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -59,58 m ZH				



PointID

EC GI #335_A

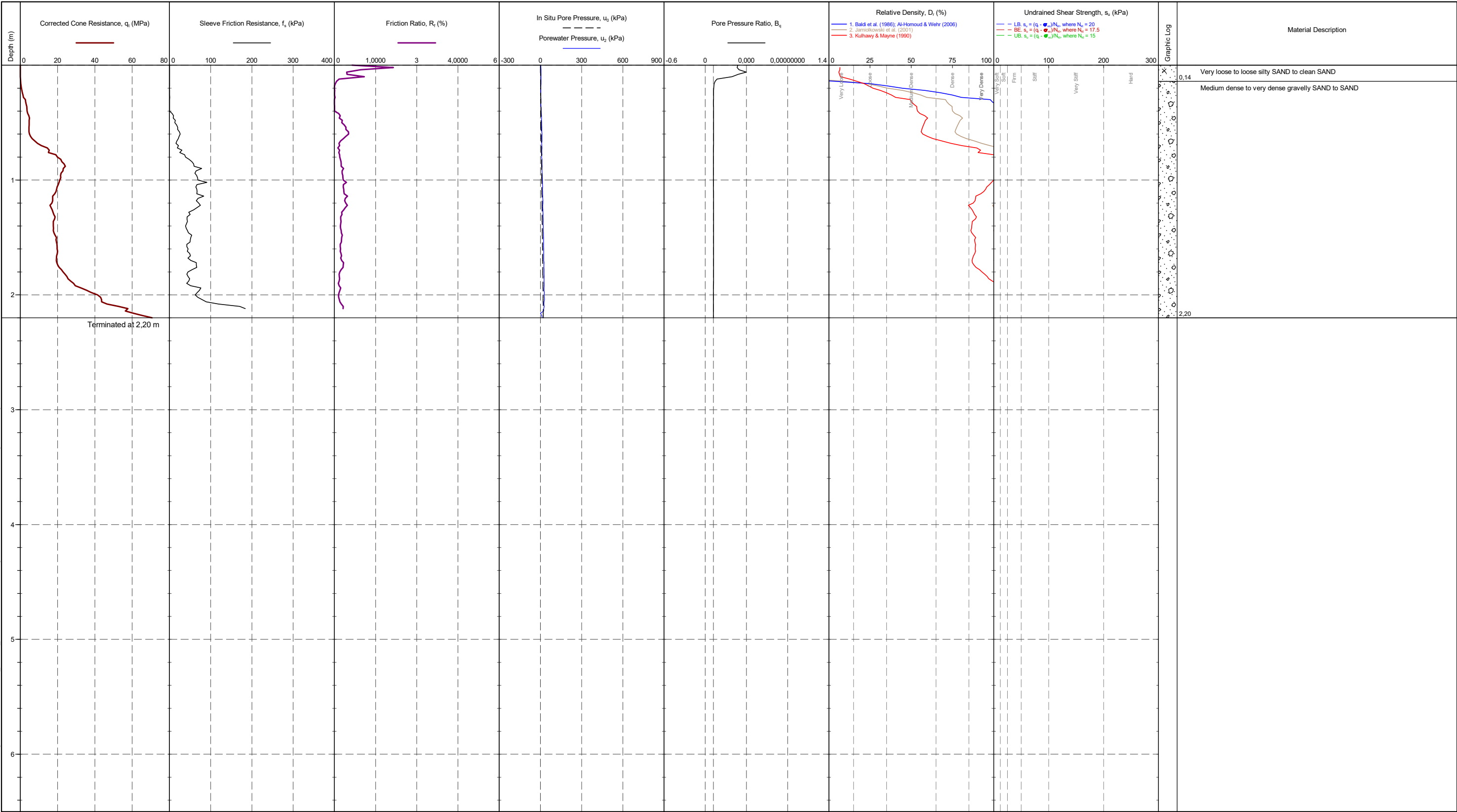
CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 469473,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5257533,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -59,58 m ZH				



PointID

EC GI #336

CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 470264,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5258145,6 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -56,24 m ZH				

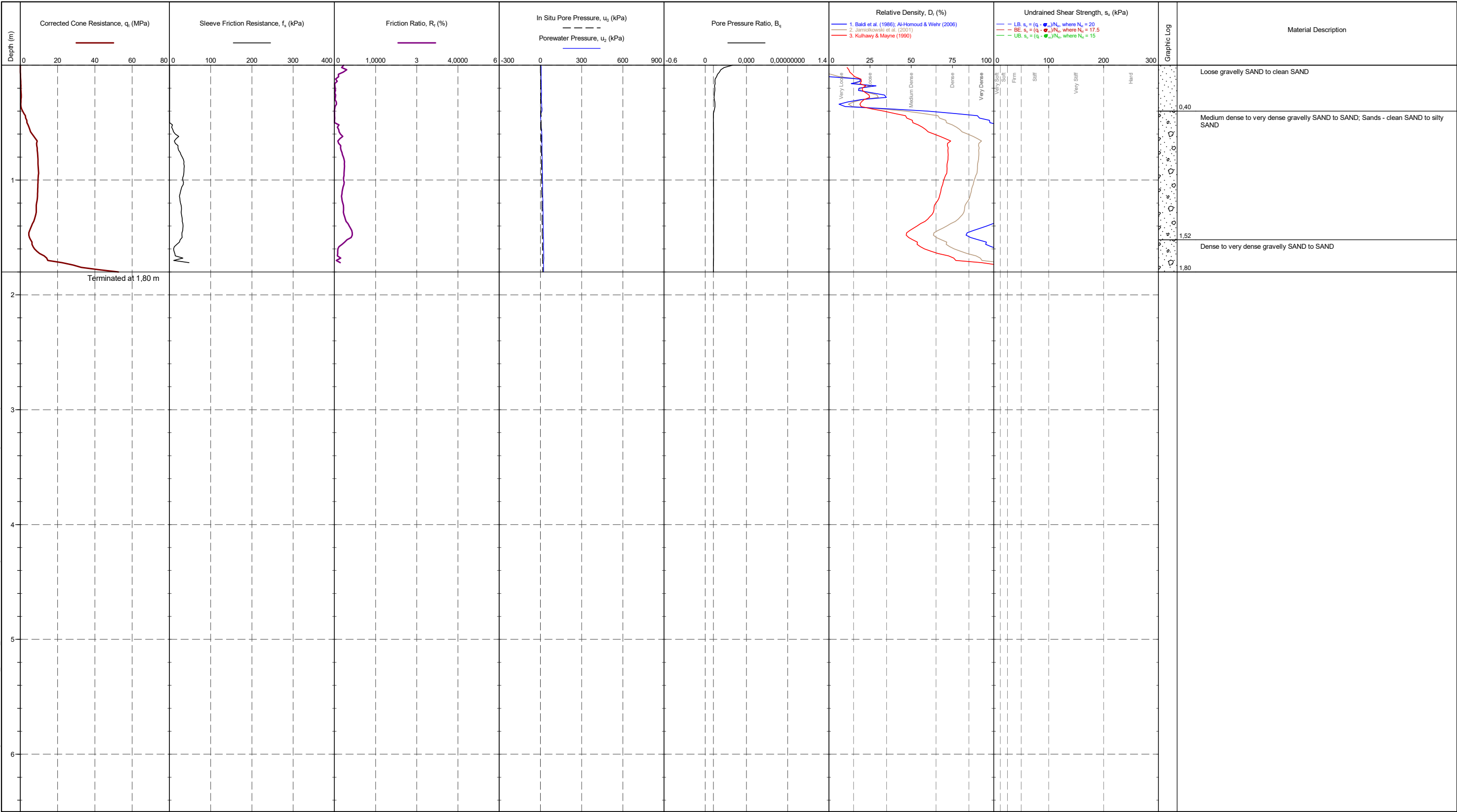


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17,5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #337_A

CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 471060,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5258751,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -57,05 m ZH				

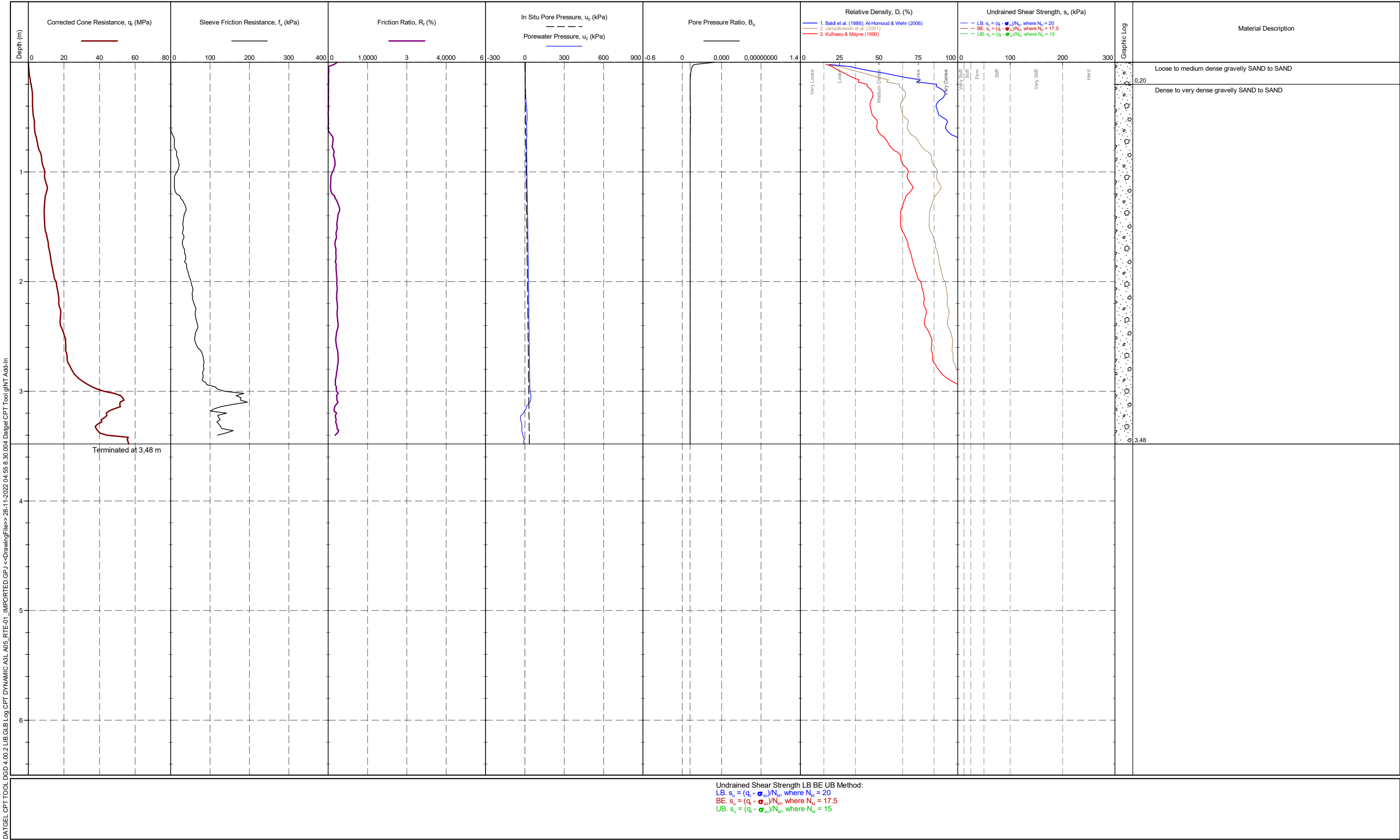


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #338

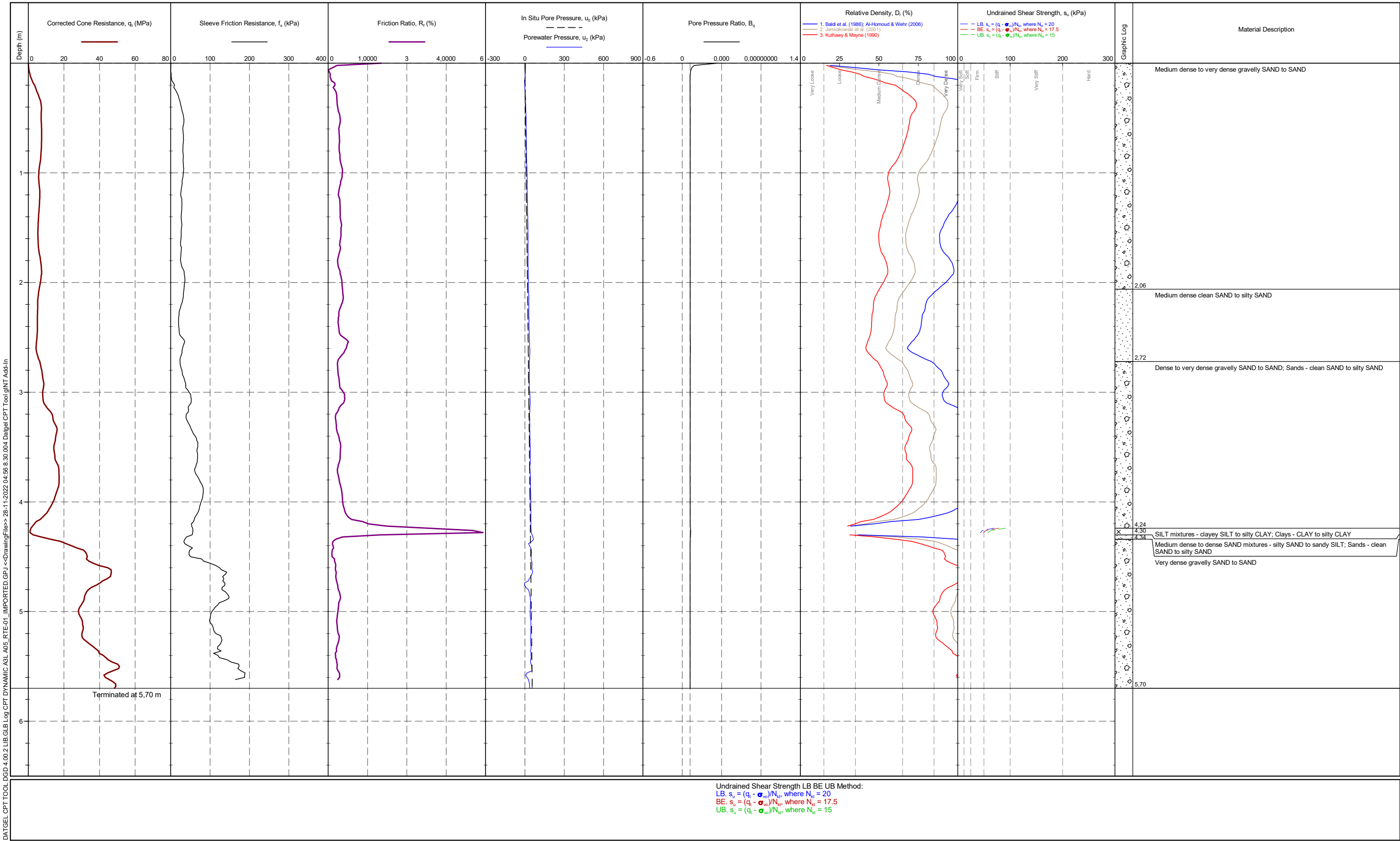
CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 471867,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5259257,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -54,14 m ZH				



PointID

EC GI #342_A

CLIENT : RTE	AREA : BLOCK_C_3	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 467097,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5255703,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -66,80 m ZH				

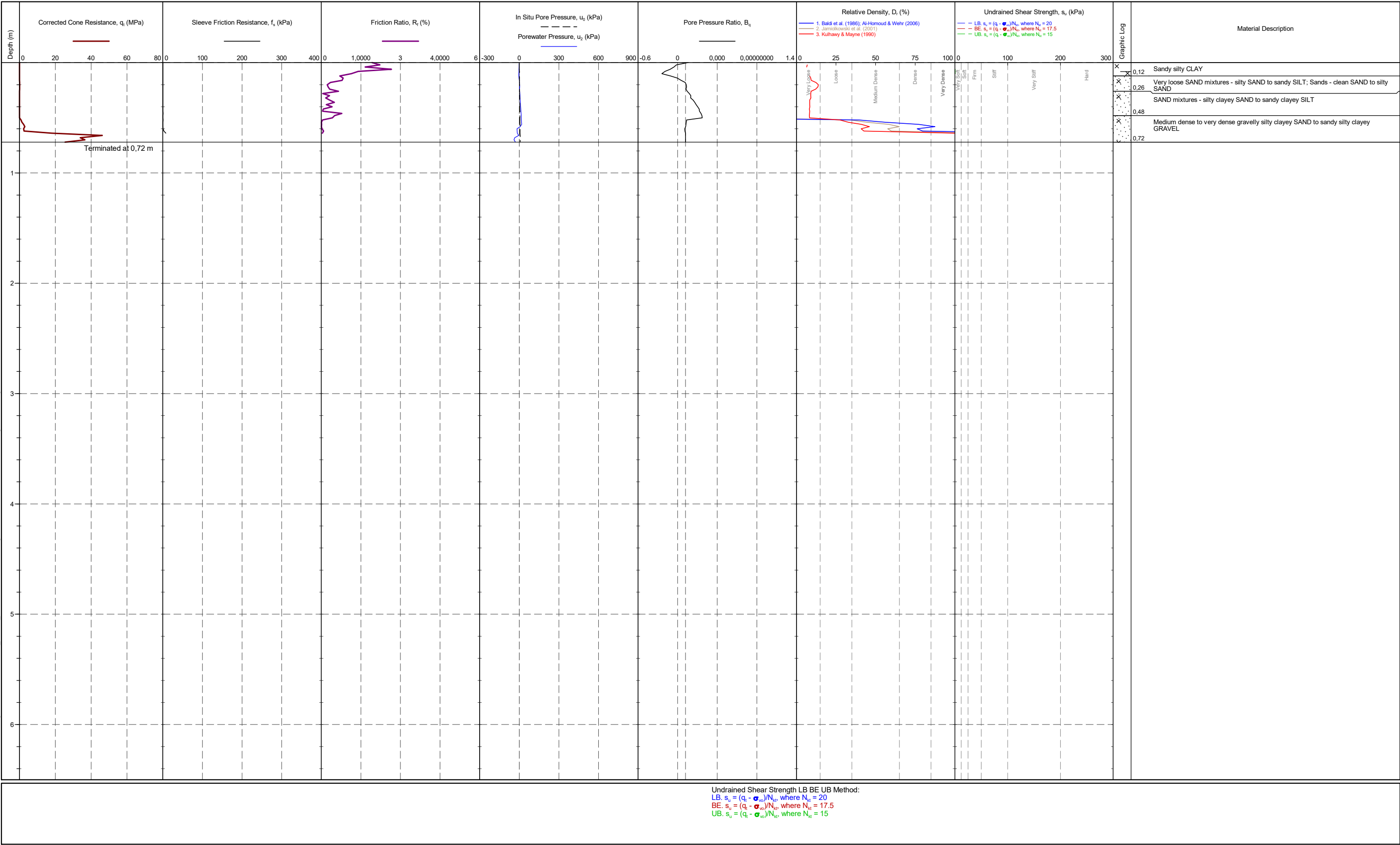


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #425

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478654,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5266309,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -39,83 m ZH				



PointID

EC GI #427

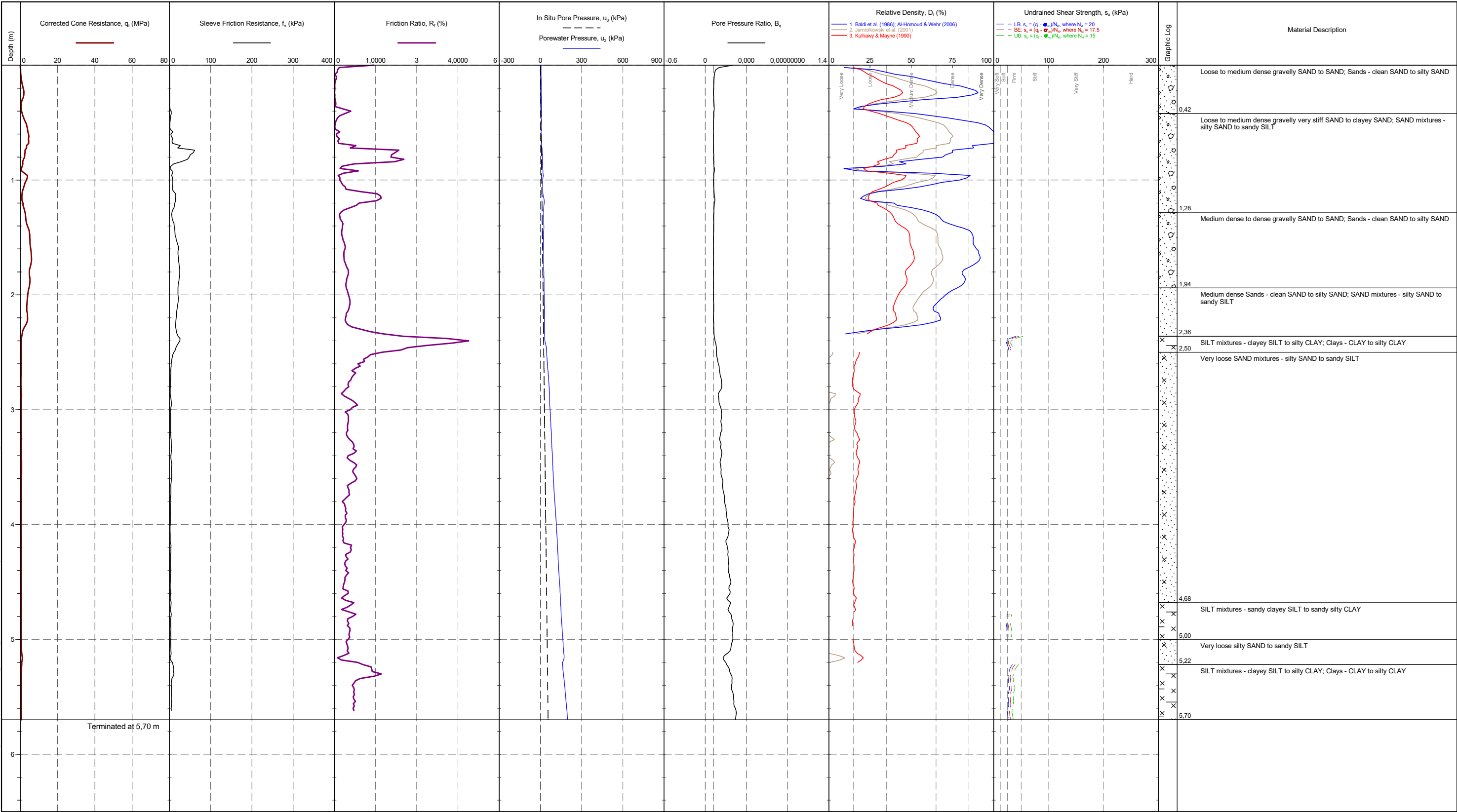
SHEET : 1 OF 1

STATUS : Final

DATE : 5-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 480961,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5266559,3 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -33,99 m ZH				

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 04:57 & 30.004 Datgel CPT Tool.gINT Add-In



Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_u$, where $N_u = 20$
BE. $s_u = (q - \sigma_{v0})/N_u$, where $N_u = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_u$, where $N_u = 15$

PointID

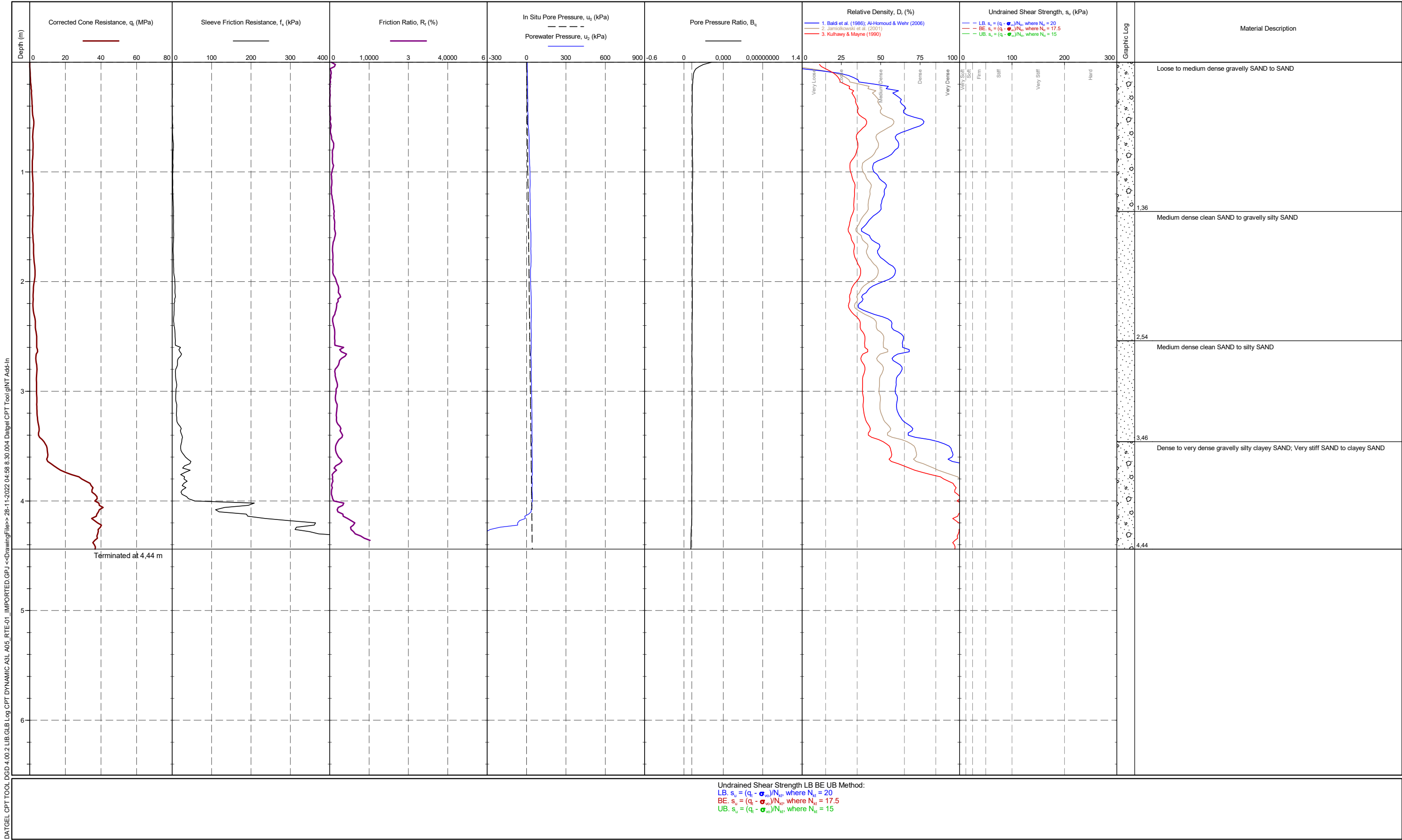
EC GI #439_A

SHEET : 1 OF 1

STATUS : Final

DATE : 4-7-2022

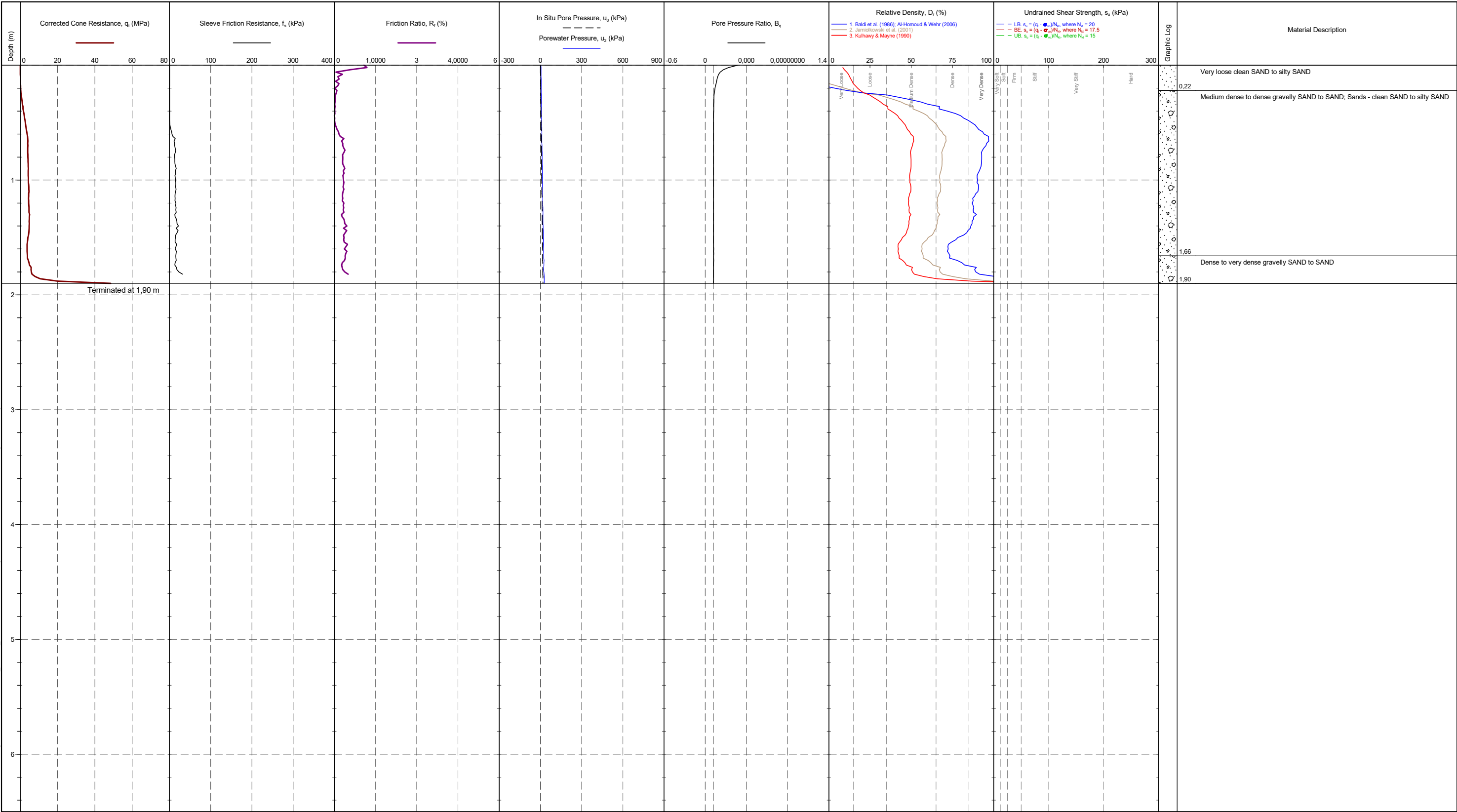
CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 472645,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5259974,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -53,44 m ZH				



PointID

EC GI #440_A

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 474171,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5259964,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -48,27 m ZH				

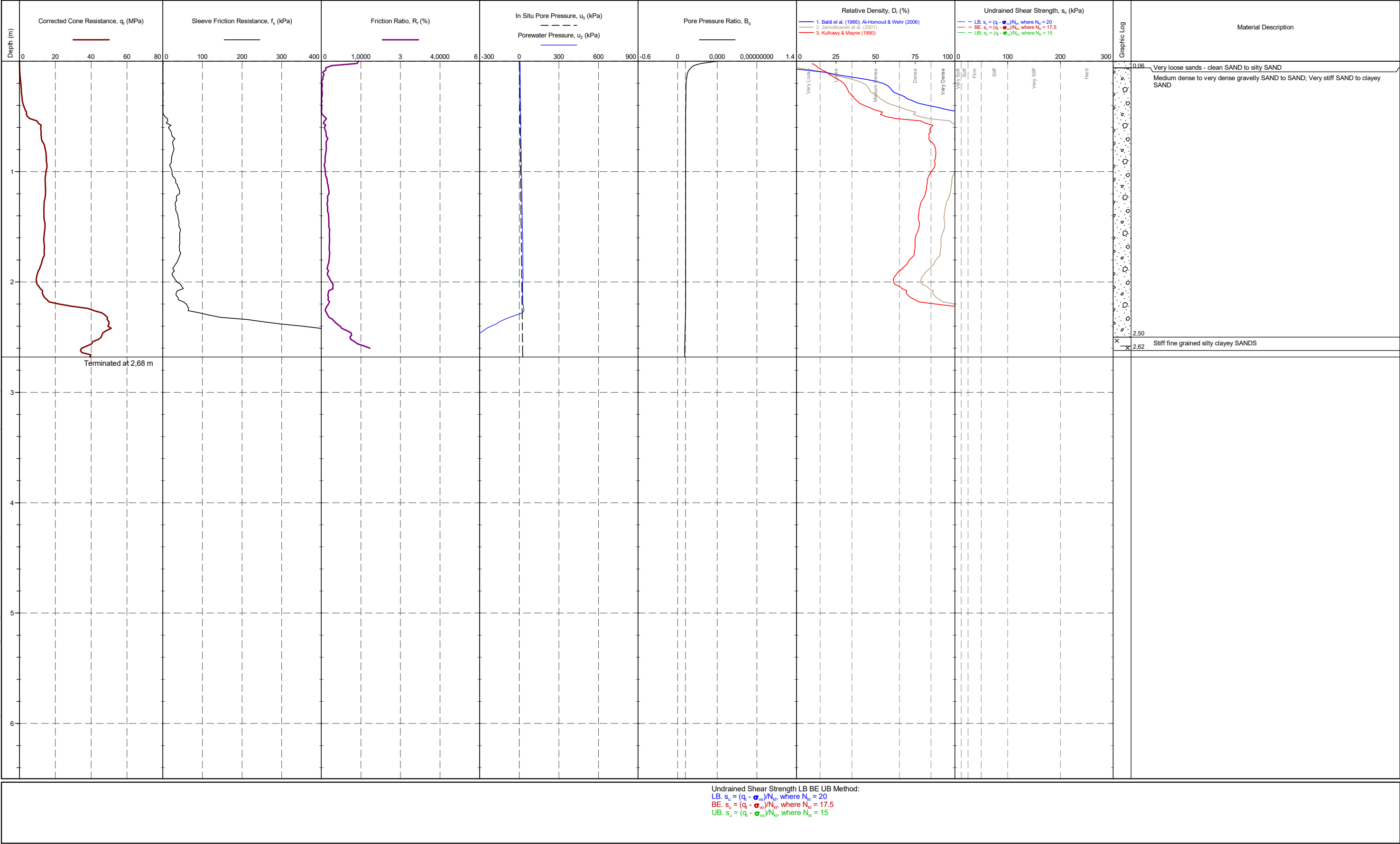


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #464_A

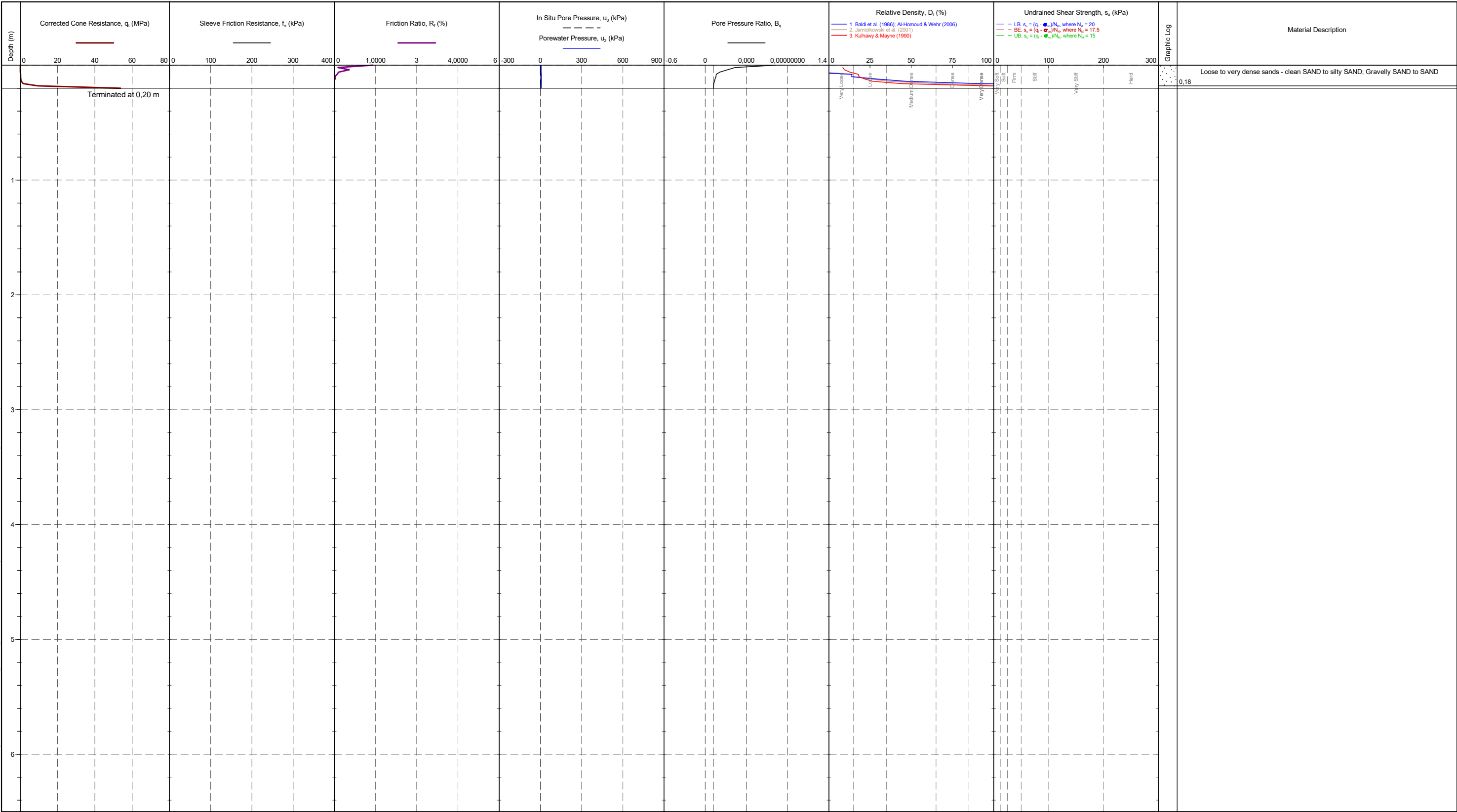
CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 474958,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5260106,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -44,68 m ZH				



PointID

EC GI #465_A

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 476051,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5260890,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -33,59 m ZH				

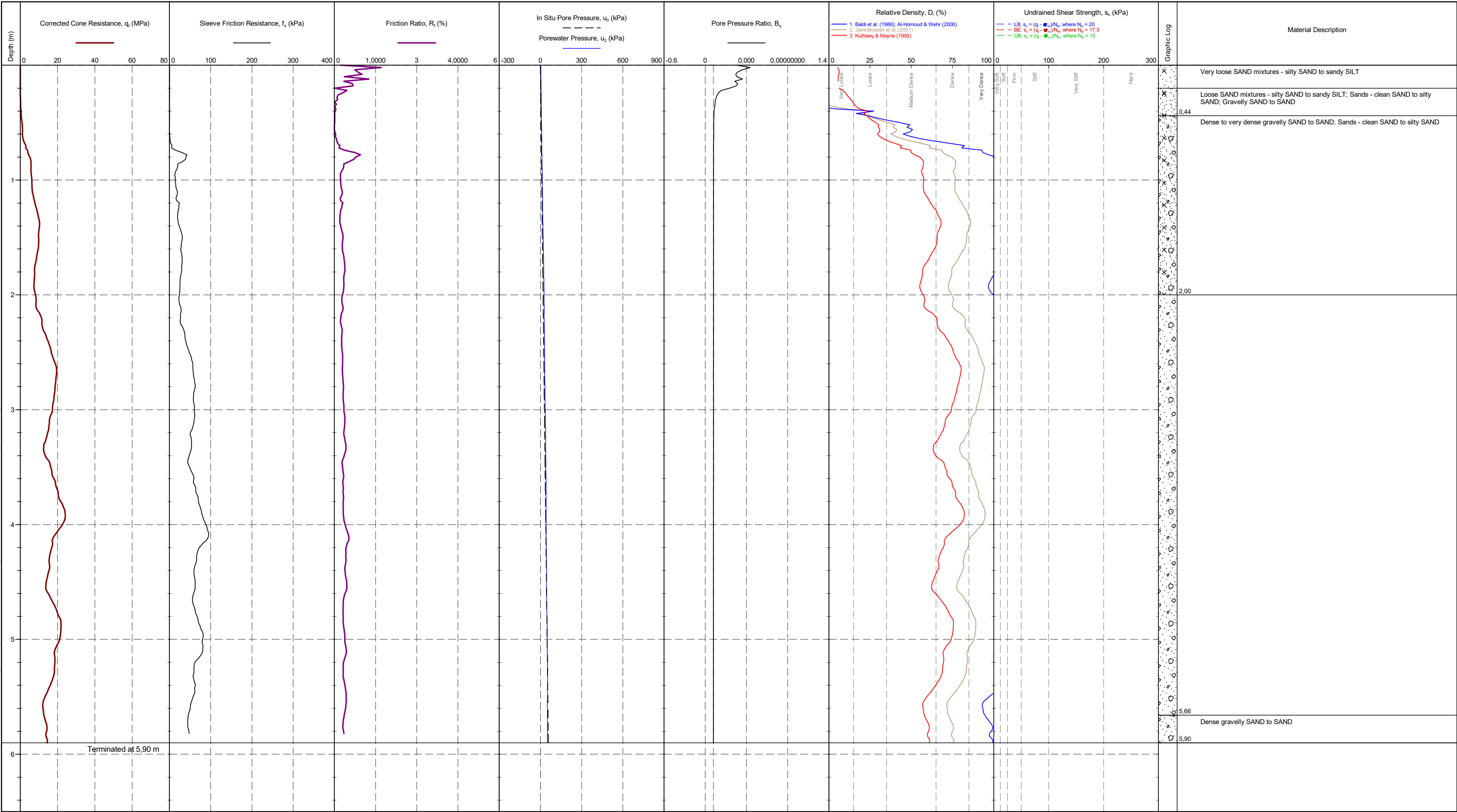


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

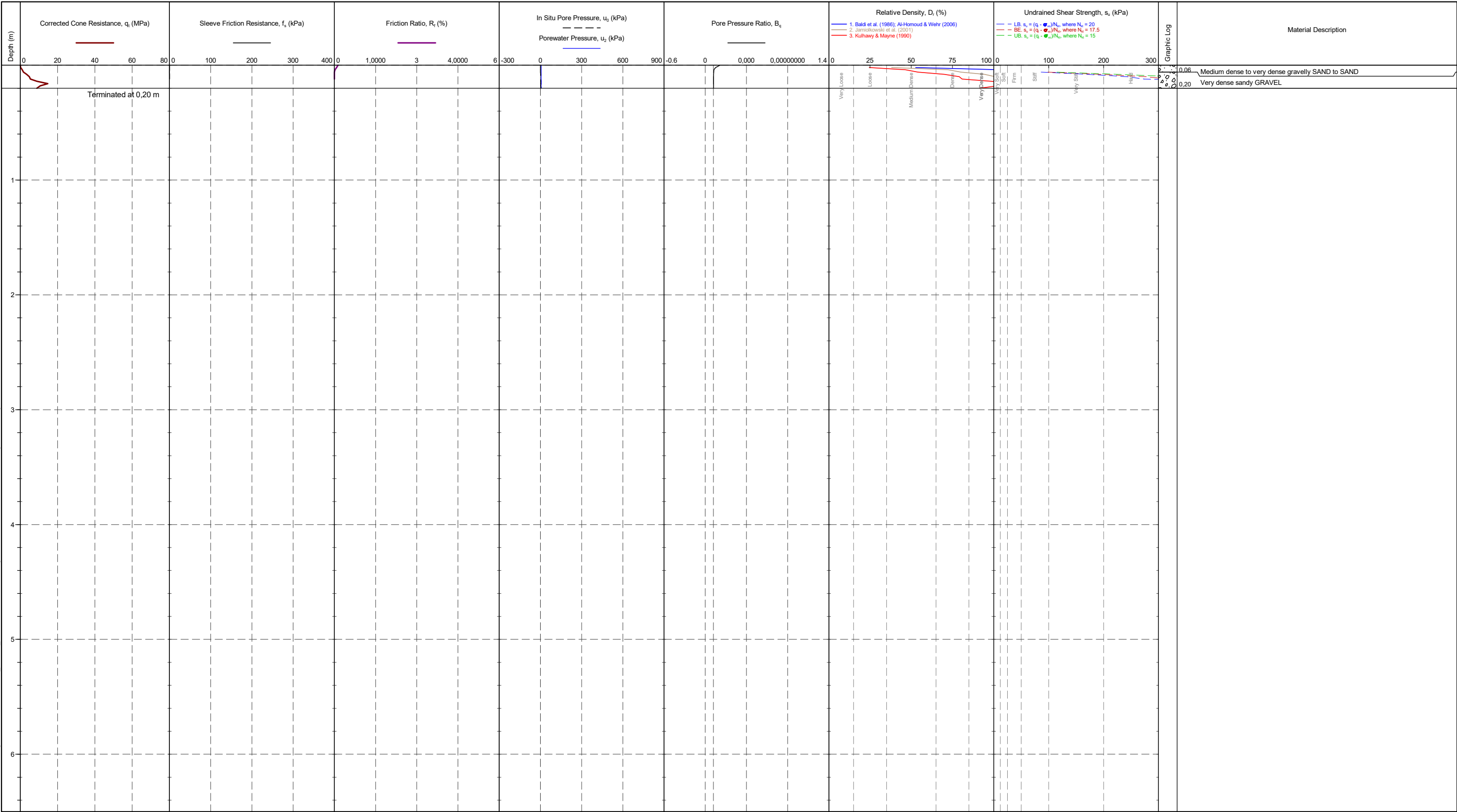
EC GI #467

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 479600,2 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5266804,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -36,51 m ZH				



Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

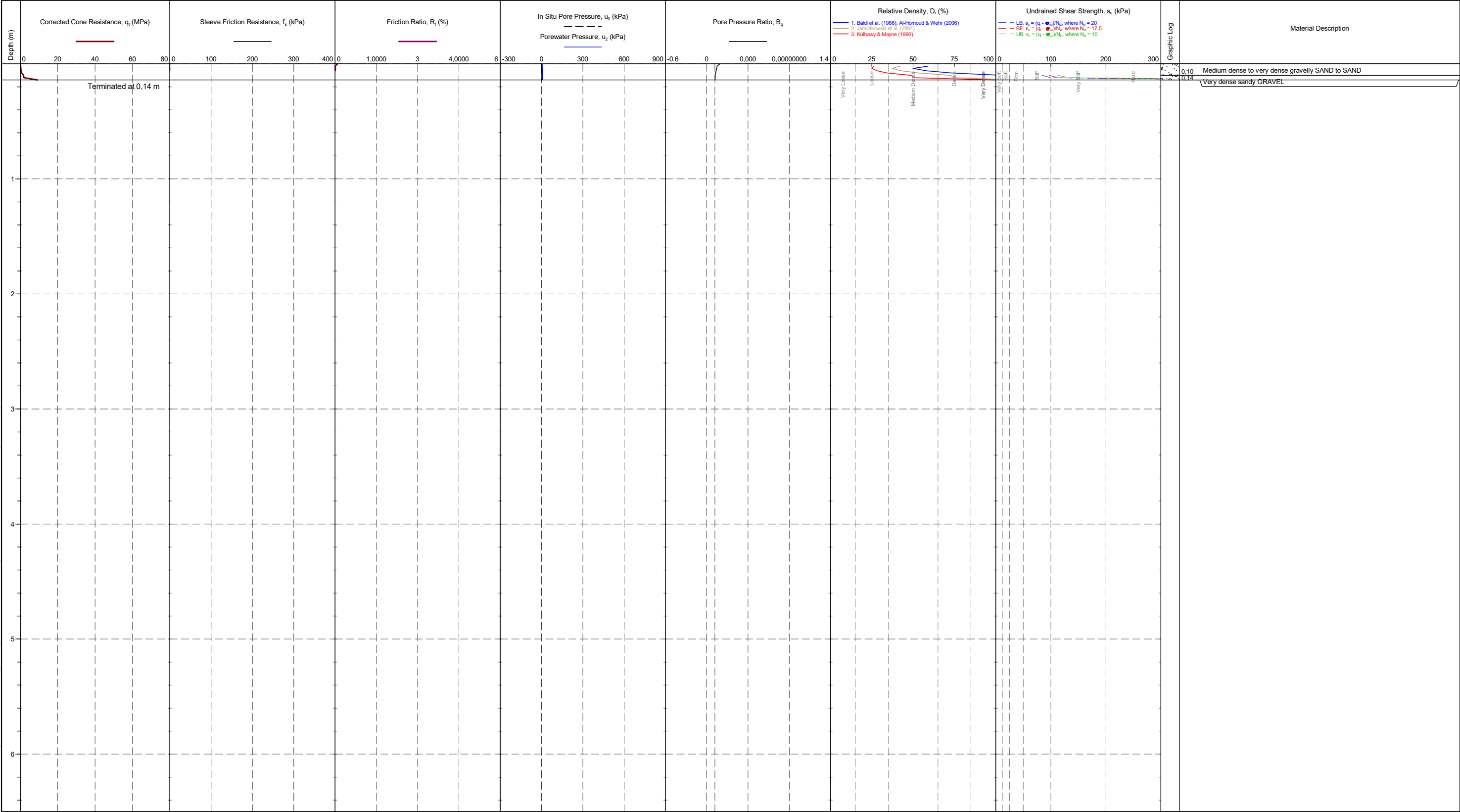
CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478681,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5263079,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS.: WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -35,98 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:02 8:30:004 Datgel CPT Tool.gINT Add-In

Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478677,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5263078,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS.: WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -36,26 m ZH				

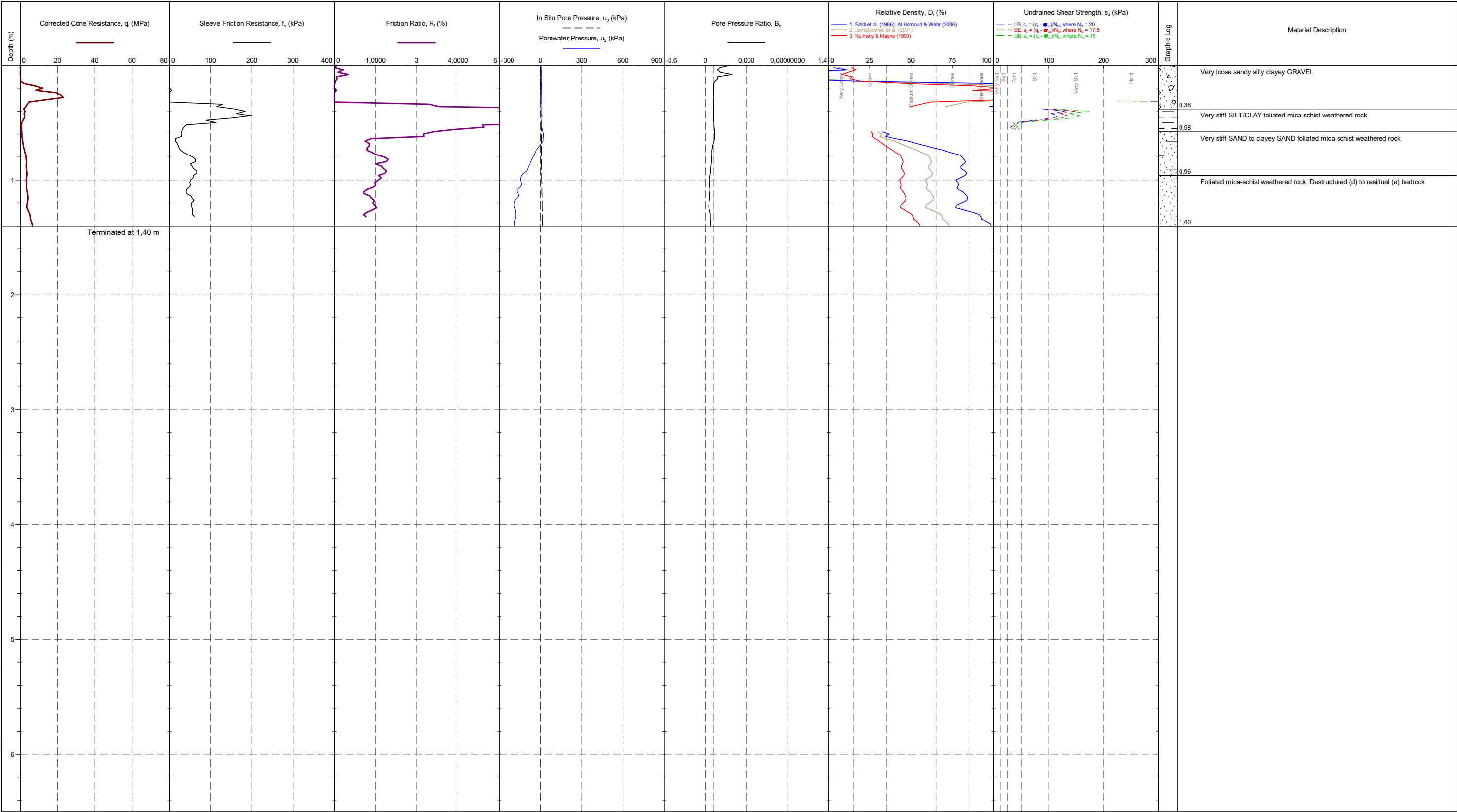


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #470

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 477918,0 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5262098,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -35,32 m ZH				

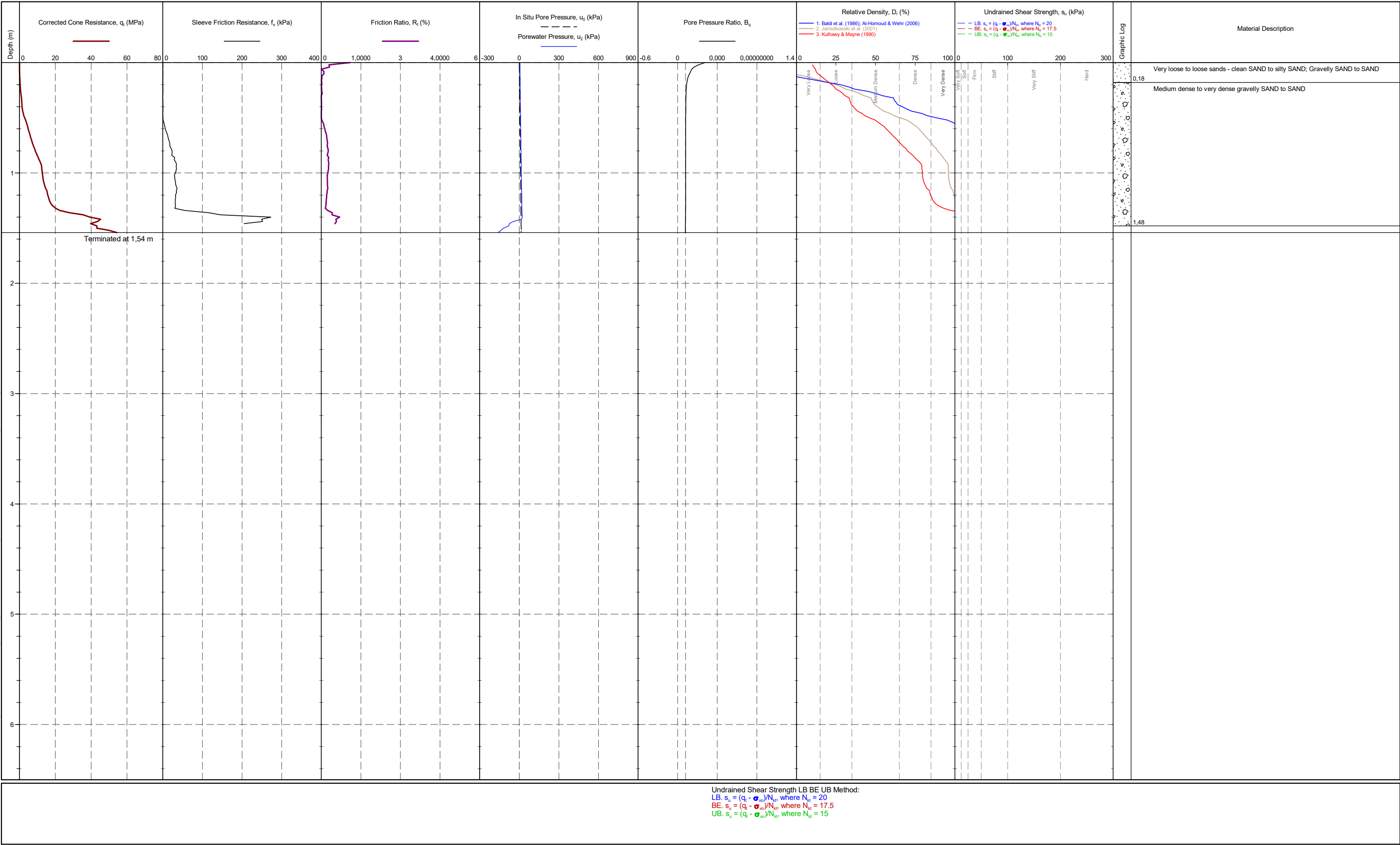


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{vo})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #473

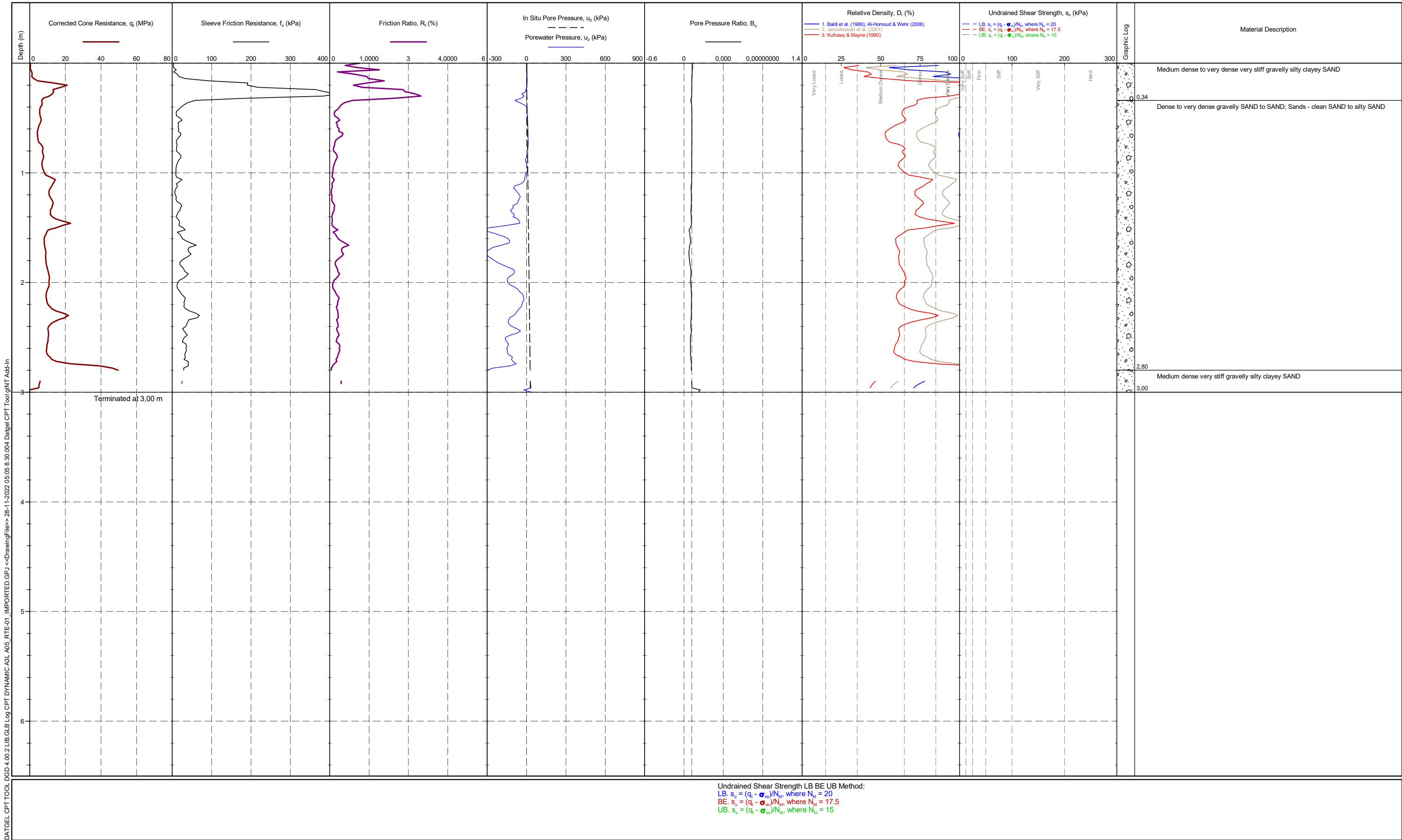
CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 475679,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5260158,2 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -38,37 m ZH				



PointID

EC GI #475_A

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478075,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5265190,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -49,97 m ZH				

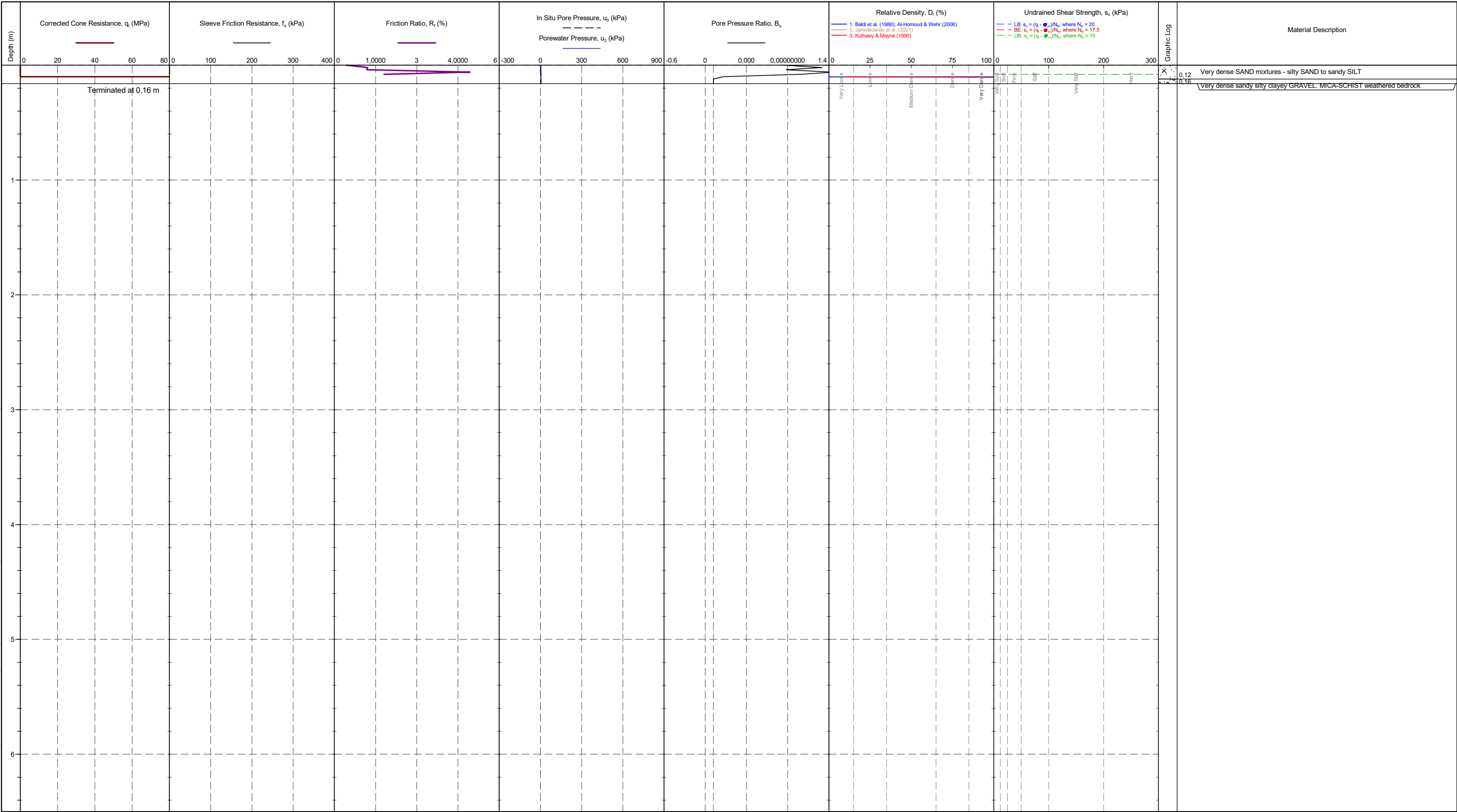


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:05 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #475_Aa

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478077,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5265186,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -41,10 m ZH				



Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:06 8:30:004 Datgel CPT Tool.gINT Add-In

PointID

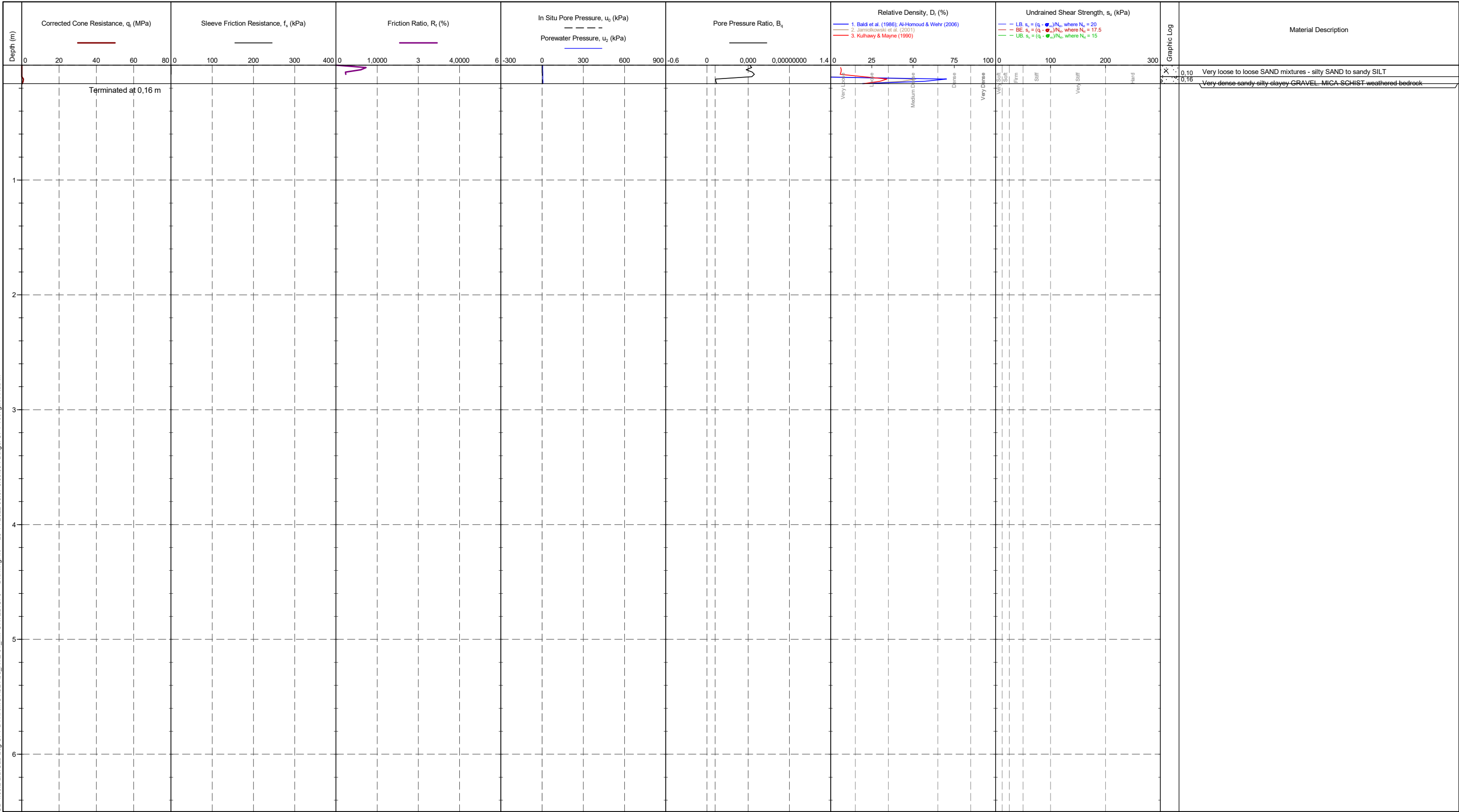
EC GI #475_Ab

SHEET : 1 OF 1

STATUS : Final

DATE : 5-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 478074,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5265191,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -41,24 m ZH				



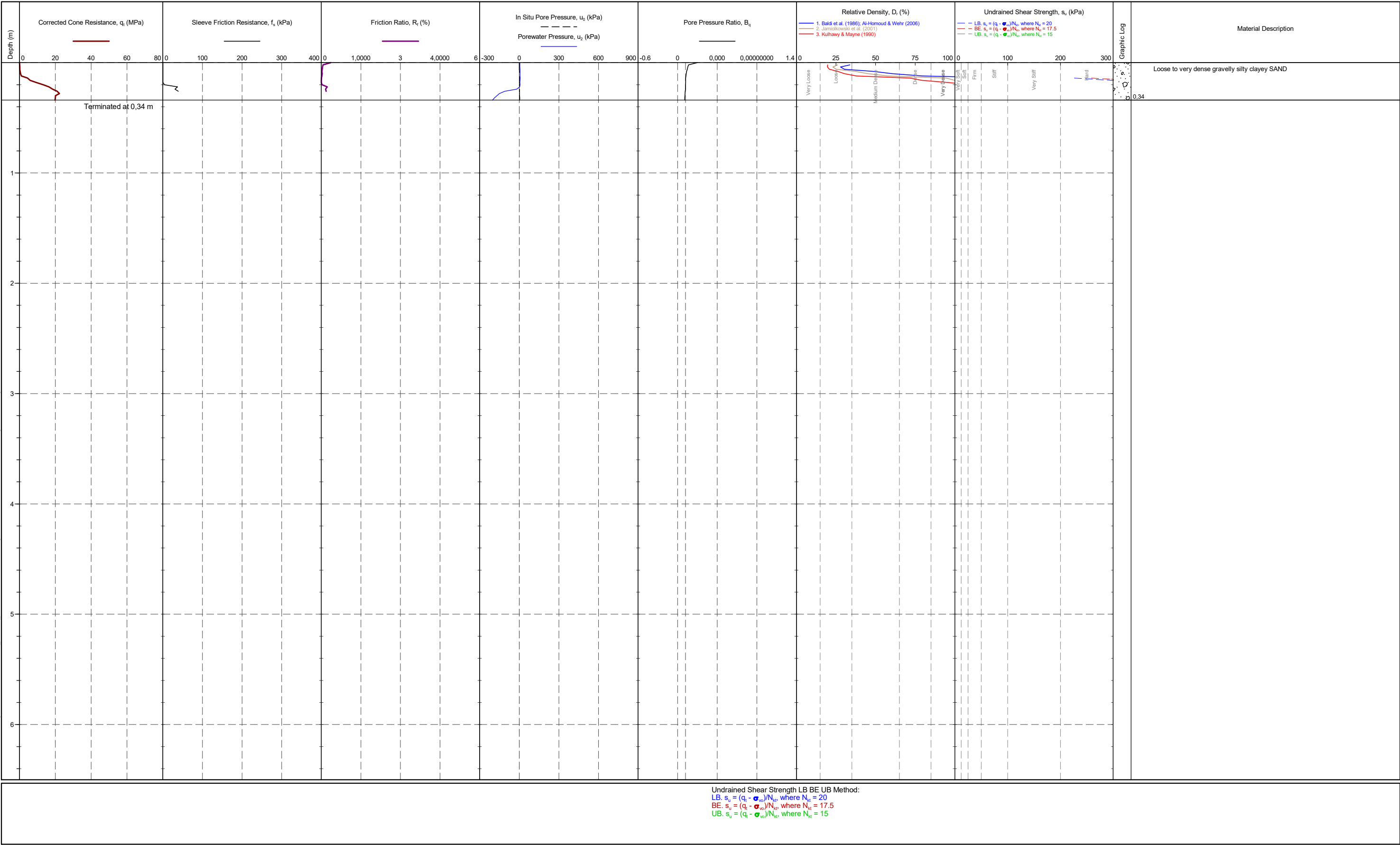
Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED.GPJ <<DrawingFile>> 28-11-2022 05:07 & 30.004 Datgel CPT Tool.gINT Add-In

PointID

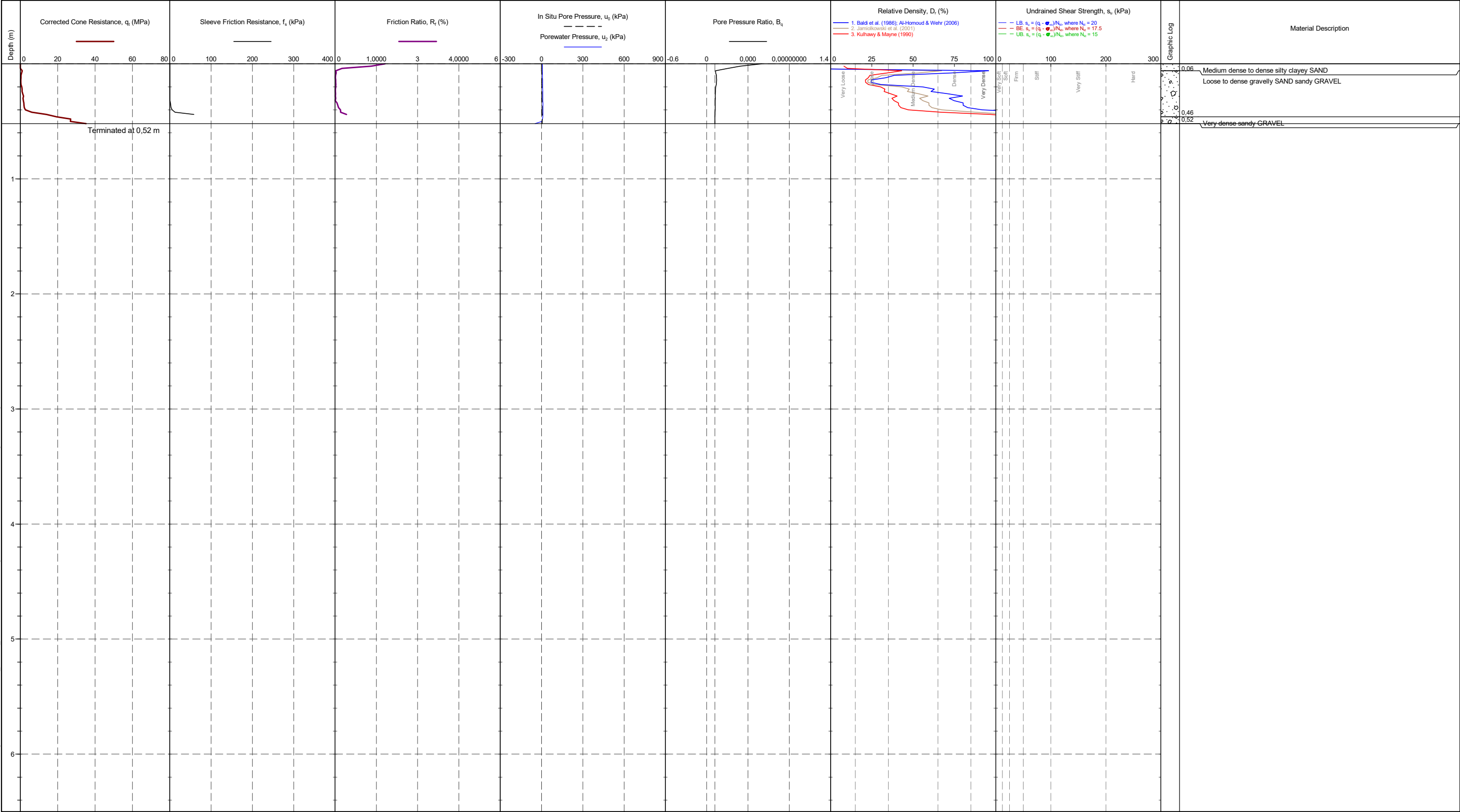
EC GI #476

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 476777,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5260568,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -30,85 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:08 8:30:004 Datgel CPT Tool.gINT Add-In

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 477148,6 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5261469,1 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS.: WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -29,98 m ZH				

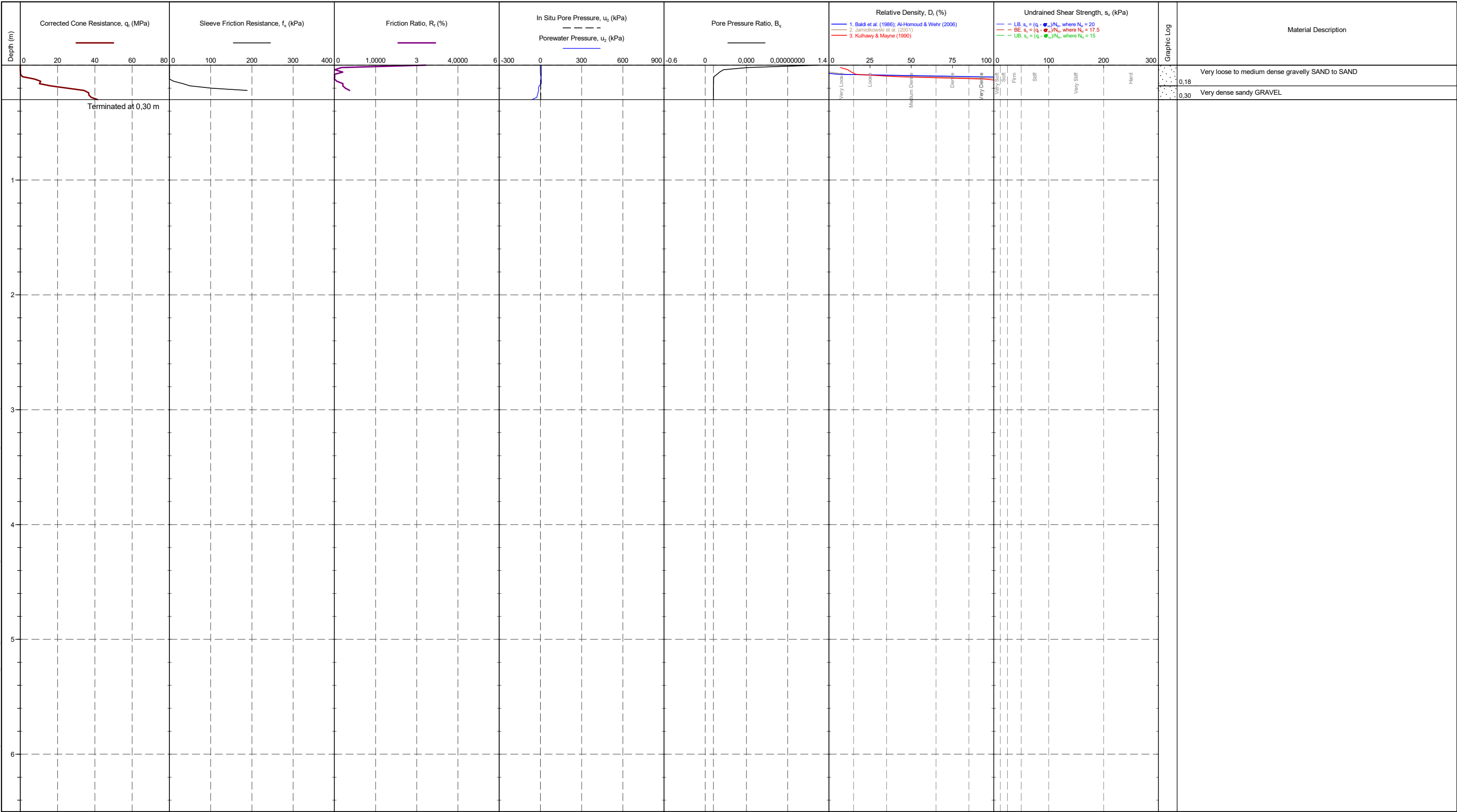


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #477a

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 477150,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5261471,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -30,40 m ZH				

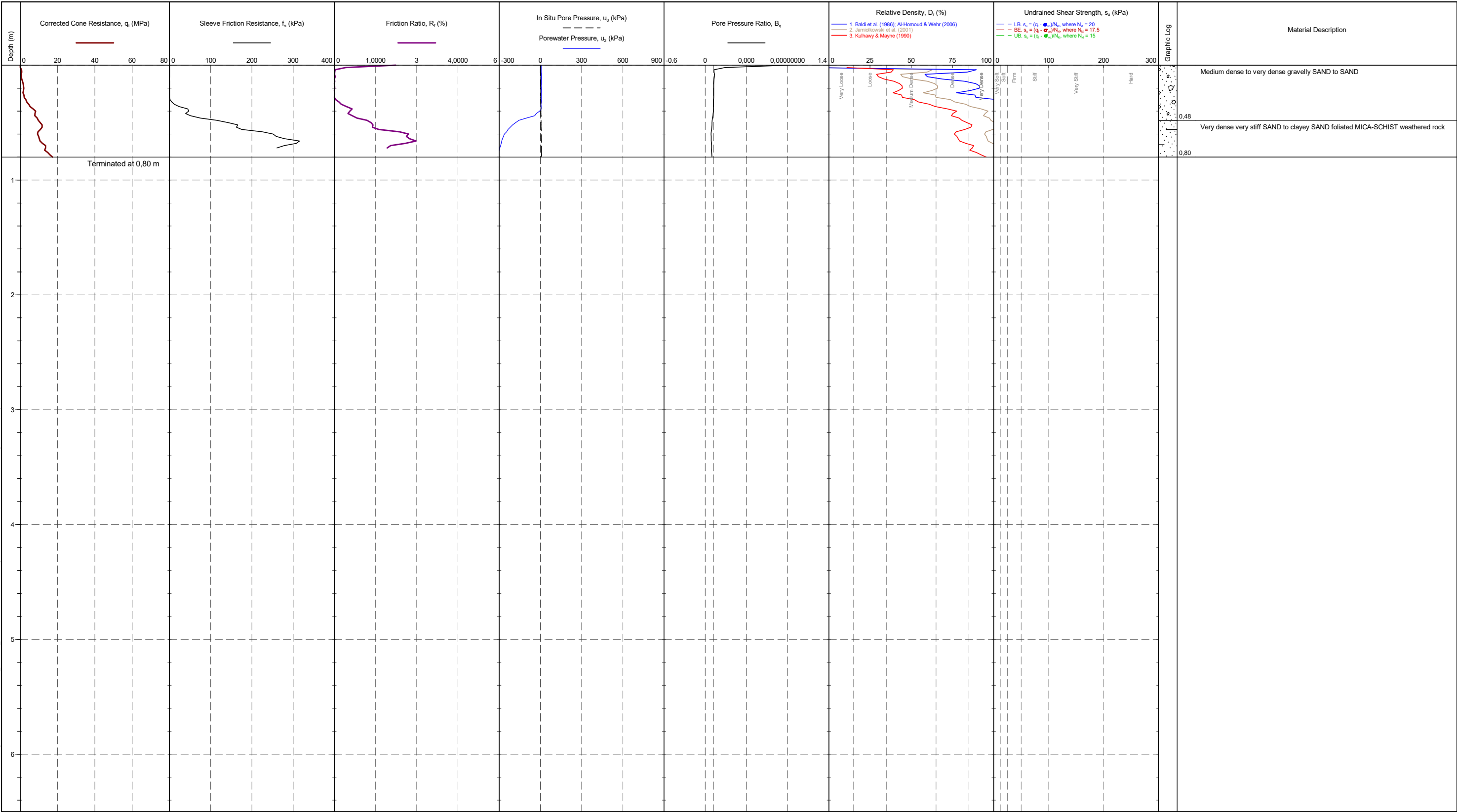


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #478_A

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 477426,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5260933,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -30,83 m ZH				

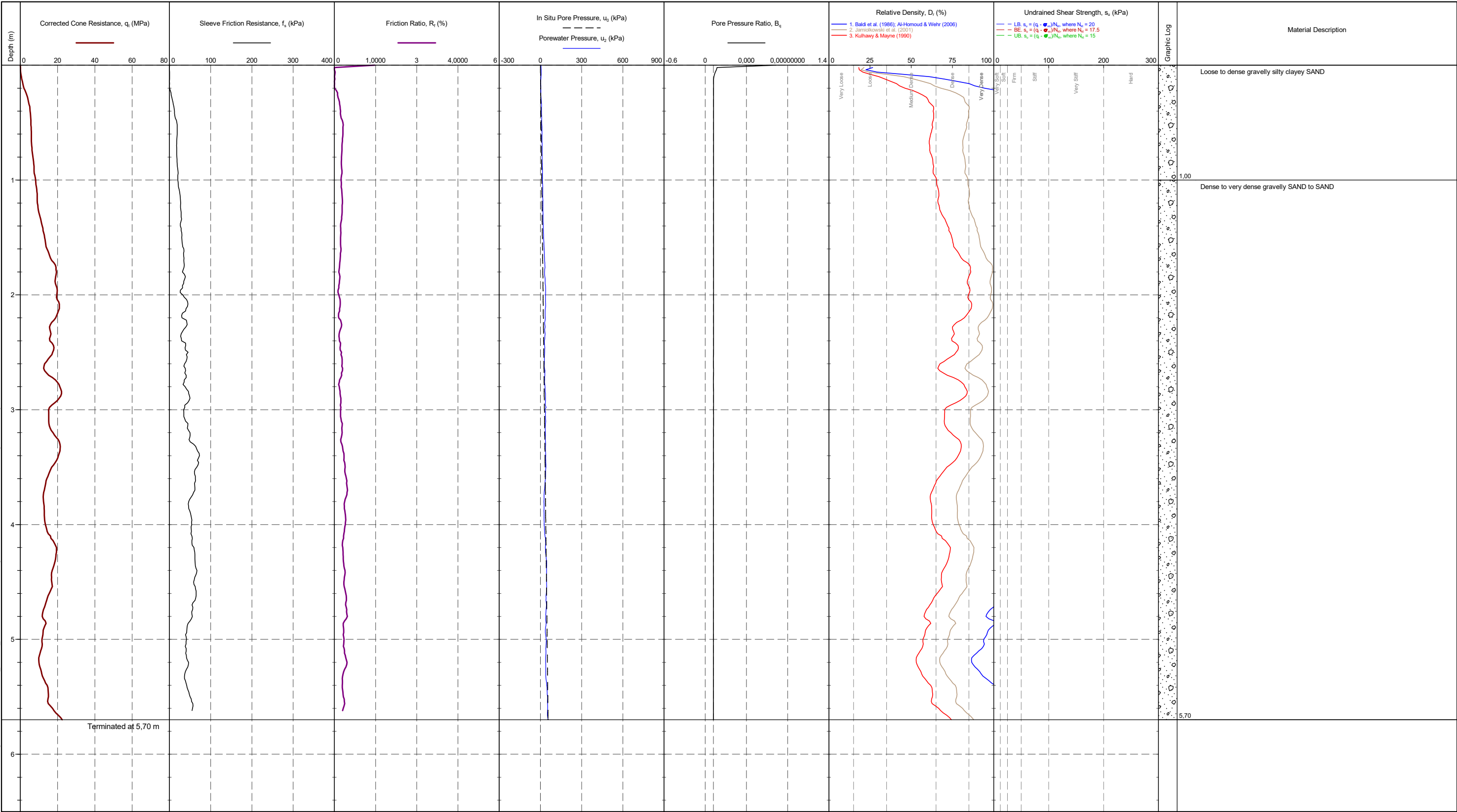


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #508_A

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 487329,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5271216,6 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -9,23 m ZH				

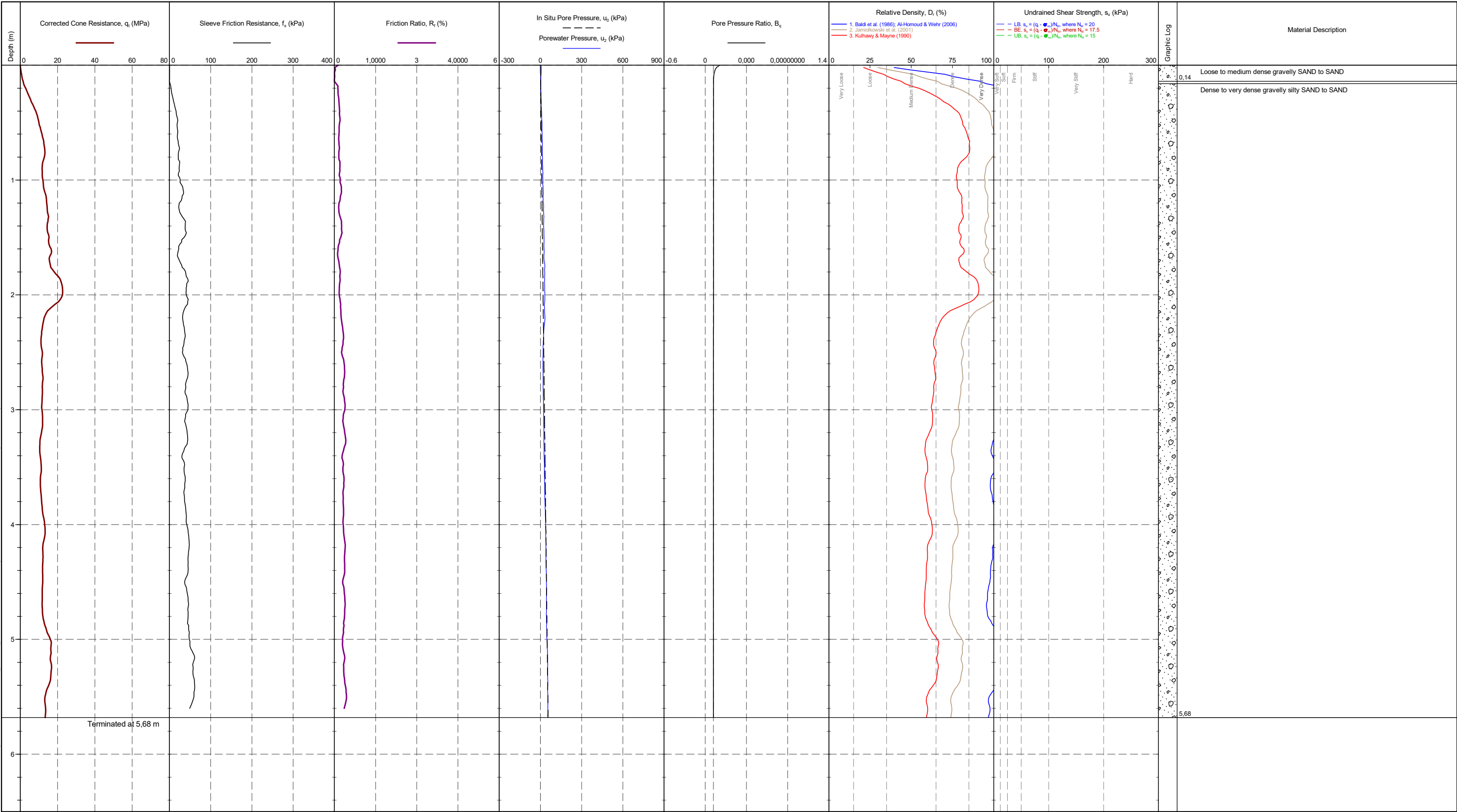


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #510_A

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 487349,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5271609,5 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -8,70 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:12 8 30 004 Datgel CPT Tool.gINT Add-In

Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 20$
BE. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 17.5$
UB. $s_u = (q - \sigma_{vo})/N_u$, where $N_u = 15$

PointID

EC GI #512

SHEET : 1 OF 1

STATUS : Final

DATE : 6-7-2022

CLIENT : RTE

ENGINEER : RM

PROJECT : AO5 EC

LOCATION : France

PROJECT No. : 113401272

AREA : BLOCK_E_5

EASTING : 487759,7 m

NORTHING : 5271019,3 m

COORD. SYS. : WGS 84 UTM Zone 30N

DEPTH : -8,84 m ZH

RIG : Roson

CONE TYPE : 10 cm2

CONE ID : 200142

OPERATOR : Geoforce

CHECKED BY : ASR

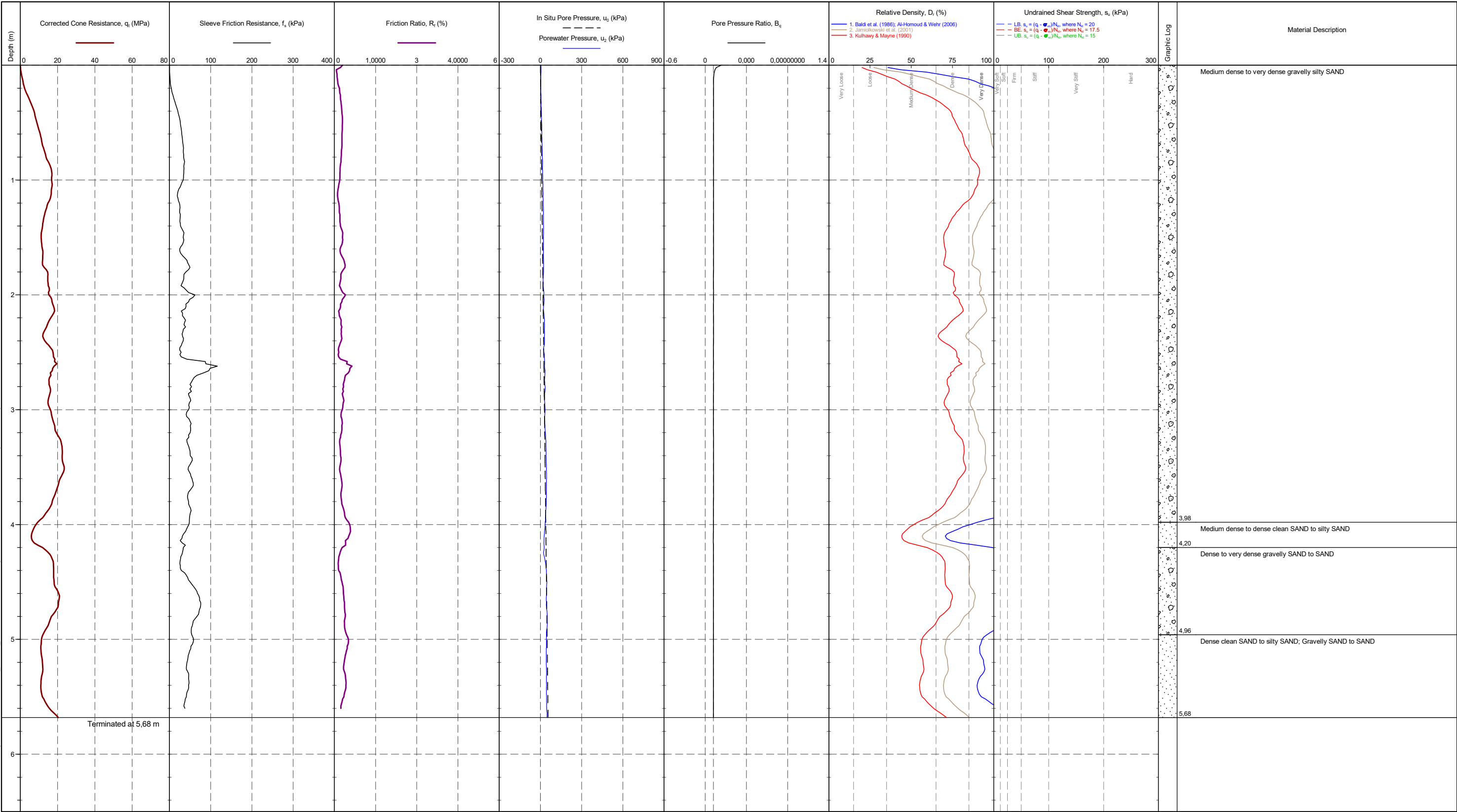
CHECKED DATE : 22-11-2022

APPROVED BY : AN

APPROVED DATE : 23-11-2022

REMARK

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:13:8 30.004 Datgel CPT Tool.gINT Add-In

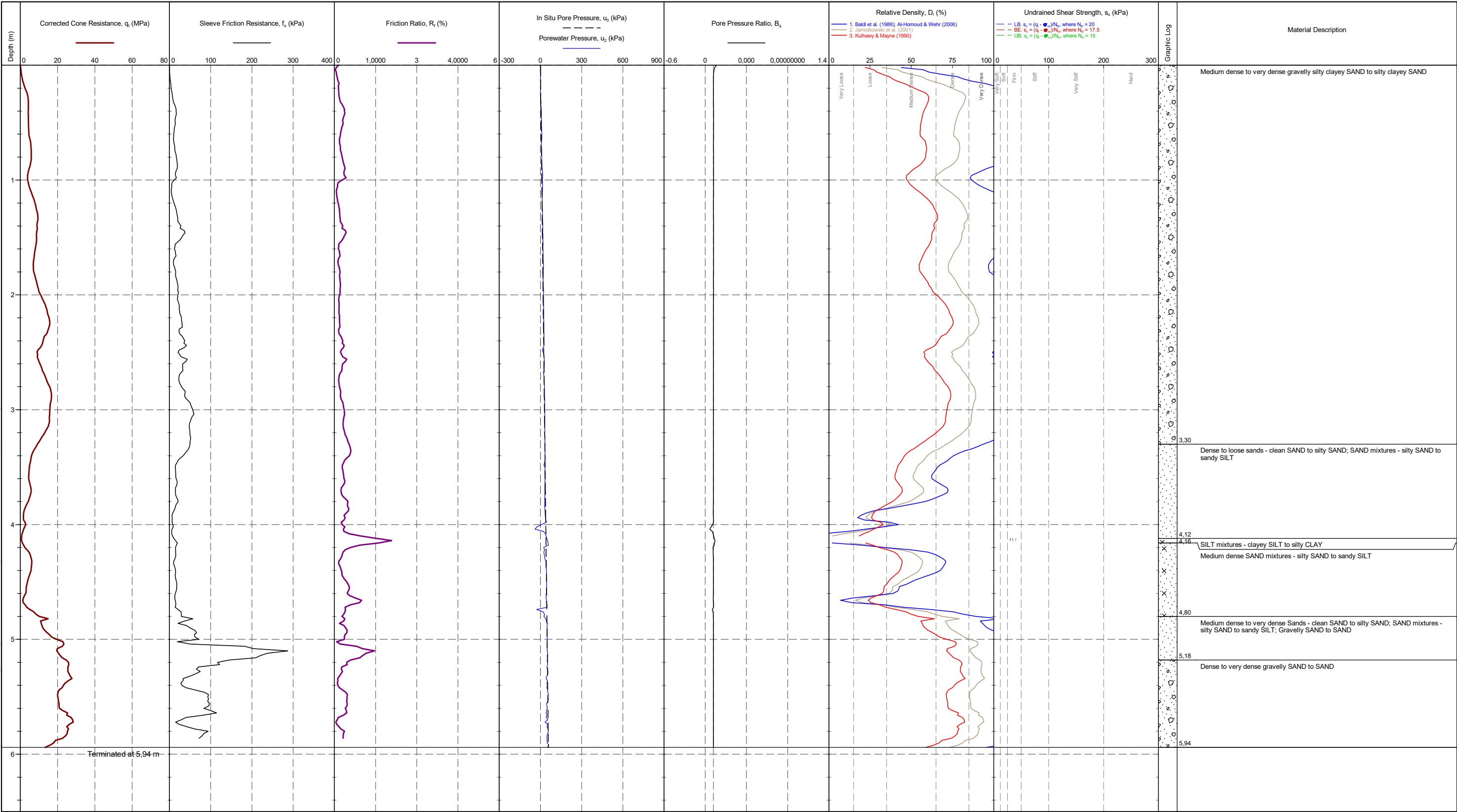


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #516_A

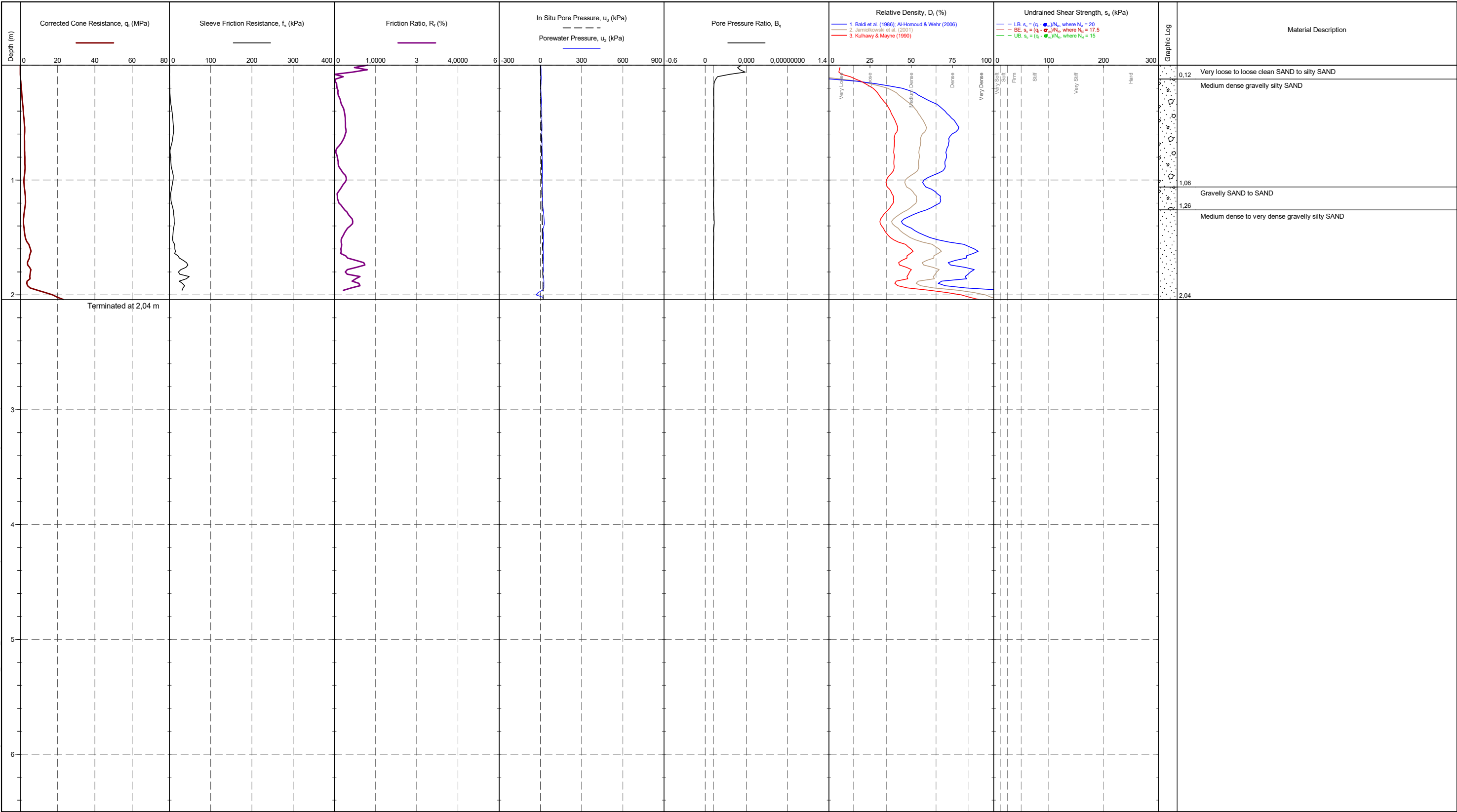
CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 486675,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5270378,6 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -15,38 m ZH				



PointID

EC GI #517

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 486090,3 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5270014,6 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -18,42 m ZH				

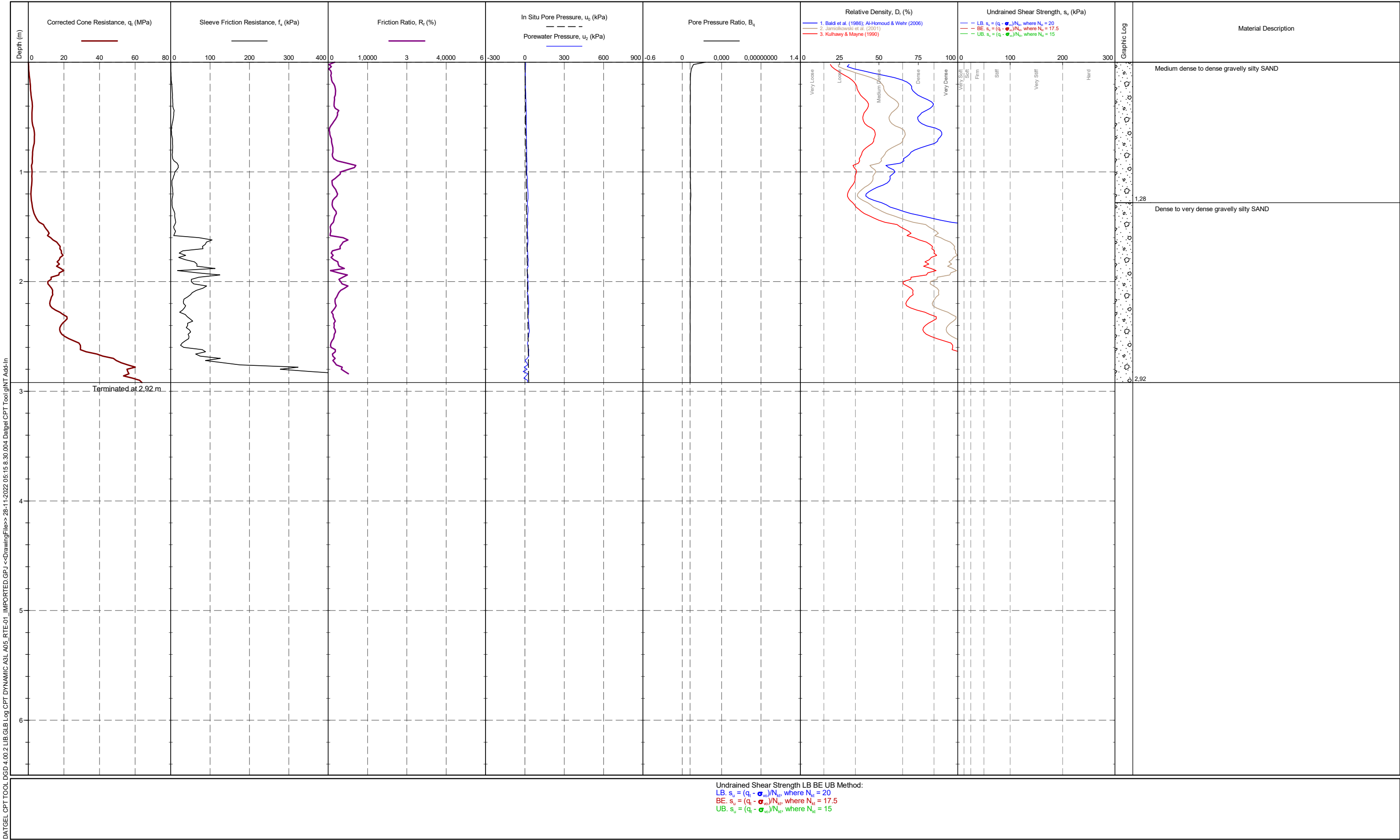


Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #517A

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 486092,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5270017,5 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -18,58 m ZH				

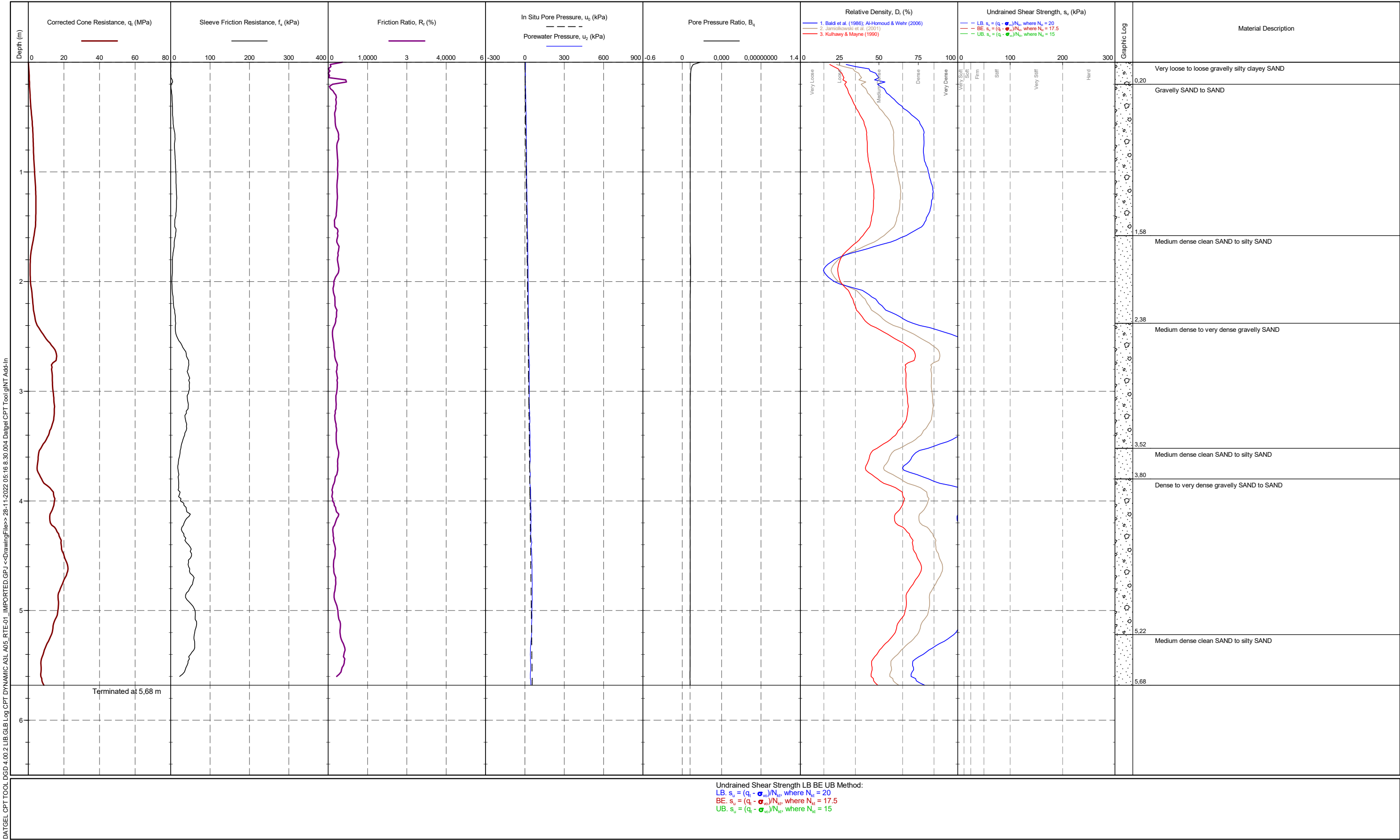


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PointID

EC GI #519_A

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 487059,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5270805,6 m	CONE ID : 200142	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -11,22 m ZH				



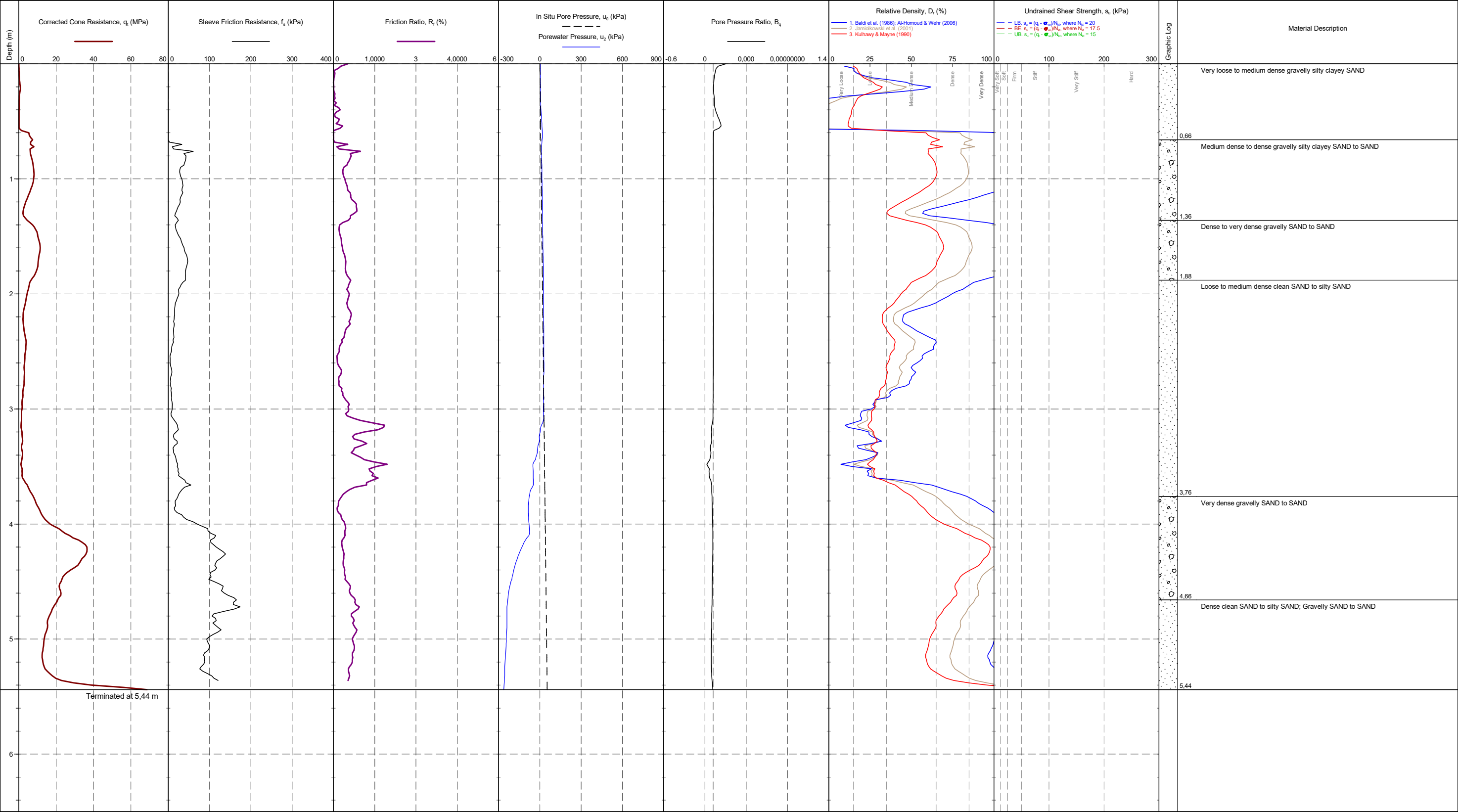
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PointID

EC GI #528_Aa

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 482311,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5266825,2 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -31,04 m ZH				

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:17 8 30 004 Datgel CPT Tool.gINT Add-In

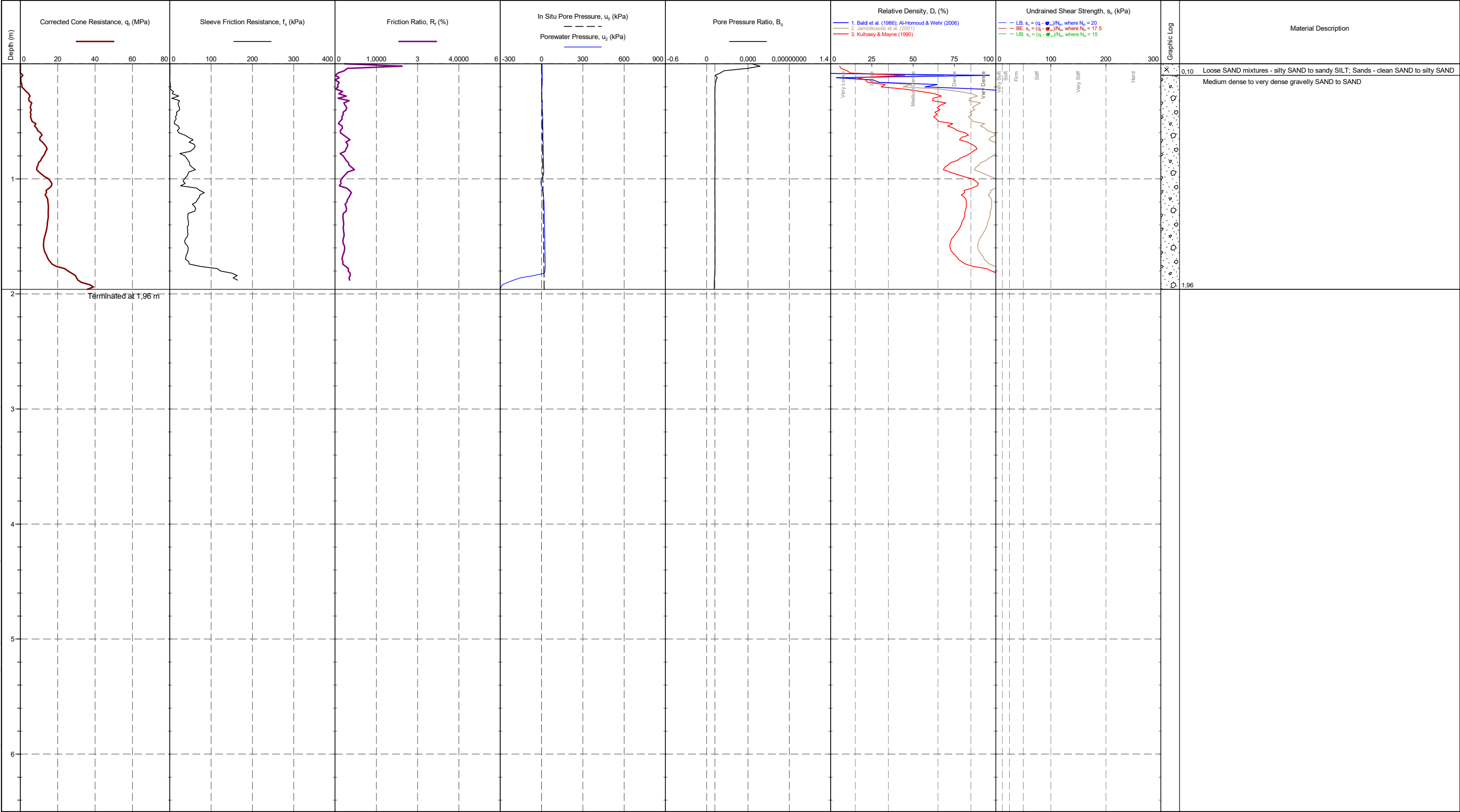


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

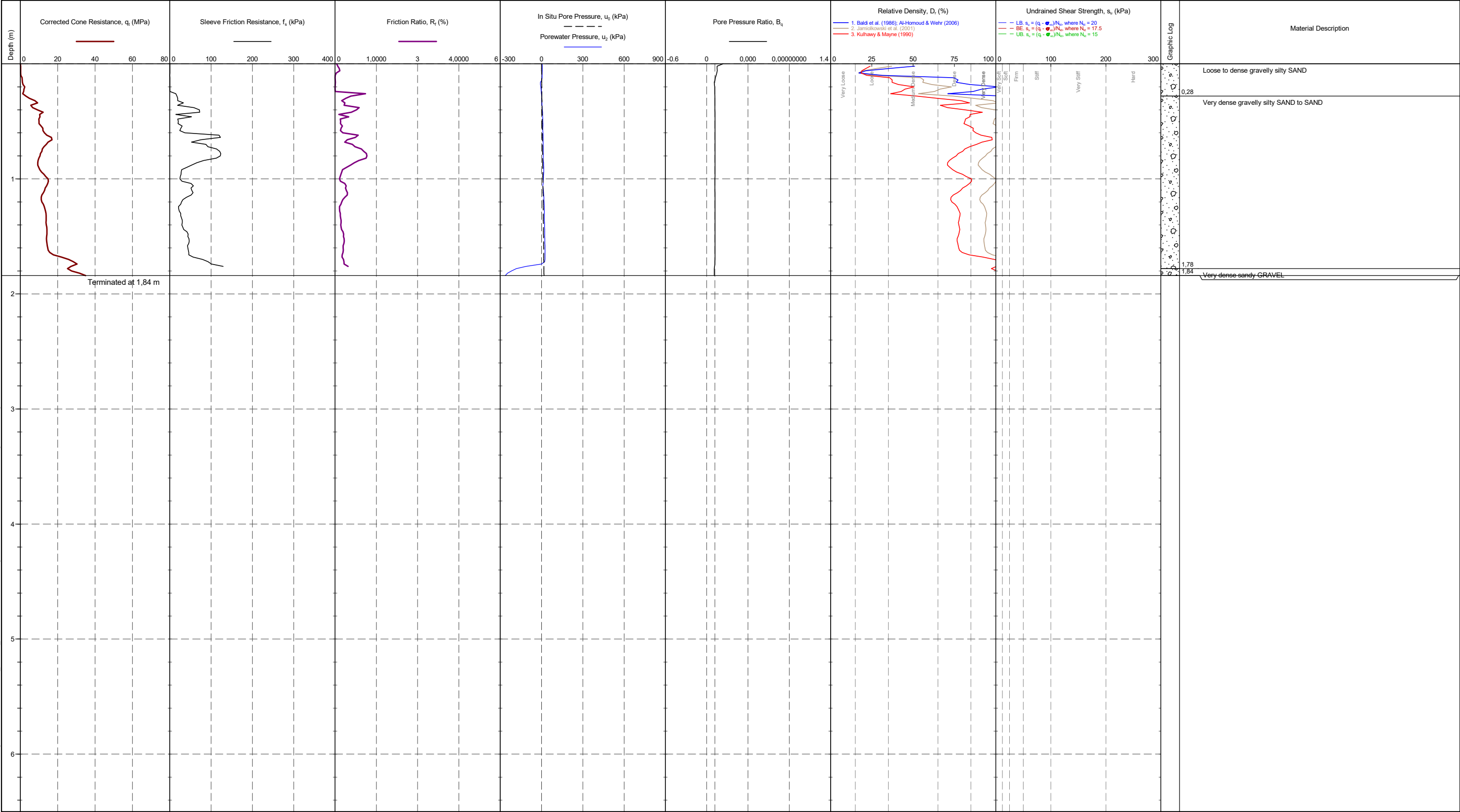
EC GI #529

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 482867,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5267695,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -28,59 m ZH				



Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 482862,7 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5267695,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS.: WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -28,93 m ZH				

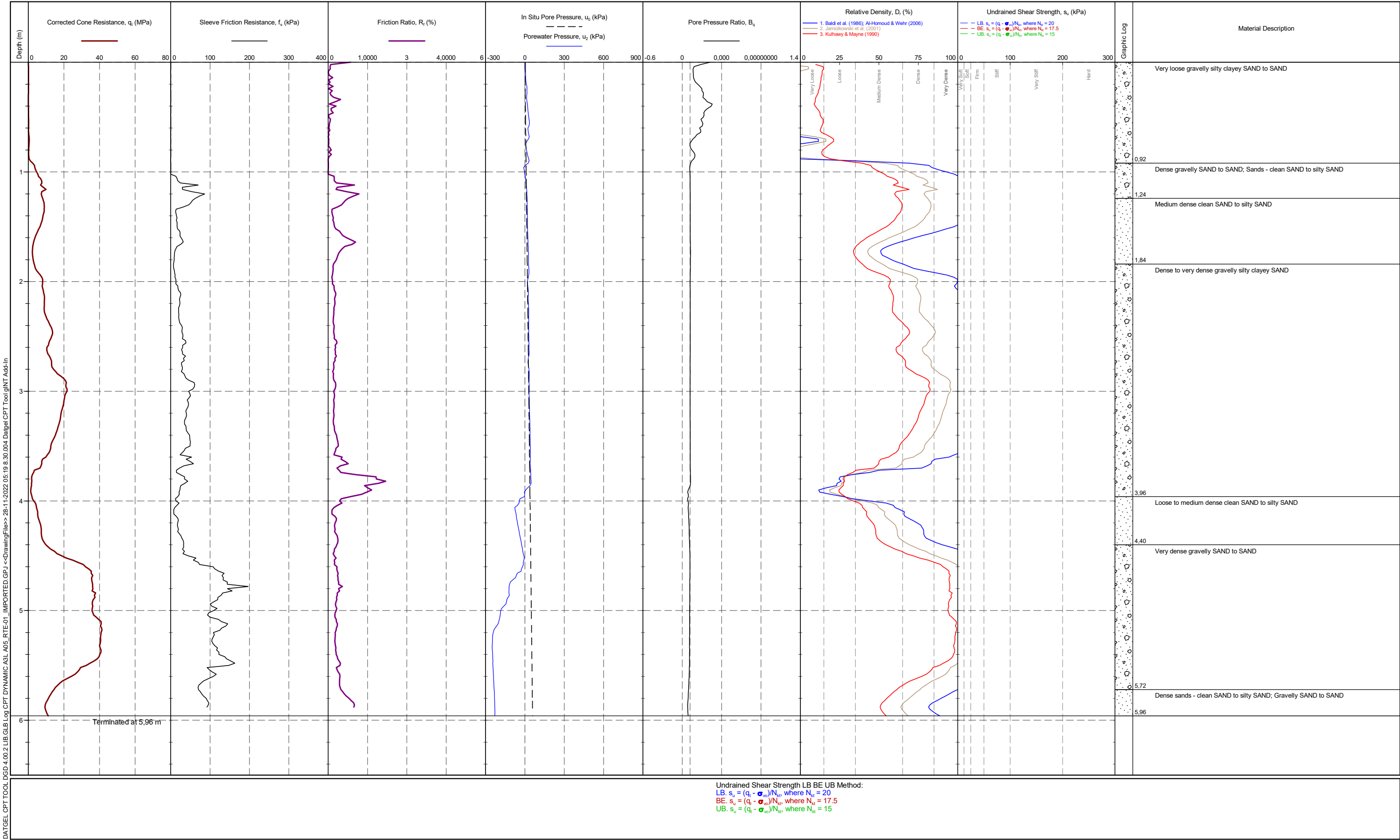


Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

EC GI #544

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 483556,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5268425,4 m	CONE ID : 200142	APPROVED BY : AN		DATE : 5-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -26,88 m ZH				

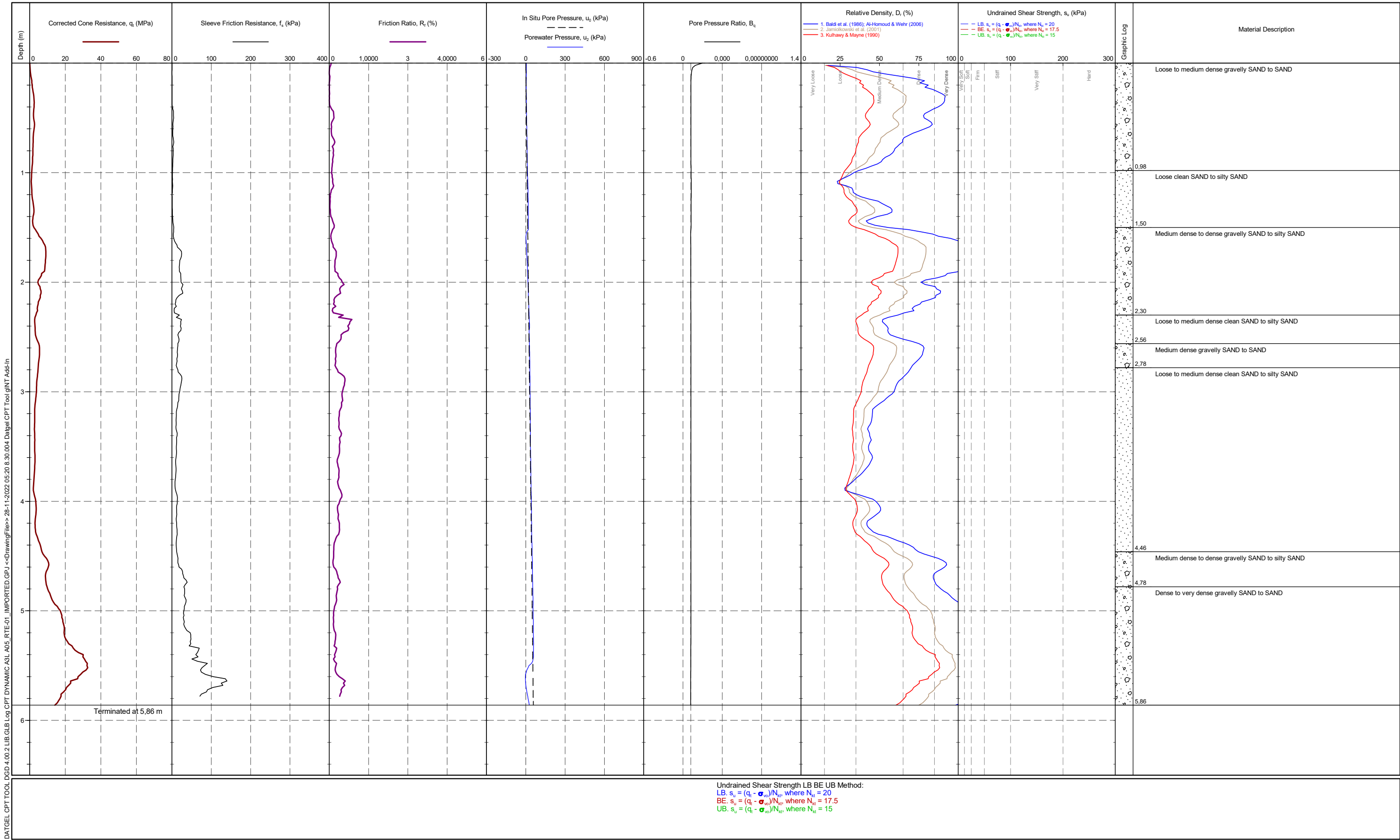


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:19 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

EC GI #545_A

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 484444,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5268964,8 m	CONE ID : 210107	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -21,65 m ZH				

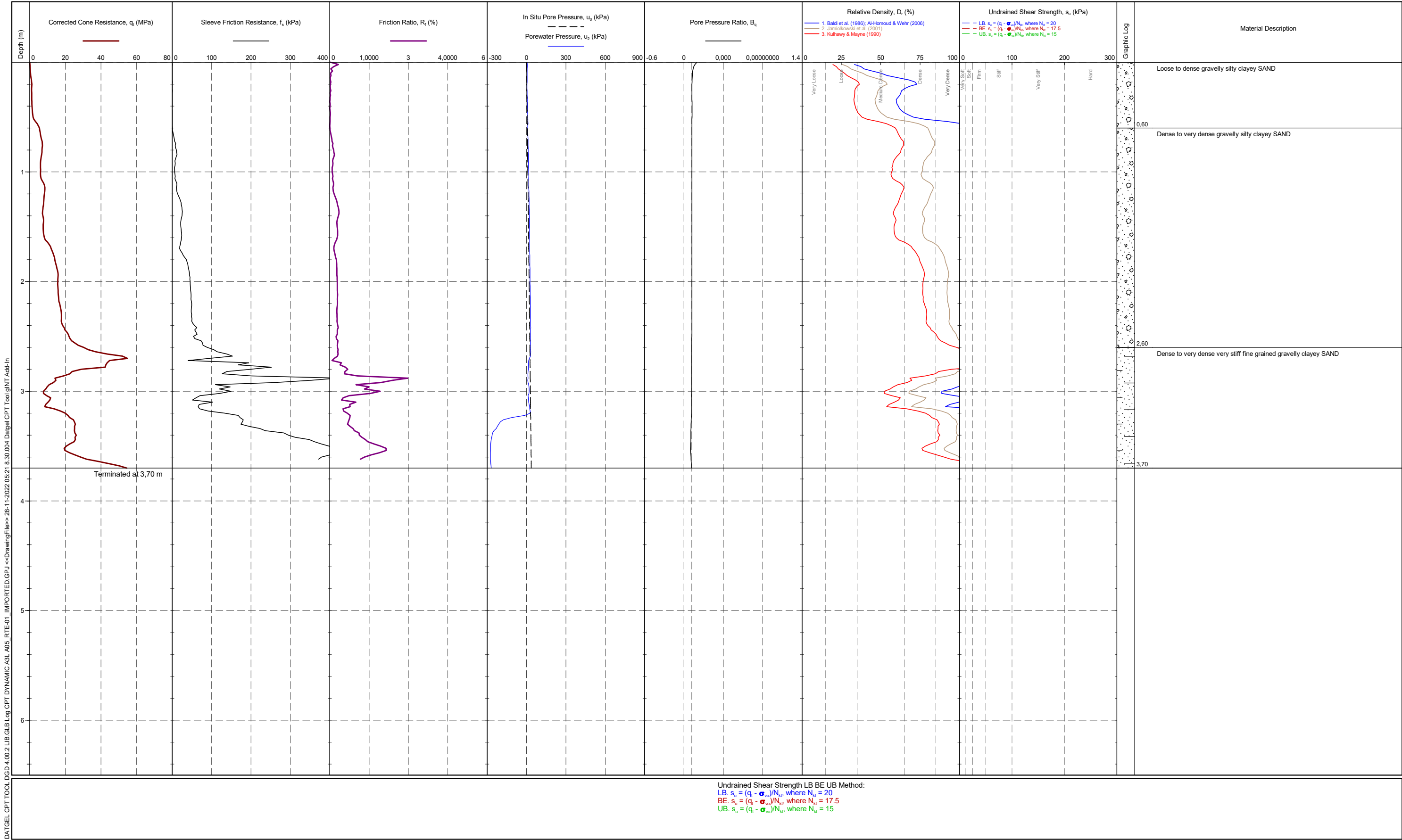


DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:20 8:30:004 Datgel CPT Tool.gINT Add-In

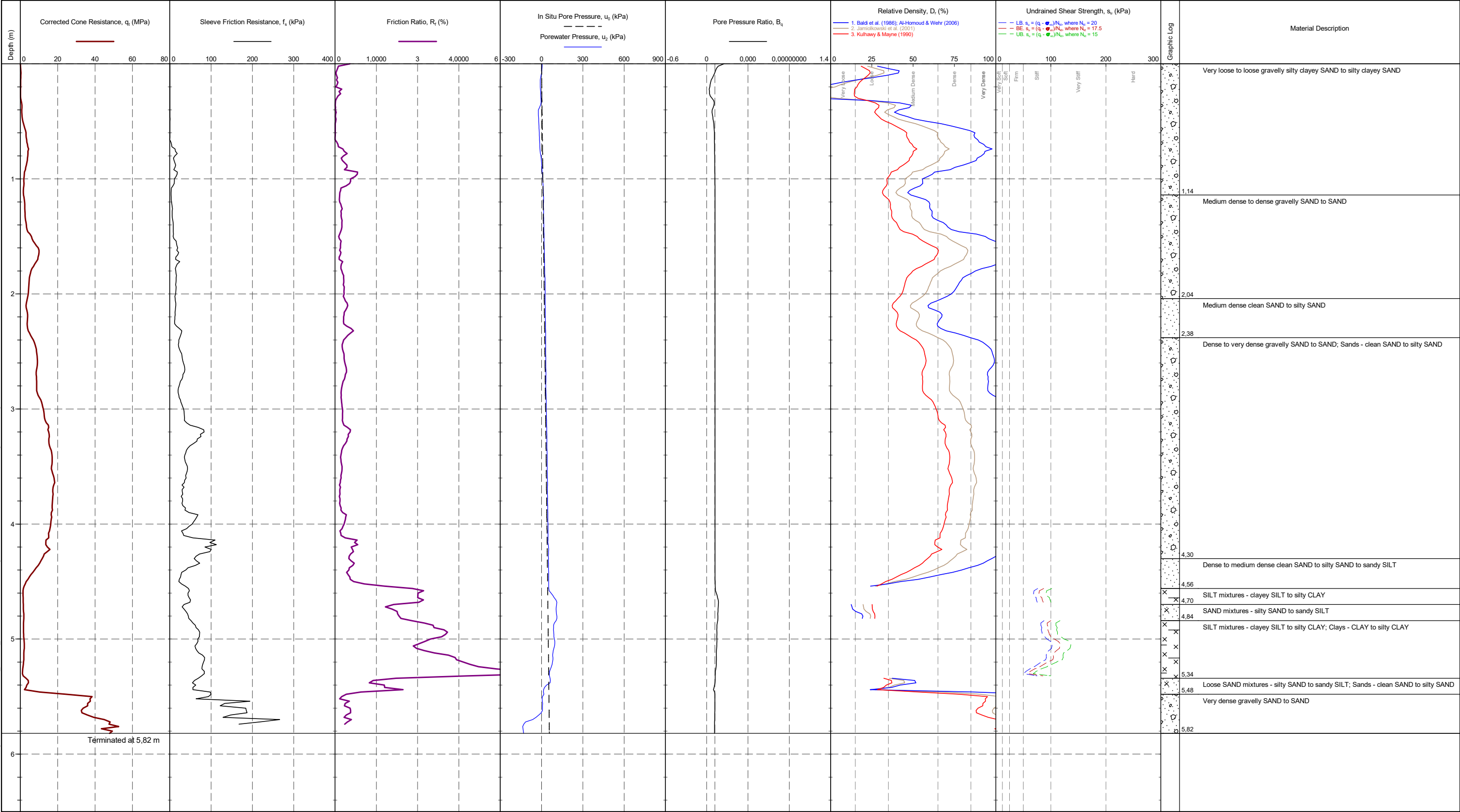
PointID

EC GI #546

CLIENT : RTE	AREA : BLOCK_E_5	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 485159,1 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5269425,7 m	CONE ID : 210107	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -19,67 m ZH				



CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 484138,8 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5269887,4 m	CONE ID : 210107	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS.: WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -20,85 m ZH				



Undrained Shear Strength LB BE UB Method:
LB. $s_u = (q_c - \sigma'_{v0})/N_{60}$, where $N_{60} = 20$
BE. $s_u = (q_c - \sigma'_{v0})/N_{60}$, where $N_{60} = 17.5$
UB. $s_u = (q_c - \sigma'_{v0})/N_{60}$, where $N_{60} = 15$

DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC GPJ RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:22 8 30 004 Datgel CPT Tool.gINT Add-In

PointID

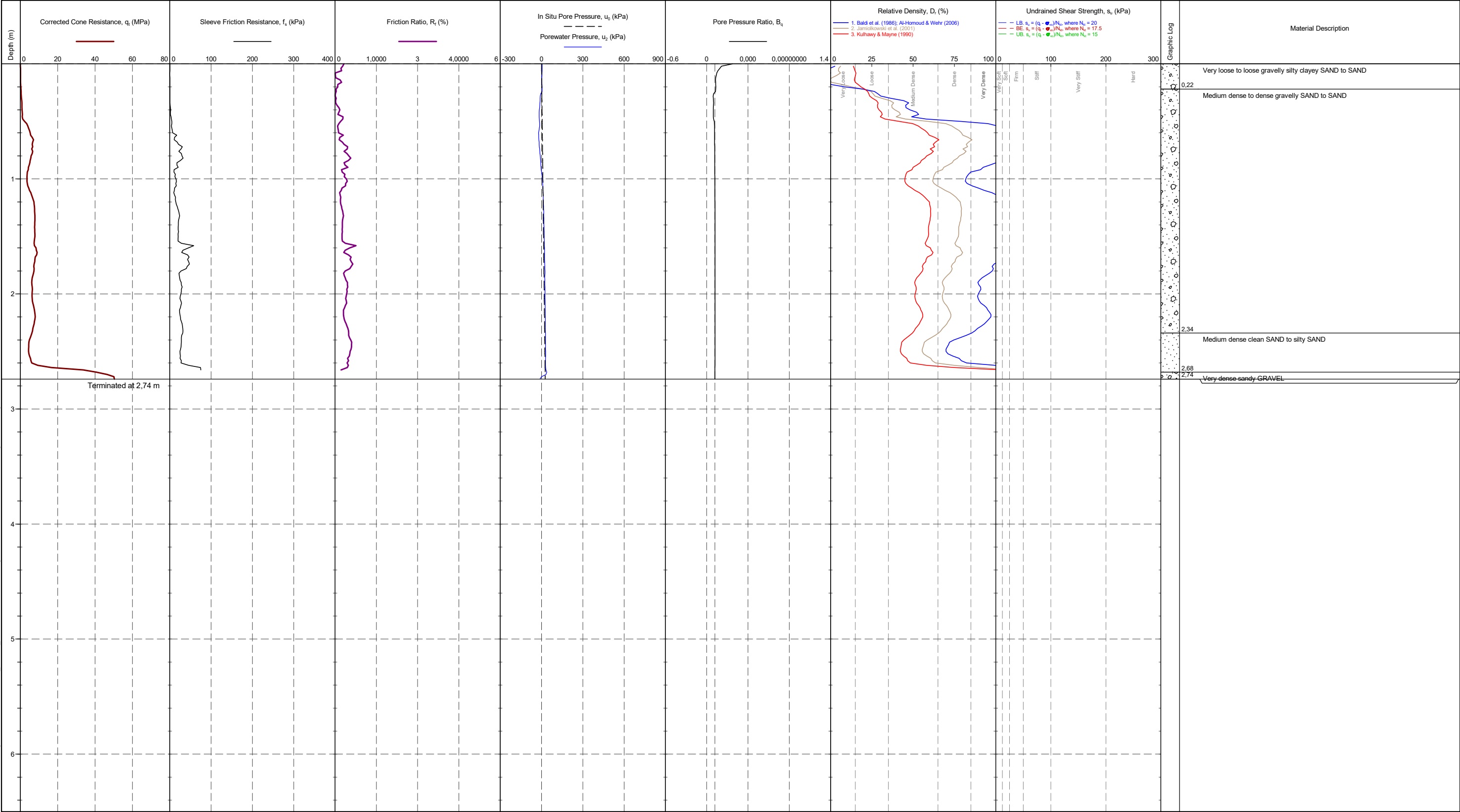
EC GI #VC2_A

SHEET : 1 OF 1

STATUS : Final

DATE : 6-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 484238,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5269962,6 m	CONE ID : 210107	APPROVED BY : AN		DATE : 6-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -20,41 m ZH				



Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

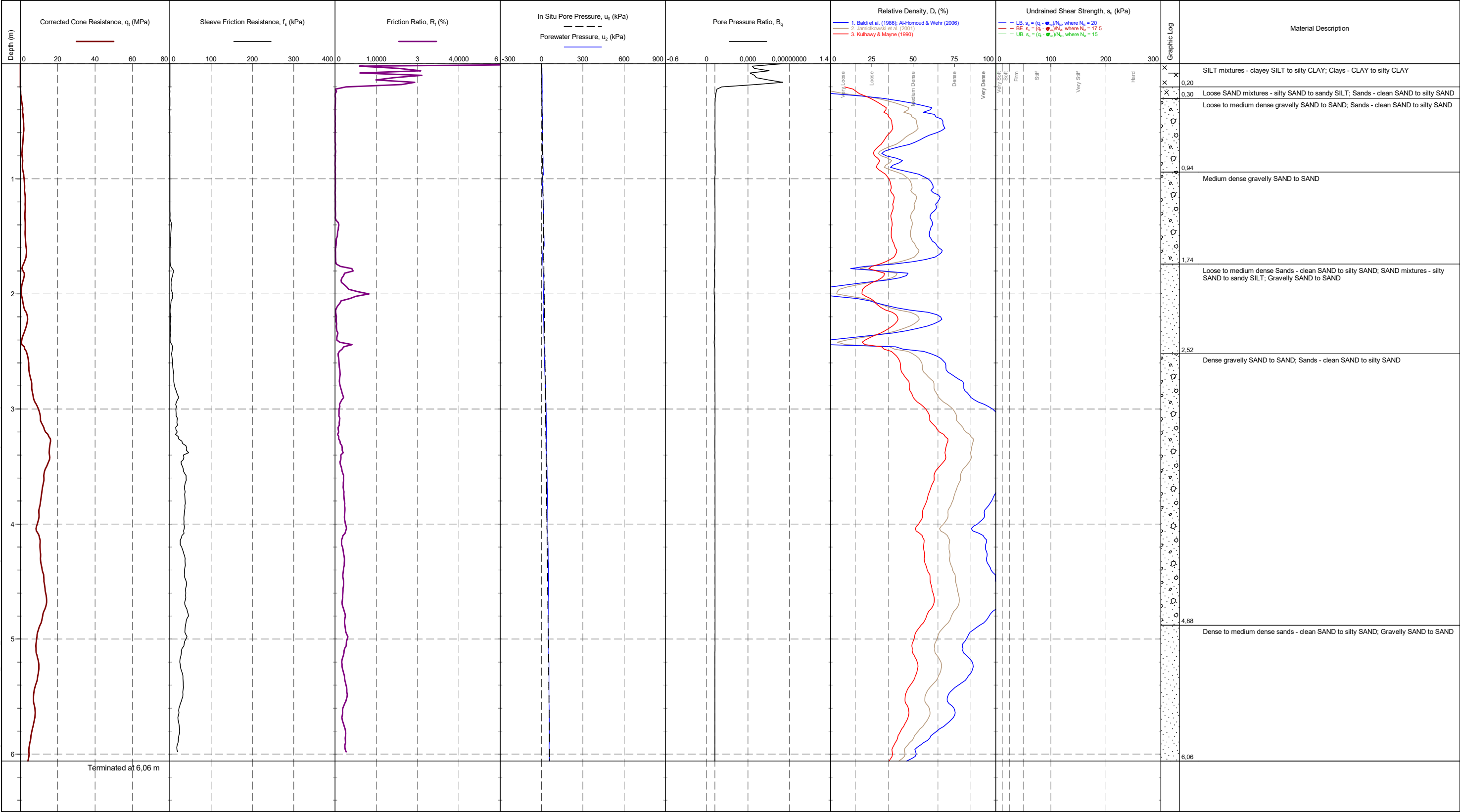
EC GI #VC3_A

SHEET : 1 OF 1

STATUS : Final

DATE : 4-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 471546,5 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5265344,0 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -45,83 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED.GPJ <<DrawingFile>> 28-11-2022 05:23 8.30.004 Datgel CPT Tool.gINT Add-In

Undrained Shear Strength LB BE UB Method:
LB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 20$
BE: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 17.5$
UB: $s_u = (q_c - \sigma_{v0})/N_{60}$, where $N_{60} = 15$

PointID

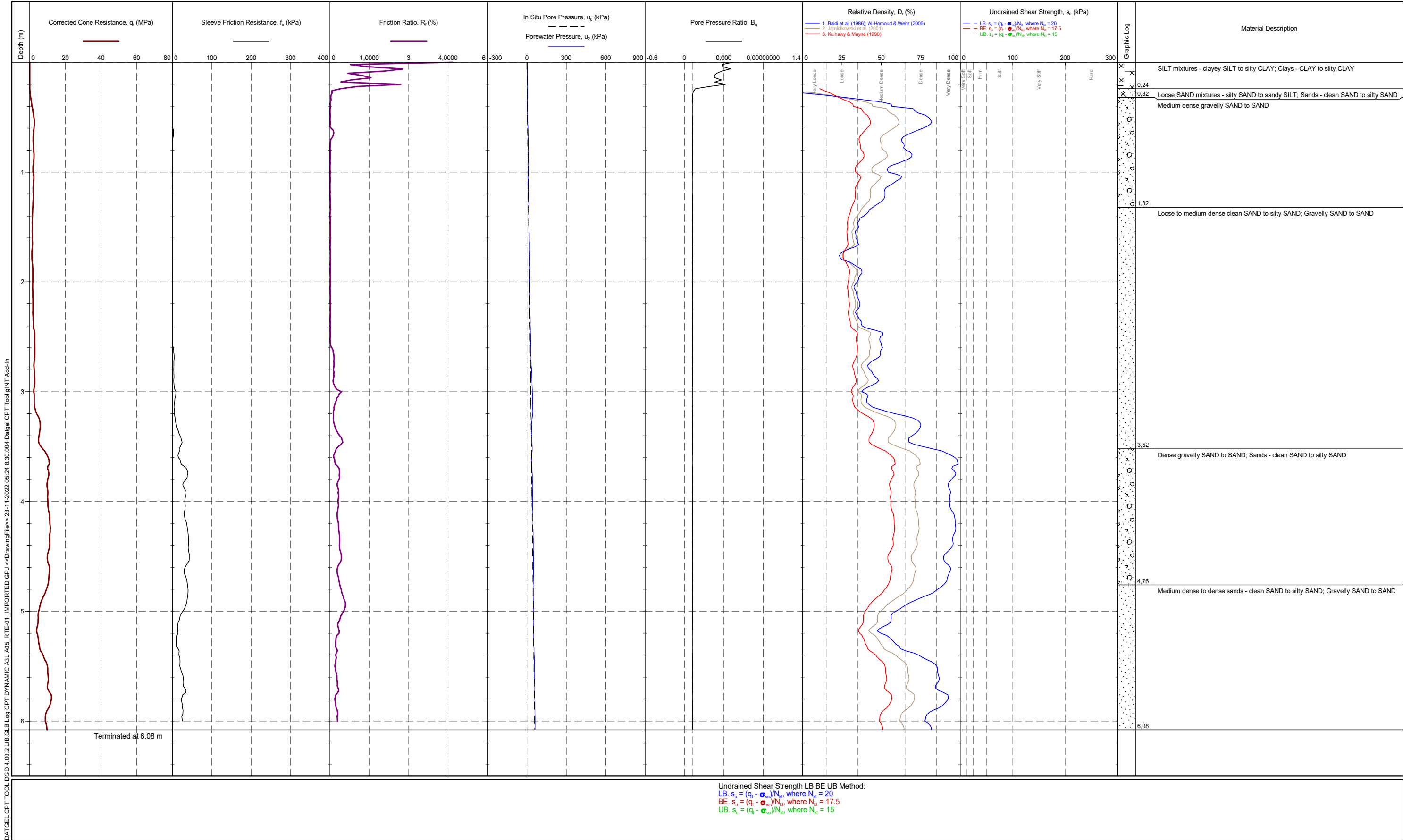
EC GI #VC4_A

SHEET : 1 OF 1

STATUS : Final

DATE : 4-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 471430,4 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5265154,9 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -45,94 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GIB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:24 8.30.004 Datgel CPT Tool.gINT Add-In

PointID

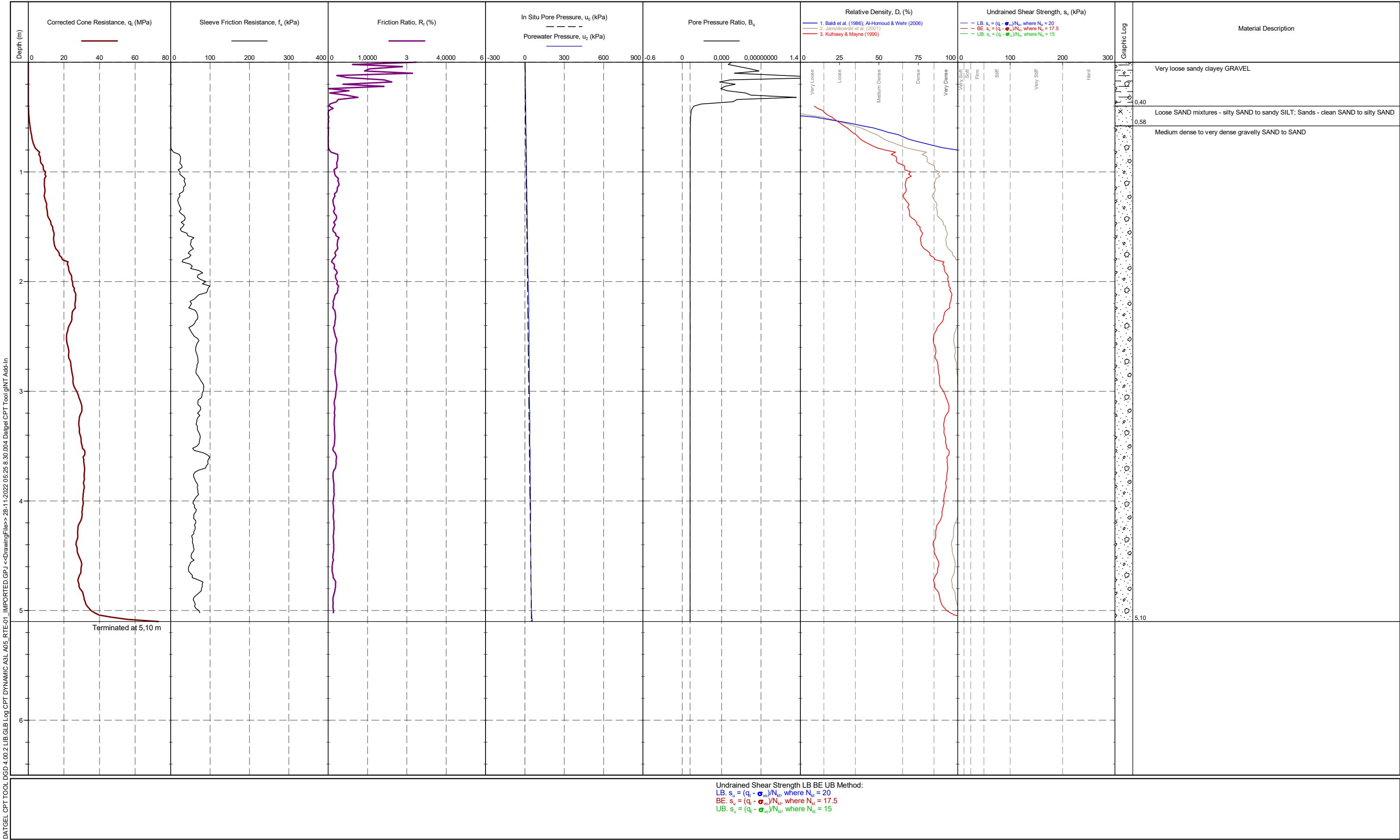
EC GI #VC5_A

SHEET : 1 OF 1

STATUS : Final

DATE : 4-7-2022

CLIENT : RTE	AREA : BLOCK_D_4	RIG : Roson	CHECKED BY : ASR	REMARK	SHEET : 1 OF 1
ENGINEER : RM	EASTING : 470920,9 m	CONE TYPE : 10 cm2	CHECKED DATE : 22-11-2022		STATUS : Final
PROJECT : AO5 EC	NORTHING : 5263638,5 m	CONE ID : 210107	APPROVED BY : AN		DATE : 4-7-2022
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	OPERATOR : Geoforce	APPROVED DATE : 23-11-2022		
PROJECT No. : 113401272	DEPTH : -46,46 m ZH				



DATGEL CPT TOOL DGD 4.00.2 LIB GLB Log CPT DYNAMIC ASL AO5 RTE-01 IMPORTED GPJ <<DrawingFile>> 28-11-2022 05:25:8:30:004 Datgel CPT Tool.gINT Add-In

  	Project	Package	Issuer	Chrono	Revision	Status
	BRE_AO5	GTC	TEC	63	0.1_A	A
	Title	BRE_LsM_TEC_63_Factual report - Geotechnical survey - AO5 EC area_0.1_A				

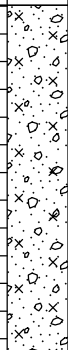
APPENDIX II – VIBROCORER LOGS

Confidentiality	<i>Diffusion restreinte (restricted)</i>	Pages	<i>Page 57 of 62</i>
Issue date	01/02/2023	Document uncontrolled when printed/downloaded	

PointID

EC GI #10_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 453400.1 m	PENETRATION : 2 m	
PROJECT : AO5 EC	NORTHING : 5248049.3 m	RECOVERY : 2.55 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 15 s	
PROJECT No. : 113401272	DEPTH : 87.81 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0	87.0 86.0		0.00- 2.55m: Very loose to medium dense light olive grey gravelly very silty very clayey fine to coarse SAND with abundant shell fragments. Gravel is fine to medium.	A	1.1025	MC		38.04		2.154		12.6 0.0	47.8	39.6 21.4 (18.3)							
				B	1.1503			31.8				14.4 0.0	51.9	33.7 6.2 (27.5)							
				C	1.1875																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #10_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 453400,1 m	PENETRATION : 2 m	
PROJECT : AO5 EC	NORTHING : 5248049,3 m	RECOVERY : 2.55 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 15 s	
PROJECT No. : 113401272	DEPTH : 87,81 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #10_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 27/6/2022
ENGINEER : RM	EASTING : 453398.3 m	PENETRATION : 3.1 m	
PROJECT : AO5 EC	NORTHING : 5248048.4 m	RECOVERY : 2.2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 17 s	
PROJECT No. : 113401272	DEPTH : 87.80 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	87.0		0.00- 2.00m: Very loose to medium dense dark grey to olive grey gravelly silty very clayey fine to coarse SAND with abundant fine to coarse shell fragments (max 6 cm, some are gastropods). Gravel is fine to medium.	A	1.2787	NC		26.09		2.276		19.6 0.0	59.3	21.1 8.8 (12.3)	39.2 45.3			0.1			
				B				23.78		2.564		21.8 0.0	46.0	32.2 3.7 (28.5)	62.1 38.7						
2.0	86.0		2.00- 2.20m: Olive grey gravelly silty very clayey coarse SAND with abundant shell fragments. Gravel is fine to medium.	C				22.48		2.431		17.1 0.0	28.0	54.9 15.1 (39.8)							

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #10_A

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 453398,3 m
NORTHING : 5248048,4 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 87,80 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 3.1 m
RECOVERY : 2.2 m
VIB. TIME : 17 s
DIAMETER : 105 mm

DATE : 27-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #101

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 453630.7 m	PENETRATION : 2.8 m	
PROJECT : AO5 EC	NORTHING : 5248740.4 m	RECOVERY : 1.3 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 4 s	
PROJECT No. : 113401272	DEPTH : 88.05 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	87.0		0.00- 0.50m: Very Loose dark grey gravelly silty very clayey fine to coarse SAND with abundant shell fragments. Gravel is fine to medium. 0.50- 0.93m: Dark grey slightly gravelly sandy very silty CLAY with occasional shell fragments. Gravel is fine. Sand is fine to coarse. 0.93- 1.30m: Medium dense to very dense olive grey sandy silty clayey fine to coarse GRAVEL with abundant shell fragments. Sand is medium to coarse. Shell fragments composed of gastropods and whole shells.	A	1.1823	LC	VT _{LAB} =4.90 VT _{LAB} =11.80 PP _{LAB} =24.50	30.7 51.99 43.82 10.48	1.769 (1.230)	2.341		10.5 0.0 1.3 0.0 65.1 0.0	56.6 25.4 15.7	32.9 5.6 (27.3) 73.3 23.1 (50.2) 19.2 1.4 (17.8)		Remoulded	Remoulded				

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #101

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 453630,7 m
NORTHING : 5248740,4 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 88,05 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 2.8 m
RECOVERY : 1.3 m
VIB. TIME : 4 s
DIAMETER : 105 mm

DATE : 28-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

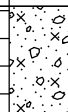
Sample F



PointID

EC GI #101_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 453630.2 m	PENETRATION : 5.2 m	
PROJECT : AO5 EC	NORTHING : 5248743.6 m	RECOVERY : 2.3 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 15 s	
PROJECT No. : 113401272	DEPTH : 88.03 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	87.0		0.00- 0.84m: Very loose gray slightly gravelly silty clayey fine to coarse SAND with abundant shell fragments. Gravel is fine to medium.	A	1.1402	MC		29.55		2.503		6.3 0.0	63.9	29.8 11.6 (18.2)	29.2 26.4						
			0.84- 1.36m: Loose to medium dense dark grey gravelly fine SAND with abundant shell fragments. Gravel is fine to medium.	B	1.0943																
			1.36- 1.73m: Medium dense to very dense dark grey clayey silty fine SAND with rare shell fragments.																		
2.0	86.0		1.73- 1.80m: Very dense dark grey fine to medium SAND with numerous shell fragments.	C	1.6888																
			1.80- 2.30m: Very dense heterogeneous colour subangular to subrounded fine to coarse GRAVEL with some cobbles and abundant shell fragments.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #101_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 453630,2 m	PENETRATION : 5.2 m	
PROJECT : AO5 EC	NORTHING : 5248743,6 m	RECOVERY : 2.3 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 15 s	
PROJECT No. : 113401272	DEPTH : 88,03 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #102

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 454141.2 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5249600.2 m	RECOVERY : 3.6 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 25 s	
PROJECT No. : 113401272	DEPTH : 86.55 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	86.0		0.00- 1.66m: Very loose to medium dense olive grey to very dark grey calcareous slightly gravelly silty fine to coarse SAND with fine to medium sand size shell fragments. Gravel is fine to medium.	A	2.3278	LC		9.7		2.783		0.9 0.0	88.5	10.6		115.00	44.10				
				B	1.4443			7		2.405		2.3 0.0	89.8	7.9				21.6			
2.0	85.0		1.66- 2.21m: Medium dense to very dense olive grey sandy silty very clayey subrounded to rounded fine to coarse GRAVEL with numerous cobbles (max 11cm). Sand is fine to medium.					2.58		2.662		53.6 0.0	2.7	43.7 3.6 (40.1)							
3.0	84.0		2.21- 3.60m: Very dense olive grey to dark olive grey fine to coarse SAND with numerous shell fragments.	C																	
				D	0.6525																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #102

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 454141,2 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5249600,2 m	RECOVERY : 3.6 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 25 s	
PROJECT No. : 113401272	DEPTH : 86,55 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #103

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 454650.3 m	PENETRATION : 2.5 m	
PROJECT : AO5 EC	NORTHING : 5250461.2 m	RECOVERY : 3.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 85.48 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	85.0		0.00- 1.70m: Very loose to medium dense olive brown slightly gravelly silty very clayey fine to coarse SAND. Gravel is fine.	A	2.2887	MC		18.04		2.737		0.0 0.0	82.9	17.1 3.9 (13.3)		436.00	40.40				
	84.0			B	2.0093			20.97		2.384		0.4 0.0	65.5	34.2 4.0 (30.2)	0 39.4						
	83.0			C																	
3.0			2.90- 3.25m: Dense to very dense olive very sandy fine GRAVEL with abundant cobbles (max 8 cm) and numerous shell fragments. Sand is fine to coarse.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #103

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 454650,3 m
NORTHING : 5250461,2 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 85,48 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 2.5 m
RECOVERY : 3.25 m
VIB. TIME : 30 s
DIAMETER : 105 mm

DATE : 28-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

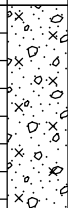
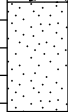
Sample F



PointID

EC GI #104_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 454667.5 m	PENETRATION : 4.8 m	
PROJECT : AO5 EC	NORTHING : 5251837.3 m	RECOVERY : 4.9 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 84.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	83.0		0.00- 1.47m: Medium dense to very dense olive brown to light yellowish brown slightly gravelly silty clayey fine to coarse SAND with occasional shell fragments. Gravel is fine to medium.	A	1.4533	LC		10.65		2.628		0.4 0.0	84.4	15.2 5.6 (9.6)	0 45.9						
					1.1175			5.31		2.879		0.4 0.0	93.3	6.4							
2.0	82.0		1.47- 2.26m: Very dense light olive brown medium SAND.	B																	
					2.0273																
3.0	81.0		2.26- 3.40m: Dense to very dense very dark greyish brown gravelly medium to coarse SAND with shell fragments. Gravel is rounded fine.	C																	
4.0	80.0		3.40- 4.69m: Medium dense to very dense olive brown very fine SAND.	D																	
					0.7917																
			4.69- 4.90m: Very dense very dark greyish brown gravelly coarse SAND with occasional shell fragments. Gravel is rounded fine to medium gravels.	E																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #104_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 454667,5 m	PENETRATION : 4.8 m	
PROJECT : AO5 EC	NORTHING : 5251837,3 m	RECOVERY : 4.9 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 84,00 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #104_B

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 454763.6 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5251980.7 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83.50 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0 3.0 4.0	83.0 82.0 81.0 80.0		0.00- 1.53m: Medium dense to very dense light olive brown to olive yellow fine SAND.	A	0.8672	NR															
					1.8170																
			1.53- 2.51m: Medium dense to very dense olive brown fine SAND with occasional shell fragments.	B																	
					1.5848																
			2.51- 3.19m: Medium dense to very dense dark olive brown silty fine SAND.	C																	
					1.3232																
			3.19- 4.00m: Very dense dark olive brown gravelly medium SAND with occasional shell fragments. Gravel is subrounded to rounded medium to coarse.	D																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #104_B

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 454763,6 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5251980,7 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83,50 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #179_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 455376.2 m	PENETRATION : 4.7 m	
PROJECT : AO5 EC	NORTHING : 5251700.3 m	RECOVERY : 1.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83.95 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks								
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>												
1.0	83.0		0.00- 0.46m: Very loose dark grey medium to coarse SAND with occasional fine sand size shell fragments.	A	2.1340	LC		3.66		2.597		0.0 0.0	95.7	4.3 0.0 (0.0)						0.8									
			0.46- 0.67m: Very loose dark grey clayey fine SAND with numerous shell fragments.		1.6328																								
			0.67- 1.08m: Loose to dense olive brown silty fine to medium SAND with occasional shell fragments.	B	1.0539			2.575				79.3 0.0	15.1	5.6															
			1.08- 1.63m: Dense to very dense olive brown sandy silty rounded fine to coarse GRAVEL with occasional shell fragments. Sand is medium to coarse.																			14.02							
			1.63- 1.80m: Very dense olive brown rounded to subangular medium to coarse GRAVEL with occasional cobbles (max 7 cm) and occasional shell fragments (max 5.5 cm).																										

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #179_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29-6-2022
ENGINEER : RM	EASTING : 455376,2 m	PENETRATION : 4.7 m	
PROJECT : AO5 EC	NORTHING : 5251700,3 m	RECOVERY : 1.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83,95 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #205

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 456042.1 m	PENETRATION : 2.55 m	
PROJECT : AO5 EC	NORTHING : 5252194.9 m	RECOVERY : 2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83.70 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	83.0		0.00- 0.62m: Very dense pale brown calcareous gravelly slightly silty clayey medium to coarse SAND with shell fragments. Gravel is fine. Sand is partly composed by ooids.	A	1.3487	MC		18		2.512		28.2 0.0	50.3	21.5 2.0 (19.5)					13.8		
			0.62- 2.00m: Very dense pale brown sandy slightly silty clayey rounded to subangular coarse GRAVEL with abundant ooids. Sand is medium to coarse partly composed by ooids.	B				27.37		2.445		67.2 0.0	8.3	24.6 4.6 (20.0)							
2.0	82.0							22.05		2.369		56.0 0.0	22.0	22.0 3.5 (18.5)							

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #205

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29-6-2022
ENGINEER : RM	EASTING : 456042,1 m	PENETRATION : 2.55 m	
PROJECT : AO5 EC	NORTHING : 5252194,9 m	RECOVERY : 2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 83,70 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #250

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 456581.5 m	PENETRATION : 2.7 m	
PROJECT : AO5 EC	NORTHING : 5252367.1 m	RECOVERY : 3.25 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 82.86 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbstf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0	82.0		0.00- 1.20m: Very loose greyish brown calcareous to olive yellow slightly gravelly slightly silty very clayey fine to coarse SAND. Gravel is fine.	A	1.4113	LC		27.45		2.485		2.4 0.0	62.5	35.0 4.9 (30.1)	22.1 34.7				15.2		
			1.20- 2.10m: Dense to very dense pale brown gravelly silty clayey fine to coarse SAND. Gravel is rounded to subrounded tubular fine to medium of sandstone.	B	1.3117																
2.0	81.0		2.10- 2.65m: Pale brown silty clayey fine SAND.	C	2.0108			17.59		2.541		12.0 0.0	66.3	21.7 8.2 (13.5)							
3.0	80.0		2.65- 3.25m: Pale brown gravelly fine to coarse SAND. Gravel is rounded to subrounded medium to coarse of sandstone and calcarenite.	D	2.1567																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #250

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29-6-2022
ENGINEER : RM	EASTING : 456581,5 m	PENETRATION : 2.7 m	
PROJECT : AO5 EC	NORTHING : 5252367,1 m	RECOVERY : 3.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 82,86 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #251

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 27/6/2022
ENGINEER : RM	EASTING : 457530.7 m	PENETRATION : 3.3 m	
PROJECT : AO5 EC	NORTHING : 5252670.1 m	RECOVERY : 4.8 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 81.91 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	81.0		0.00- 0.67m: Very loose light olive brown silty clayey fine to coarse SAND with shell fragments.	A	1.5145	LC		28.77	1.935 (1.503)	2.771		0.6	76.2	23.2		14.00	0.00				
			0.67- 0.80m: Very loose olive brown fine silty clayey fine to coarse SAND with shell fragments.					18.9		2.533		0.0	75.4	17.6 (5.5)		7.00	0.00				
			0.80- 1.90m: Dense to very dense olive brown slightly gravelly silty clayey fine to medium SAND.	B	1.2985							3.1		21.5 (7.9)							
2.0	80.0		1.90- 2.20m: Dark greyish brown micaceous sandy silty CLAY. Sand is fine to medium.		1.6178			19.73		2.626		0.1	82.3	17.6 (8.9)							
			2.20- 3.98m: Dense to very dense greyish brown gravelly fine SAND with rare shell fragments. Gravel is fine to medium.	C				30.27				0.6	48.8	50.6 (10.9)							
												0.0		39.7							
3.0	79.0			D	2.2015																
4.0	78.0		3.98- 4.32m: Greyish brown slightly gravelly fine to medium SAND with few shell fragments. Gravel is fine to coarse.	E	2.2702																
			4.32- 4.70m: Structureless CHALK composed of white very stiff gravelly silty CLAY. Gravel is very weak, low-density, rounded. (Grade Dm)																		
			4.70- 4.80m: Very dark greyish brown coarse SAND with shell fragments. Gravel is rounded to subrounded fine to medium.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #251

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 27-6-2022
ENGINEER : RM	EASTING : 457530,7 m	PENETRATION : 3.3 m	
PROJECT : AO5 EC	NORTHING : 5252670,1 m	RECOVERY : 4.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 81,91 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #252

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 458487.7 m	PENETRATION : 2.55 m	
PROJECT : AO5 EC	NORTHING : 5252967.8 m	RECOVERY : 4.57 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 80.99 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0 																					

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #252

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29-6-2022
ENGINEER : RM	EASTING : 458487,7 m	PENETRATION : 2.55 m	
PROJECT : AO5 EC	NORTHING : 5252967,8 m	RECOVERY : 4.57 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 80,99 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #253

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 459714.9 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5252994.3 m	RECOVERY : 2.64 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 80.33 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
80.0			0.00- 0.67m: Very loose olive brown silty clayey fine to medium SAND.	A	0.9828	LC		23.23		2.476		0.0 0.0	77.7	22.3 7.6 (14.7)				0.0			
1.0			0.67- 1.00m: Medium dense to dense olive brown gravelly silty clayey medium to coarse SAND. Gravel is rounded to subrounded.					5.68								74.00	34.30				
79.0			1.00- 1.02m: Olive brown soft CLAY horizon.	B	1.4807			5.64													
2.0			1.02- 1.67m: Medium dense to very dense light olive brown slightly gravelly medium to coarse SAND with frequent shell fragments. Gravel is fine.					2.93				73.6 0.0	23.3	3.1							
78.0			1.67- 2.64m: Very dense light olive brown sandy subrounded fine to coarse GRAVEL with cobbles and abundant shell fragments. Sand is medium to coarse. One cobble up to 10 cm.	C				4.35				87.6 0.0	7.1	5.3							

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #253

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 459714,9 m
NORTHING : 5252994,3 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 80,33 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 4.5 m
RECOVERY : 2.64 m
VIB. TIME : 30 s
DIAMETER : 105 mm

DATE : 29-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #254_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 460632.5 m	PENETRATION : 3.05 m	
PROJECT : AO5 EC	NORTHING : 5253284.8 m	RECOVERY : 3.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 80.45 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
80.0			0.00- 1.00m: Olive brown organic slightly gravelly sandy very silty soft CLAY with numerous shell fragments. Gravel is fine. Sand is fine to coarse.	A	1.1988	MC		68.62		2.566		0.1 0.0	15.9	84.0 34.5 (49.5)	24.2 0	5.00	0.00				
1.0			1.00- 2.00m: Dark greyish brown gravelly sandy silty stiff CLAY with numerous shell fragments. Gravel is fine. Sand is fine to coarse.	B	1.8718			30.46		2.565	24.5 4					51.00	0.00				
2.0			2.00- 3.00m: Reddish black slightly gravelly sandy silty very stiff CLAY. Gravel is fine. Sand is fine.	C		VT=49.00 PP=112.30															
3.0			3.00- 3.60m: Greyish brown very stiff CLAY.	D	1.7690	VT=52.90 PP=93.20					43.7 7.9										
			3.60- 3.80m: Toe sample: Greyish brown very stiff CLAY.			VT=62.80 PP=171.60															

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #254_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29-6-2022
ENGINEER : RM	EASTING : 460632,5 m	PENETRATION : 3.05 m	
PROJECT : AO5 EC	NORTHING : 5253284,8 m	RECOVERY : 3.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 80,45 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #255

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 29/6/2022
ENGINEER : RM	EASTING : 461351.3 m	PENETRATION : 4.65 m	
PROJECT : AO5 EC	NORTHING : 5253867.6 m	RECOVERY : 4.8 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 58 s	
PROJECT No. : 113401272	DEPTH : 79.41 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
79.0			0.00- 0.63m: Very loose dark grey fine SAND with frequent shell fragments. Shell fragments up to fine sand size.	A	1.8795	MC		22.07		1.636											
1.0			0.63- 1.37m: Dark greyish olive slightly sandy clayey SILT with shell fragments. Shell fragments up to fine sand size.					26.5	1.840												
78.0			1.37- 2.05m: Dark greyish very gravelly silty SAND with shell fragments.	B	1.4383			29.65	(1.455)	2.415	29.1	41.1	52.1	6.8							
2.0			2.05- 3.85m: Dense to very dense dark greyish olive gravelly silty clayey medium to coarse SAND with shell fragments. Gravel is fine to coarse.	C	1.9238			17.42		2.557		13.6	73.8	12.6							
77.0																					
3.0																					
76.0																					
4.0			3.85- 4.80m: Medium dense to dense dark greyish olive gravelly fine SAND with shell fragments. Gravel is rounded to subangular medium to coarse with few cobbles (maximum size 12,5cm) and shell fragments (maximum size 4cm).	D	1.7958																
75.0																					

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #255

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 461351,3 m
NORTHING : 5253867,6 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 79,41 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 4.65 m
RECOVERY : 4.8 m
VIB. TIME : 58 s
DIAMETER : 105 mm

DATE : 29-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

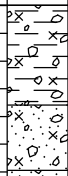
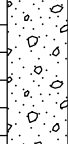
Sample F



PointID

EC GI #256

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 462300.8 m	PENETRATION : 3.4 m	
PROJECT : AO5 EC	NORTHING : 5254171.9 m	RECOVERY : 4.8 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 78.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	77.0		0.00- 0.72m: Dark grey gravelly sandy very silty firm CLAY with numerous shell fragments. Sand is fine to coarse. Gravel is fine to medium.	A	1.2302	HC	VT _{LAB} =39.20	53.46 30.81	1.686 (1.289)			12.7 0.0	25.5	61.8 22.9 (38.9)							
			0.72- 1.19m: Very loose dark grey gravelly silty very clayey fine to coarse SAND with abundant shell fragments. Gravel is fine to medium.		2.4025			13.87				10.5 0.0	64.1	25.4 4.3 (21.1)							
2.0	76.0		1.19- 2.27m: Very loose to medium dense very dark grey gravelly medium to coarse SAND with abundant shell fragments. Gravel is subangular to subrounded fine to coarse.	B	2.4380																
			2.27- 4.80m: Medium dense to very dense very dark grey fine SAND with rare shell fragments.	C	2.0207																
3.0	75.0			D																	
				E	1.6708																
4.0	74.0																				

REMARKS:	HC: High Contamination MC: Moderate Contamination LC: Light Contamination NR: No Contamination NR: No Water Recovery	VT: Field Hand Vane Test VT _{LAB} : Lab Hand Vane Test PP: Pocket Penetrometer PP _{LAB} : Lab Pocket Penetrometer

PointID

EC GI #256

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 462300,8 m
NORTHING : 5254171,9 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 78,00 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 3.4 m
RECOVERY : 4.8 m
VIB. TIME : 60 s
DIAMETER : 105 mm

DATE : 30-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #257

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 463254.6 m	PENETRATION : 2.2 m	
PROJECT : AO5 EC	NORTHING : 5254473.2 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 58 s	
PROJECT No. : 113401272	DEPTH : 76.04 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0 3.0 4.0	75.0 74.0 73.0		0.00- 0.67m: Very loose very dark grey gravelly very silty clayey fine to coarse SAND with numerous shell fragments. Gravel is fine to medium.	A	1.6930	VT _{LAB} =6.90		21.99 18.74	2.071 (1.744)			10.6 0.0	50.5	39.0 30.1 (8.9)	5.6 42.7	Remoulded	Remoulded				
			0.67- 0.90m: Very dark grey gravelly very sandy silty soft CLAY with abundant shell fragments. Sand is fine to coarse. Gravel is fine to medium.	B	2.3367			22.99				8.2 0.0	44.7	47.1 5.9 (41.3)							
			0.90- 2.76m: Very loose to medium dense very dark grey gravelly very silty fine to coarse SAND with abundant shell fragments. Gravel is fine to medium.	C	2.1137																
				D	1.8222																
			2.76- 3.55m: Dense to very dense very dark grey gravelly silty fine to coarse SAND with shell fragments. Gravel is subangular to subrounded fine to coarse (max 3,5 cm) and rare cobble (max 7cm).	E	2.0095																
			3.55- 4.00m: Very dense very dark grey gravelly medium to coarse SAND with abundant shell fragments. Gravel is subangular to subrounded fine gravels.																		

REMARKS:

HC: Hight Contamination
 MC: Moderate Contamination
 LC: Light Contamination
 NC: No Contamination
 NR: No Water Recovery

VT: Field Hand Vane Test
 VT_{LAB}: Lab Hand Vane Test
 PP: Pocket Penetrometer
 PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #257

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 463254,6 m	PENETRATION : 2.2 m	
PROJECT : AO5 EC	NORTHING : 5254473,2 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 58 s	
PROJECT No. : 113401272	DEPTH : 76,04 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

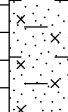
Sample F



PointID

EC GI #258

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 464213.1 m	PENETRATION : 2.2 m	
PROJECT : AO5 EC	NORTHING : 5254770.1 m	RECOVERY : 5.32 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 73.02 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbstf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks																		
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>																						
1.0	72.0		0.00- 1.03m: Very loose very dark greyish olive gravelly very sandy silty CLAY with numerous shell fragments. Gravel is fine to medium. Sand is fine to coarse.	A	1.7097	LC		23.57 25.13	1.977 (1.580)			6.4 0.0	43.5	50.1					13.9																				
				1.6663																																			
2.0	71.0		1.03- 1.81m: Very loose very dark greyish olive calcareous slightly silty SAND and GRAVEL with abundant shell fragments. Gravel is fine to coarse. Sand is fine to coarse.	B	1.9890																																		
3.0	70.0		1.81- 5.32m: Medium dense to very dense very dark greyish olive to black slightly gravelly silty clayey fine to coarse SAND with rare shell fragments. Gravel is subrounded fine to medium.	C	2.4548			3.73				50.9 0.0	44.2	5.0																									
4.0	69.0		1.81- 5.32m: Medium dense to very dense very dark greyish olive to black slightly gravelly silty clayey fine to coarse SAND with rare shell fragments. Gravel is subrounded fine to medium.	D	0.9258			22.02				5.5 0.0	75.6	18.9 6.6 (12.3)																									
5.0	68.0		1.81- 5.32m: Medium dense to very dense very dark greyish olive to black slightly gravelly silty clayey fine to coarse SAND with rare shell fragments. Gravel is subrounded fine to medium.	E	1.2365																																		
				F																																			

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #258

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 464213,1 m
NORTHING : 5254770,1 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 73,02 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 2.2 m
RECOVERY : 5.32 m
VIB. TIME : 50 s
DIAMETER : 105 mm

DATE : 30-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #259

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 465161.1 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5255072.9 m	RECOVERY : 4.66 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 68.65 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
0.00- 3.06m			Very loose very dark greyish olive slightly gravelly silty clayey fine to medium SAND with rare shell fragments. Gravel is fine to medium.	A	1.7722	NC									8.2 38.5					0.8	
1.0	68.0							19.46		2.498		0.6 0.0	71.6	27.7 9.4 (18.3)							
				B	1.9190																
2.0	67.0							26.63				1.1 0.0	62.8	36.2 21.9 (14.2)							
				C	1.9180																
3.0	66.0																				
				D	1.9052																
3.06- 3.36m			Very loose very dark greyish olive gravelly medium SAND with occasional shell fragments. Gravel is subrounded to rounded medium to coarse (max 2cm).																		
3.36- 4.50m			Medium dense very dark greyish olive fine to medium SAND with numerous shell fragments.	E	1.3537																
4.50- 4.66m			Medium dense very dark greyish olive slightly gravelly fine to medium SAND. Gavel is rounded coarse (max 7,2 cm).																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #259

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 465161,1 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5255072,9 m	RECOVERY : 4.66 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 68,65 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #260_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 466117.2 m	PENETRATION : 4.3 m	
PROJECT : AO5 EC	NORTHING : 5255374.3 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 63.26 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
63.0			0.00- 0.62m: Medium dense to loose very dark greyish olive slightly gravelly silty clayey fine to medium SAND with occasional shell fragments (increasing towards the bottom). Gravel is medium.	A	2.1497	NC		14.09		2.585		2.4 0.0	80.1	17.5 4.8 (12.7)	12.7 36.3	Remoulded	Remoulded				
1.0			0.62- 1.32m: Very dark greyish olive fine SAND.		2.1542																
2.0			1.32- 3.71m: Loose to medium dense very dark greyish olive fine SAND with occasional shell fragments.	B																	
61.0				C	2.0727																
3.0				D	1.9725																
4.0			3.71- 4.00m: Loose to dense very dark greyish olive slightly gravelly medium to coarse SAND with abundant shell fragments. Gravel is rounded medium (max 9,8 cm).																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #260_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 466117,2 m	PENETRATION : 4.3 m	
PROJECT : AO5 EC	NORTHING : 5255374,3 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 63,26 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #333

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 467891.6 m	PENETRATION : 4.3 m	
PROJECT : AO5 EC	NORTHING : 5256312.9 m	RECOVERY : 4.4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 54.60 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	54.0		0.00- 1.83m: Medium dense to very dense olive brown to sark grey silty fine to coarse SAND.	A	2.3637	NC		12.75		2.620		2.6 0.0	85.0	12.4	8.5 45.7			0.0			
					1.4053			13.75				0.1 0.0	86.8	13.1							
2.0	53.0		1.83- 2.40m: Very dense greyish brown fine to medium SAND with frequent shell fragments.	B																	
					1.2197																
3.0	52.0		2.40- 2.88m: Very dense dark grey fine SAND.	C																	
4.0	51.0		2.88- 3.21m: Very dense dark greyish brown gravelly coarse SAND with frequent shell fragments. Gravel is rounded fine.	D																	
			3.21- 4.16m: Very dense dark grey fine SAND.																		
			4.16- 4.40m: Very dense dark grey very gravelly medium SAND. Gravel is subrounded to rounded fine to coarse.	E	2.2220																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #333

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 467891,6 m
NORTHING : 5256312,9 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 54,60 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 4.3 m
RECOVERY : 4.4 m
VIB. TIME : 50 s
DIAMETER : 105 mm

DATE : 30-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #334_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 468681.4 m	PENETRATION : 1.5 m	
PROJECT : AO5 EC	NORTHING : 5256921.2 m	RECOVERY : 4.6 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 52.41 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
52.0			0.00- 1.92m: Medium dense to very dense olive brown to greyish brown slightly gravelly silty fine to medium SAND with occasional shell fragments.	A	1.9832	NC		3.3		2.649		1.2 0.0	95.1	3.7							
1.0																					
51.0				B	1.4373 0.7010			15.26		2.629		0.2 0.0	85.6	14.2							
2.0			1.92- 3.74m: Very dense light olive brown slightly gravelly silty clayey fine to medium SAND. Gravel is fine to coarse.	C	1.1498			8.4				0.1 0.0	73.6	26.3 5.0 (21.3)							
50.0																					
3.0				D	1.6092			5.88				0.4 0.0	93.0	6.5							
49.0																					
4.0			3.74- 4.45m: Very dense olive brown slightly gravelly silty clayey medium to coarse SAND with shell fragments. Gravel is fine to medium.	E	2.3108			14.29				2.2 0.0	82.5	15.3 3.4 (11.9)							
48.0			4.45- 4.60m: Very dense olive brown gravelly silty medium to coarse SAND with abundant shell fragments. Gravel is angular and tubular fine to coarse (Cobbles are max 9 cm).																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #334_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 468681,4 m	PENETRATION : 1.5 m	
PROJECT : AO5 EC	NORTHING : 5256921,2 m	RECOVERY : 4.6 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 52,41 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #335_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 469474.1 m	PENETRATION : 5 m	
PROJECT : AO5 EC	NORTHING : 5257533.3 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 51.04 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0	50.0		0.00- 0.20m: Loose olive brown to light olive brown slightly silty fine to medium SAND.	A	2.2850	NC		2.49		2.859		0.2 0.0	96.7	3.2		25.5 40.6					
			0.20- 4.50m: Very dense olive brown to light olive brown slightly silty fine to medium SAND.		2.0123																
2.0	49.0			B	2.1043																
				C	2.1043																
3.0	48.0			D	1.6420																
				E	1.8505																
4.0	47.0																				

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #335_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 469474,1 m	PENETRATION : 5 m	
PROJECT : AO5 EC	NORTHING : 5257533,3 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 51,04 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

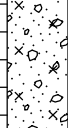
Sample F



PointID

EC GI #336

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 470261.6 m	PENETRATION : 4.6 m	
PROJECT : AO5 EC	NORTHING : 5258145.6 m	RECOVERY : 3.75 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 50.86 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	50.0		0.00- 1.00m: Medium dense to very dense light olive brown silty fine to medium SAND with frequent shell fragments. Shell fragments up to fine sand size.	A	1.0294	NC		17.79		2.542		0.0 0.0	85.3	14.7		Remoulded	Remoulded				
2.0	49.0		1.00- 2.00m: Very dense olive yellow slightly gravelly silty medium to coarse SAND with fine shell fragments. Gravel is rounded to subrounded fine to medium.	B	2.7158			4.72				1.6 0.0	92.8	5.6							
3.0	48.0		2.00- 3.00m: Very dense olive yellow very gravelly slightly silty medium to coarse SAND. Gravel is rounded fine to medium.	C	0.3130			2.4				42.6 0.0	54.3	3.1							
			3.00- 3.75m: Very dense light olive brown gravelly coarse SAND. Gravel is rounded fine to coarse.	D																	

REMARKS:

HC: Hight Contamination
 MC: Moderate Contamination
 LC: Light Contamination
 NC: No Contamination
 NR: No Water Recovery

VT: Field Hand Vane Test
 VT_{LAB}: Lab Hand Vane Test
 PP: Pocket Penetrometer
 PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #336

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 470261,6 m	PENETRATION : 4.6 m	
PROJECT : AO5 EC	NORTHING : 5258145,6 m	RECOVERY : 3.75 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 50,86 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

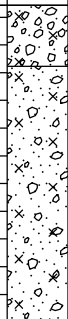
Sample F



PointID

EC GI #337_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 471058.0 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5258751.4 m	RECOVERY : 2.3 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 51.89 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	51.0		0.00- 0.44m: Very loose to loose light olive brown sandy silty rounded fine to medium GRAVEL. Sand is fine to coarse.	A	0.4403	LC		19.93		2.608		66.5 0.0	20.8	12.7							
			0.44- 1.31m: Medium dense to very dense greyish brown calcareous gravelly silty fine to medium SAND.					4.31				5.2 0.0	81.1	13.7	14.3 38.5						
			1.31- 2.30m: Medium dense to very dense light olive brown gravelly silty fine to coarse SAND with fine shell fragments. Gravel is rounded to subrounded fine to medium.		1.7668			10.66				17.3 0.0	69.0	13.6				14.2			
2.0	50.0			B																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #337_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 471058,0 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5258751,4 m	RECOVERY : 2.3 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 51,89 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #338

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 471865.6 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5259253.8 m	RECOVERY : 3.3 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 48 s	
PROJECT No. : 113401272	DEPTH : 48.66 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	48.0		0.00- 0.90m: Medium dense to dense olive grey to dark olive grey slightly gravelly silty very clayey fine to coarse SAND with fine shell fragments. Gravel is fine to medium.	A	2.0713	HC		20.14		2.530		2.6 0.0	66.0	31.5 9.3 (22.1)	13.8 35.7						
			0.90- 1.65m: Dense to very dense dark olive grey to dark greyish brown silty fine to coarse SAND with fine shell fragments.	B	0.8763																
			1.65- 3.15m: Dense to very dense dark greyish brown silty fine to medium SAND with rare tabular subangular gravels at the bottom.	C	1.1405 1.9872			14.54				0.4 0.0	84.7	14.9							
3.0	46.0		3.15- 3.30m: Very dense heterogeneous colour subangular to subrounded fine to medium GRAVEL with fine shell fragments.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #338

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 471865,6 m
NORTHING : 5259253,8 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 48,66 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 6 m
RECOVERY : 3.3 m
VIB. TIME : 48 s
DIAMETER : 105 mm

DATE : 30-6-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #342_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 467099.1 m	PENETRATION : 4 m	
PROJECT : AO5 EC	NORTHING : 5255705.5 m	RECOVERY : 4.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 58.37 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
58.0			0.00- 3.75m: Medium dense to very dense dark brown to olive brown silty clayey fine SAND with rare shell fragments.	A	0.5382	NC		27.84		2.639											
1.0										2.625											
57.0				B	1.6903							0.2 0.0	76.5	23.4 12.3 (11.1)							
2.0																					
56.0				C	1.8607																
3.0																					
55.0				D	1.0693																
4.0			3.75- 4.34m: Dense light olive brown fine SAND.																		
54.0			4.34- 4.44m: Loose dark grey brown slightly clayey silty fine SAND.	E	0.8210																
			4.44- 4.70m: Very dense light olive brown very gravelly medium to coarse SAND with frequent shell fragments. Gravel is rounded to subrounded fine to coarse (Cobbles are max 7cm) .																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #342_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 467099,1 m	PENETRATION : 4 m	
PROJECT : AO5 EC	NORTHING : 5255705,5 m	RECOVERY : 4.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 58,37 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

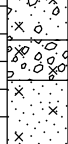
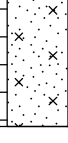
Sample F



PointID

EC GI #425

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30/6/2022
ENGINEER : RM	EASTING : 478657.6 m	PENETRATION : 4.9 m	
PROJECT : AO5 EC	NORTHING : 5266308.1 m	RECOVERY : 5 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 75 s	
PROJECT No. : 113401272	DEPTH : 33.55 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	33.0		0.00- 0.20m: Very dark grey slightly gravelly very sandy silty CLAY. Gravel is fine to medium. Sand is fine to coarse.	A	1.3142	NR		41.74		2.689		1.6 0.0	41.5	57.0 15.1 (41.8)							
			0.20- 0.65m: Very loose very dark grey slightly gravelly very silty fine to medium SAND with numerous fine sand size shell fragments.					11.09 6.74				16.6 0.0 55.0 0.0	72.8 34.2	10.5 10.8							
			0.65- 3.00m: Medium dense to very dense very dark grey very gravelly silty fine to coarse SAND with occasional cobbles (max 10 cm) and numerous fine sand size shell fragments. Gravel is subangular to subrounded fine to coarse.	B																	
2.0	32.0			C	0.7743			7.88				21.1 0.0	70.0	9.0							
3.0	31.0			D				12				50.4 0.0	40.5	9.1							
			3.00- 3.29m: Dark grey very sandy silty clayey fine to coarse GRAVEL with occasional cobbles (max 7 cm) and numerous shell fragments. Sand is fine to coarse.																		
4.0	30.0			E	2.2628			23.35 20.52				2.6 0.0 4.1 0.0	71.4 67.7	25.9 16.1 (9.9) 28.1 17.1 (11.0)							
			3.29- 5.00m: Dark grey silty clayey fine to coarse SAND with abundant shell fragments.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID	EC GI #425

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 30-6-2022
ENGINEER : RM	EASTING : 478657,6 m	PENETRATION : 4.9 m	
PROJECT : AO5 EC	NORTHING : 5266308,1 m	RECOVERY : 5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 75 s	
PROJECT No. : 113401272	DEPTH : 33,55 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #427

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 480962.9 m	PENETRATION : 1.1 m	
PROJECT : AO5 EC	NORTHING : 5266554.3 m	RECOVERY : 5.85 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 72 s	
PROJECT No. : 113401272	DEPTH : 30.14 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
30.0			0.00- 0.50m: Loose to medium dense light olive brown gravelly silty clayey fine to coarse SAND with fine sand size shell fragments. Gravel is fine to coarse.	A	1.0927	NR				2.815		29.7 0.0	51.9	18.4 9.2 (9.2)							
1.0			0.50- 0.80m: very dark grey slightly gravelly very sandy very silty firm CLAY with occasional shell fragments. Gravel is fine to medium. Sand is fine to coarse.	B	1.8065		PP _{LAB} =49.00	26		2.646		2.0 0.0	41.9	56.1 31.4 (24.7)			338.00	39.30			
2.0			0.80- 1.75m: Medium dense to dense very dark grey slightly gravelly silty clayey fine to coarse SAND with occasional shell fragments. Gravel is fine to medium.	C	1.7192			34.38				1.0 0.0	89.4	9.5			75.00	0.00			
3.0			1.75- 2.75m: Low plasticity very dark grey clayey soft to firm SILT with occasional fine sand size shell fragments.	D	1.7108		PP _{LAB} =24.50				27.3 2.4										
4.0			2.75- 3.75m: Very dark grey very silty firm CLAY with occasional shell fragments.	E	1.6905		PP _{LAB} =49.00	36.8	1.939 (1.443)												
5.0			3.75- 5.75m: Very dark grey silty firm to stiff CLAY with occasional shell fragments.	F	1.6343		PP _{LAB} =98.00	16.07	1.904 (1.392)	2.693											
			Toe sample: Very dark grey silty CLAY with occasional shell fragments.	TOP			PP _{LAB} =49.00														
							VT _{LAB} =24.50														
							VT=11.77														

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #427

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 480962,9 m	PENETRATION : 1.1 m	
PROJECT : AO5 EC	NORTHING : 5266554,3 m	RECOVERY : 5.85 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 72 s	
PROJECT No. : 113401272	DEPTH : 30,14 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

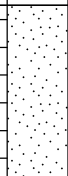
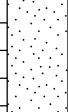
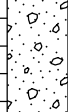
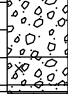
Sample F



PointID

EC GI #439_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 472642.4 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5259973.3 m	RECOVERY : 4.75 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 46.50 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	46.0		0.00- 2.25m: Loose to medium dense very dark greyish olive to greyish olive fine to coarse SAND.	A	1.8035	NC		11.65		2.530		0.1 0.0	85.3	14.7							
					1.5355			10.29				0.0 0.0	88.1	11.8							
				B																	
2.0	45.0				1.1265 1.1435																
			2.25- 2.97m: Medium dense dark olive gravelly silty medium SAND. Gravel is subrounded fine to medium.	C																	
3.0	44.0		2.97- 4.05m: Medium dense dark olive gravelly fine to medium SAND with rare shell fragments. Gravel is subrounded fine.	D																	
					2.2398																
4.0	43.0		4.05- 4.50m: Dense to very dense heterogeneous colour sandy rounded to subrounded medium to coarse GRAVEL. Sand is dark greyish olive fine to medium.	E																	
			4.50- 4.70m: Very dense heterogeneous colour sandy silty rounded to subrounded medium to coarse GRAVEL. Sand is dark olive medium.																		
	42.0		4.70- 4.76m: Very dark greyish olive gravelly medium to coarse SAND. Gravel is subrounded to rounded fine to medium.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #439_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 472642,4 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5259973,3 m	RECOVERY : 4.75 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 46,50 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

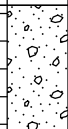
Sample F



PointID

EC GI #440_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 474169.8 m	PENETRATION : 4.4 m	
PROJECT : AO5 EC	NORTHING : 5259965.1 m	RECOVERY : 3.55 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 42.66 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
0.00- 1.00m	42.0		0.00- 1.00m: Very Loose to medium dense greyish brown to yellowish brown calcareous gravelly silty fine to coarse SAND with numerous shell fragments. Gravel is rounded fine to medium.	A	2.5843	HC		4.79		2.614		11.4 0.0	81.5	7.1	22.1 39.2						
1.00- 2.80m	41.0		1.00- 2.80m: Dense to medium dense yellowish brown sandy rounded fine to medium GRAVEL (max 3cm). Sand is coarse.	B				3.57				71.2 0.0	23.6	5.2				30.0			
2.80- 3.15m	40.0		2.80- 3.15m: Medium dense to very dense dark yellowish brown sandy rounded to subrounded fine to medium GRAVEL. Sand is medium to coarse.	C																	
3.15- 3.55m			3.15- 3.55m: Dark yellowish brown sandy clayey rounded to subrounded fine GRAVEL. Sand is medium to coarse.	D	2.5552																

REMARKS:

HC: High Contamination
 MC: Moderate Contamination
 LC: Light Contamination
 NC: No Contamination
 NR: No Water Recovery

VT: Field Hand Vane Test
 VT_{LAB}: Lab Hand Vane Test
 PP: Pocket Penetrometer
 PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #440_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 474169,8 m	PENETRATION : 4.4 m	
PROJECT : AO5 EC	NORTHING : 5259965,1 m	RECOVERY : 3.55 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 42,66 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

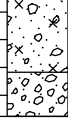
Sample F



PointID

EC GI #464_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 474956.1 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5260109.8 m	RECOVERY : 2.75 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 38.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	37.0		0.00- 0.07m: Very loose dark grey very silty fine to coarse SAND.	A	1.9865	NC		33.37		2.580		0.2 0.0	65.5	34.3 19.7 (14.6)							
			0.07- 0.55m: Medium dense to dense dark brown very silty fine to coarse SAND with numerous shell fragments.	B	2.3242			19.91				0.0 0.0	79.7	20.3 4.8 (15.5)							
			0.55- 2.43m: Very dense to dense yellowish brown gravelly silty fine to coarse SAND with numerous shell fragments. Gravel is fine.	C	0.8280			16.4				1.0 0.0	83.2	15.8 2.0 (13.8)							
2.0	36.0		2.43- 2.75m: Very dense brown sandy subrounded to subangular fine to medium GRAVEL (quartzite and MICA-SCHIST nature). Sand is coarse.		0.8663																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #464_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 474956,1 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5260109,8 m	RECOVERY : 2.75 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 38,00 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #465_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 476053.3 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5260889.6 m	RECOVERY : 3.1 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 37 s	
PROJECT No. : 113401272	DEPTH : 30.65 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
0.00- 2.96m	30.0		0.00- 2.96m: Very dense dark greyish brown to dark yellowish brown slightly gravelly silty clayey fine to coarse SAND with numerous fine sand size shell fragments. Gravel is fine.	A	1.0005	NC		16.53		2.657		0.1 0.0	82.6	17.3 4.7 (12.7)		Remoulded	Remoulded				
1.0	29.0			B	0.6432			4.42				1.7 0.0	91.5	6.7							
2.0	28.0			C	2.1417			7.15				3.0 0.0	87.7	9.3							
2.96- 3.10m			2.96- 3.10m: Dark yellowish brown sandy with medium to coarse GRAVEL (max 4cm) with cobbles (max 11cm). Sand is coarse.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #465_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 476053,3 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5260889,6 m	RECOVERY : 3.1 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 37 s	
PROJECT No. : 113401272	DEPTH : 30,65 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

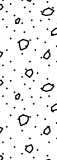
Sample F



PointID

EC GI #465_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 476053.7 m	PENETRATION : 1.5 m	
PROJECT : AO5 EC	NORTHING : 5260886.1 m	RECOVERY : 1.22 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 30.65 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0	30.0		0.00- 1.10m: Very dense yellowish brown gravelly fine to coarse SAND. Gravel is fine.	A	0.6948	LC		2.71		2.642		7.0 0.0	88.6	4.4							
			1.10- 1.22m: Very dense yellowish brown gravelly medium to coarse SAND with numerous shell fragments. Gravel is angular to subrounded coarse (max 8,5 cm).																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #465_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 476053,7 m	PENETRATION : 1.5 m	
PROJECT : AO5 EC	NORTHING : 5260886,1 m	RECOVERY : 1.22 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 30,65 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

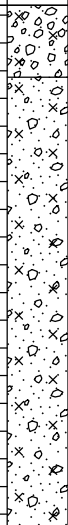
Sample F



PointID

EC GI #467

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 479600.1 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5266799.5 m	RECOVERY : 3.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 42 s	
PROJECT No. : 113401272	DEPTH : 31.87 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0 3.0	31.0		0.00- 0.52m: Very loose to medium dense olive grey sandy slightly silty subangular to subrounded fine to coarse GRAVEL (max 4cm) with numerous shell fragments. Sand is fine to coarse sandy matrix.	A	2.2542	NR		2.39				71.5 0.0	25.9	2.7						0.8	
			0.52- 3.80m: Dense to very dense gray calcareous slightly gravelly silty clayey fine to coarse SAND with occasional fine sand size shell fragments.	B	1.5482			21.71		2.549		0.4 0.0	79.1	20.5 10.8 (9.7)					27.1		
	30.0			C	2.0212			21.26				0.0 0.0	81.2	18.8 2.0 (16.8)							
	29.0			D	1.4973			5.21				0.6 0.0	98.3	1.1							

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #467

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 479600,1 m	PENETRATION : 4.5 m	
PROJECT : AO5 EC	NORTHING : 5266799,5 m	RECOVERY : 3.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 42 s	
PROJECT No. : 113401272	DEPTH : 31,87 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

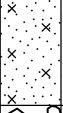
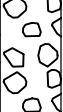
Sample F



PointID

EC GI #468a

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 478678.1 m	PENETRATION : 3.3 m	
PROJECT : AO5 EC	NORTHING : 5263079.4 m	RECOVERY : 2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 58 s	
PROJECT No. : 113401272	DEPTH : 31.48 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
31.0			0.00- 0.78m: Very dense dark grey very silty clayey fine to coarse SAND with occasional fine sand size shell fragment.	A	1.1400	HC		22.58		2.489		0.0 0.0	68.5	31.5 18.7 (12.7)				0.0		0.9	
1.0			0.78- 2.00m: Very dense dark grey very gravelly slightly sandy subangular to subrounded COBBLES (max 12 cm). Gravel is subangular to subrounded medium to coarse (max 4 cm). Sand is fine to coarse.	B				1.08				37.8 59.6	1.1	1.5							
2.0																					

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #468a

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 478678,1 m
NORTHING : 5263079,4 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 31,48 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 3.3 m
RECOVERY : 2 m
VIB. TIME : 58 s
DIAMETER : 105 mm

DATE : 1-7-2022

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #468

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 478677.9 m	PENETRATION : 5.2 m	
PROJECT : AO5 EC	NORTHING : 5263078.3 m	RECOVERY : 2.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 55 s	
PROJECT No. : 113401272	DEPTH : 31.48 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	31.0		0.00- 0.74m: Medium dense to very dense dark grey silty clayey fine to coarse SAND with occasional fine sand size shell fragment.	A	1.6918	NR		31.79		2.643		0.0 0.0	69.9	30.1 7.6 (22.5)		Remoulded	Remoulded				
			0.74- 1.78m: Very dense dark grey sandy silty subangular to subrounded fine to coarse GRAVEL (max 5,6 cm). Sand is fine to coarse.																		
	30.0		1.78- 2.25m: Light grey, vertical foliated MICA-SCHIST, weathered rock, destructured (d) to residual (e) destructured, with gravel (max 2cm) in silty matrix																		
2.0			2.25- 2.35m: TOE sample: Light grey, vertical foliated MICA-SCHIST weathered rock, destructured to residual bedrock, fragments in coarse SAND. A quartz clast (4,7cm) is found in the sample.	TOE				15.66				46.0 0.0	28.2	25.7 6.7 (19.0)							

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #468

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 478677,9 m	PENETRATION : 5.2 m	
PROJECT : AO5 EC	NORTHING : 5263078,3 m	RECOVERY : 2.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 55 s	
PROJECT No. : 113401272	DEPTH : 31,48 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #470a

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 477919.2 m	PENETRATION : 0.5 m	
PROJECT : AO5 EC	NORTHING : 5262096.2 m	RECOVERY : 0.5 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 31.40 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
	31.0		0.00- 0.50m: Very dark grey gravelly silty clayey fine to coarse SAND with rare cobbles (max 5,8cm, mostly quartzite and MICA-SCHIST in nature). Gravel is subangular to subrounded fine.	A	1.6073	MC		20.8		2.534		2.5 0.0	71.0	26.5 8.2 (18.4)							
			0.50- 0.70m: TOE Sample: Grey, vertical foliated MICA-SCHIST heavily weathered/destructured bedrock.	TOE				27.8													

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #470a

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 477919,2 m	PENETRATION : 0.5 m	
PROJECT : AO5 EC	NORTHING : 5262096,2 m	RECOVERY : 0.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 31,40 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #470

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 477919.6 m	PENETRATION : 1.8 m	
PROJECT : AO5 EC	NORTHING : 5262093.7 m	RECOVERY : 1.25 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 31.39 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	31.0		0.00- 0.10m: Very loose dark grey sandy silty clayey subrounded tubular fine to coarse GRAVEL (max 4,5cm). Sand is fine to coarse.	A	1.7332	LC		11.38		2.238		56.6 0.0	24.1	19.3 2.9 (16.4)		Remoulded	Remoulded				
			0.10- 1.25m: Medium dense to very dense very weak light grey, vertical foliated MICA-SCHIST weathered rock. Destructured to residual bedrock. Fragments in silty matrix.																		
			1.25- 1.35m: TOE Sample: Light grey, vertical foliated MICA-SCHIST weathered rock. Destructured to residual bedrock. Fragments in silty matrix. The foliation inside is waved. The outside is covered in olive-brown silty/clay	TOE																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #470

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 477919,6 m	PENETRATION : 1.8 m	
PROJECT : AO5 EC	NORTHING : 5262093,7 m	RECOVERY : 1.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 31,39 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #473

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 475676.2 m	PENETRATION : 0.4 m	
PROJECT : AO5 EC	NORTHING : 5260158.3 m	RECOVERY : 2.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 34.23 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0	34.0		0.00- 1.82m: Medium dense to very dense light olive brown to yellowish brown gravelly silty fine to coarse SAND with occasional fine sand size shell fragments. Gravel is fine.	A	0.9675	MC		16.17		2.610		0.1 0.0	84.2	15.7 2.8 (12.9)	0.7 40.6						
	33.0			B	1.0123			9.36				16.3 0.0	73.4	10.3							
	32.0		1.82- 2.44m: Yellowish brown very sandy silty fine to medium GRAVEL with occasional cobbles (max 12 cm) and shell fragments. Sand is medium to coarse (mica-schist nature).	C				7.21			46.9 0.0	45.0	8.2								
			2.44- 2.60m: Dark grey sandy fine to coarse GRAVEL (MICA-SCHIST and quartz nature). Sand is fine to coarse.	TOP								62.1 0.0	19.9	18.0 4.7 (13.3)							
			2.60- 2.70m: Dark grey vertical foliated MICA-SCHIST weathered, destructured bedrock with fragments of max 7cm.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #473

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 475676,2 m	PENETRATION : 0.4 m	
PROJECT : AO5 EC	NORTHING : 5260158,3 m	RECOVERY : 2.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 34,23 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #475_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 478073.9 m	PENETRATION : 0.45 m	
PROJECT : AO5 EC	NORTHING : 5265189.3 m	RECOVERY : 0.6 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 32 s	
PROJECT No. : 113401272	DEPTH : 35.34 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
35.0			0.00- 0.27m: Light grey sandy slightly silty clayey subangular to subrounded fine to coarse GRAVEL (max 4cm). Sand is fine to coarse.	A	1.6872	MC		7.64 20.21				81.3 0.0 11.9 0.0	11.5 52.5	7.2 35.6 8.1 (27.5)							
			0.27- 0.60m: Light grey, vertical foliated MICA-SCHIST, weathered Rock. Destructured (d) to residual (e) bedrock. Fragment in gravelly silty very clayey fine to coarse SAND matrix. Gravel is fine to medium.	TOE																	
			0.60- 0.70m: TOE Sample: Dark grey, vertical foliated MICA-SCHIST, weathered rock. Destructured to residual bedrock. Fragments in SILT matrix (provably resulted from the weathering process). The foliation in the sample is slightly waved.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #475_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 478073,9 m	PENETRATION : 0.45 m	
PROJECT : AO5 EC	NORTHING : 5265189,3 m	RECOVERY : 0.6 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 32 s	
PROJECT No. : 113401272	DEPTH : 35,34 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #475_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 478075.1 m	PENETRATION : 0.6 m	
PROJECT : AO5 EC	NORTHING : 5265188.5 m	RECOVERY : 0.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 32 s	
PROJECT No. : 113401272	DEPTH : 35.32 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
35.0			0.00- 0.20m: Medium dense to very dense dark grey slightly gravelly silty very clayey fine to coarse SAND with shell fragments. Gravel is fine. 0.20- 0.54m: Very dense to dense dark grey very sandy silty clayey fine to coarse GRAVEL with fine to coarse sand size shell fragments. Sand is fine to coarse. 0.54- 0.70m: Very dense to dense dark grey sandy subangular to subrounded medium to coarse GRAVELS (max 5cm) with cobbles (max 8 cm). Sand is fine to medium.	A	1.6872	NR		22.11 2.54		2.612 2.904 2.536		1.1 0.0 88.8 0.0	76.0 7.5	22.9 4.7 (18.2) 3.7							

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #475_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 478075,1 m	PENETRATION : 0.6 m	
PROJECT : AO5 EC	NORTHING : 5265188,5 m	RECOVERY : 0.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 32 s	
PROJECT No. : 113401272	DEPTH : 35,32 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #476a

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 476775.8 m	PENETRATION : 3.75 m	
PROJECT : AO5 EC	NORTHING : 5260569.1 m	RECOVERY : 0.6 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 20 s	
PROJECT No. : 113401272	DEPTH : 28.49 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
	28.0		0.00- 0.26m: Dark grey silty clayey fine to coarse SAND. 0.26- 0.60m: Dark grey sandy silty angular to subrounded fine to coarse GRAVEL. Sand is fine to coarse.	A	2.0077	MC		29.25 4.63		2.832		0.9 0.0 65.1 0.0	72.8 27.9	26.2 6.9 (19.3) 7.1				0.0			

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #476a

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 476775,8 m	PENETRATION : 3.75 m	
PROJECT : AO5 EC	NORTHING : 5260569,1 m	RECOVERY : 0.6 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 20 s	
PROJECT No. : 113401272	DEPTH : 28,49 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #476

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 476775.4 m	PENETRATION : 0.65 m	
PROJECT : AO5 EC	NORTHING : 5260567.2 m	RECOVERY : 1.2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 28.54 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
28.0			0.00- 0.50m: Loose to medium dense dark greyish brown gravelly fine SAND with occasional shell fragments and occasional cobbles (max 11cm). Gravel is subangular to subrounded fine to coarse (max 4cm).	A	1.4168	NC		9.07		2.591		31.5 41.1	22.6	4.8		Remoulded	Remoulded			0.9	
1.0			0.50- 1.20m: Dark greyish brown gravelly sandy silty COBBLES with occasional shell fragments. Gravel is subangular to subrounded fine to coarse. Sand is fine to coarse.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #476

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 476775,4 m	PENETRATION : 0.65 m	
PROJECT : AO5 EC	NORTHING : 5260567,2 m	RECOVERY : 1.2 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 28,54 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #477

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 477146.6 m	PENETRATION : 1.05 m	
PROJECT : AO5 EC	NORTHING : 5261472.3 m	RECOVERY : 3.4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 27.46 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
27.0			0.00- 0.21m: Loose to dense olive brown silty clayey fine to coarse SAND with occasional fine sand size shell fragments.	A	1.1058	HC		21.41		2.545		0.0 0.0	79.7	20.3 10.1 (10.2)							
1.0			0.21- 1.38m: Medium dense to very dense olive brown very sandy silty subangular to subrounded fine to medium GRAVEL (max 2cm). Sand is medium to coarse.	B	0.6345			4.59 2.31				34.7 0.0 65.5 0.0	59.1 31.1	6.2 3.4							
2.0			1.38- 3.40m: dark grey sandy subangular to subrounded fine to coarse GRAVEL (max 6cm, mostly quartzite and MICA-SCHIST nature). Sand is medium to coarse.	C	0.6500 0.5093																
25.0																					
3.0				D																	

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #477

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 477146,6 m	PENETRATION : 1.05 m	
PROJECT : AO5 EC	NORTHING : 5261472,3 m	RECOVERY : 3.4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 27,46 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #478_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 477422.6 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5260933.5 m	RECOVERY : 0.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 28.37 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
28.0			0.00- 0.46m: Medium dense to dense light olive brown sandy slightly silty clayey subangular to subrounded fine to coarse GRAVEL (max 3,8 cm) with occasional cobbles (max 7,5 cm, MICA-SCHIST nature). Sand is fine to coarse.	A		LC		9.63 18.91		2.501		68.9 0.0 35.3 0.0	23.8 42.4	7.3 22.3 5.4 (16.9)		Remoulded	Remoulded				
			0.46- 0.80m: Dense gray very gravelly silty clayey fine to coarse SAND. Gravel is fine to medium.	TOE																	
			0.80- 0.90m: Toe sample: Dense to very dense grey, vertical foliated MICA-SCHIST, weathered rock destructed to residual bedrock, Fragments (max 2cm) in silty clay matrix.																		

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #478_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 477422,6 m	PENETRATION : 1.7 m	
PROJECT : AO5 EC	NORTHING : 5260933,5 m	RECOVERY : 0.8 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 28,37 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #478_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 477422.5 m	PENETRATION : 0.9 m	
PROJECT : AO5 EC	NORTHING : 5260930.7 m	RECOVERY : 0.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 28.40 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbstf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact Remoulded	phi (deg) Intact Remoulded				
	28.0		0.00- 0.12m: Medium dense. dark grey very gravelly silty fine to coarse SAND. Gravel is fine to coarse.	A	1.8007	HC		19.05				42.3 0.0 53.8 0.0	43.0	14.7 17.4 3.8 (13.6)							Point Load test Is(50)=6.59 MPa
			0.12- 0.50m: Medium dense to very dense. grey sandy slightly silty slightly clayey fine to coarse GRAVEL (mica-schist nature). Sand is fine to coarse.				15.06														
			0.50- 0.60m: TOE Sample: Grey vertical foliated MICA-SCHIST weathered rock. Residual (e) and destructured (d). Bedrock. Fragments (max 2cm) in silty clayey matrix																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #478_A

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 477422,5 m
NORTHING : 5260930,7 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 28,40 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 0.9 m
RECOVERY : 0.5 m
VIB. TIME : 30 s
DIAMETER : 105 mm

DATE : 1-7-2022

Sample A

Sample B

Sample C

Sample D

Sample E

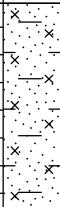
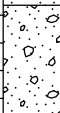
Sample F



PointID

EC GI #508_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 487327.5 m	PENETRATION : 1.05 m	
PROJECT : AO5 EC	NORTHING : 5271214.1 m	RECOVERY : 2.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 48 s	
PROJECT No. : 113401272	DEPTH : 5.57 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
0.00	5.0		0.00- 1.50m: Loose to dense dark grey silty clayey fine to medium SAND with rare fine shell fragments.	A	1.7512	HC						0.1 0.0	76.4	23.5 12.4 (11.1)		Remoulded	Remoulded				
1.0					1.4583			27.15 28.96		2.633											
2.0	4.0		1.50- 2.30m: Dense to very dense transition from very dark grey to olive slightly gravelly fine to coarse SAND with numerous shell fragments. Gravel is fine to medium.	B				11.07				3.7 0.0	85.8	10.4							
			2.30- 2.50m: Dense to very dense dark grey fine to medium SAND with numerous fine shell fragments.	C	1.5108																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #508_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 487327,5 m	PENETRATION : 1.05 m	
PROJECT : AO5 EC	NORTHING : 5271214,1 m	RECOVERY : 2.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 48 s	
PROJECT No. : 113401272	DEPTH : 5,57 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

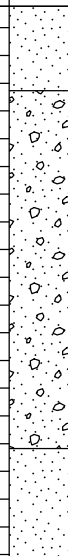
Sample F



PointID

EC GI #510_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 487349.6 m	PENETRATION : 1.55 m	
PROJECT : AO5 EC	NORTHING : 5271609.2 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 90 s	
PROJECT No. : 113401272	DEPTH : 4.56 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt (Clay)</i> (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0 2.0 3.0 4.0	4.0 3.0 2.0 1.0		0.00- 0.61m: Medium dense to very dense very dark greyish olive micaceous slightly gravelly silty fine to medium SAND with shell fragments. Gravel is fine to medium.	A	1.1143	LC		11.38		2.676 2.503		0.5 0.0	86.1	13.4	0.5 46.3						
			0.61- 1.46m: Dense to very dense olive grey slightly gravelly silty fine to coarse SAND with shell fragments. Gravel is fine to medium.		2.2067		17.08		3.5 0.0	82.0	14.5										
			1.46- 2.10m: Dense to very dense light olive brown slightly gravelly silty medium to coarse SAND with shell fragments. Gravel is fine.	B					1.5 0.0	88.3	10.2										
			2.10- 3.19m: Dense to very dense dark greyish olive slightly gravelly silty fine to coarse SAND with shell fragments. Gravel is fine.	C	1.3778		10.69 18.8		1.3 0.0	79.9	18.8 16.5 (2.3)										
			3.19- 4.00m: Dense to very dense dark greyish olive slightly gravelly fine SAND with few shell fragments. Gravel is fine.	D	1.3645																

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #510_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 487349,6 m	PENETRATION : 1.55 m	
PROJECT : AO5 EC	NORTHING : 5271609,2 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 90 s	
PROJECT No. : 113401272	DEPTH : 4,56 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #512

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1/7/2022
ENGINEER : RM	EASTING : 487758.4 m	PENETRATION : 1 m	
PROJECT : AO5 EC	NORTHING : 5271020.6 m	RECOVERY : 2.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 45 s	
PROJECT No. : 113401272	DEPTH : 4.35 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	4.0		0.00- 1.00m: Medium dense to very dense dark olive grey to very dark grey silty very clayey fine SAND with rare shell fragments.	A	1.6533	LC		26.84		2.563		0.2 0.0	64.6	35.2 13.5 (21.7)						0.8	
	3.0		1.00- 2.50m: Dense to very dense very dark grey predominant gravelly fine SAND with pockets of fine to medium GRAVEL with frequent shell fragments.	B	1.6265							3.5 0.0	96.4	0.1 0.0 (0.0)	0 48.1						
	2.0			C	0.4275 1.7230							2.8 0.0	91.5	5.7							

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #512

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 1-7-2022
ENGINEER : RM	EASTING : 487758,4 m	PENETRATION : 1 m	
PROJECT : AO5 EC	NORTHING : 5271020,6 m	RECOVERY : 2.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 45 s	
PROJECT No. : 113401272	DEPTH : 4,35 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #516_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 486669.3 m	PENETRATION : 1.2 m	
PROJECT : AO5 EC	NORTHING : 5270383.8 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 66 s	
PROJECT No. : 113401272	DEPTH : 11.15 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
11.0			0.00- 2.27m: Medium dense to dense transition form dark grey to olive grey slightly gravelly silty clayey fine to coarse SAND with shell fragments.	A	0.9998	LC		20.02		2.275		0.2 0.0	96.7	3.2	24.1 35.9						
10.0				B	0.5678			19.02		2.618		3.3 0.0	76.5	20.2 4.3 (15.9)							
9.0			2.27- 2.50m: Dense to very dense very dark grey silty clayey fine to medium SAND with shell fragments. Shell fragments up to fine sand size.	C	0.4383																
8.0			2.50- 2.67m: Dense to very dense olive grey gravelly silty clayey fine to coarse SAND with shell fragments. Gravel is medium.	D	1.7997			18.8				0.0 0.0	82.7	17.3 3.0 (14.3)							
7.0			2.67- 4.10m: Dense to very dense transition form grey to very dark grey silty clayey medium SAND with shell fragments.	E	1.4707																
			4.10- 4.50m: Dense to very dense very dark grey gravelly fine to medium SAND. Gravel is subangular to subrounded fine of schists.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #516_A

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 486669,3 m
NORTHING : 5270383,8 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 11,15 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 1.2 m
RECOVERY : 4.5 m
VIB. TIME : 66 s
DIAMETER : 105 mm

DATE : 2-7-2022

Sample A

Sample B

Sample C

Sample D

Sample E

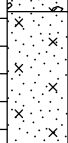
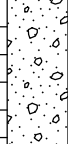
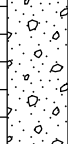
Sample F



PointID

EC GI #517

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 486086.3 m	PENETRATION : 1.2 m	
PROJECT : AO5 EC	NORTHING : 5270012.6 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 14.85 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	14.0		0.00- 1.20m: Medium dense to dense to medium dense very dark grey slightly gravelly silty clayey fine to medium SAND with occasional shell fragments. Gravel is fine.	A	1.7070	NC		23.98		2.558		0.0 0.0	76.5	23.5 17.7 (5.8)	0 51.7	Remoulded	Remoulded				
					1.9348																
2.0	13.0		1.20- 2.16m: Dense olive gravelly silty fine to coarse SAND with occasional shell fragments and occasional pockets of fine sand. Gravel is fine to medium.	B	1.4945 1.2077			13.56				10.7 0.0	75.2	14.1							
3.0	12.0		2.16- 4.50m: Dense to very dense greyish brown gravelly medium to coarse SAND. Gravel is subangular to subrounded coarse of quartzite and schist and rare cobble (max 12 cm).	C	0.5623																
4.0	11.0			D	0.5040																
				E																	

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #517

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 486086,3 m	PENETRATION : 1.2 m	
PROJECT : AO5 EC	NORTHING : 5270012,6 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 40 s	
PROJECT No. : 113401272	DEPTH : 14,85 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #519_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 487060.2 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5270804.8 m	RECOVERY : 2.4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 42 s	
PROJECT No. : 113401272	DEPTH : 7.42 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
7.0			0.00- 1.55m: Loose to medium dense very dark grey slightly gravelly very silty clayey fine to medium SAND with occasional shell fragments. Gravel is fine to medium.	A	1.6998	HC		26.6		2.638		1.1 0.0	70.4	28.5 16.3 (12.3)							
1.0																					
6.0					1.5855			26.31		2.624 2.570		0.2 0.0	77.6	22.2 8.9 (13.3)							
2.0			1.55- 2.18m: Medium dense heterogeneous colour gravelly fine to medium SAND with shell fragments. Gravel is fine.	B																	
			2.18- 2.40m: Dense very dark grey to olive fine SAND with shell fragments.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #519_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 487060,2 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5270804,8 m	RECOVERY : 2.4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 42 s	
PROJECT No. : 113401272	DEPTH : 7,42 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

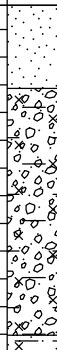
Sample F



PointID

EC GI #528_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 482314.8 m	PENETRATION : 3.6 m	
PROJECT : AO5 EC	NORTHING : 5266829.7 m	RECOVERY : 2.55 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 27.77 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 2.0	27.0 26.0		0.00- 0.60m: Medium dense dark greyish brown slightly gravelly silty very clayey fine to coarse SAND with occasional shell fragments.	A	2.0595	NR		13.51		2.614		0.3 0.0	57.7	42.0 10.8 (31.2)							
			0.60- 2.38m: Dense very dark grey slightly gravelly silty clayey fine to medium SAND with occasional shell fragments. Gravel is fine to coarse.	B	2.2785			20.37 13.59				1.1 0.0	79.0	19.9 9.9 (10.0)							
			2.38- 2.55m: Olive gravelly sandy silty stiff to very stiff CLAY. Gravel is medium of quartzite and mica-schist in nature. Sand is fine to coarse.	C	0.4395 2.5535							26.6 0.0	60.8	12.6 0.0 (0.0)		0.00	32.90				

PP_{LAB} = 49.00

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #528_Aa

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 482314,8 m	PENETRATION : 3.6 m	
PROJECT : AO5 EC	NORTHING : 5266829,7 m	RECOVERY : 2.55 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 27,77 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

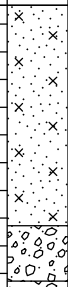
Sample F



PointID

EC GI #528_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 482311.1 m	PENETRATION : 4 m	
PROJECT : AO5 EC	NORTHING : 5266829.0 m	RECOVERY : 2.1 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 27.74 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	27.0		0.00- 1.59m: Medium dense dark greyish brown slightly silty fine to coarse SAND with fine medium sand size shell fragments.	A	1.6715	HC		27.21		2.685		0.3 0.0	95.9	3.8							
	26.0		1.59- 1.99m: Dense dark greyish brown very sandy subrounded fine to medium GRAVEL. Sand is fine.	B	1.9033							94.6 0.0	3.6	1.9							
2.0			1.99- 2.10m: Dense heterogeneous colour subangular to subrounded fine to coarse GRAVEL with occasional cobbles (max 10cm).					1.81													

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID
EC GI #528_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 482311,1 m	PENETRATION : 4 m	
PROJECT : AO5 EC	NORTHING : 5266829,0 m	RECOVERY : 2.1 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 30 s	
PROJECT No. : 113401272	DEPTH : 27,74 m ZH	DIAMETER : 105 mm	

Sample A

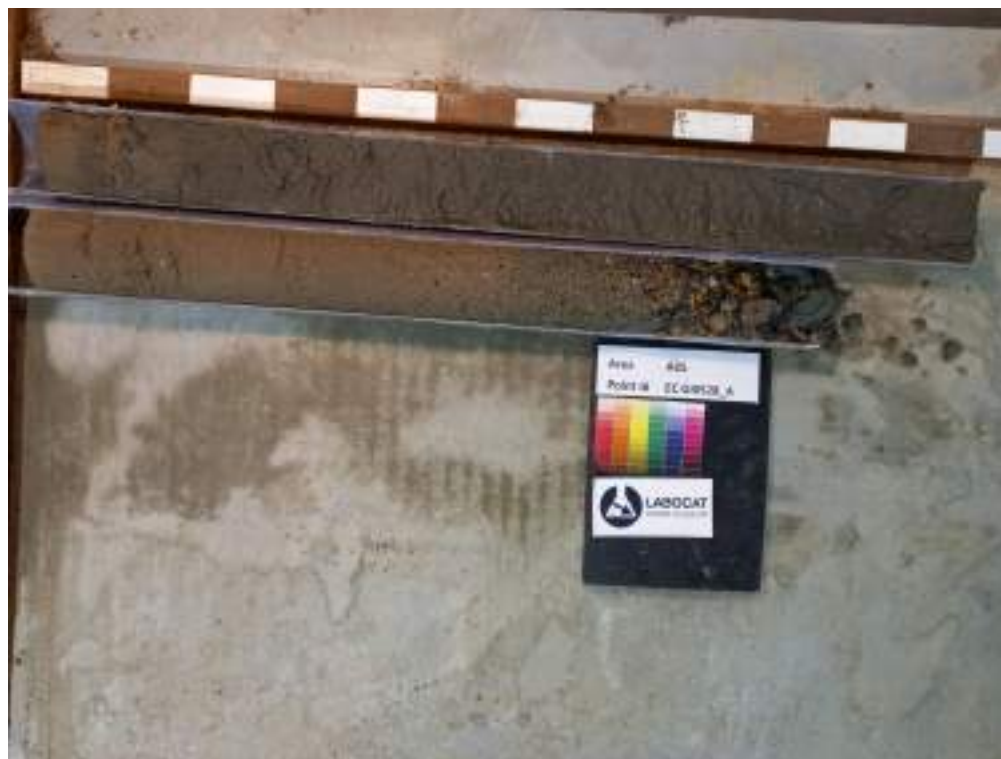
Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #529

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 482866.9 m	PENETRATION : 5.75 m	
PROJECT : AO5 EC	NORTHING : 5267697.9 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 25.96 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0 25.0 2.0 24.0 3.0 23.0 4.0 22.0		0.00- 2.55m: Medium dense to very dense grey to greyish brown and light olive brown slightly gravelly silty fine to coarse SAND with some occasional subrounded cobbles (max 7,1). Gravel is fine to medium. 2.55- 3.02m: Light olive brown gravelly medium SAND with abundant shell fragments. Gravel is subangular to subrounded fine to coarse. 3.02- 3.40m: Greyish brown sandy subrounded medium to coarse GRAVEL. Sand is medium of micaceous nature. 3.40- 4.00m: Greyish brown gravelly medium SAND (micaceous nature). Gravel is angular to subrounded fine to medium of quartzite and mica-schist in nature.	A	0.3962	NC		9.07		2.561		0.0 0.0	86.7	13.3	25.3 35.4			0.0				
			B	1.2522			4.92				0.4 0.0	93.3	6.3								
			C	0.2565																	
			D	1.9322																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #529

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 482866,9 m	PENETRATION : 5.75 m	
PROJECT : AO5 EC	NORTHING : 5267697,9 m	RECOVERY : 4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 25,96 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #544

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 483558.0 m	PENETRATION : 1.1 m	
PROJECT : AO5 EC	NORTHING : 5268423.6 m	RECOVERY : 5.75 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 23.58 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
			0.00- 0.20m: Very loose dark greyish brown slightly gravelly silty clayey fine to coarse SAND. Gravel is fine to coarse (max 3,7cm).	A	1.4840	NC		19.26		2.496		2.3 0.0	65.1	32.6 14.8 (17.8)							
1.0	23.0		0.20- 0.77m: Very loose light olive brown very gravelly slightly silty clayey fine to coarse SAND. Gravel is fine to coarse (max 5,9).	B	0.3017			8.23		2.674		45.7 0.0	48.6	5.6							
			0.77- 1.65m: Medium dense to dense greyish brown slightly gravelly silty clayey fine to coarse SAND. Gravel is fine to medium.	B																	
2.0	22.0		1.65- 3.11m: Medium dense to very dense olive brown slightly gravelly fine to medium SAND with occasional shell fragments. Gravel is fine.	C				14.06				5.6 0.0	79.1	15.3 5.4 (9.9)							
				C	2.4258																
3.0	21.0		3.11- 5.65m: Medium dense to very dense dark greyish brown gravelly silty clayey fine to medium SAND with occasional shell fragments. Gravel is angular to subrounded fine to coarse (max 5cm).	D																	
				D	2.2367																
4.0	20.0			E																	
				E																	
5.0	19.0		Toe sample: Dark greyish brown gravelly silty clayey fine to medium SAND with occasional shell fragments. Gravel is angular to subrounded fine to coarse (max 5cm).	F																	
				F	2.3525																
	18.0		5.65- 5.75m: TOE Sample	TOE																	

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #544

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 483558,0 m	PENETRATION : 1.1 m	
PROJECT : AO5 EC	NORTHING : 5268423,6 m	RECOVERY : 5.75 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 23,58 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #545_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 484446.5 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5268961.0 m	RECOVERY : 5.4 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 90 s	
PROJECT No. : 113401272	DEPTH : 19.48 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
19.0			0.00- 1.77m: Loose to dense dark greyish brown silty clayey fine to coarse SAND with occasional shell fragments. At 0.37-0.57 m there is a coarse sand layer. At 1.06-1.31 m there is a shell fragment richer layer.	A	2.4183	NC		16.84		2.738		0.1 0.0	83.9	16.0 10.4 (5.6)							
1.0				B	1.5562			24.99				1.0 0.0	71.4	27.6 10.4 (17.2)							
18.0					2.3712																
2.0			1.77- 4.20m: Medium dense to dense dark greyish brown gravelly fine to medium SAND with occasional shell fragment. Gravel is medium.	C																	
17.0					1.7508																
3.0				D																	
16.0			4.20- 5.40m: Medium dense to very dense dark olive brown gravelly medium to coarse SAND. Gravel is rounded to subrounded fine to coarse of schist and quartz nature.	E	1.3138																
4.0																					
15.0				F	0.8198																
5.0																					

REMARKS:

HC: Hight Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #545_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 484446,5 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5268961,0 m	RECOVERY : 5.4 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 90 s	
PROJECT No. : 113401272	DEPTH : 19,48 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

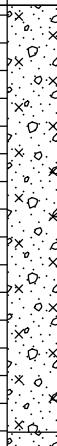
Sample F



PointID

EC GI #546

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 485157.9 m	PENETRATION : 2.1 m	
PROJECT : AO5 EC	NORTHING : 5269429.9 m	RECOVERY : 3.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 37 s	
PROJECT No. : 113401272	DEPTH : 17.47 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	17.0		0.00- 0.52m: Very dark grey gravelly silty clayey fine to coarse SAND. Gravel is fine.	A	2.1340	LC															
			0.52- 1.07m: Olive grey gravelly silty clayey fine to coarse SAND. Gravel is subrounded to rounded, fine with occasional shelf fragments and foraminifera.		0.6422			15.04		2.778		11.9 0.0	71.6	16.6 4.3 (12.2)							
			1.07- 3.08m: Olive grey to dark grey slightly gravelly silty fine to medium SAND with few shell fragments. Gravel is subrounded to rounded, fine.	B																	
2.0	16.0							19.17				0.8 0.0	81.5	17.7 9.3 (8.4)							
	15.0			C																	
3.0				D	1.7807																
			3.08- 3.25m: Very dark grey gravelly clayey fine to medium SAND. Gravel is subangular to subrounded fine to medium of granitic quartzite and schist (max size 4cm).																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID	EC GI #546

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 485157,9 m	PENETRATION : 2.1 m	
PROJECT : AO5 EC	NORTHING : 5269429,9 m	RECOVERY : 3.25 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 37 s	
PROJECT No. : 113401272	DEPTH : 17,47 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

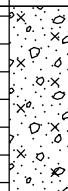
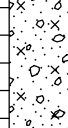
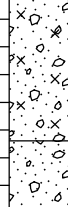
Sample F



PointID

EC GI #VC1

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 484137.5 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5269889.1 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 45 s	
PROJECT No. : 113401272	DEPTH : 18.67 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbstf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0	18.0		0.00- 1.38m: Medium dense to dense very dark grey to dark grey slightly gravelly very silty clayey fine to medium SAND and occasional shell fragments. Gravel is fine and coarse gravel (max 3,5cm).	A	1.5120	HC		34.86 27.97		2.444		0.1 0.0	67.8	32.1 23.5 (8.5)	22.1 39.2			0.1			
					1.7702			26.25			1.1 0.0	71.0	28.0 8.7 (19.3)								
2.0	17.0		1.38- 1.65m: Medium dense to dense dark grey to olive grey very sandy slightly silty subrounded to rounded fine to coarse GRAVEL. Sand is medium to coarse.	B				4.94				57.9 0.0	37.0	5.1							
			1.65- 3.00m: Medium dense to dense dark grey slightly gravelly silty clayey fine to medium SAND with occasional shell fragments. Gravel is fine.	C	1.8425			22.45			0.5 0.0	76.8	22.7 15.1 (7.6)								
3.0	16.0																				
			3.00- 3.95m: Medium dense to dense olive grey slightly gravelly silty clayey medium to coarse SAND. Gravel is subangular to subrounded fine to medium.	D	2.3658			16.49			2.2 0.0	82.4	15.5 2.4 (13.1)								
4.0	15.0																				
			3.95- 4.50m: Medium dense to dense olive grey gravelly silty clayey medium to coarse SAND with shell fragments. Gravel is subangular to subrounded fine to medium (max 2cm).	E	2.2120			10.98			8.1 0.0	77.9	14.1								

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #VC1

CLIENT : RTE
ENGINEER : RM
PROJECT : AO5 EC
LOCATION : France
PROJECT No. : 113401272

AREA : BRE
EASTING : 484137,5 m
NORTHING : 5269889,1 m
COORD. SYS. : WGS 84 UTM Zone 30N
DEPTH : 18,67 m ZH

EQUIPMENT : Geo-VC 6000
PENETRATION : 6 m
RECOVERY : 4.5 m
VIB. TIME : 45 s
DIAMETER : 105 mm

DATE : 2-7-2022

Sample A

Sample B

Sample C

Sample D

Sample E

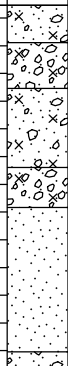
Sample F



PointID

EC GI #VC2_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2/7/2022
ENGINEER : RM	EASTING : 484237.0 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5269964.3 m	RECOVERY : 2.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 18.49 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	18.0		0.00- 0.27m: Very loose black slightly gravelly silty fine to coarse SAND. Gravel is fine.	A	1.4425	MC		17.33		2.600		2.1 0.0	81.0	16.9 15.4 (1.5)		Remoulded	Remoulded				
			0.27- 0.60m: Loose heterogeneous very sandy silty subangular to subrounded fine to coarse GRAVEL with shell fragments. Sand is fine to coarse.					5.69		2.658		58.7 0.0	36.7	4.6							
			0.60- 1.17m: Medium dense to dense very dark grey gravelly fine to medium SAND. Gravel is subangular to subrounded fine.	B	0.1948			4.23				67.0 0.0	24.6	8.4							
			1.17- 1.46m: Dense dark grey sandy silty subrounded to rounded fine to coarse GRAVEL. Sand is medium to coarse.					25.91				0.0 0.0	78.0	22.0 13.4 (8.6)							
			1.46- 2.50m: Medium dense dark grey silty clayey fine to medium SAND.	C	1.7303																
			2.50- 2.70m: Medium dense to very dense dark grey gravelly fine to medium SAND with rare cobbles. Gravel is subangular to subrounded (max 6xm) with subangular tabular cobbles (max12 cm). Shell fragments up to fine sand size.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #VC2_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 2-7-2022
ENGINEER : RM	EASTING : 484237,0 m	PENETRATION : 6 m	
PROJECT : AO5 EC	NORTHING : 5269964,3 m	RECOVERY : 2.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 18,49 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

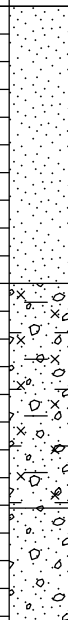
Sample F



PointID

EC GI #VC3_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 471538.5 m	PENETRATION : 1.8 m	
PROJECT : AO5 EC	NORTHING : 5265343.7 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 51.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel <i>Cobbles</i> (%)	Sand (%)	Fines <i>Silt</i> (<i>Clay</i>) (%)	Direct Shear c' (kPa) <i>phi'</i> (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact <i>Remoulded</i>	phi (deg) Intact <i>Remoulded</i>				
1.0	50.0		0.00- 2.00m: Very loose to medium dense very dark greyish brown calcareous fine to coarse SAND with occasional fine sand size shell fragments.	A	1.6233	NC		22.52		2.540		0.8 0.0	77.5	21.7 2.5 (19.3)					24.2		
				B	2.0537																
			1.8263																		
2.0	49.0		2.00- 3.62m: Loose to dense very dark greyish brown gravelly silty clayey medium to coarse SAND with fine to medium shell fragments. Gravel is fine. Silty-clayey horizon at 2,05 and 3,38 m.	C																	
				D	1.4683																
3.0	48.0				0.4327																
4.0	47.0		3.62- 4.50m: Medium to dense very dark greyish brown gravelly medium to coarse SAND with occasional rounded to subrounded cobbles (max 7,5 cm). Gravel is subrounded fine to coarse (max 3 cm).	E																	

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #VC3_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 471538,5 m	PENETRATION : 1.8 m	
PROJECT : AO5 EC	NORTHING : 5265343,7 m	RECOVERY : 4.5 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 51,00 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #VC4_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 471434.1 m	PENETRATION : 4.8 m	
PROJECT : AO5 EC	NORTHING : 5265154.6 m	RECOVERY : 4.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 34.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	33.0		0.00- 0.41m: Very loose to medium dense dark greyish brown silty fine to medium SAND with numerous shell fragments.	A	1.4613	NC		19.59		2.734		0.5 0.0	78.1	21.3 1.0 (20.3)							
			0.41- 1.50m: Medium dense to loose dark greyish brown slightly gravelly silty fine to coarse SAND with numerous shell fragments. Gravel is fine.	B	1.7203			16.59				1.0 0.0	80.7	18.3 5.1 (13.2)							
2.0	32.0		1.50- 2.30m: Loose dark greyish brown slightly gravelly silty fine to coarse SAND with numerous shell fragments	C	1.6893			16.47				3.4 0.0	76.9	19.7 3.7 (16.0)							
			2.30- 3.16m: Loose to medium dense greyish brown gravelly medium to coarse SAND with abundant shell fragments. Gravel is fine.	D	1.1245																
3.0	31.0		3.16- 4.22m: Medium dense to dense dark greyish brown medium SAND with occasional fine shell fragments.	E	1.8785																
			4.22- 4.58m: Dense dark greyish brown very gravelly coarse SAND with numerous shell fragments. Gravel is rounded fine to medium.																		
4.0	30.0		4.58- 4.70m: Medium dense to dense dark greyish brown fine to medium SAND.																		

REMARKS:

HC: High Contamination
MC: Moderate Contamination
LC: Light Contamination
NC: No Contamination
NR: No Water Recovery

VT: Field Hand Vane Test
VT_{LAB}: Lab Hand Vane Test
PP: Pocket Penetrometer
PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #VC4_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 471434,1 m	PENETRATION : 4.8 m	
PROJECT : AO5 EC	NORTHING : 5265154,6 m	RECOVERY : 4.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 50 s	
PROJECT No. : 113401272	DEPTH : 34,00 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



PointID

EC GI #VC5_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28/6/2022
ENGINEER : RM	EASTING : 470921.0 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5263642.9 m	RECOVERY : 5.7 m	
LOCATION : France	COORD. SYS. : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 36.00 m ZH	DIAMETER : 105 mm	

Depth (m)	Elevation ZH (mbsf)	Graphic	Material Description	Sample	Thermal Conductivity (W·m ⁻¹ ·K ⁻¹) Field Lab	SRB*	Shear Strength (kPa)	Water Content (%)	Bulk (Dry) Density (Mg/m ³)	Unit Weight (Mg/m ³)	Att. Limit LL PI	Gravel Cobbles (%)	Sand (%)	Fines Silt (Clay) (%)	Direct Shear c' (kPa) phi' (deg)	Triaxial UU		SO ₃ (%)	CaCO ₃ (%)	Cl ⁻ (%)	Remarks
																Cu (kPa) Intact	phi (deg) Intact				
1.0	35.0		0.00- 1.19m: Loose to dense dark yellowish brown very sandy slightly silty rounded fine to coarse GRAVEL with occasional shell fragments. Sand is medium to coarse.	A		NC		4.52		2.642		58.9 0.0	37.9	3.2							
					0.2587			2.78		2.588		63.6 0.0	33.8	2.7							
2.0	34.0		1.19- 4.40m: Very dense yellowish brown slightly gravelly slightly silty fine to coarse SAND. Gravel is rounded fine.	B																	
					1.2708			3.79				1.4 0.0	93.8	4.8							
3.0	33.0			C																	
					0.2090																
4.0	32.0			D																	
					0.4427																
5.0	31.0		4.40- 5.70m: Very dense dark brown gravelly medium to coarse SAND with frequent shell fragments. Gravel is fine to medium gravel.	E																	
				F	0.3237																

REMARKS:

HC: High Contamination
 MC: Moderate Contamination
 LC: Light Contamination
 NC: No Contamination
 NR: No Water Recovery

VT: Field Hand Vane Test
 VT_{LAB}: Lab Hand Vane Test
 PP: Pocket Penetrometer
 PP_{LAB}: Lab Pocket Penetrometer

PointID

EC GI #VC5_A

CLIENT : RTE	AREA : BRE	EQUIPMENT : Geo-VC 6000	DATE : 28-6-2022
ENGINEER : RM	EASTING : 470921,0 m	PENETRATION : 4.2 m	
PROJECT : AO5 EC	NORTHING : 5263642,9 m	RECOVERY : 5.7 m	
LOCATION : France	COORD. SYS : WGS 84 UTM Zone 30N	VIB. TIME : 60 s	
PROJECT No. : 113401272	DEPTH : 36,00 m ZH	DIAMETER : 105 mm	

Sample A

Sample B

Sample C

Sample D

Sample E

Sample F



	Project	Package	Issuer	Chrono	Revision	Status
	BRE_AO5	GTC	TEC	63	0.1_A	A
	Title	BRE_LsM_TEC_63_Factual report - Geotechnical survey - AO5 EC area_0.1_A				

APPENDIX III – LABORATORY AND VC RESULTS EXCEL

This appendix is provided separately in the **Appendices** folder.

Confidentiality	<i>Diffusion restreinte (restricted)</i>	Pages	<i>Page 58 of 62</i>
Issue date	01/02/2023	Document uncontrolled when printed/downloaded	

	Project	Package	Issuer	Chrono	Revision	Status
	BRE_AO5	GTC	TEC	63	0.1_A	A
	Title	BRE_LsM_TEC_63_Factual report - Geotechnical survey - AO5 EC area_0.1_A				

APPENDIX IV – CPT DATA IN EXCEL

This appendix is provided separately in the **Appendices** folder.

Confidentiality	<i>Diffusion restreinte (restricted)</i>	Pages	<i>Page 59 of 62</i>
Issue date	01/02/2023	Document uncontrolled when printed/downloaded	

  	Project	Package	Issuer	Chrono	Revision	Status
	BRE_AO5	GTC	TEC	63	0.1_A	A
	Title	BRE_LsM_TEC_63_Factual report - Geotechnical survey - AO5 EC area_0.1_A				

APPENDIX V – GEOTECHNICAL EQUIPMENT

Confidentiality	<i>Diffusion restreinte (restricted)</i>	Pages	<i>Page 60 of 62</i>
Issue date	01/02/2023	Document uncontrolled when printed/downloaded	



VIBRO-CORER EQUIPMENT



Geo-Vibro Corer 3000 + 6000

High Frequency Vibro Coring System



Applications

- Geotechnical surveys
- Stratigraphic studies
- Geological mapping
- Mineral exploration
- Environmental surveys
- Pollution investigations



Operational Features

- Proven performance & high quality cores
- 30 kN impulse at 30 Hz for fast penetration
- Reliable, lightweight & cost effective
- Modular construction (cores of 3 m or 6 m)
- Pivoting core barrel for horizontal retrieval
- Water injection for deep cores of 12 m and applications onshore & in transition zone
- Optional pre-pressured or compensated model for deep water operation

High Frequency Vibration

The Geo-Corer 3000 + 6000 is a high frequency (28 Hz), electrically driven vibrocoring system. It can penetrate fast (thereby enhancing the quality of the core) into all common unconsolidated sediments, including compact sands and stiff clays, and even unconsolidated chalk.

Variable Coring Parameters

The two standard configurations are designed to take high quality cores of 6 m or 3 m length, in ordinary PVC liners with an internal diameter of 106 mm.

The penetration force can be adjusted by varying the deadweights on the vibrator head.

Proven Performance

The Geo-Corer 3000 + 6000 has a proven performance over many years, even in extreme conditions. The very fast penetration rate results in high quality cores with a minimum of sediment disturbance.

Lightweight Structure & Small Vessel Operation

This modular system can be assembled manually in two hours (a crane is required to bring it upright) and can be deployed from a relatively small vessel. Because of its lightweight construction and smart pull-out system, it requires a limited hoisting power of five tonnes maximum. Also, its low overall weight minimizes transportation costs.

Pivoting Core Barrel Head

The pivoting head allows rapid change-out of the core barrel and easy retrieval of the core liner, while the vibrocorer remains in the upright position.

Deep Water Operation

The Geo-Corer, new models built after 2010, is rated to a maximum water depth of 300 m. It can be upgraded to the pressure-compensated version for operation in water depths down to 600 m and more.... The new deep sea version for oceanic depths is expected in 2012



Geo-Vibro Corer 3000 + 6000

Technical Specifications

Type	Geo-Corer 3000 + 6000
Manufacturer	Geo Marine Survey Systems
Maximum weight in air	1000-1200 kg, depending on ballast weights
Maximum weight in water	850-1050 kg, depending on ballast weights
Fully containerized system (optional)	The system is designed to fit into a standard 20-foot container. The same container is used for the storage of barrels / liners during operation offshore.
Total height	7.4 m (6 m core barrel) 4.5 m (3 m core barrel)
Footprint base frame	Diameter 4.7 m (6 m core barrel) Diameter 3.2 m (3 m core barrel)
Corrosion protection / maintenance	All structural steel parts are hot-dip galvanised
Vibro motor	Electrically driven double vibrator (5.5 kVA)
Vibrating frequency	28 Hz
Vibration swing force	30 kN
Dead weights on vibrator head	Adjustable, from 100 kg to 300 kg
Electric power	380 / 440 VAC, 3 Phase, 50 / 60Hz Running power 2 A to 6 A, depending on soil type. Minimum Generator Power: 7.5 kVA
Electric power umbilical	Standard 250 m, Kevlar-reinforced, polyurethane insulated on reel, Optional 100 m version for shallow water, hand deployed
Hand operated cable reel	Overall diameter 0.9 m, width 0.5 m, mounted on steel A-frame (hot-dip galvanized), with four wheels for easy maneuverability on deck.
Electric constant tension cable reel	Option, Special constant tension winch with 750 m umbilical for deep water operations
Electrical control unit	Rugged HMPE housing, protecting a watertight suspended electric power control unit that contains ampere meter, fuses, start and stop buttons, and green (ON) and red (OFF) LEDs. Automatic end switch when fully penetrated.
ROP measurement	Acoustic Height Transducer with digital output via USB on control unit
Core barrel and accessories	ID / OD: 113 mm / 121 mm (stainless steel 316) Length: 6 m or 3 m Core catcher (stainless steel 316) Cutting shoe (carbon steel) Special anti-return valve Pivoting core barrel head
Core liner	ID / OD: 106 mm / 110 mm, PVC or transparent PVC length: 5.9 m (6 m barrel), 3.0 m (3 m barrel)
Operational depth	300 m for Geo-Corer built after 2010 600 m for the pressure-compensated version, using two 5 liter / 200 bar compressed air bottles
Hoisting requirements	Minimum 5 t crane or A-frame 14 mm anti-twist steel cable, type 35 x 7 (N.B. The provision of a hoisting cable is optional)
Required height below A-frame	8.5 m minimum (6 m core barrel) 5.5 m minimum (3 m core barrel)
Required deck space	Minimum 12 m length for placing the core barrel into horizontal position to extract the core liner

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Website: www.geo-spark.com

GEO Marine Survey Systems b.v.
Sheffieldstraat 8
3047 AP Rotterdam
The Netherlands

Geo-Vibro Corer 3000 + 6000

Working Principle (& Pressure Compensation)

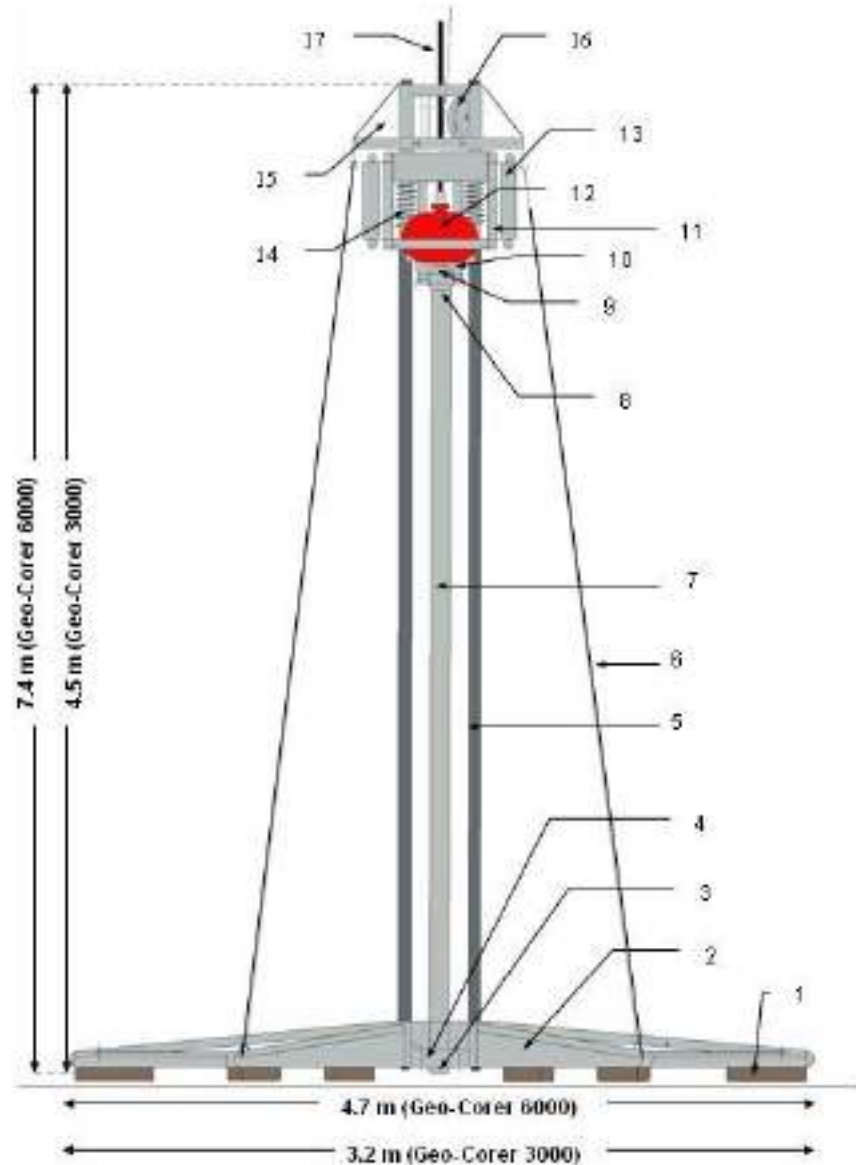
Working Principle & Functionality

(The system main parts and their identifying numbers are given in the diagram overleaf.)

- The main structure of the vibrocorer consists of the 'spider' base frame (2), which can be folded together for transportation; the two guiding poles (5); the sliding frame (11) with the vibromotor (12); and up to six deadweights (13) that allow the adjustment of the downward penetration force. A high density polyethylene block (4), in the base frame, guides the core barrel during penetration.
- The standard length of the guiding poles for 3 m coring is 4.5 m; for 6 m coring, a shorter pole of 2.9 m is added to the standard pole. (N.B. The maximum pole length of 4.5 m fits easily into a 20-foot container.) Both guiding poles are connected at their top to a rigging head (15), which is kept in place by four stainless steel stays (6) secured to the spider base frame.
- The vibromotor is driven by a 5.5 kVA / 3-phase AC motor located in the centre of its housing, and is powered from the vessel via the underwater power umbilical (17). Two gearboxes, with gearwheels of eccentric weights, are mounted at the sides of the housing. The vertical vibration force is created by the centrifugal force of the rotating eccentric weights; the horizontal components of the centrifugal force cancel each other out, but the vertical components reinforce each other. The resulting up/down motion (a sinusoidal motion of 28 Hz) of the vibromotor is transmitted by two springs (14) to the sliding frame and deadweights, thereby providing the downward penetrative force.
- The core barrel (7) is made of stainless steel 316, and contains a PVC liner of 106 mm inner diameter and wall thickness of 2 mm. The core barrel is connected to the barrel pivot (10) by two locking bolts - this pivotal connection allows the core barrel to be positioned horizontally for extracting the core liner.
- The core barrel is provided with a carbon steel cutting shoe (3), which fixes the core catcher and core liner in position. The liner and its core sample can be easily extracted after unscrewing the cutting head. Liner caps are used to close the liner sections.
- The combined effect of the vibration motion and the non-return valve (9) at the top of the core barrel produce an under-pressure directly above the core sample. This is the 'suction effect'.
- Once the barrel has penetrated the seabed, this closing of the upper part of the core barrel helps to prevent the core sample from moving backwards during the pull-out from the seabed.
- Thanks to the unique internal core extraction system, the available force for pulling the core barrel out of the seabed is four times the hoisting force. This is achieved by passing the steel hoisting cable through two sheaves in the sliding frame and one sheave in the rigging head - resulting in a fourfold increase of the hoisting force available for extraction.
- For example, a three-tonne total hoisting force gives a two-tonne net hoisting force, (after correction for the system's own weight), which would increase fourfold to an eight-tonne extraction force. This increased force also means that the system is much less sensitive to bending of the core barrel during extraction - the main extraction force is always applied vertically, even if the vessel is not directly above the corer.
- A galvanised anti-twist steel hoisting cable diameter 14 mm (16) is used to deploy and recover the vibrocorer from the vessel, using a suitable crane or an A-frame plus winch, depending on available means, water depth, etc.
- The electric motor of the vibrator unit is operated (switched on/off) from the surface via the power cable and the control unit. The performance of the vibrator can be monitored via the ampere meter on the control unit.

Pressure Compensation for Deep Water Operation

- Pressure compensation for the vibromotor housing becomes necessary at water depths greater than 300 m - the pressure within the housing must be able to withstand the pressure from the surrounding water column.
- Two standard 5 liter diving bottles are installed on the sliding frame; each bottle is connected to the vibromotor housing via a high pressure hose and pressure-compensated valve. As the vibrocorer is lowered through the water column, the valve opens in response to the increase in the ambient water pressure, allowing the air from the diving bottles to flow into the vibromotor housing and equalise the interior/exterior pressures.
- When the vibrocorer is recovered to the surface, the high pressure air inside the vibromotor housing is released through an over-pressure bleed valve.



No.	Item	Material
1	protective anti-slip blocks	high quality waterproof plywood
2	spider base frame	carbon steel, hot-dip galvanised (can be folded)
3	core barrel cutting shoe	replaceable cutting shoe, carbon steel, with stainless steel core catcher
4	core barrel guiding block	HMPE
5	guiding poles	high strength steel
6	stays to rigging head	stainless steel 316
7	core barrel	ID/OD 113 x 121 mm stainless steel 316
8	pivoting core barrel head	stainless steel 316
9	non-return valve	Delrin and stainless steel
10	core barrel pivot	stainless steel, hot-dip galvanised
11	sliding frame	stainless steel, hot-dip galvanised
12	vibromotor	3-phase AC motor, 5.5 kVA
13	dead weights	adjustable to six pieces of 50 kg each (on vibrator head)
14	springs	transferring resonant vibration motion to 30 kN
15	rigging head	hot-dip galvanised
16	hoisting wire	anti-torsion 14 mm steel cable, type 35 x 7
17	underwater power cable	polyurethane, Kevlar-reinforced (12 x 1 mm ²)



Geo-Vibro Corer 3000 + 6000

Deployment Solutions



From the stern using the A-frame plus hoisting winch



Deployment Solutions

The Geo-Corer 6000 has a variable footprint and a pivoting barrel, which allows deployment in all kinds of situations:



Deployment from a barge or multi-cat using big crane

Deployment and Hoisting by Crane

The 1:4 pulley system of the Geo-Corer generates an barrel extraction force equals to 4 times the hoisting force. This means that a 5 ton crane will meet the maximum design criteria of 20 ton. Most cranes have enough drum capacity to accommodate 100- 200 m. However, the use of an adequate cable is imperative:

- 14 mm, 35 x 7, anti twist steel cable
- 18 mm, Dynema, floating kevlar cable

Custom built Hoisting Winches

In collaboration with various specialized manufacturers we are able to offer a full range of hydraulic winches, all custom designed to meet the requirements of geotechnical and oceanographic survey.

- from shelf down to oceanic depths
- autonomous mobile units
- fixed installations
- fully certified



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GEO Marine Survey Systems b.v.
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3047 AP Rotterdam
The Netherlands

DATA SHEET

Pocket Penetrometers



16-T0163

General description

Designed for making field classification of cohesive soils in terms of consistency, shear strength and approximate unconfined compressive strength.

Two models available:

- **16-T0163 Heavy duty model,**
- **16-T0171 standard model,**

Specifications

16-T0163

Stainless steel construction.

Tip Diameters: 4.5 mm dia. for very hard soil, 6.35 mm for medium and soft soil, 8.98 mm for soft soil.

Measuring range: 0 to 1000 kPa

Dimensions (assembled): 210 mm length x 20 mm dia. approx.

Weight approx.: 0.5 kg

16-T0171

measuring range 0 to 500 kPa

Dimensions: 20 mm dia. x 173 mm length

Weight approx.: 0.5 kg

DATA SHEET



16-T0171

Products

16-T0163

Heavy duty pocket penetrometer

16-T0171

Pocket penetrometer, range 0-5 MN/m²

Fuente de Línea Transitoria TLS-100

Medidor de Conductividad Térmica
Portátil para la medición de **suelo, roca, hormigón y polímeros**

Cumple con las normas ASTM D5334-22
e IEEE 442-2017



Suelo



Roca

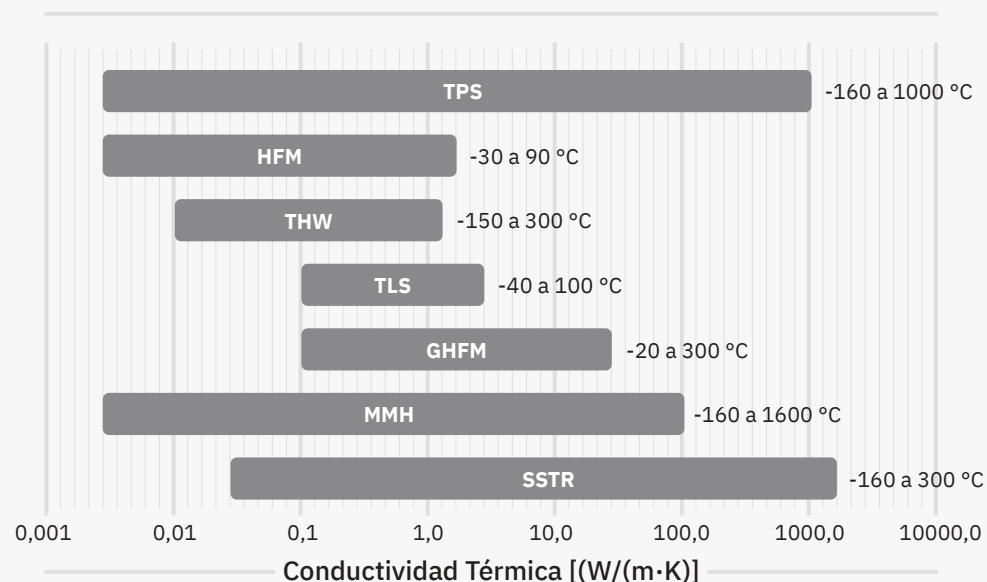


Hormigón



Polímeros





- MP-1** (Plataforma de medición)
- MP-1: TPS (Fuente plana transitoria)
 - MP-1: THW (Hilo caliente transitorio)
- HFM-100** (Medidor de flujo de calor)
- THW-L1** (Hilo caliente transitorio)
- GHFM-01** (Medidor de flujo de calor protegido)
- MMH-1600** (Calentamiento monotónico)
- SSTR-F** (Termorefectancia en estado estacionario)



- TLS-100** (Fuente de línea transitoria)
- THW-L2** (Hilo caliente transitorio)
- TPS-EFF** (Fuente plana transitoria)
- GHFM-02** (Medidor de flujo de calor protegido)
- MP-2** (Plataforma de medición)
- MP-2: TPS (Fuente plana transitoria)
 - MP-2: THW (Hilo caliente transitorio)
 - MP-2: TLS (Fuente de línea transitoria)
- HFM-25** (Medidor de flujo de calor)

Thermtest se ha dedicado a la medición de la conductividad térmica, la difusividad térmica y el calor específico desde 2005. Con más de 2000 clientes satisfechos en todo el mundo, nuestra combinación única de instrumentación avanzada de conductividad térmica para el laboratorio, medidores portátiles para el campo y accesorios nos permite brindar soluciones ideales para adaptarse a cualquier aplicación y presupuesto de prueba de materiales.

Capacidades destacadas de Fuente de Línea Transitoria

El TLS-100 es un medidor portátil utilizado para medir la conductividad y la resistencia térmica de una diversidad de muestras, entre ellas, suelo, rocas, hormigón y polímeros. Las pruebas se pueden realizar con solo pulsar un botón y los resultados se muestran instantáneamente. El TLS-100 de segunda generación cuenta con muchos avances, como sensores que se reconocen automáticamente, con los parámetros de prueba correspondientes que se cargan automáticamente.

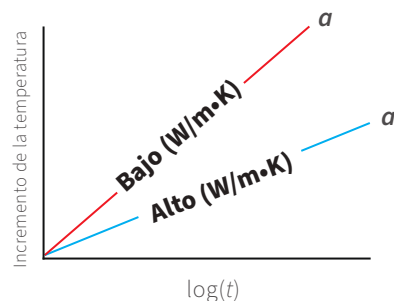
El medidor de Fuente de Línea Transitoria (TLS) cumple con las normas ASTM D5334-22 e IEEE 442-2017. La aguja del sensor consta de un cable calefactor delgado y un sensor de temperatura sellado en un tubo de acero de 150, 100 o 50 mm. El sensor se introduce totalmente en la muestra a analizar. El calor llega a la muestra mediante una fuente de corriente constante (q) y el incremento de la temperatura se registra durante un período de tiempo determinado. Para el cálculo de la conductividad térmica (k) se utiliza la pendiente (a) del diagrama de incremento de la temperatura frente al logaritmo del tiempo. Mientras mayor sea la conductividad térmica de una muestra, la pendiente será menos pronunciada. Para muestras de baja conductividad térmica, la pendiente será más pronunciada..

$$k = \frac{q}{4\pi a}$$

k = conductividad térmica (W/m•K)

q = potencia calorífica (W/m)

a = pendiente



- Cumple con las normas internacionales: ASTM D5334-22 e IEEE 442-2017
- Portátil, económico y preciso
- Fácil de usar
- Sensor estándar de 100 mm / 150 mm para materiales blandos
- Sensor opcional de 50 mm para material duro

Especificaciones del sensor TLS-100 mm

Materiales	Suelo, Roca, Hormigón y Polímeros
Capacidades de medición	Propiedades a granel
Conductividad térmica	0,1 a 5 W/m•K
Resistividad térmica	0,2 a 10 m•K/W
Tiempo de medición	3 minutos
Reproducibilidad	± 2%
Precisión	± 5%
Rango de temperatura	-40 a 100 °C
Tamaño más grande de muestra	Ilimitado
Normas	100 mm: ASTM D5334-22, e IEEE 442-1981
	150 mm: ASTM D5334-22, IEEE 442-1981 e IEEE 442-2017

Portátil, Económico, Preciso



Sensor estándar de 100 mm

Cada TLS-100 viene equipado con el sensor estándar de 100 mm para pruebas de suelo, materiales blandos, polímeros y materiales fáciles de perforar. El sensor de aguja se introduce totalmente en una muestra isotérmica y se efectúa una medición con sólo pulsar un botón. Después de 180 segundos, se muestran los resultados de conductividad y resistencia térmica. Además, los resultados guardados se pueden exportar a una computadora, a través de un conveniente software de utilidad o una conexión USB.

Es posible preparar curvas de secado térmico del suelo midiendo la conductividad térmica de una muestra con diferentes contenidos de humedad, a medida que la muestra se seca por saturación. El método típico de secado consiste en calentar el suelo a una temperatura elevada. La muestra se retira, se pesa y se mide en distintos intervalos de tiempo para determinar la conductividad térmica, hasta que esté completamente seca.



Sensor estándar de 50 mm

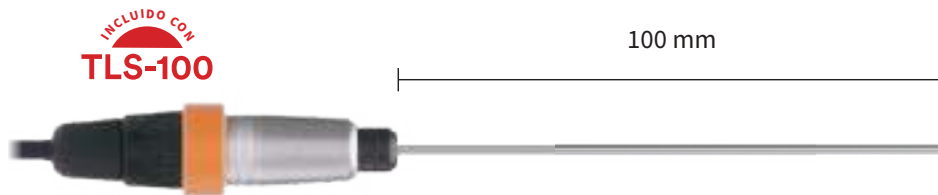
El sensor de 50 mm fue diseñado para analizar muestras duras, como roca y hormigón. Con la broca para mampostería suministrada resulta fácil perforar el orificio de 4 mm de diámetro x 50 mm, necesario en muestras rígidas. Cuando se analizan muestras duras, se utiliza una grasa disipadora térmica para optimizar el contacto entre el sensor y la muestra.



Sensor estándar de 150 mm

Sensor opcional de 150 mm para pruebas en el laboratorio y en el campo de suelos y materiales blandos de acuerdo con la norma IEEE 442-2017. La aguja se introduce totalmente en una muestra isotérmica y se efectúa una medición con solo pulsar un botón. Después de 180 segundos, se muestran los resultados de conductividad y resistencia térmica.

Fuente de Línea Transitoria (TLS-100 mm y TLS-50 mm)



Materiales	Suelos, Pastas, Polvos y Sólidos
Capacidades de medición	Propiedades a granel
Conductividad térmica	0,1 a 5 W/m·K
Resistividad térmica	0,2 a 10 mK/W
Tiempo de medición	3 minutos
Reproducibilidad	± 2%
Precisión	± 5%
Rango de temperatura	-40 a 100 °C
Tamaño mínimo de muestra	100 mm de longitud, 50 mm de diámetro
Tamaño más grande de muestra	Ilimitado
Normas	ASTM D5334-22, IEEE 442-1981

Para IEEE 442-2017, véase el Sensor de 150 mm



thermtest.com/applications/tls100mm

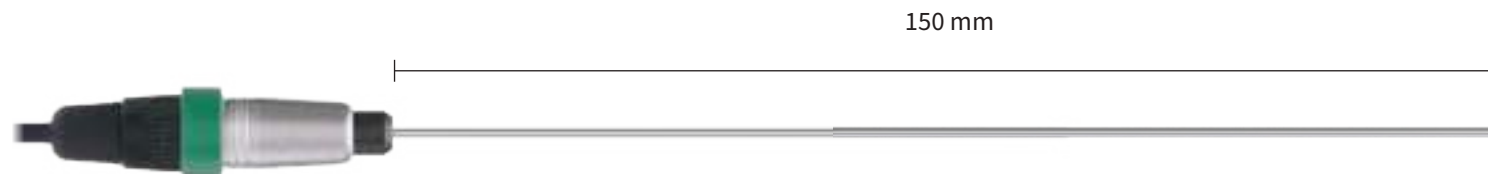


Materiales	Hormigón, Roca y Polímeros
Capacidades de medición	Propiedades a granel
Conductividad térmica	0,3 a 5 W/m·K
Resistividad térmica	0,2 a 3,3 mK/W
Tiempo de medición	5 minutos
Reproducibilidad	± 2%
Precisión	± 5%
Rango de temperatura	-40 a 100 °C
Tamaño mínimo de muestra	50 mm de longitud, 50 mm de diámetro
Tamaño más grande de muestra	Ilimitado
Normas	ASTM D5334-22 modificado



thermtest.com/applications/tls50mm

Fuente de Línea Transitoria (**TLS-150 mm**)

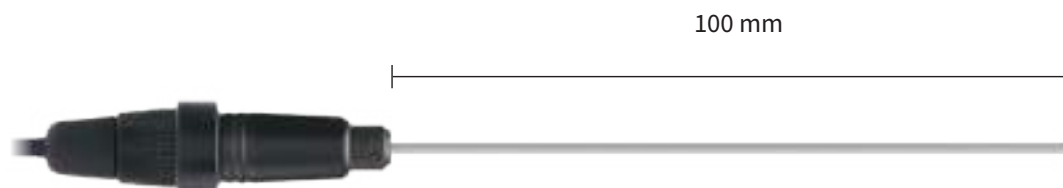


Materiales	Suelos, Pastas, Polvos y Sólidos
Capacidades de medición	Propiedades a granel
Conductividad térmica	0,1 a 3 W/m•K
Resistividad térmica	0,3 a 10 mK/W
Tiempo de medición	3 minutos
Reproducibilidad	± 2%
Precisión	± 5%
Rango de temperatura	-40 a 100 °C
Tamaño mínimo de muestra	150 mm de longitud, 50 mm de diámetro
Tamaño más grande de muestra	Ilimitado
Normas	ASTM D5334-22, IEEE 442-2017



thermtest.com/applications/tls150mm

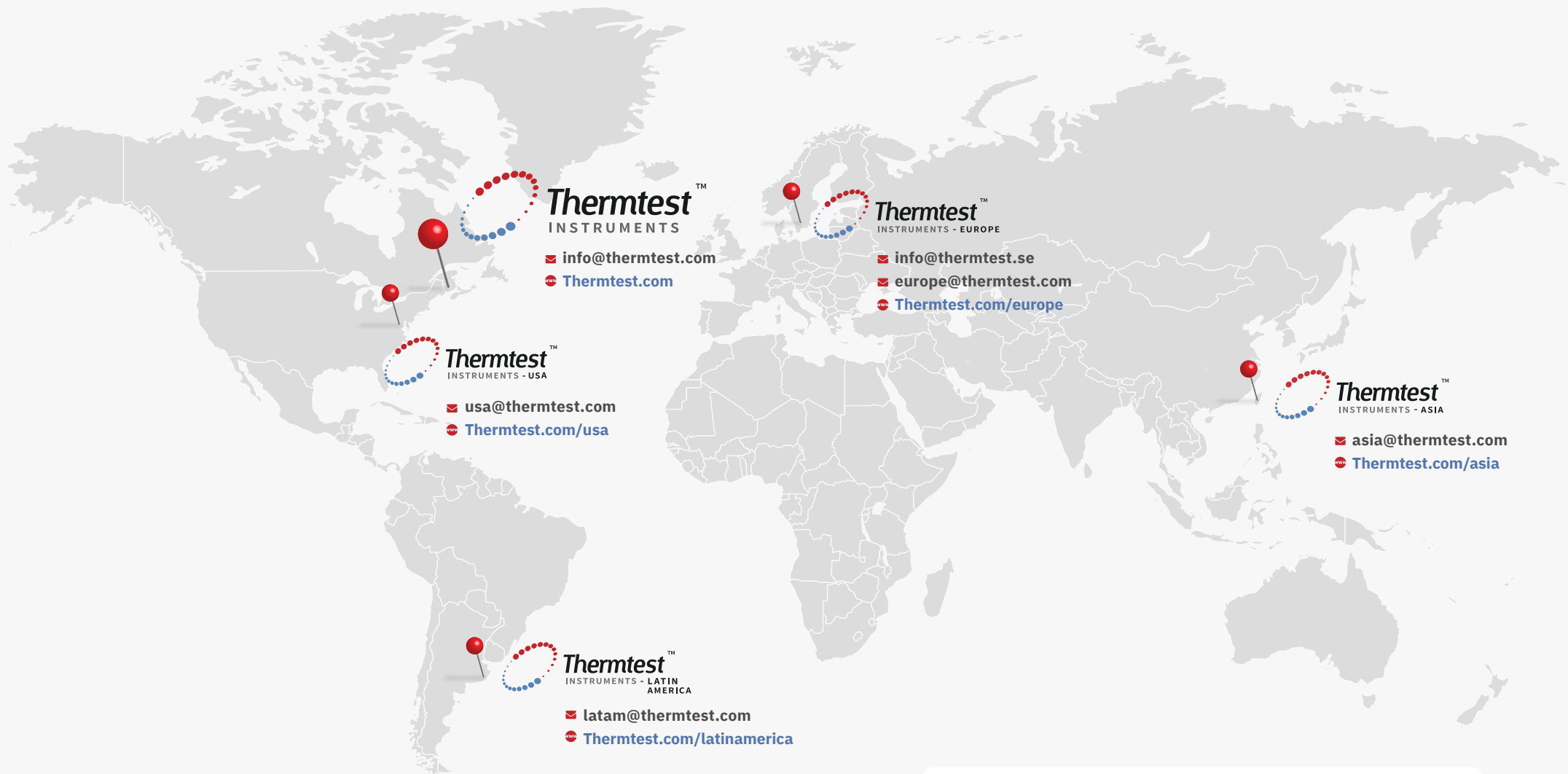
Fuente de Línea Transitoria (**TLS-100 mm - vCp**)



Materiales	Suelos, Pastas, Polvos y Sólidos
Capacidades de medición	Propiedades a granel
Conductividad térmica	0,1 a 5 W/m•K
Reproducibilidad	± 2%
Precisión	± 5%
Difusividad térmica	0,05 a 1,5 mm²/s
Precisión	± 10%
Calor volumétrico específico	Hasta 2,5 MJ/m³K
Precisión	± 15%
Rango de temperatura	-40 a 100 °C
Tamaño mínimo de muestra	100 mm de longitud, 50 mm de diámetro
Tamaño más grande de muestra	Ilimitado
Normas	ASTM D5334-22



thermtest.com/applications/tls100-vCp



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DATA SHEET

Torvane



16-T0175_A

General description

Especially designed to measure the undrained shear strength (CU) of cohesive soils, consists of a cylindrical body with a torsional spring and three interchangeable vanes of different sizes used depending upon the expected strength of the soil.

Can be used either in the field or in the laboratory, at the end of sample tubes, etc.. Contained in a plastic case.

Specifications

Standard 25 mm dia., range 0-10 N/cm²

Sensitive vane adaptor, range 0-2 N/cm²

High capacity vane adaptor, range 0-25 N/cm²

Products

16-T0175/A

Pocket shear vane device

Accessories and consumables

16-T0175/1

High capacity vane adapter 0-2 N/cm² (small version)

16-T0175/2

Sensitive vane adaptor 0-25 N/cm² (big version)

16-T0175/3

Standard vane 0-10 N/cm²

DATA SHEET



CPT EQUIPMENT



a.p. van den berg
The CPT factory

ROSON 100

the versatile and full force seabed CPT system



features

- compact & proven wheel drive system with a pushing force of 100 kN
- deployable from medium vessel, also available in a near-shore configuration
- 1,500 m water depth rating, CPT depth up to 50 m
- suitable for 5, 10 & 15 cm² Icones & click-on modules
- suitable for Seabed Sampler XL
- software for realtime data acquisition and control

creating tools that move your business

ROSON 100, the versatile and full force seabed CPT system



introduction

The ROSON is a proven seabed CPT system, deployed from a vessel with an A-frame or crane through a moon pool or over the side. The electrical wheel drive system pushes the pre-assembled CPT string into the seabed. Wheel friction is imposed by hydraulic force. A self-tensioning electric winch with heave

compensation feeds the umbilical for power supply and data communication.

versatile, full force & easy maintainability

The versatile ROSON 100 is capable of performing CPTs and taking soil samples at water depths up to 1,500 m. It can be used in projects where a pushing force of up to 100 kN is required. A CPT depth up to 50 m is achievable (of course depending on the soil conditions and reaction force). The versatile design makes this ROSON also very suitable as near shore solution for water depths ranging from 30 to 250 m. To limit the required investment, the self-tensioning winch is not applied for this near shore ROSON and data communication runs over a direct cable to the Icontrol data logger on the vessel. The ROSON 100 is easy to maintain by mounting the drive units on one side of the frame. There is enough space for feeding and removing measuring instruments. Furthermore it is easy to check and adjust components. Both drive wheels are identical and can be rapidly exchanged for maintenance.

Specifications drive unit

Water depth rating	1,500 m
Driving speed	20 mm/sec
Pushing/pulling force	100 kN
Electrical motors	2 x 1.5 kW
Wheel diameter	Ø 1,000 mm

Specifications seabed frame

Footprint	2,500 x 2,500 mm ²
Height	2,300 mm
Lifting point height	2,900 mm
Weight	7,000 kg in air (excl. ballast)
Guiding masts	included

digital Icone data acquisition system

The ROSON works in conjunction with A.P. van den Berg's digital Icone data acquisition system, consisting of the Icontrol, Icones and the Ifield software for realtime data presentation. It enables measurement of cone resistance (q_c), local friction (f_s), pore water pressure (u) and inclination (l_x/y). The Icone is easily extendable with click-on modules to measure other than the four standard parameters. The modules Conductivity, Magneto, Vane and Seismic are available for the ROSON.

Specifications CPT with the ROSON 100

Icone sizes/type	5, 10 & 15 cm ² / CPT or CPTU
Icone modules	
- up to 1,500 m water depth	Vane
- up to 1,000 m water depth	Seismic, Conductivity & Magneto
CPT string diameter	Ø 25 or Ø 36 mm

sampling with the Seabed Sampler XL

In combination with the Seabed Sampler XL it is possible to take high quality seabed samples with a diameter of 110 mm and a length up to 20 m. The recovery ratio is higher than 95%, which means that very little disturbance occurs to the sample. Sample tubes are pre-assembled in the ROSON. Then the total assembly is lowered to the seabed and the sample string is pushed into the soil by means of the ROSON drive wheels.

Specifications Seabed Sampling with the ROSON 100

Sample diameter	110 mm
Sample length	up to 20 m
Water depth	max. 1,500 m
Recovery ratio	higher than 95%



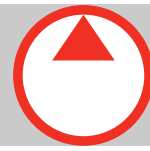
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The CPT factory

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a.p. van den berg
The CPT factory

Icone & Icontrol

the intelligent approach to data acquisition



features

- cost-effective CPT operation
- high quality data acquisition
- available in 5, 10 and 15 cm² version
- entirely digital data transfer
- applicable for onshore and offshore
- easily extendable with click-on modules

creating tools that move your business

Icône & Icontrol, the intelligent approach to data acquisition

introduction

Large investments are involved with most infrastructural and civil engineering works. To reduce risks in these type of projects it is essential to acquire detailed and accurate information about the subsoil. Icône was designed to obtain this information reliably and is therefore an important tool for providing geotechnical information.

description

The system consists of a digital cone, called Icône, and a digital data acquisition box called Icontrol. An Icône has a built-in AD-conversion, memory and micro-controller and provides an entirely digital path to the Icontrol. Thanks to this digital data transfer, the influence of cables or connectors on the measured data lies in the past. The Icône cables are of high standard and because all connectors are identical, cables will always fit. Icône is available in a 5, 10 and 15 cm² version and is also compatible with the Optocone system which provides a wireless data transfer (see leaflet Da-7).

The Icontrol is placed near the computer on which the data is recorded. It also combines the depth information with the obtained CPT data and provides power to the Icône. An Icontrol is connected to a PC or laptop with an USB-connection. The Ifield software package is installed on the PC or laptop for realtime presentation on screen and recording of the CPT data.

Icône and Icontrol work in conjunction with the usual equipment for depth registration and pushing. With a minimal investment, a high quality data acquisition system can be integrated even in existing CPT rigs.

digital cone

The unique Icône concept combines strength, reliability and economy. The Icône is stronger than its analogue predecessor and at the same time more accurate and reliable. Thanks to its clever design, maintenance has become easier and can be done by the CPT operator on location. Calibration data is stored in the cone itself so USB sticks are no longer necessary.

Icones are standardly calibrated in accordance with the ISO 22476-1 Class 2 and on request to Class 1 or other requirements. The actual cone accuracies at the time of calibration are stated on the cone calibration sheet.

click-on modules

The Icône is easily extendable with click-on modules to measure other than the four standard parameters. The following modules are already available: seismic, conductivity, magneto and vane. More are yet to come!

Technical specifications	
Resolution	24 bits (Ix/Iy 16 bits)
Cone tip area	5, 10 or 15 cm ²
Available parameters	$q_c, f_s, u_1/u_2, Ix/y$
Memo function	16 Mbit (8 hrs. CPT operations)
Realtime data processing	

Cone resistance (q_c)	Standard	Sensitive
Nom. range	75 MPa	7,5 MPa
Max. range		
- 10 and 15 cm ²	150 MPa	15 MPa
- 5 cm ²	100 MPa	
Minimal accuracy for Class 2	100 kPa or 5%	
Minimal accuracy for Class 1	35 kPa or 5%	

Sleeve friction (f_s)	Standard	Sensitive
Nom. range	1 MPa	0,15 MPa
Max. range		
- standard	1,5 MPa	0,3 MPa
- on request (only 10 cm ² Icône)	3 MPa	NA
Minimal accuracy for Class 2	15 kPa or 15%	
Minimal accuracy for Class 1	5 kPa or 10%	

Pore water pressure (u) Standard + Sensitive	
Nom. range	2 / 10 MPa
Minimal accuracy for Class 2	25 kPa or 3%
Minimal accuracy for Class 1	10 kPa or 2% (only 2 MPa range)

Inclination (Ix/y) Standard + Sensitive	
Nom. range	20°
Max. range	25°
Minimal accuracy for Class 2	2°
Minimal accuracy for Class 1	2°

Optional click-on modules (leaflet reference)	
Seismic (Da-3)	Vane (Da-6)
Conductivity (Da-4)	Magneto (Da-5)

Accessories/Options	
Icontrol	For providing power to the Icône and transferring the CPT data to a computer. Power supply 90 - 260 Vac Consumption 90 W
Measuring cable	Unisex cable for single or multiple cable connection to Icontrol.
Depth encoder	Depth encoder with steel wire, which can be mounted on any existing CPT rig. Power supply: 10-30 Vdc 2000 pulses/m
HMI	Computer with touch-screen.



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The CPT factory

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   	Project	Package	Issuer	Chrono	Revision	Status
	BRE_AO5	GTC	TEC	63	0.1_A	A
	Title	BRE_LsM_TEC_63_Factual report - Geotechnical survey - AO5 EC area_0.1_A				

APPENDIX VI – LABORATORY TEST REPORT

Confidentiality	<i>Diffusion restreinte (restricted)</i>	Pages	<i>Page 61 of 62</i>
Issue date	01/02/2023	Document uncontrolled when printed/downloaded	

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente

Sampling date:

See VC logs

Test date:

10 - 11 / 2022

PROJECT: RTE Export Cable A05

LABORATORY TEST RESULTS

Atterberg Limits
Density determination
Unit weight
Thermal Resistivity
Water content
Carbonate content
Chloride content
Sulfate content
pH determination
PSD

Issued: 22/11/2022

Checked and Approved: 22/11/2022

Laura Valbuena
Technical Department



Raul Miranda
Technical Manager

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente

Sampling date: 22/07/2022
Test date: 10 - 11 / 2022

PROJECT: RTE Export Cable A05

ATTERBERG LIMITS - BS EN ISO 17892-12:2018

PointID	Depth (m)	Bottom (m)	LL	PL	PI
EC GI#254_A	1.00	1.15	24.5	20.5	4.0
EC GI#254_A	2.95	3.00	43.7	35.8	7.9
EC GI#427	2.50	2.60	27.3	24.9	2.4
EC GI#255	1.00	1.05	29.1	26.8	2.3
EC GI#255	0.00	0.15	No plastic		
EC GI#253	1.25	1.30	No plastic		

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Sampling date:
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BULK AND DRY DENSITY - BS EN ISO 17892-2: 2014

PointID	Depth (m)	Bottom (m)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)
EC GI#258	0.10	0.15	1.98	1.58
EC GI#427	2.60	2.75	1.94	1.44
EC GI#427	2.75	2.90	1.91	1.46
EC GI#427	3.75	3.90	1.90	1.39
EC GI#255	0.85	0.90	1.84	1.45
EC GI#257	0.15	0.20	2.07	1.74
EC GI#256	0.15	0.20	1.69	1.29
EC GI#251	0.00	0.15	1.94	1.50
EC GI#101	0.75	0.80	1.77	1.23

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Sampling date:

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Test date:

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PROJECT: RTE Export Cable A05

UNIT WEIGHT - BS EN ISO 17892-3:2015

PointID	Depth (m)	Bottom (m)	Unit Weight (Mg/m3)
EC GI#179_A	0.90	0.95	2.60
EC GI#508_A	0.95	1.00	2.63
EC G#259	0.80	0.85	2.50
EC GI#255	2.20	2.30	2.56
EC GI#179_A	1.30	1.40	2.57
EC GI#205	1.65	1.70	2.37
EC GI#104_A	0.00	0.05	2.63
EC GI#333	0.15	0.20	2.62
EC GI#342	0.00	0.10	2.64
EC GI#252	0.20	0.25	2.61
EC GI#260_A	0.25	0.30	2.58
EC GI#439_A	0.15	0.20	2.53
EC GI#VC5_A	1.15	1.20	2.59
EC GI#VC5_A	0.15	0.20	2.64
EC GI#101a	0.20	0.25	2.50
EC GI#104_A	1.00	1.05	2.88
EC GI#519	0.95	1.00	2.62
EC GI#103	0.00	0.15	2.74
EC GI#102	1.90	2.00	2.66
EC GI#102	0.00	0.05	2.78
EC GI#102	1.05	1.15	2.41
EC GI#101	1.00	1.10	2.34
EC GI#250	0.30	0.35	2.48
EC GI#205	0.70	0.80	2.44
EC GI#10_Aa	0.15	0.20	2.15
EC GI#544	0.50	0.55	2.67
EC GI#10_A	0.90	1.05	2.56
EC GI#255	0.20	0.25	1.64
EC GI#338	0.00	0.10	2.53
EC GI#546	0.65	0.70	2.78

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UNIT WEIGHT - BS EN ISO 17892-3:2015

PointID	Depth (m)	Bottom (m)	Unit Weight (Mg/m3)
EC GI#250	1.60	1.70	2.54
EC GI#251	2.00	2.05	2.63
EC GI#205	0.30	0.40	2.51
EC GI#516_A	1.25	1.38	2.62
EC GI#517	0.00	0.10	2.56
EC GI#544	0.00	0.15	2.50
EC GI#10_A	2.15	2.20	2.43
EC GI#251	0.95	1.00	2.53
EC GI#510_A	0.20	0.25	2.50
EC GI#252	1.28	1.33	2.75
EC GI#516_A	0.20	0.25	2.28
EC GI#10_A	0.80	0.85	2.28
EC GI#335_A	0.15	0.20	2.86
EC GI#425	0.20	0.25	2.69
EC GI#476a	0.35	0.40	2.83
EC GI#475_A	0.34	0.39	2.90
EC GI#470	0.15	0.20	2.24
EC GI#475_A	0.20	0.25	2.61
EC GI#VC4_A	0.20	0.25	2.73
EC GI#475_A	0.45	0.50	2.54
EC GI#470a	0.30	0.35	2.53
EC GI#477	0.15	0.20	2.55
EC GI#478_Aa	0.15	0.20	2.50
EC GI#528_Aa	0.20	0.25	2.61
EC GI#468	0.80	0.85	2.64
EC GI#468a	0.15	0.20	2.49
EC GI#465_A	0.20	0.25	2.64
EC GI#440_A	0.20	0.25	2.61
EC GI#334_A	0.15	0.20	2.65
EC GI#334_A	1.15	1.20	2.63

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UNIT WEIGHT - BS EN ISO 17892-3:2015

PointID	Depth (m)	Bottom (m)	Unit Weight (Mg/m3)
EC GI#473	0.20	0.25	2.61
EC GI#VC3_A	0.20	0.25	2.54
EC GI#529	0.20	0.25	2.56
EC GI#103	1.00	1.05	2.38
EC GI#519_A	1.15	1.20	2.57
EC GI#VC2_A	0.10	0.15	2.60
EC GI#VC2_A	0.42	0.47	2.66
EC GI#251	0.00	0.10	2.77
EC GI#253	0.00	0.10	2.48
EC GI#254_A	0.00	0.10	2.57
EC GI#254_A	1.20	1.30	2.56
EC GI#255	1.00	1.10	2.42
EC GI#510_A	0.00	0.15	2.68
EC GI#512	0.00	0.15	2.56
EC GI#519_A	0.20	0.30	2.64
EC GI#VC_1	0.15	0.20	2.44
EC GI#337_A	0.00	0.05	2.61
EC GI#336	0.60	0.65	2.54
EC GI#342_A	0.65	0.70	2.62
EC GI#464_A	0.00	0.10	2.58
EC GI#465_Aa	0.00	0.05	2.66
EC GI#476	0.00	0.10	2.59
EC GI#467	1.25	1.30	2.55
EC GI#427	0.00	0.05	2.82
EC GI#427	1.05	1.10	2.65
EC GI#427	4.00	4.05	2.69
EC GI#528_A	0.15	0.20	2.68
EC GI#545_A	0.15	0.20	2.74

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Sampling date: See VC logs
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THERMAL RESISTIVITY TEST

PointID	Depth (m)	Bottom (m)	Thermal Resistivity (W/K*m)	Temperature (DegC)
EC GI#179_A	1.20	1.30	1.05	27.35
EC GI#252	1.82	1.87	0.62	25.50
EC GI#258	0.67	0.72	1.99	26.70
EC GI#334_A	1.25	1.30	0.70	24.90
EC GI#338	1.70	1.75	1.14	27.10
EC GI#439_A	1.60	1.65	1.13	24.20
EC GI#464_A	0.75	0.80	0.83	27.40
EC GI#477	1.75	1.80	0.65	26.00
EC GI#512	1.70	1.80	0.43	26.20
EC GI#517	1.50	1.55	1.49	28.10
EC GI#528_Aa	1.95	2.00	0.44	27.35

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PROJECT: RTE Export Cable A05

WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#VC3_A	0.00	0.20	22.52
EC GI#425	0.00	0.20	41.74
EC GI#425	0.85	1.00	11.09
EC GI#464_A	0.35	0.45	19.91
EC GI#465_A	0.00	0.20	2.71
EC GI#465_Aa	0.00	0.15	16.53
EC GI#468	0.00	0.15	31.79
EC GI#470a	0.90	1.10	27.80
EC GI#470a	0.00	0.20	20.80
EC GI#473	1.00	1.20	9.36
EC GI#475_A	0.00	0.20	22.11
EC GI#475_A	0.39	0.54	2.54
EC GI#476a	0.00	0.15	29.25
EC GI#476a	0.40	0.60	4.63
EC GI#477	0.00	0.15	21.41
EC GI#477	0.65	0.80	4.59
EC GI#528_A	0.00	0.15	27.21
EC GI#528_Aa	0.00	0.20	13.51
EC GI#529	0.00	0.20	9.07
EC GI#468a	0.00	0.25	22.58
EC GI#468	0.85	1.05	3.76
EC GI#337_A	0.44	0.59	4.31
EC GI#337_A	0.00	0.20	19.93
EC GI#473	0.00	0.20	16.17
EC GI#529	1.90	2.05	4.92
EC GI#473	2.00	2.15	7.21
EC GI#465_Aa	2.00	2.15	7.15
EC GI#VC1	0.00	0.20	27.97
EC GI#425	4.00	4.20	20.52
EC GI#467	0.00	0.15	2.39

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CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A04

Sampling date: See VC logs
 Test date: 08 - 09 / 2022

WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#467	1.80	2.01	21.26
EC GI#328Aa	1.00	1.30	20.37
EC GI#470	0.00	0.15	11.38
EC GI#VC4_A	0.00	0.20	19.59
EC GI#335_A	0.00	0.15	2.49
EC GI#473	0.00	0.15	16.17
EC GI#545_A	0.00	0.20	16.84
EC GI#467	2.80	3.00	5.21
EC GI#476	0.00	1.00	9.07
EC GI#464_A	0.00	0.07	33.37
EC GI#439_A	0.65	0.85	10.29
EC GI #546	1.70	1.90	19.17
EC GI#258	2.17	2.32	22.02
EC GI#516A	2.90	3.00	18.80
EC GI#10_Aa	0.80	1.00	31.80
EC GI#259	1.65	1.85	26.63
EC GI#333	1.00	1.15	13.75
EC GI#336	2.00	2.10	2.40
EC GI#337_A	1.00	1.15	10.66
EC GI#510_A	1.85	2.00	10.69
EC GI#510_A	2.00	2.15	18.80
EC GI#258	0.32	0.57	25.14
EC GI#VC5_A	2.00	2.15	3.79
EC GI#545_A	0.70	0.90	24.99
EC GI#VC4_A	0.70	1.05	16.59
EC GI#425	3.00	3.20	12.00
EC GI#468	1.05	1.25	4.10
EC GI#477	0.80	0.95	2.31
EC GI#478_Aa	0.00	0.15	9.63
EC GI#464_A	0.55	0.70	16.40

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PROJECT: RTE Export Cable A04

WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#468	1.05	1.25	22.59
EC GI#465_Aa	1.00	1.15	4.42
EC GI#425	1.00	1.15	6.74
EC GI#467	0.65	0.80	21.71
EC GI#528_A	1.95	2.10	1.81
EC GI#475_Aa	0.30	0.50	20.21
EC GI#475_Aa	0.00	0.20	7.64
EC GI#VC_1	4.00	4.20	10.98
EC GI#256	0.00	0.15	53.46
EC GI#468a	1.00	2.00	1.08
EC GI#440_A	1.10	1.25	3.57
EC GI#VC4_A	1.70	1.90	16.47
EC GI#425	2.00	2.17	7.88
EC GI#478_A	0.00	0.12	19.05
EC GI#478_Aa	0.50	0.65	18.91
EC GI#478_A	0.30	0.45	15.06
EC GI#468	1.95	2.10	15.66
EC GI#VC_1	2.00	2.15	22.45
EC GI#425	3.85	4.00	23.35
EC GI#528_Aa	1.20	1.35	13.59
EC GI#VC_1	1.48	1.65	4.94
EC GI#VC_1	1.00	1.15	26.25
EC GI#334_A	4.00	4.15	14.29
EC GI#334_A	3.00	3.15	5.88
EC GI#334_A	2.00	2.20	8.40
EC GI#10_Aa	0.00	0.15	38.04
EC GI#257	0.00	0.15	21.99
EC GI#336	1.00	1.20	4.72
EC GI#253	1.85	1.95	2.93
EC GI#256	1.00	1.20	13.87

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WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#253	1.40	1.50	5.64
EC GI#258	1.32	1.47	3.73
EC GI#334_A	2.00	2.20	2.68
EC GI#252	1.87	2.02	7.09
EC GI#334_A	1.00	1.15	15.26
EC GI#253	2.00	2.30	4.35
EC GI#257	0.75	0.90	22.99
EC GI#517	1.30	1.50	13.56
EC GI#508_A	1.00	1.10	28.96
EC GI#338	1.80	2.00	14.54
EC GI#VC_1	3.00	3.15	16.49
EC GI#544	1.55	1.65	14.06
EC GI#VC2_A	1.36	1.46	4.23
EC GI#101a	0.20	0.30	29.55
EC GI#VC5_A	1.00	1.15	2.78
EC GI#440_A	0.00	0.20	4.79
EC GI#510_A	1.00	1.10	17.08
EC GI#VC2_A	1.80	2.00	25.91
EC GI#508_A	1.75	2.00	11.07
EC GI#VC5_A	0.00	0.15	4.52
EC GI#205	0.15	0.30	18.00
EC GI#101	0.60	0.75	51.99
EC GI#546	0.55	0.65	15.04
EC GI#103	0.15	0.30	18.04
EC GI#255	2.00	2.20	17.42
EC GI#101	1.10	1.30	10.48
EC GI#334_A	0.00	0.15	3.30
EC GI#336	0.00	0.20	17.79
EC GI#260_A	0.00	0.25	14.09
EC GI#250	0.10	0.30	27.45

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WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#253	0.80	1.00	5.68
EC GI#259	0.85	1.00	19.46
EC GI#253	0.00	0.20	23.23
EC GI#258	0.00	0.10	23.57
EC GI#517	0.10	0.20	23.98
EC GI#333	0.00	0.15	12.75
EC GI#439_A	0.00	0.15	11.65
EC GI#516_A	1.00	1.25	19.02
EC GI#10_A	1.05	1.25	23.78
EC GI#101	0.15	0.20	30.70
EC GI#519_A	1.15	1.20	26.31
EC GI#512	0.25	0.30	26.84
EC GI#103	1.00	1.05	20.97
EC GI#544	0.00	0.10	19.26
EC GI#10_A	2.00	2.15	22.48
EC GI#510_A	0.20	0.25	11.38
EC GI#516_A	0.20	0.25	20.02
EC GI#519_A	0.00	0.20	26.60
EC GI#102	1.70	1.90	2.58
EC GI#508_A	0.85	0.95	27.15
EC GI#250	1.80	2.00	17.59
EC GI#205	1.70	2.00	22.05
EC GI#205	0.80	1.00	27.37
EC GI#10_A	0.80	0.85	26.09
EC GI#544	0.55	0.65	8.23
EC GI#102	1.15	1.25	7.00
EC GI#179_A	1.40	1.80	14.02
EC GI#104_A	1.05	1.20	5.31
EC GI#251	0.80	0.95	18.90
EC GI#252	1.28	1.33	11.12

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WATER CONTENT - BS EN ISO 17892-1: 2014

PointID	Depth (m)	Bottom (m)	Water Content (%)
EC GI#104_A	0.05	0.25	10.65
EC GI#VC2_A	0.10	0.15	17.33
EC GI#338	0.10	0.25	20.14
EC GI#252	0.00	0.20	17.41
EC GI#VC2_A	0.42	0.47	5.69
EC GI#102	0.05	0.20	9.70
EC GI#251	0.95	1.00	19.73
ECGI#254_A	0.90	1.00	30.46
EC GI#254_A	0.25	0.35	68.62
EC GI#427	1.55	1.75	34.38
EC GI#427	0.55	0.75	26.00
EC GI#427	4.00	4.05	16.07
EC GI#258	0.10	0.15	25.13
EC GI#427	2.60	2.75	34.38
EC GI#427	2.75	2.90	30.75
EC GI#427	3.75	3.90	36.80
EC GI#255	0.85	0.90	26.50
EC GI#257	0.15	0.20	18.74
EC GI#256	0.15	0.20	30.81
EC GI#251	0.00	0.15	28.77
EC GI#101	0.75	0.80	43.82
EC GI#179_A	0.00	0.15	3.66
EC GI#255	0.15	0.20	22.07
EC GI#255	0.90	0.95	29.65
EC GI#251	2.10	2.15	30.27
EC GI#VC_1	0.05	0.10	34.86
EC GI#342_A	0.05	0.10	27.84

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PROJECT: RTE Export Cable A05

CARBONATE CONTENT

PointID	Depth (m)	Bottom (m)	Carbonate Content (%)
EC GI #102	1.00	1.05	21.60
EC GI #205	0.25	0.30	13.78
EC GI #250	1.00	1.15	15.19
EC GI #252	0.25	0.30	15.29
EC GI #258	1.00	1.15	13.92
EC GI #337_A	1.15	1.20	14.22
EC GI #440_A	1.00	1.15	29.95
EC GI #467	0.60	0.65	27.07
EC GI #VC3_A	0.25	0.30	24.20

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PROJECT: RTE Export Cable A05

CHLORIDE CONTENT - UNE EN 17741

PointID	Depth (m)	Bottom (m)	Chloride Content (%)
EC GI #179_A	0.00	0.20	0.77
EC GI #259	0.00	0.20	0.79
EC GI #467	0.00	0.20	0.80
EC GI #468a	0.00	0.20	0.87
EC GI #476	0.00	0.20	0.85
EC GI #512	0.00	0.20	0.80

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PROJECT: RTE Export Cable A05

Sampling date: See VC logs
Test date: 10 - 11 / 2022

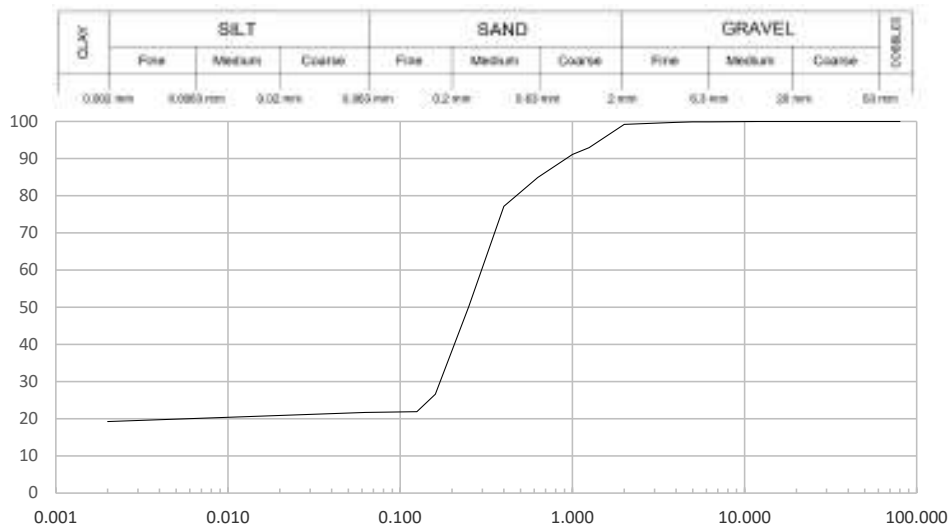
SULFATE CONTENT - UNE EN 103201

PointID	Depth (m)	Bottom (m)	Sulfate Content (%)
EC GI #10_A	0.85	0.90	0.12
EC GI #253	0.20	0.30	0.03
EC GI #333	0.20	0.30	0.03
EC GI #468a	0.20	0.25	0.04
EC GI #476a	0.20	0.25	0.03
EC GI #529	0.25	0.30	0.01
EC GI #VC1	0.25	0.30	0.14

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		Test date:	20/09/2022
		PointId - Sample:	EC GI#VC3_A - A
PROJECT:	RTE Export Cable A05	Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.11
Fine Gravel	0.65
Coarse sand	14.34
Medium sand	46.51
Fine sand	16.66
Silt and Clay	21.73
Silt	2.48
Clay	19.25

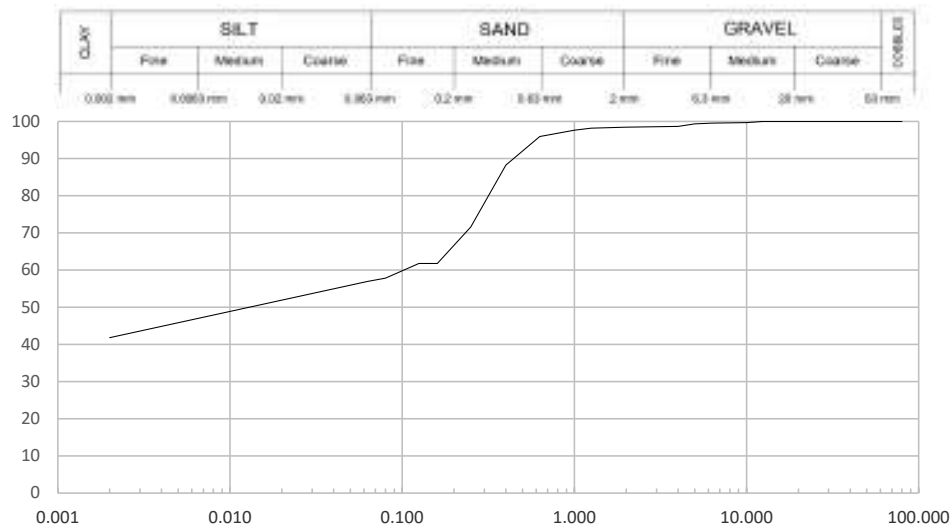
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.95
6.3	99.89
5.00	99.86
4.00	99.72
2.00	99.24
1.25	92.95
1.00	91.08
0.630	84.90
0.400	77.14
0.250	50.17
0.200	38.40
0.160	26.62
0.125	21.90
0.080	21.74
0.063	21.73

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CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#425 - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



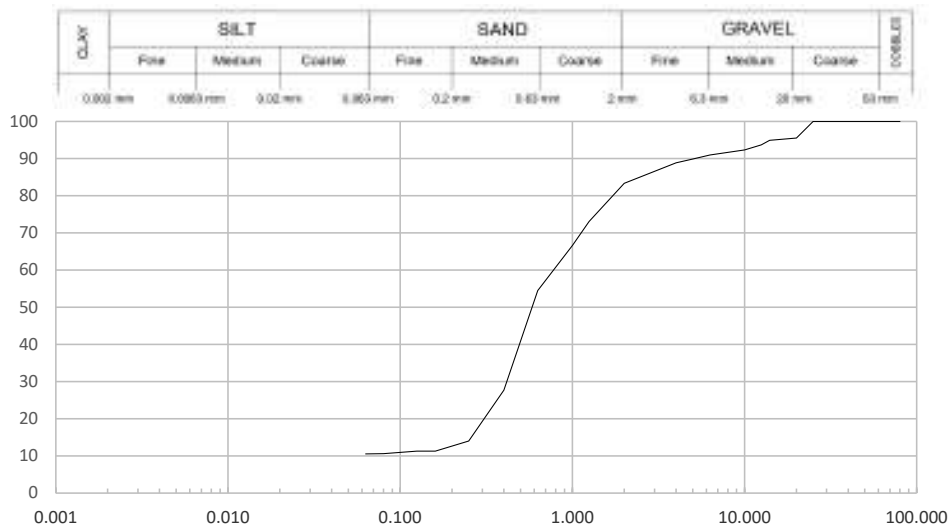
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.48
Fine Gravel	1.08
Coarse sand	2.48
Medium sand	29.26
Fine sand	9.74
Silt and Clay	56.96
Silt	15.14
Clay	41.82

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.71
6.3	99.52
5.00	99.32
4.00	98.66
2.00	98.44
1.25	98.18
1.00	97.61
0.630	95.96
0.400	88.25
0.250	71.61
0.200	66.70
0.160	61.80
0.125	61.79
0.080	57.82
0.063	56.96

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>20/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#425 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0.85 - 1m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	20/09/2022	PointId - Sample:	EC GI#425 - A	Specimen depth:	0.85 - 1m
Sampling date:	See VC logs								
Test date:	20/09/2022								
PointId - Sample:	EC GI#425 - A								
Specimen depth:	0.85 - 1m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



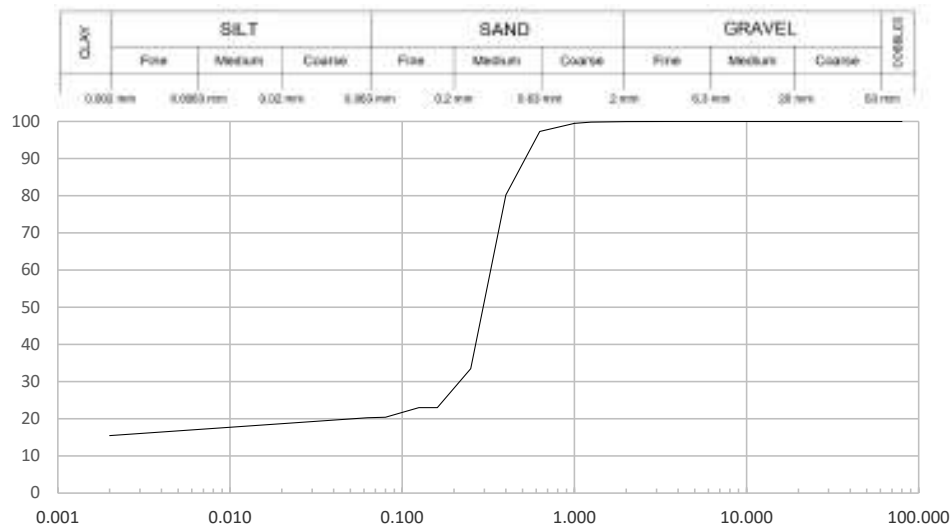
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	4.49
Medium Gravel	4.52
Fine Gravel	7.63
Coarse sand	28.88
Medium sand	41.82
Fine sand	2.11
Silt and Clay	10.55
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	95.51
14.0	94.94
12.5	93.73
10.0	92.36
6.3	90.99
5.00	89.87
4.00	88.86
2.00	83.36
1.25	73.10
1.00	66.60
0.630	54.48
0.400	27.69
0.250	14.01
0.200	12.65
0.160	11.30
0.125	11.30
0.080	10.61
0.063	10.55

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#464_A - A Specimen depth: 0.35 - 0.45m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



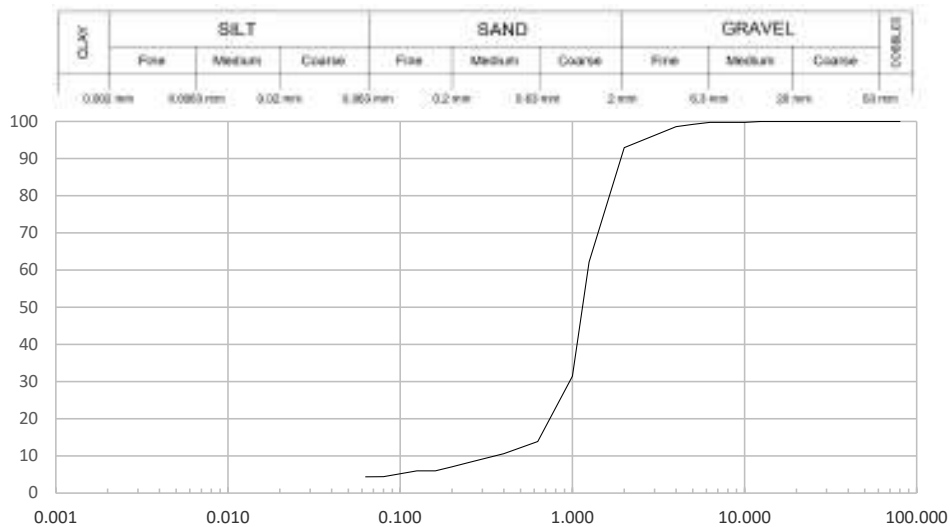
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	2.65
Medium sand	69.07
Fine sand	7.97
Silt and Clay	20.28
Silt	4.81
Clay	15.47

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.97
1.25	99.82
1.00	99.47
0.630	97.32
0.400	80.20
0.250	33.47
0.200	28.24
0.160	23.02
0.125	23.00
0.080	20.42
0.063	20.28

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#465_A - A Specimen depth: 0 - 0.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



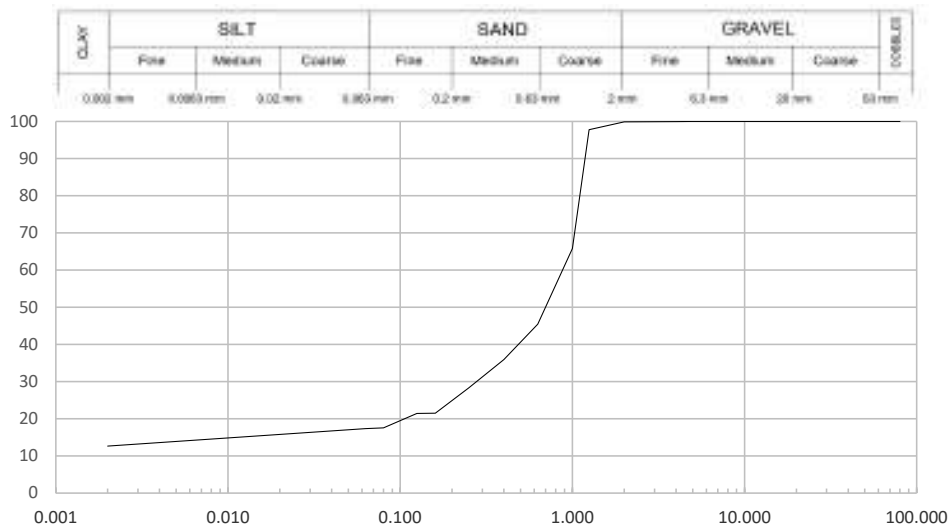
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.28
Fine Gravel	6.76
Coarse sand	79.07
Medium sand	6.79
Fine sand	2.72
Silt and Clay	4.38
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.72
6.3	99.72
5.00	99.18
4.00	98.57
2.00	92.97
1.25	62.20
1.00	31.41
0.630	13.90
0.400	10.62
0.250	8.25
0.200	7.10
0.160	5.95
0.125	5.95
0.080	4.45
0.063	4.38

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#465_Aa - A Specimen depth: 0 - 0.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



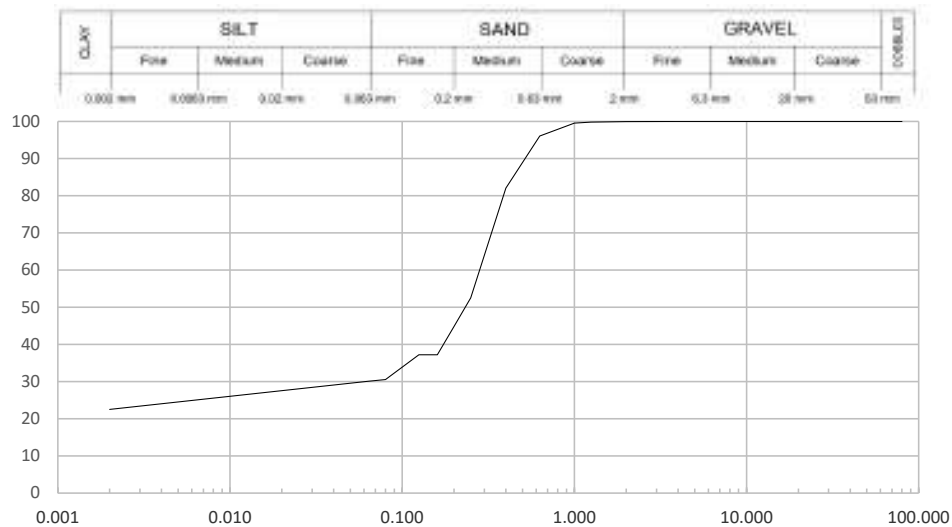
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.13
Coarse sand	54.44
Medium sand	20.54
Fine sand	7.57
Silt and Clay	17.32
Silt	4.67
Clay	12.65

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.98
2.00	99.87
1.25	97.80
1.00	65.80
0.630	45.43
0.400	35.90
0.250	28.31
0.200	24.89
0.160	21.48
0.125	21.46
0.080	17.58
0.063	17.32

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>20/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#468 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0 - 0.15m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	20/09/2022	PointId - Sample:	EC GI#468 - A	Specimen depth:	0 - 0.15m
Sampling date:	See VC logs								
Test date:	20/09/2022								
PointId - Sample:	EC GI#468 - A								
Specimen depth:	0 - 0.15m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



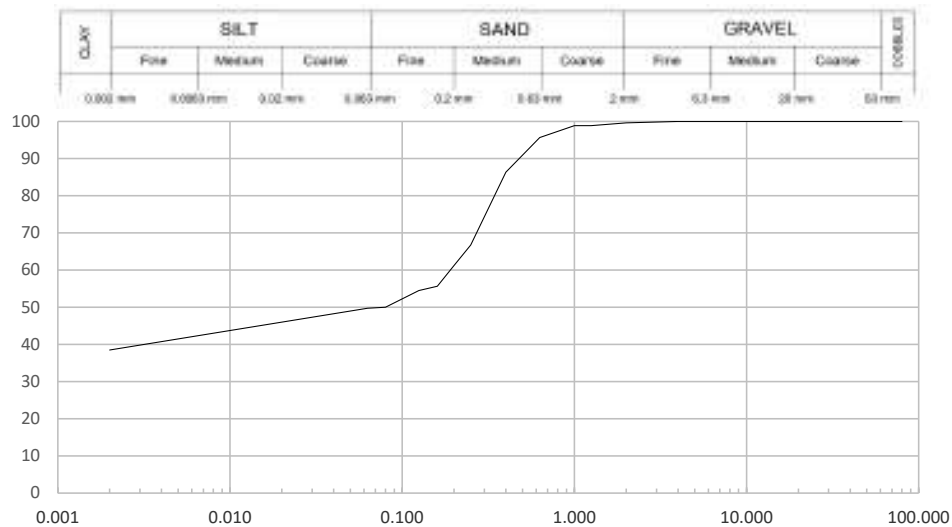
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.02
Coarse sand	3.89
Medium sand	51.22
Fine sand	14.78
Silt and Clay	30.08
Silt	7.56
Clay	22.52

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.98
1.25	99.82
1.00	99.53
0.630	96.09
0.400	82.06
0.250	52.55
0.200	44.87
0.160	37.19
0.125	37.19
0.080	30.52
0.063	30.08

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#179_A - A Specimen depth: 0.9 - 1.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



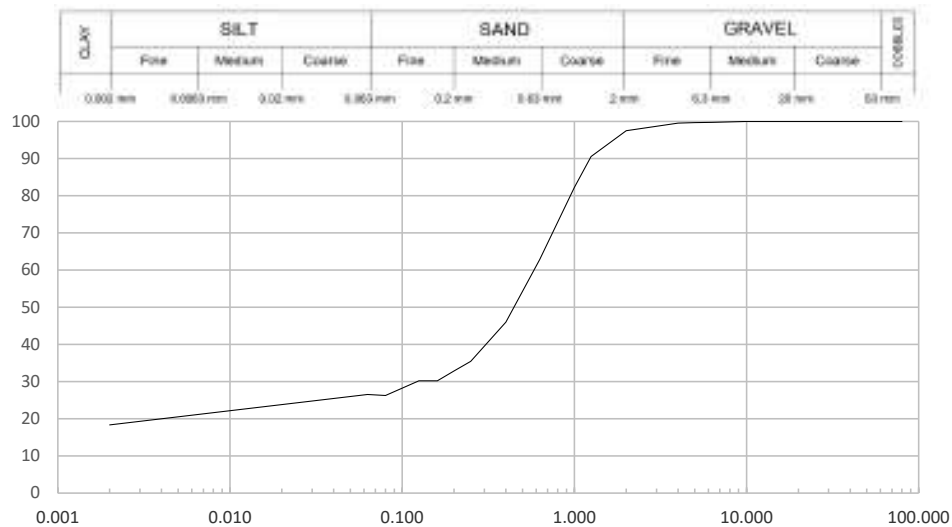
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.38
Coarse sand	3.95
Medium sand	34.46
Fine sand	11.50
Silt and Clay	49.71
Silt	11.21
Clay	38.50

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.62
1.25	98.89
1.00	98.89
0.630	95.68
0.400	86.32
0.250	66.75
0.200	61.21
0.160	55.68
0.125	54.49
0.080	49.99
0.063	49.71

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#470a - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



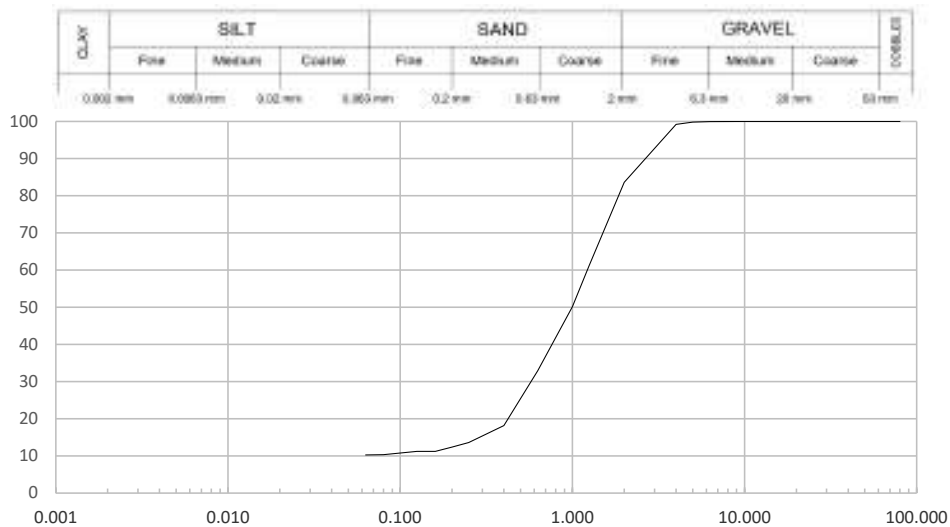
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.24
Fine Gravel	2.24
Coarse sand	34.66
Medium sand	30.00
Fine sand	6.35
Silt and Clay	26.50
Silt	8.15
Clay	18.35

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.76
5.00	99.66
4.00	99.53
2.00	97.52
1.25	90.57
1.00	82.27
0.630	62.86
0.400	45.98
0.250	35.48
0.200	32.86
0.160	30.23
0.125	30.23
0.080	26.28
0.063	26.50

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#473 - B Specimen depth: 1 - 1.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



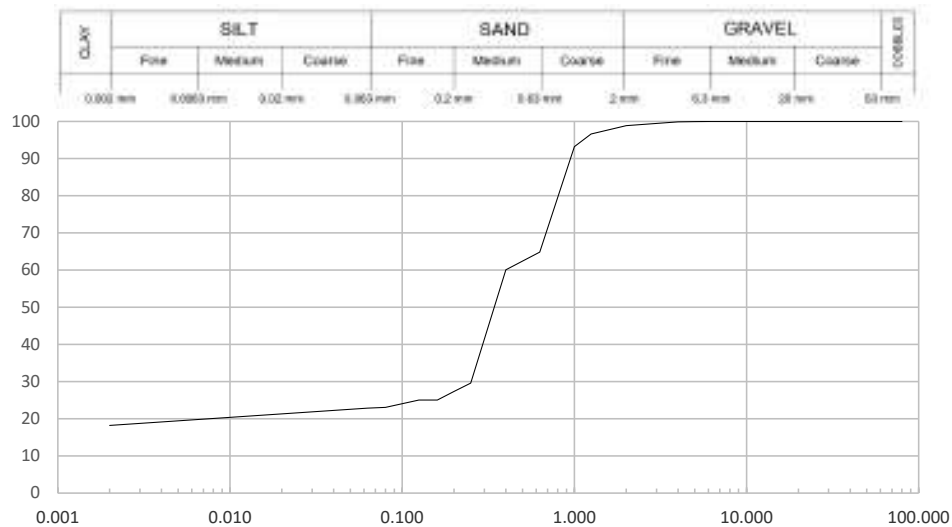
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.03
Fine Gravel	16.32
Coarse sand	50.72
Medium sand	20.52
Fine sand	2.14
Silt and Clay	10.27
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.97
5.00	99.79
4.00	99.23
2.00	83.66
1.25	61.18
1.00	50.14
0.630	32.93
0.400	18.16
0.250	13.59
0.200	12.41
0.160	11.23
0.125	11.22
0.080	10.32
0.063	10.27

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#475_A - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



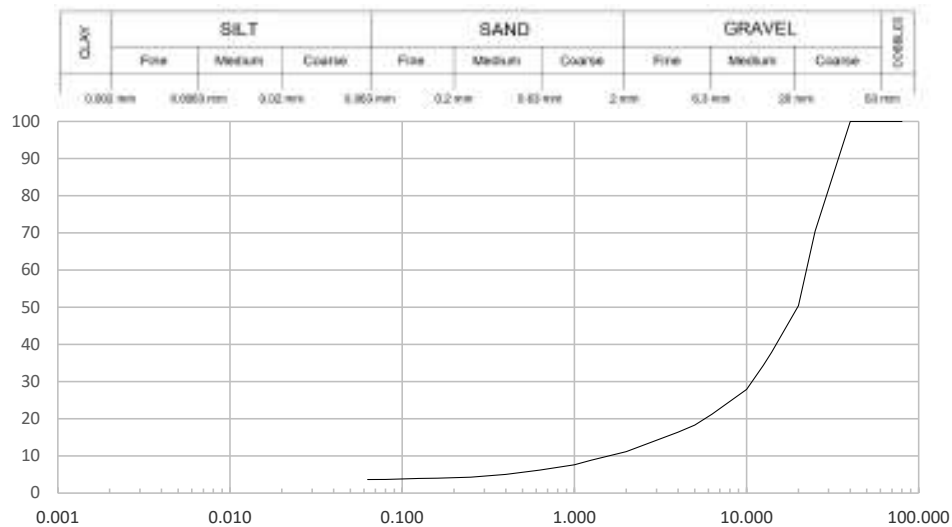
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	1.13
Coarse sand	34.00
Medium sand	37.55
Fine sand	4.44
Silt and Clay	22.89
Silt	4.68
Clay	18.21

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.97
4.00	99.89
2.00	98.87
1.25	96.62
1.00	93.22
0.630	64.88
0.400	60.11
0.250	29.59
0.200	27.33
0.160	25.07
0.125	25.05
0.080	23.04
0.063	22.89

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#475_A - A Specimen depth: 0.39 - 0.54m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



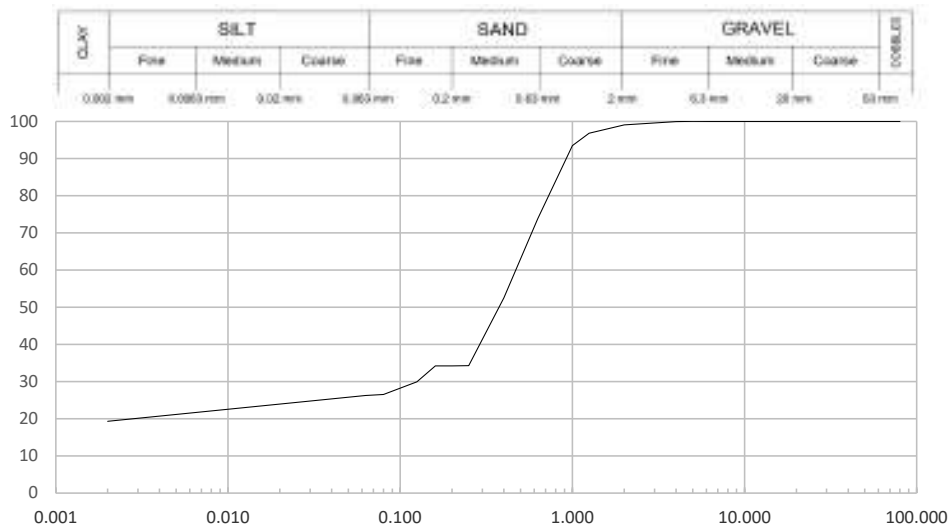
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	49.60
Medium Gravel	29.20
Fine Gravel	10.04
Coarse sand	4.95
Medium sand	2.06
Fine sand	0.50
Silt and Clay	3.65
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	70.49
20.0	50.40
14.0	37.90
12.5	34.38
10.0	27.87
6.3	21.20
5.00	18.29
4.00	16.38
2.00	11.16
1.25	8.87
1.00	7.65
0.630	6.21
0.400	5.02
0.250	4.32
0.200	4.15
0.160	3.98
0.125	3.96
0.080	3.68
0.063	3.65

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#476a - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



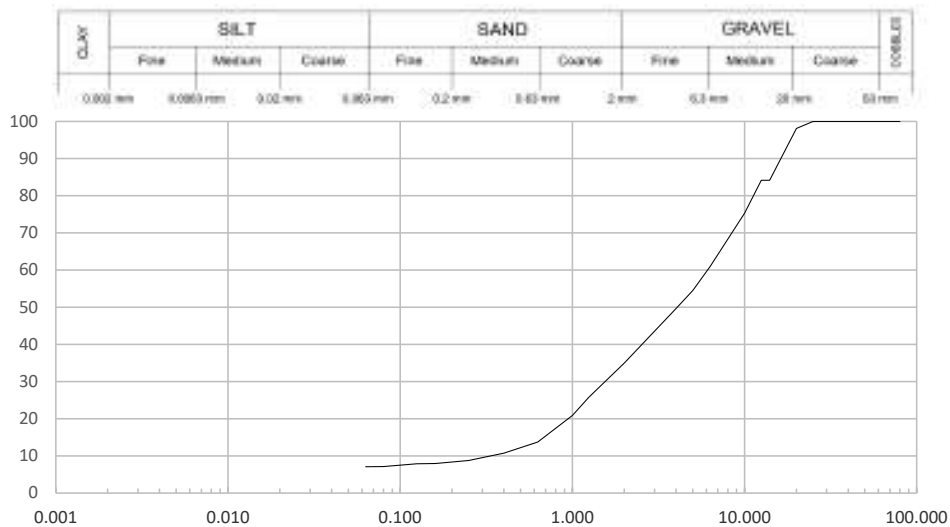
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.94
Coarse sand	25.22
Medium sand	39.61
Fine sand	7.99
Silt and Clay	26.24
Silt	6.92
Clay	19.32

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.99
4.00	99.97
2.00	99.06
1.25	96.81
1.00	93.52
0.630	73.84
0.400	52.51
0.250	34.27
0.200	34.23
0.160	34.20
0.125	29.93
0.080	26.56
0.063	26.24

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#476a - A Specimen depth: 0.4 - 0.6m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



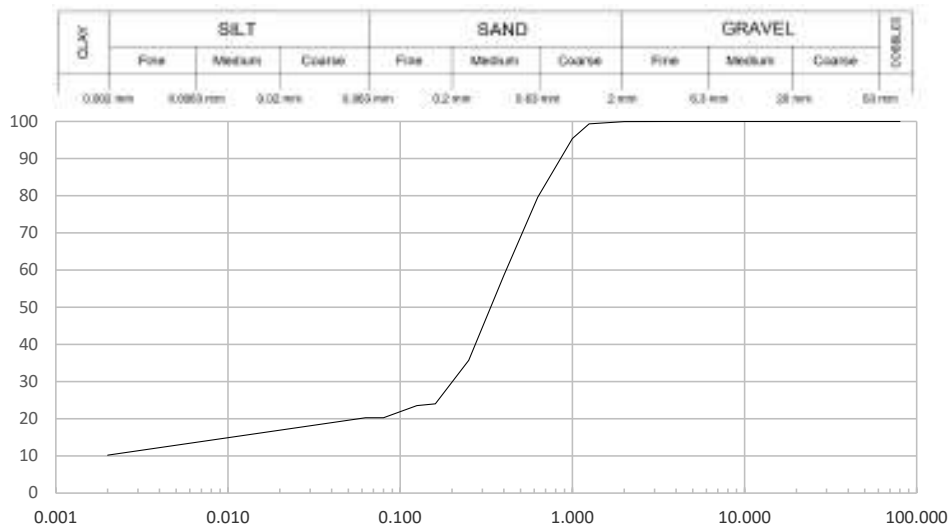
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	1.85
Medium Gravel	37.25
Fine Gravel	25.95
Coarse sand	21.20
Medium sand	5.38
Fine sand	1.28
Silt and Clay	7.09
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	98.15
14.0	84.18
12.5	84.18
10.0	75.32
6.3	60.90
5.00	54.47
4.00	49.67
2.00	34.95
1.25	25.84
1.00	20.88
0.630	13.74
0.400	10.75
0.250	8.80
0.200	8.37
0.160	7.93
0.125	7.92
0.080	7.15
0.063	7.09

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#477 - A Specimen depth: 0 - 0.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



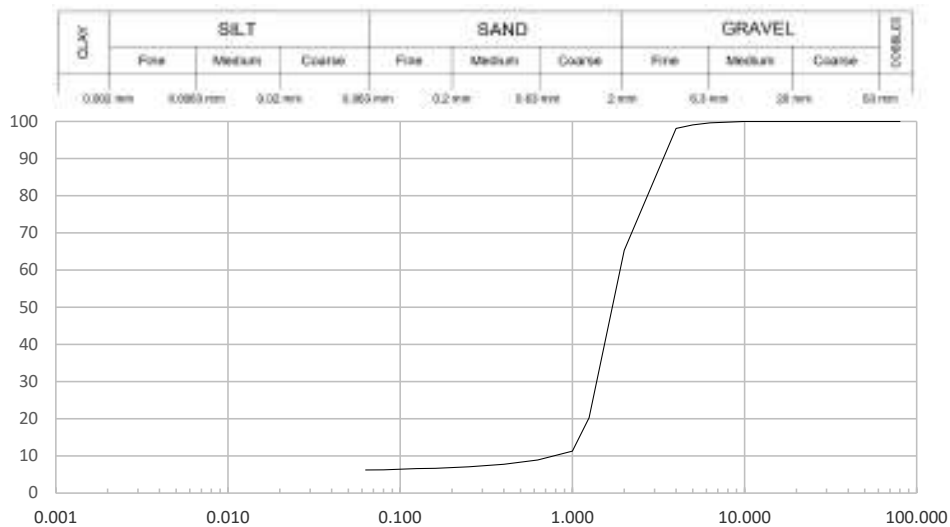
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	20.37
Medium sand	49.76
Fine sand	9.55
Silt and Clay	20.29
Silt	10.08
Clay	10.21

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.97
1.25	99.32
1.00	95.39
0.630	79.60
0.400	58.57
0.250	35.69
0.200	29.84
0.160	24.00
0.125	23.54
0.080	20.30
0.063	20.29

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>20/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#477 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0.65 - 0.8m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	20/09/2022	PointId - Sample:	EC GI#477 - A	Specimen depth:	0.65 - 0.8m
Sampling date:	See VC logs								
Test date:	20/09/2022								
PointId - Sample:	EC GI#477 - A								
Specimen depth:	0.65 - 0.8m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



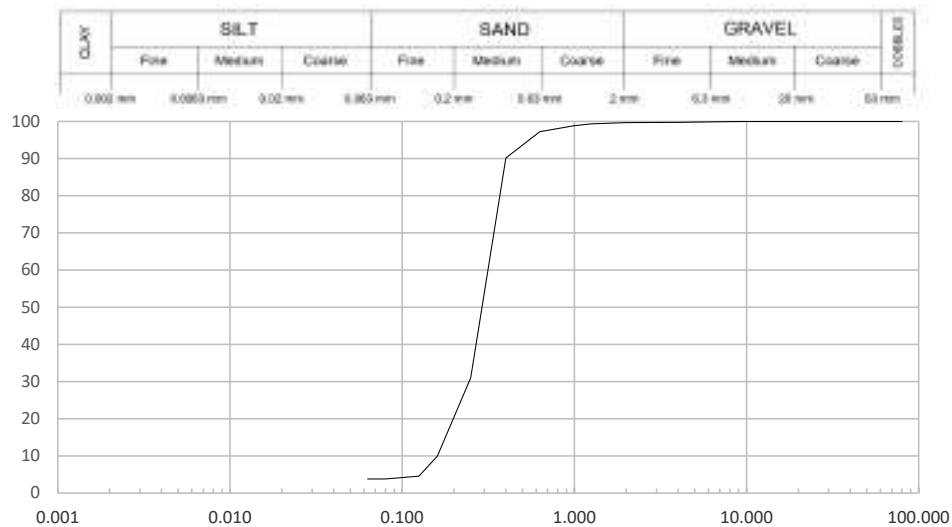
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.41
Fine Gravel	34.29
Coarse sand	56.37
Medium sand	2.06
Fine sand	0.65
Silt and Clay	6.22
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.59
5.00	99.10
4.00	98.10
2.00	65.30
1.25	20.29
1.00	11.32
0.630	8.93
0.400	7.79
0.250	7.09
0.200	6.87
0.160	6.65
0.125	6.63
0.080	6.25
0.063	6.22

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/09/2022 PointId - Sample: EC GI#528_A - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



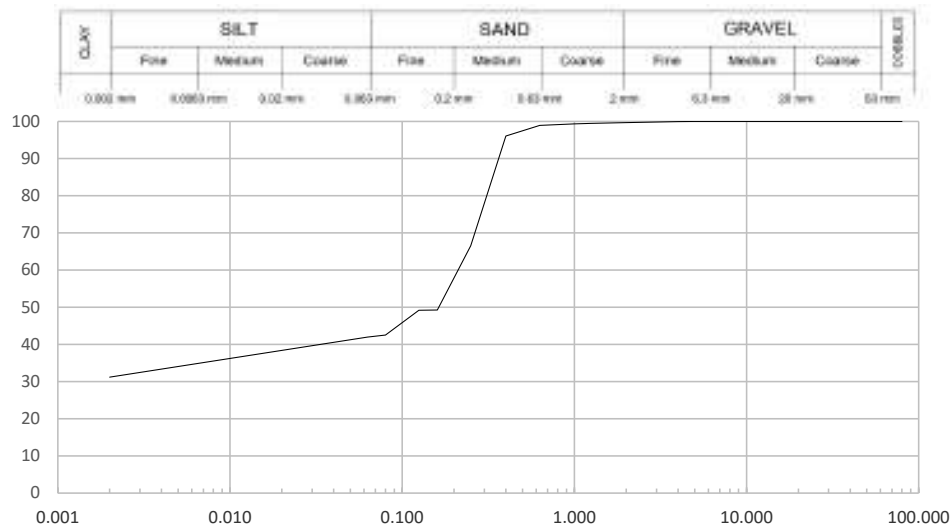
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.10
Fine Gravel	0.21
Coarse sand	2.49
Medium sand	76.74
Fine sand	16.66
Silt and Clay	3.80
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.90
5.00	99.80
4.00	99.77
2.00	99.69
1.25	99.34
1.00	98.89
0.630	97.20
0.400	90.18
0.250	31.01
0.200	20.46
0.160	9.91
0.125	4.57
0.080	3.82
0.063	3.80

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#528_Aa - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



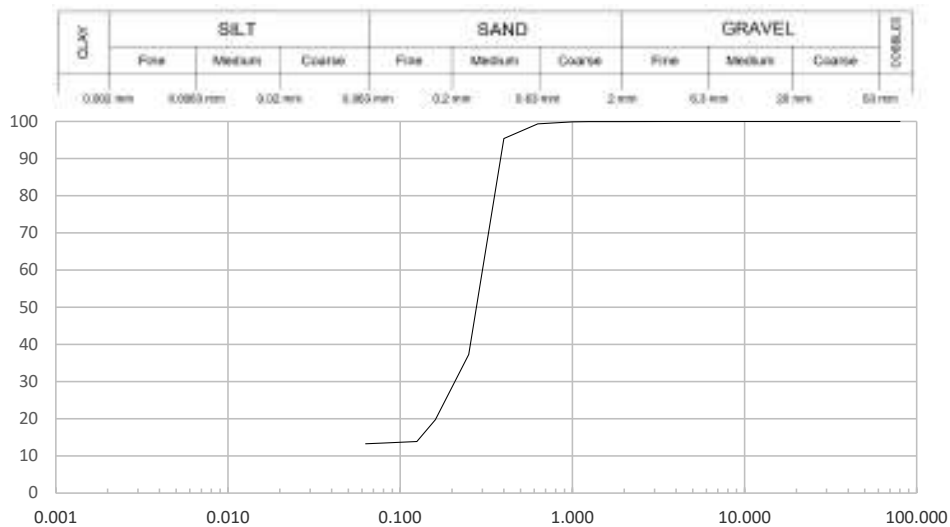
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.32
Coarse sand	0.74
Medium sand	41.03
Fine sand	15.90
Silt and Clay	42.01
Silt	10.81
Clay	31.20

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.98
2.00	99.68
1.25	99.48
1.00	99.33
0.630	98.94
0.400	96.08
0.250	66.57
0.200	57.92
0.160	49.26
0.125	49.17
0.080	42.56
0.063	42.01

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#529 - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



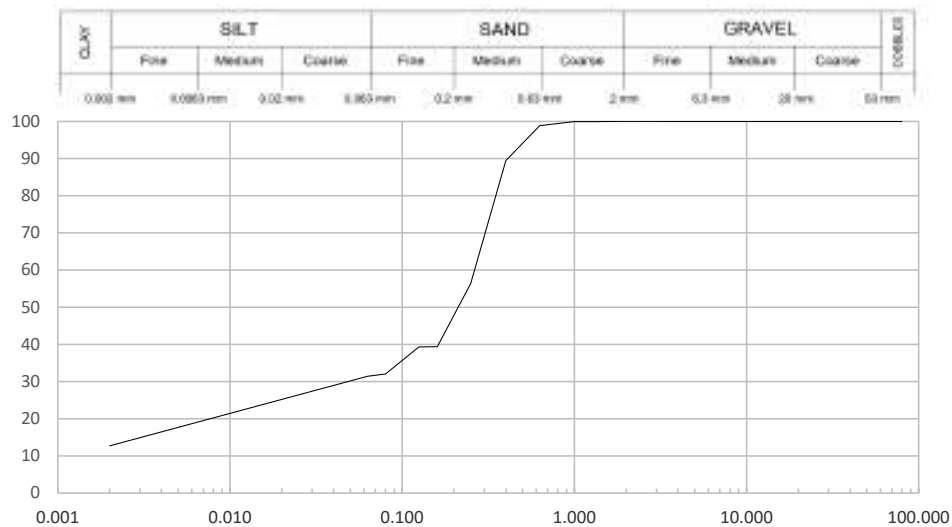
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.02
Coarse sand	0.61
Medium sand	70.84
Fine sand	15.25
Silt and Clay	13.27
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.98
1.25	99.95
1.00	99.87
0.630	99.36
0.400	95.42
0.250	37.28
0.200	28.52
0.160	19.75
0.125	13.91
0.080	13.47
0.063	13.27

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#468a - A
		Specimen depth:	0 - 0.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



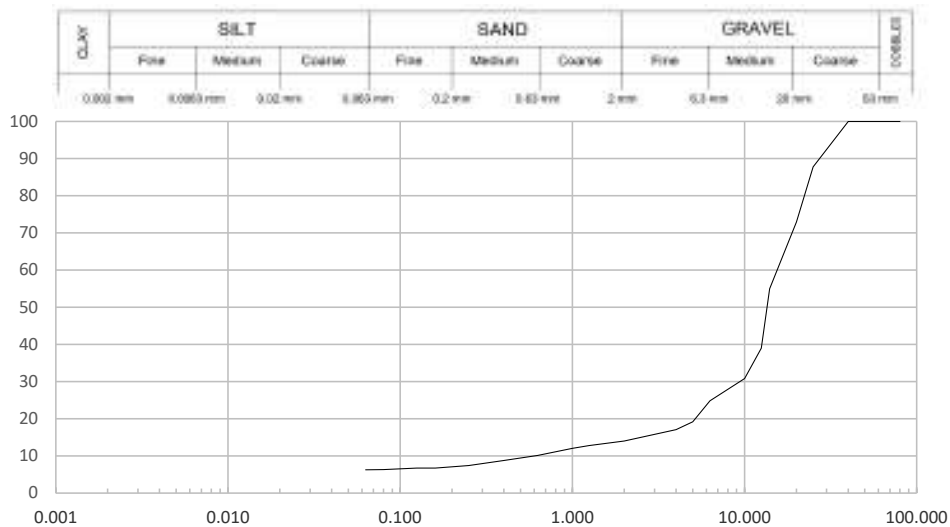
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.00
Coarse sand	1.12
Medium sand	50.97
Fine sand	16.46
Silt and Clay	31.45
Silt	18.74
Clay	12.71

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	100.00
1.25	99.98
1.00	99.94
0.630	98.88
0.400	89.48
0.250	56.42
0.200	47.91
0.160	39.41
0.125	39.36
0.080	32.03
0.063	31.45

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#468 - A Specimen depth: 0.85 - 1.05m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



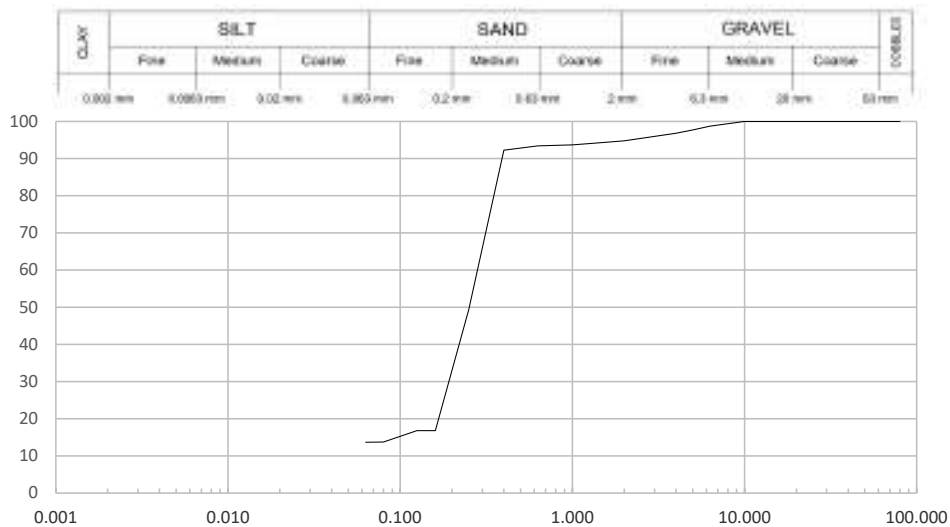
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	27.06
Medium Gravel	48.12
Fine Gravel	10.84
Coarse sand	3.83
Medium sand	3.10
Fine sand	0.79
Silt and Clay	6.27
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	87.79
20.0	72.94
14.0	54.96
12.5	38.98
10.0	30.80
6.3	24.82
5.00	19.17
4.00	17.08
2.00	13.98
1.25	12.77
1.00	12.01
0.630	10.16
0.400	8.77
0.250	7.39
0.200	7.05
0.160	6.72
0.125	6.72
0.080	6.30
0.063	6.27

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#337_A - A Specimen depth: 0.44 - 0.59m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



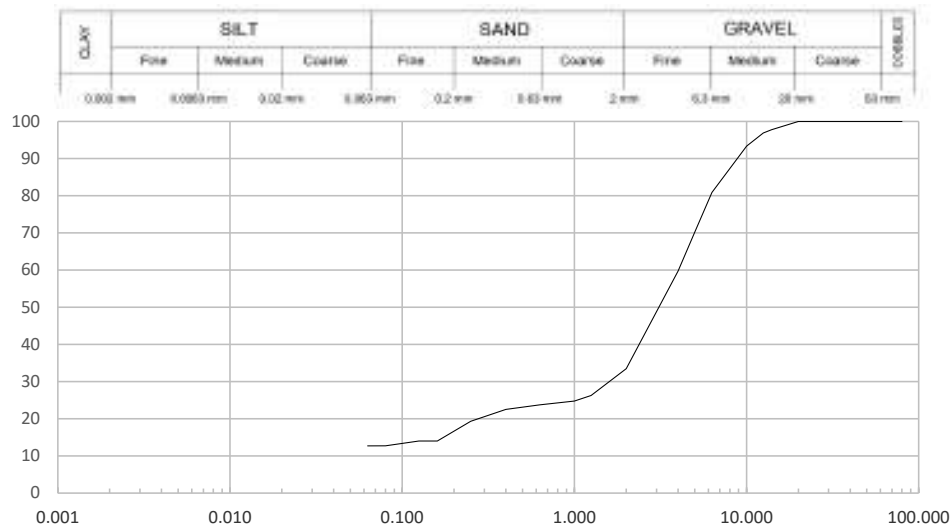
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.29
Fine Gravel	3.95
Coarse sand	1.33
Medium sand	60.34
Fine sand	19.40
Silt and Clay	13.68
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	98.71
5.00	97.71
4.00	96.83
2.00	94.76
1.25	94.00
1.00	93.72
0.630	93.42
0.400	92.23
0.250	49.33
0.200	33.08
0.160	16.83
0.125	16.82
0.080	13.72
0.063	13.68

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#337_A - A Specimen depth: 0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



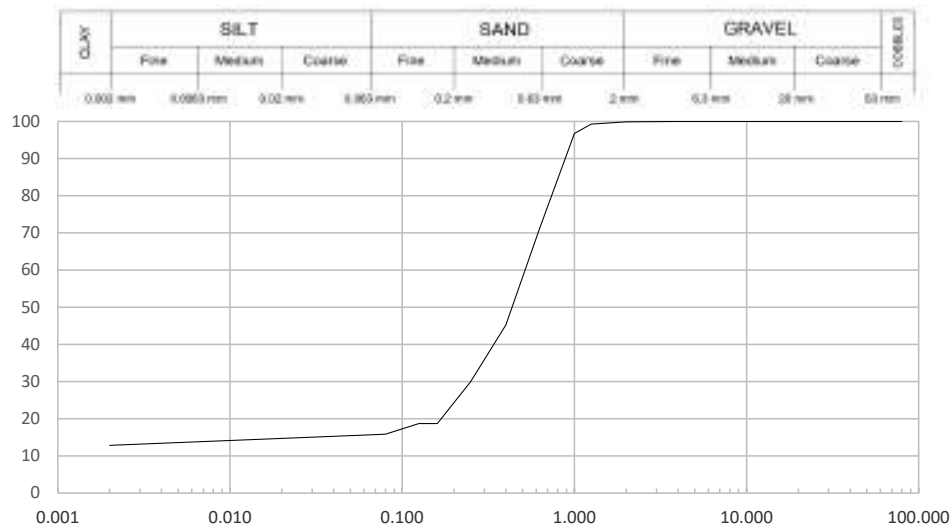
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	19.12
Fine Gravel	47.39
Coarse sand	9.71
Medium sand	7.11
Fine sand	3.95
Silt and Clay	12.71
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	97.80
12.5	96.89
10.0	93.36
6.3	80.88
5.00	70.19
4.00	59.73
2.00	33.49
1.25	26.25
1.00	24.78
0.630	23.77
0.400	22.50
0.250	19.31
0.200	16.66
0.160	14.01
0.125	14.01
0.080	12.74
0.063	12.71

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>27/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#473 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0 - 0.2m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	27/09/2022	PointId - Sample:	EC GI#473 - A	Specimen depth:	0 - 0.2m
Sampling date:	See VC logs								
Test date:	27/09/2022								
PointId - Sample:	EC GI#473 - A								
Specimen depth:	0 - 0.2m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



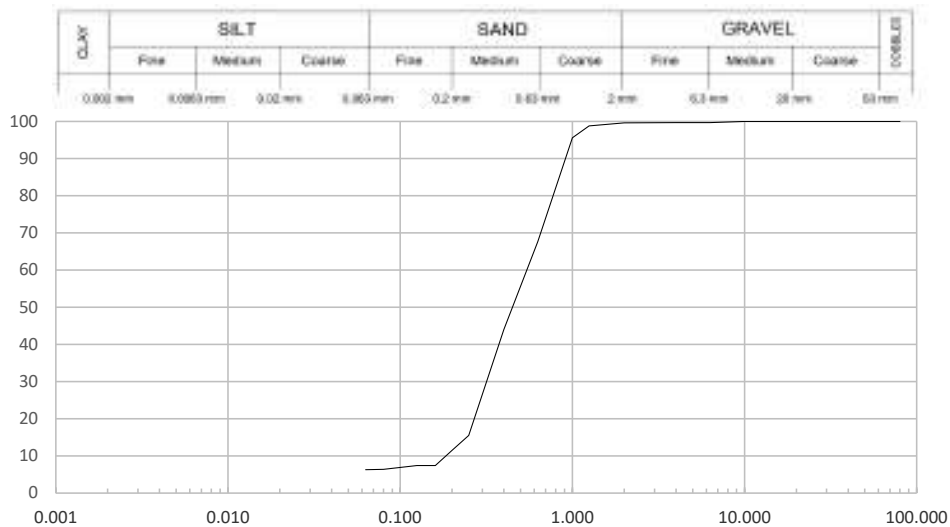
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.11
Coarse sand	28.57
Medium sand	46.96
Fine sand	8.71
Silt and Clay	15.66
Silt	2.81
Clay	12.85

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.89
1.25	99.27
1.00	96.77
0.630	71.32
0.400	45.22
0.250	30.04
0.200	24.36
0.160	18.69
0.125	18.68
0.080	15.83
0.063	15.66

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>27/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#529 - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1.9 - 2.05m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	27/09/2022	PointId - Sample:	EC GI#529 - B	Specimen depth:	1.9 - 2.05m
Sampling date:	See VC logs								
Test date:	27/09/2022								
PointId - Sample:	EC GI#529 - B								
Specimen depth:	1.9 - 2.05m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.33
Fine Gravel	0.04
Coarse sand	32.00
Medium sand	56.15
Fine sand	5.19
Silt and Clay	6.30
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.67
5.00	99.67
4.00	99.67
2.00	99.63
1.25	98.83
1.00	95.62
0.630	67.63
0.400	44.04
0.250	15.54
0.200	11.48
0.160	7.42
0.125	7.42
0.080	6.39
0.063	6.30

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A05

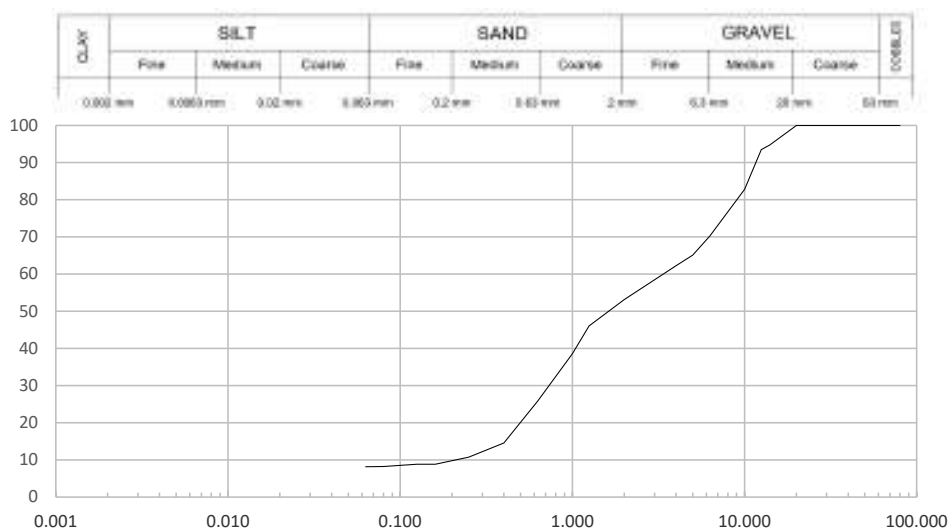
Sampling date: See VC logs

Test date: 27/09/2022

PointId - Sample: EC GI#473 - C

Specimen depth: 2 - 2.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



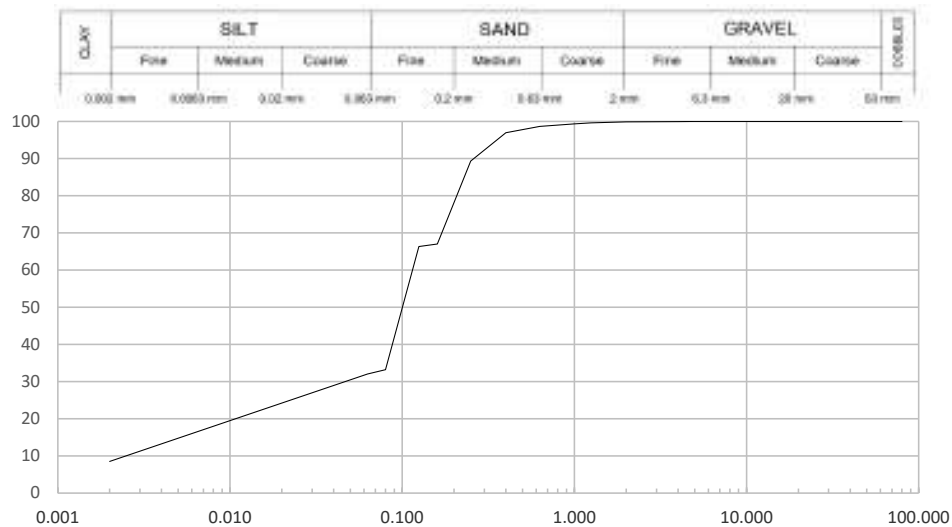
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	29.72
Fine Gravel	17.14
Coarse sand	27.32
Medium sand	16.02
Fine sand	1.63
Silt and Clay	8.17
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	94.73
12.5	93.48
10.0	82.78
6.3	70.28
5.00	65.11
4.00	62.24
2.00	53.14
1.25	46.04
1.00	38.61
0.630	25.82
0.400	14.57
0.250	10.76
0.200	9.80
0.160	8.84
0.125	8.84
0.080	8.21
0.063	8.17

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#VC1 - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



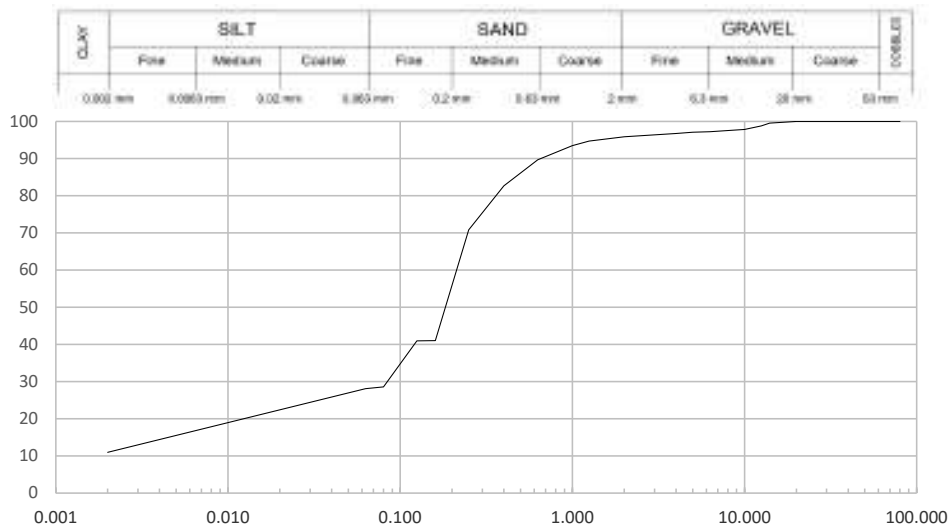
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.14
Coarse sand	1.19
Medium sand	20.49
Fine sand	46.13
Silt and Clay	32.05
Silt	23.53
Clay	8.52

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.99
2.00	99.86
1.25	99.59
1.00	99.35
0.630	98.66
0.400	96.97
0.250	89.32
0.200	78.18
0.160	67.04
0.125	66.31
0.080	33.19
0.063	32.05

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>27/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#425 - E</td> </tr> <tr> <td>Specimen depth:</td> <td>4 - 4.2m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	27/09/2022	PointId - Sample:	EC GI#425 - E	Specimen depth:	4 - 4.2m
Sampling date:	See VC logs								
Test date:	27/09/2022								
PointId - Sample:	EC GI#425 - E								
Specimen depth:	4 - 4.2m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



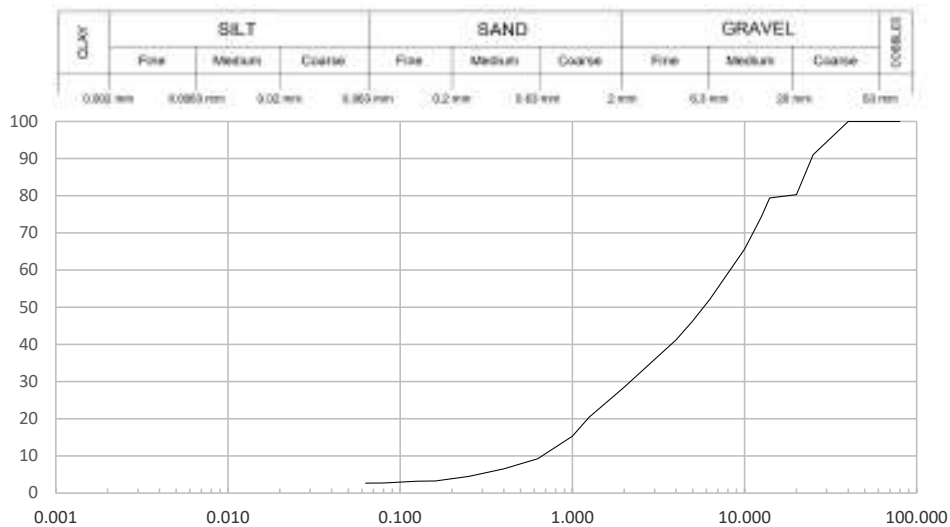
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.75
Fine Gravel	1.39
Coarse sand	6.16
Medium sand	33.77
Fine sand	27.82
Silt and Clay	28.11
Silt	17.14
Clay	10.97

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.56
12.5	98.82
10.0	97.83
6.3	97.25
5.00	97.09
4.00	96.76
2.00	95.86
1.25	94.70
1.00	93.46
0.630	89.70
0.400	82.67
0.250	70.86
0.200	55.93
0.160	41.00
0.125	40.96
0.080	28.55
0.063	28.11

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#467 - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



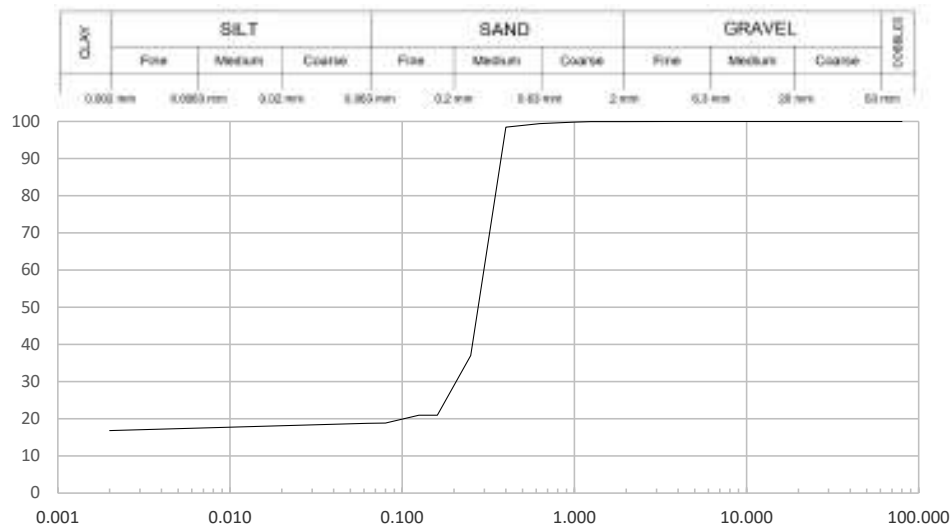
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	19.69
Medium Gravel	28.10
Fine Gravel	23.67
Coarse sand	19.25
Medium sand	5.42
Fine sand	1.18
Silt and Clay	2.68
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	91.05
20.0	80.31
14.0	79.37
12.5	74.28
10.0	65.65
6.3	52.21
5.00	46.33
4.00	41.24
2.00	28.53
1.25	20.43
1.00	15.31
0.630	9.28
0.400	6.51
0.250	4.49
0.200	3.86
0.160	3.23
0.125	3.23
0.080	2.73
0.063	2.68

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#467 - C Specimen depth: 1.8 - 2.01m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



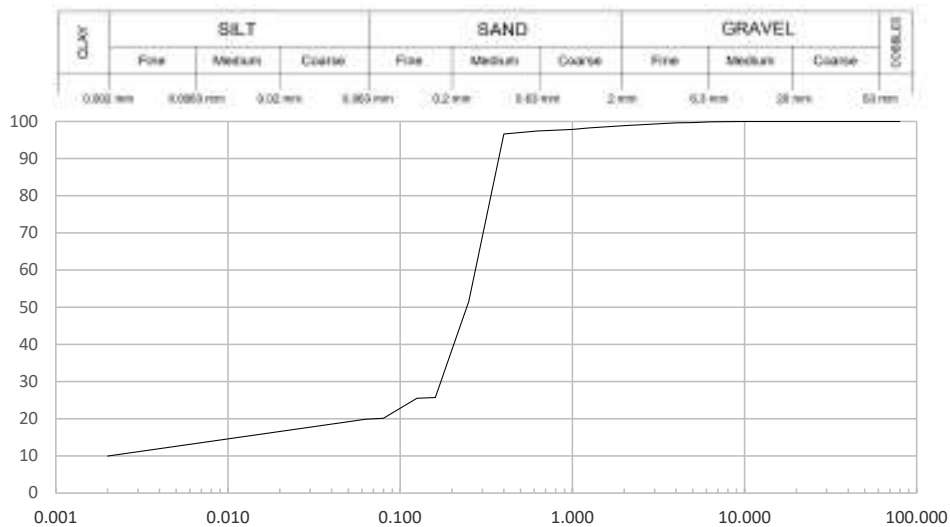
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	0.55
Medium sand	70.41
Fine sand	10.22
Silt and Clay	18.80
Silt	1.98
Clay	16.82

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.97
1.25	99.93
1.00	99.84
0.630	99.43
0.400	98.43
0.250	37.05
0.200	29.02
0.160	20.99
0.125	20.97
0.080	18.84
0.063	18.80

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#528Aa - B Specimen depth: 1 - 1.3m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



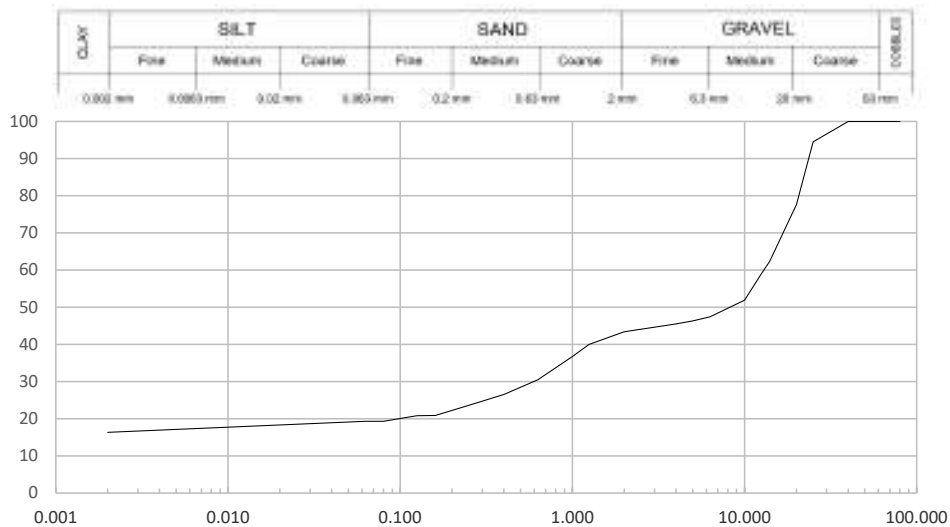
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.12
Fine Gravel	1.02
Coarse sand	1.42
Medium sand	58.79
Fine sand	18.76
Silt and Clay	19.88
Silt	9.91
Clay	9.97

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.88
5.00	99.71
4.00	99.58
2.00	98.85
1.25	98.26
1.00	97.85
0.630	97.43
0.400	96.60
0.250	51.53
0.200	38.64
0.160	25.74
0.125	25.51
0.080	20.12
0.063	19.88

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#470 - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



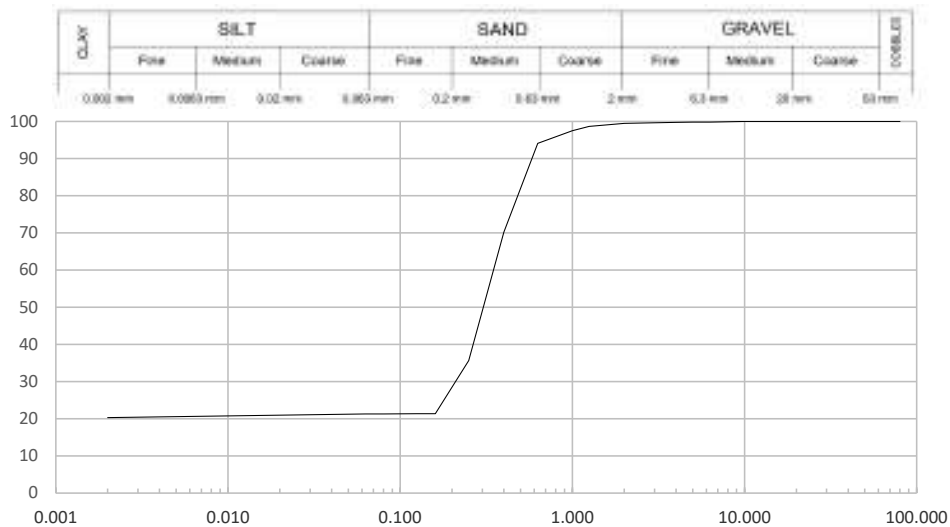
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	22.34
Medium Gravel	30.23
Fine Gravel	4.01
Coarse sand	12.94
Medium sand	8.26
Fine sand	2.93
Silt and Clay	19.29
Silt	2.94
Clay	16.35

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	94.52
20.0	77.66
14.0	62.31
12.5	58.98
10.0	51.93
6.3	47.43
5.00	46.32
4.00	45.49
2.00	43.42
1.25	40.01
1.00	36.72
0.630	30.48
0.400	26.52
0.250	23.58
0.200	22.22
0.160	20.86
0.125	20.85
0.080	19.32
0.063	19.29

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#VC4_A - A Specimen depth: 0 - 0.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



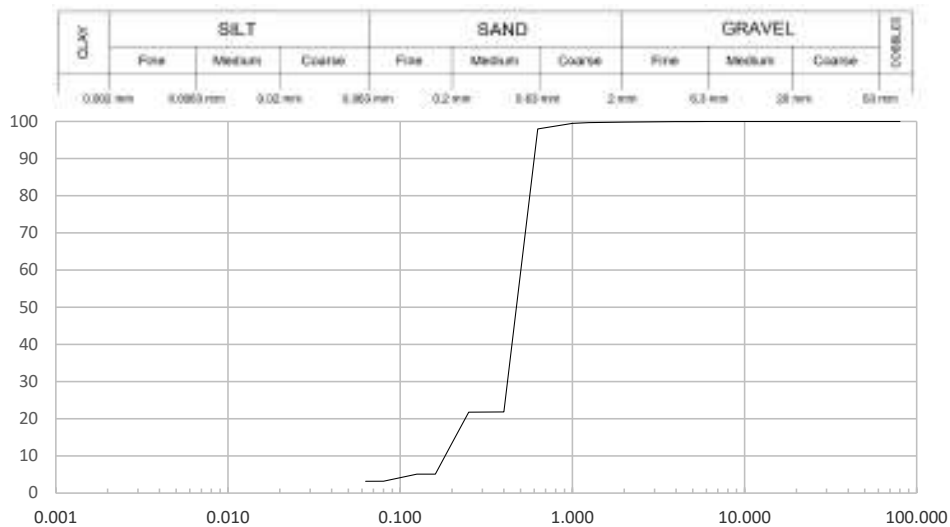
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.16
Fine Gravel	0.37
Coarse sand	5.35
Medium sand	65.63
Fine sand	7.17
Silt and Clay	21.32
Silt	1.01
Clay	20.31

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.84
5.00	99.84
4.00	99.75
2.00	99.47
1.25	98.68
1.00	97.51
0.630	94.12
0.400	70.22
0.250	35.64
0.200	28.49
0.160	21.34
0.125	21.34
0.080	21.32
0.063	21.32

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 27/09/2022 PointId - Sample: EC GI#335_A - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.16
Coarse sand	1.86
Medium sand	84.54
Fine sand	10.26
Silt and Clay	3.18
Silt	
Clay	

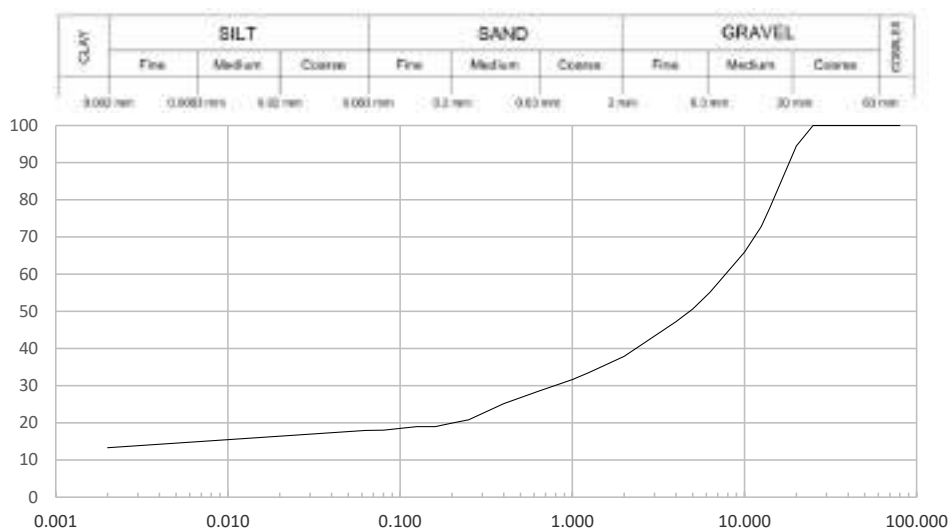
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.97
4.00	99.96
2.00	99.84
1.25	99.71
1.00	99.50
0.630	97.99
0.400	21.82
0.250	21.80
0.200	13.44
0.160	5.09
0.125	5.07
0.080	3.19
0.063	3.18

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#473 - CC
		Specimen depth:	2.6 - 2.6m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	5.47
Medium Gravel	39.42
Fine Gravel	17.20
Coarse sand	9.50
Medium sand	8.51
Fine sand	1.94
Silt and Clay	17.97
Silt	4.66
Clay	13.31

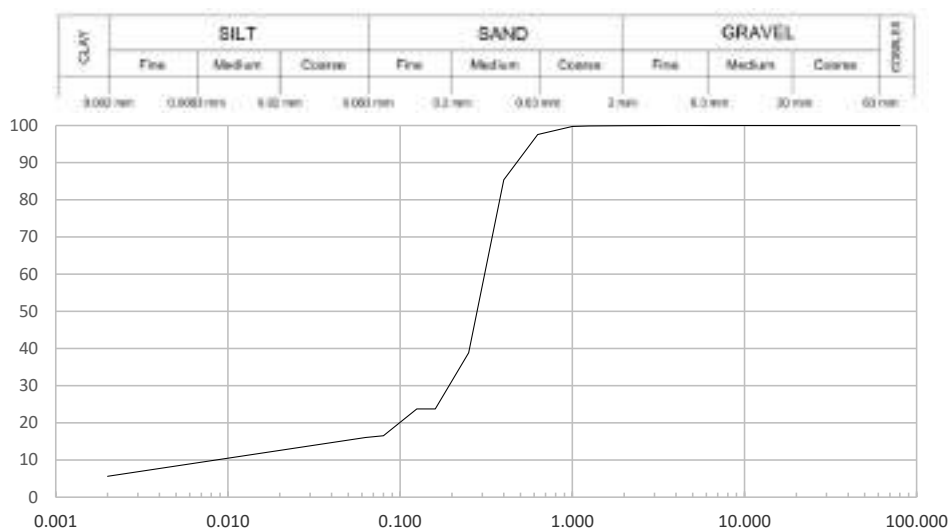
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	94.53
14.0	77.68
12.5	72.80
10.0	65.92
6.3	55.11
5.00	50.60
4.00	47.21
2.00	37.91
1.25	33.54
1.00	31.61
0.630	28.42
0.400	25.20
0.250	20.81
0.200	19.91
0.160	19.01
0.125	18.98
0.080	18.02
0.063	17.97

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#545_A - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.05
Coarse sand	2.38
Medium sand	66.26
Fine sand	15.28
Silt and Clay	16.02
Silt	10.40
Clay	5.62

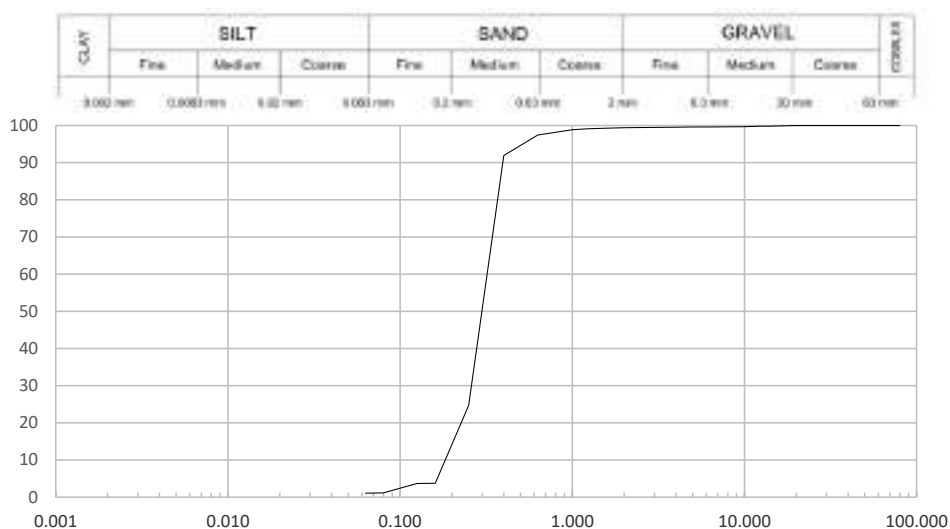
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.95
1.25	99.87
1.00	99.73
0.630	97.57
0.400	85.41
0.250	38.88
0.200	31.31
0.160	23.73
0.125	23.71
0.080	16.51
0.063	16.02

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#467 - D
		Specimen depth:	2.8 - 3m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.36
Fine Gravel	0.24
Coarse sand	1.97
Medium sand	83.21
Fine sand	13.15
Silt and Clay	1.07
Silt	
Clay	

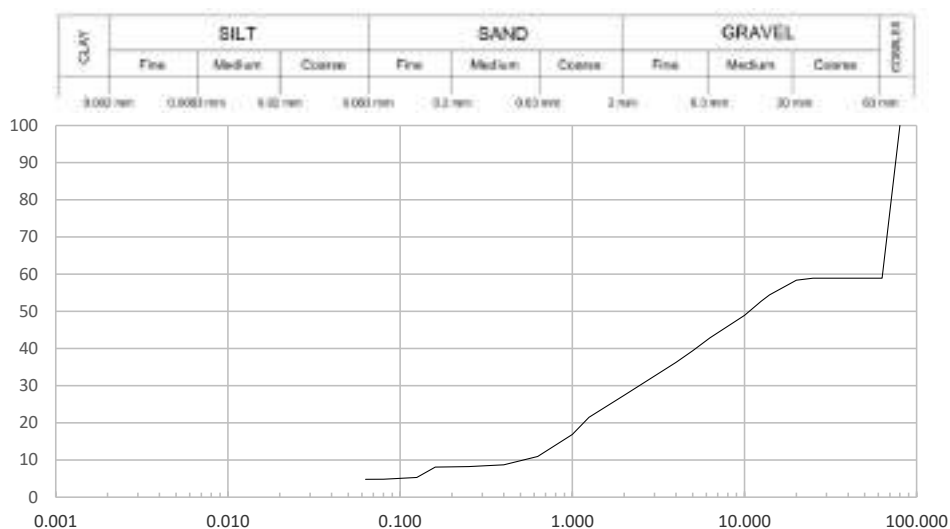
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.84
12.5	99.84
10.0	99.72
6.3	99.64
5.00	99.61
4.00	99.57
2.00	99.40
1.25	99.13
1.00	98.88
0.630	97.43
0.400	91.92
0.250	24.72
0.200	14.22
0.160	3.72
0.125	3.68
0.080	1.12
0.063	1.07

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	27/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#476 - A
		Specimen depth:	0 - 1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	41.09
Coarse Gravel	0.54
Medium Gravel	56.63
Fine Gravel	25.68
Coarse sand	16.44
Medium sand	2.79
Fine sand	3.38
Silt and Clay	4.81
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	58.91
40	58.91
25.0	58.91
20.0	58.37
14.0	54.47
12.5	52.71
10.0	48.94
6.3	42.83
5.00	39.43
4.00	36.27
2.00	27.42
1.25	21.52
1.00	16.87
0.630	10.97
0.400	8.73
0.250	8.26
0.200	8.19
0.160	8.12
0.125	5.31
0.080	4.86
0.063	4.81

SOIL TESTS

CLASSIFICATION

CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A05

Sampling date:

See VC logs

Test date:

27/09/2022

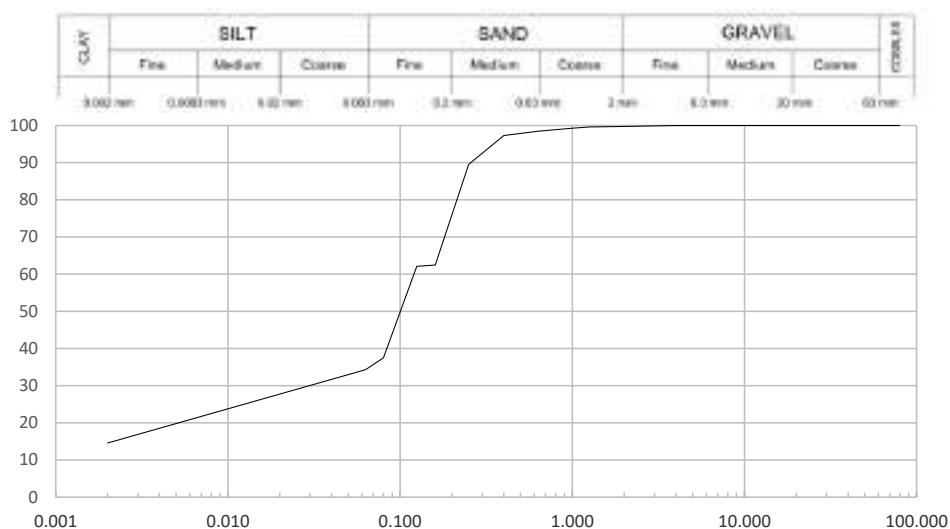
PointId - Sample:

EC GI#464_A - A

Specimen depth:

0 - 0.07m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.23
Coarse sand	1.28
Medium sand	22.48
Fine sand	41.74
Silt and Clay	34.27
Silt	19.70
Clay	14.57

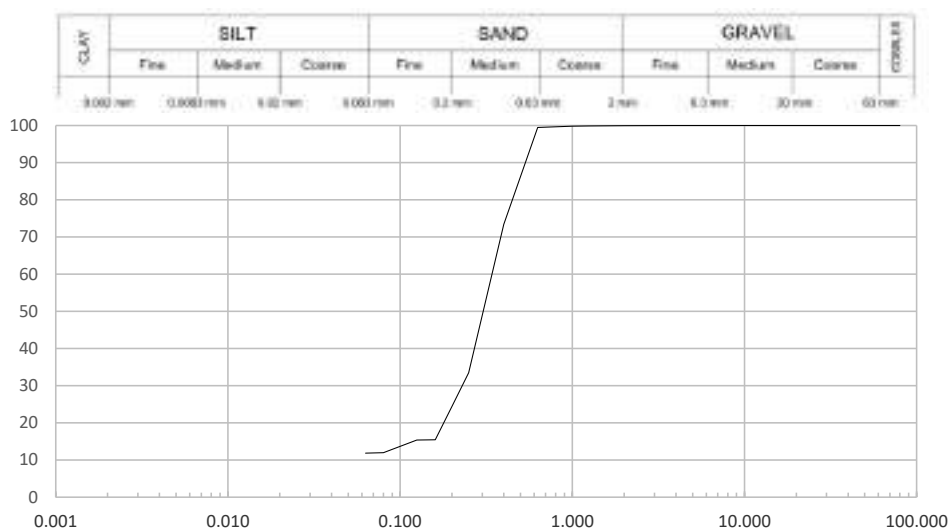
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.77
1.25	99.62
1.00	99.28
0.630	98.49
0.400	97.32
0.250	89.53
0.200	76.01
0.160	62.49
0.125	62.13
0.080	37.51
0.063	34.27

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#439_A - B
		Specimen depth:	0.65 - 0.85m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	0.52
Medium sand	75.02
Fine sand	12.59
Silt and Clay	11.85
Silt	
Clay	

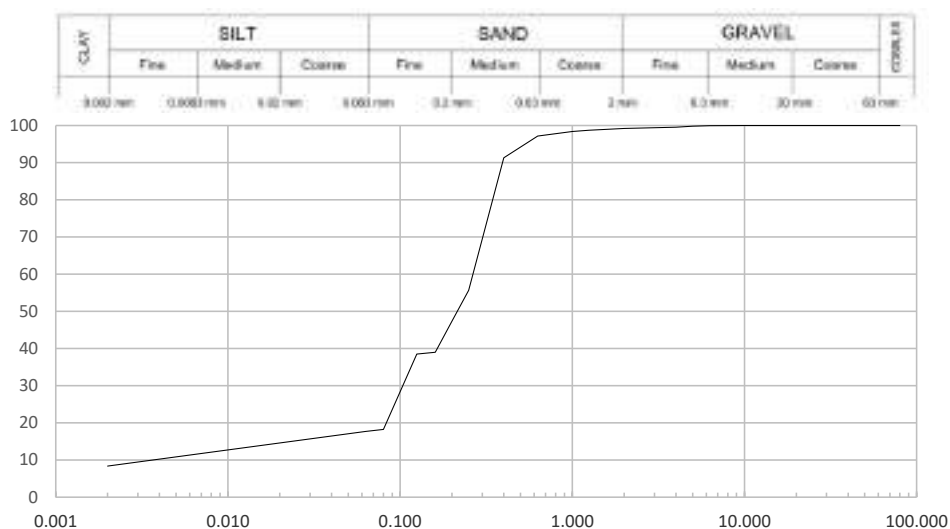
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.97
1.25	99.90
1.00	99.83
0.630	99.45
0.400	73.44
0.250	33.45
0.200	24.43
0.160	15.42
0.125	15.39
0.080	11.96
0.063	11.85

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI #546 - B
		Specimen depth:	1.7 - 1.9m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



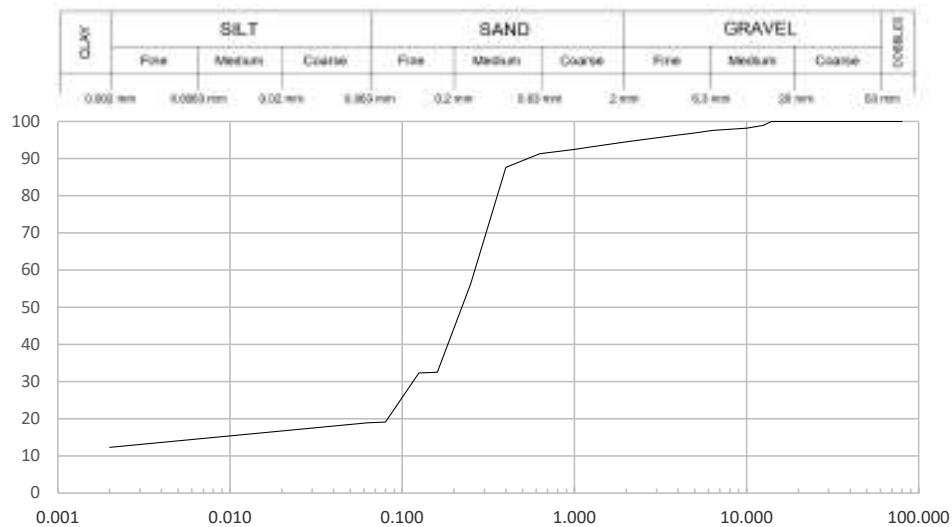
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.07
Fine Gravel	0.75
Coarse sand	2.02
Medium sand	49.84
Fine sand	29.64
Silt and Clay	17.68
Silt	9.31
Clay	8.37

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.93
5.00	99.85
4.00	99.52
2.00	99.18
1.25	98.72
1.00	98.39
0.630	97.16
0.400	91.34
0.250	55.68
0.200	47.33
0.160	38.97
0.125	38.54
0.080	18.21
0.063	17.68

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs	
	Test date: 04/10/2022	
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#258 - C	
	Specimen depth: 2.17 - 2.32m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



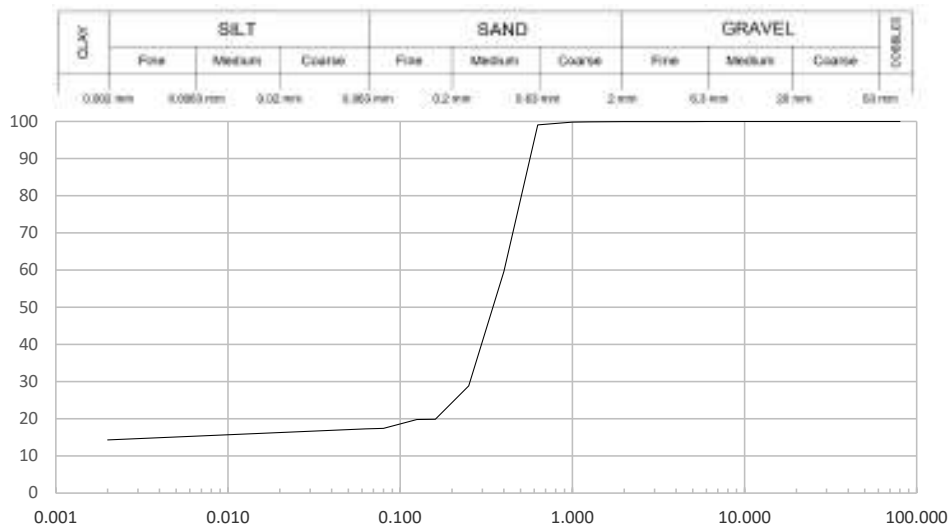
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.43
Fine Gravel	3.08
Coarse sand	3.18
Medium sand	46.89
Fine sand	25.52
Silt and Clay	18.89
Silt	6.58
Clay	12.31

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	98.93
10.0	98.21
6.3	97.57
5.00	96.88
4.00	96.38
2.00	94.49
1.25	93.15
1.00	92.48
0.630	91.30
0.400	87.66
0.250	56.31
0.200	44.41
0.160	32.52
0.125	32.34
0.080	19.14
0.063	18.89

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 04/10/2022 PointId - Sample: EC GI#516A - C Specimen depth: 2.9 - 3m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



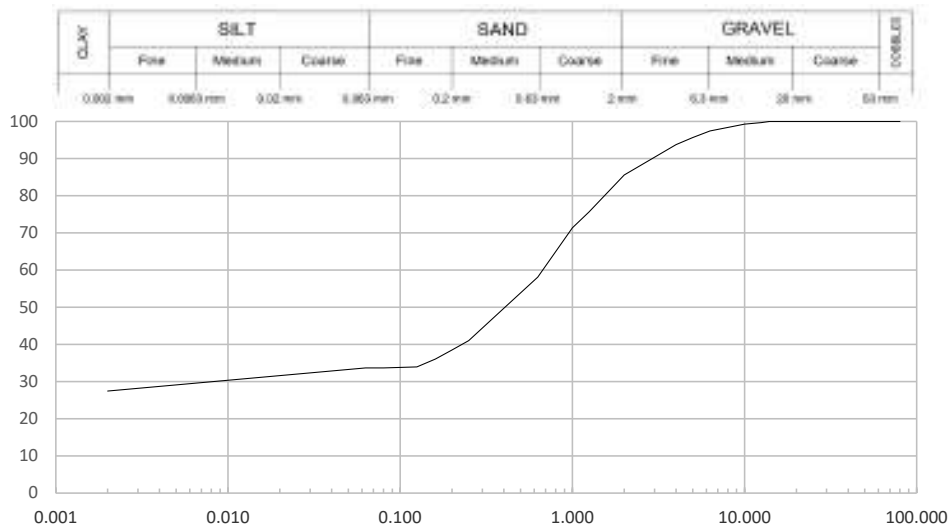
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	0.90
Medium sand	74.73
Fine sand	7.03
Silt and Clay	17.31
Silt	3.00
Clay	14.31

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.98
4.00	99.98
2.00	99.97
1.25	99.91
1.00	99.83
0.630	99.08
0.400	59.57
0.250	28.85
0.200	24.35
0.160	19.84
0.125	19.79
0.080	17.40
0.063	17.31

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 04/10/2022 PointId - Sample: EC GI#10_Aa - B Specimen depth: 0.8 - 1m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



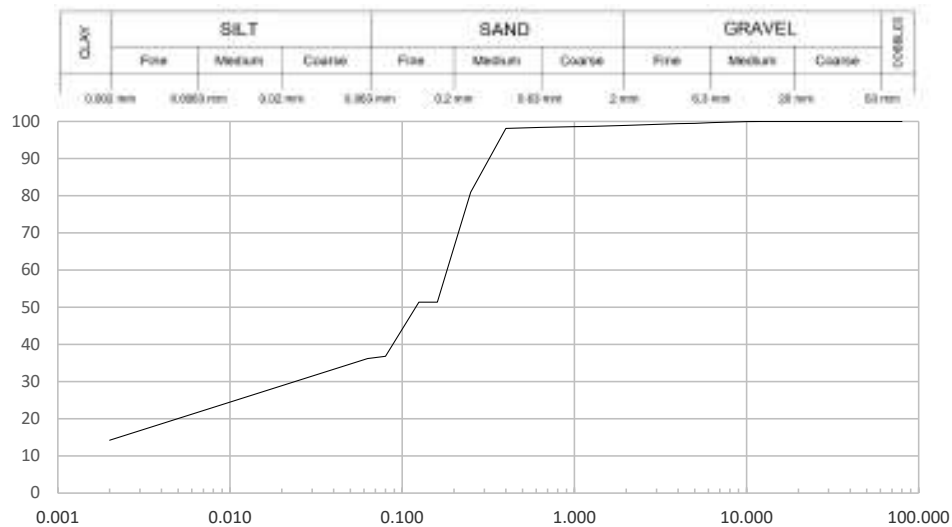
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.57
Fine Gravel	11.82
Coarse sand	27.50
Medium sand	19.58
Fine sand	4.85
Silt and Clay	33.68
Silt	6.22
Clay	27.46

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.69
10.0	99.31
6.3	97.43
5.00	95.66
4.00	93.75
2.00	85.61
1.25	75.66
1.00	71.34
0.630	58.11
0.400	49.75
0.250	41.02
0.200	38.54
0.160	36.05
0.125	33.93
0.080	33.69
0.063	33.68

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 04/10/2022 PointId - Sample: EC GI#259 - B Specimen depth: 1.65 - 1.85m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



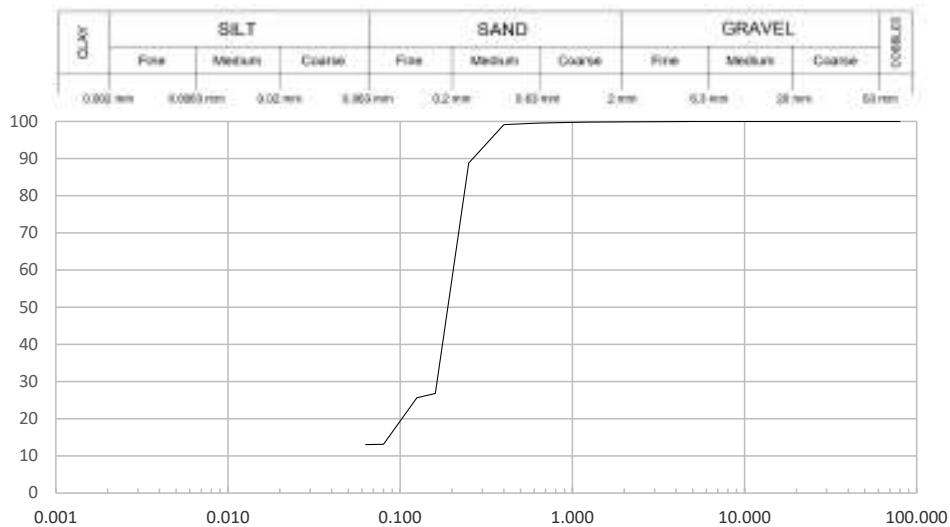
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.30
Fine Gravel	0.76
Coarse sand	0.53
Medium sand	32.24
Fine sand	30.01
Silt and Clay	36.17
Silt	21.94
Clay	14.23

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.96
6.3	99.70
5.00	99.51
4.00	99.43
2.00	98.94
1.25	98.70
1.00	98.58
0.630	98.42
0.400	98.13
0.250	80.95
0.200	66.18
0.160	51.40
0.125	51.36
0.080	36.83
0.063	36.17

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#333 - B
		Specimen depth:	1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



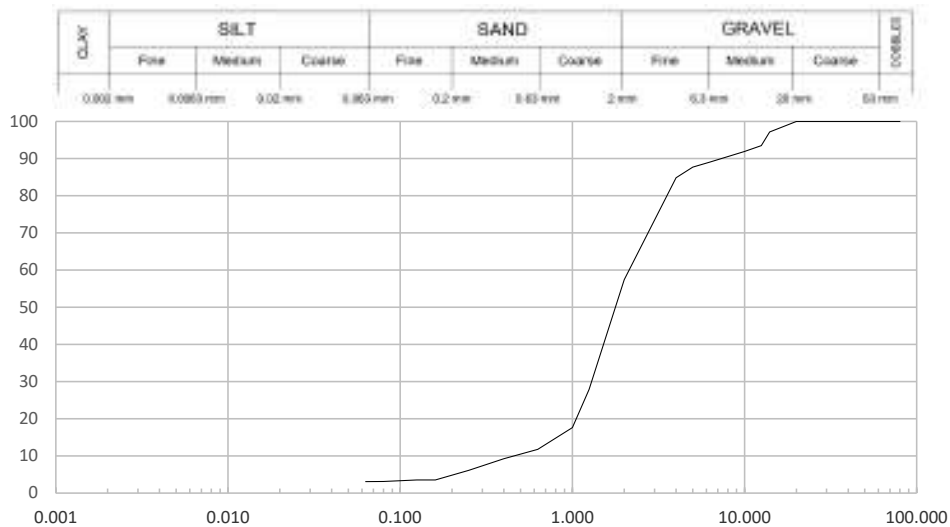
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.11
Coarse sand	0.32
Medium sand	41.78
Fine sand	44.74
Silt and Clay	13.06
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.96
2.00	99.89
1.25	99.82
1.00	99.72
0.630	99.57
0.400	99.15
0.250	88.77
0.200	57.79
0.160	26.81
0.125	25.63
0.080	13.16
0.063	13.06

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 04/10/2022 PointId - Sample: EC GI#336 - C Specimen depth: 2 - 2.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	10.94
Fine Gravel	31.64
Coarse sand	45.62
Medium sand	6.96
Fine sand	1.75
Silt and Clay	3.09
Silt	
Clay	

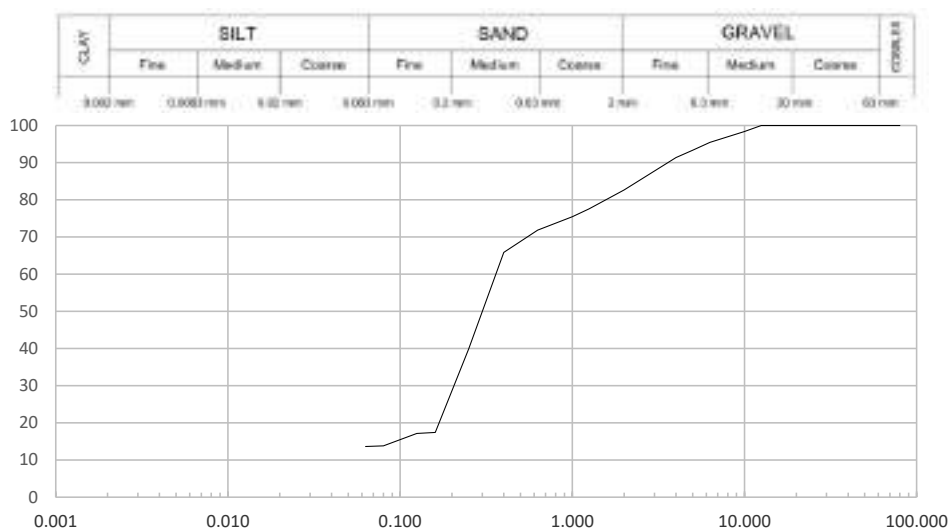
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	97.16
12.5	93.52
10.0	91.95
6.3	89.06
5.00	87.69
4.00	84.85
2.00	57.42
1.25	27.93
1.00	17.65
0.630	11.80
0.400	9.25
0.250	6.15
0.200	4.84
0.160	3.53
0.125	3.52
0.080	3.12
0.063	3.09

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#337_A - B
		Specimen depth:	1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	4.53
Fine Gravel	12.80
Coarse sand	10.79
Medium sand	43.25
Fine sand	14.99
Silt and Clay	13.64
Silt	
Clay	

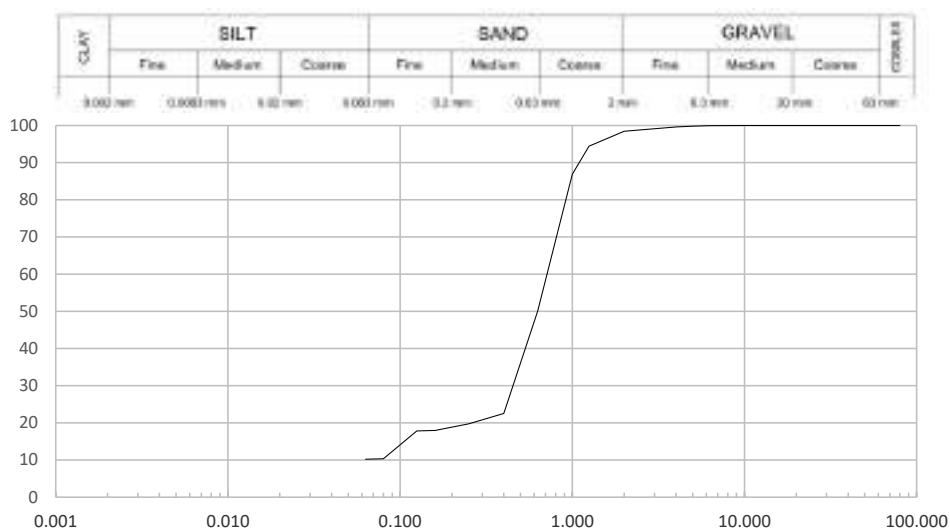
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	98.38
6.3	95.47
5.00	93.35
4.00	91.41
2.00	82.67
1.25	77.55
1.00	75.45
0.630	71.88
0.400	65.90
0.250	39.86
0.200	28.63
0.160	17.40
0.125	17.17
0.080	13.82
0.063	13.64

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#510_A - B
		Specimen depth:	1.85 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



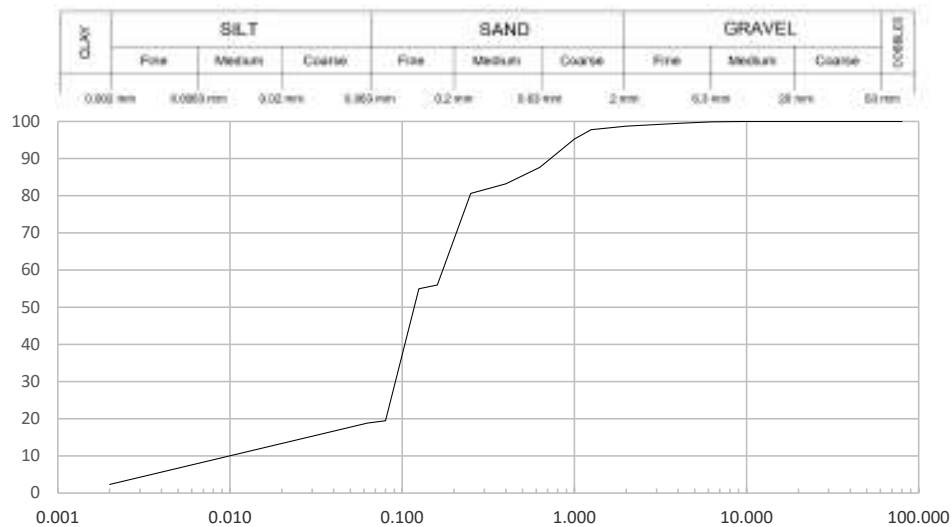
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.05
Fine Gravel	1.48
Coarse sand	48.41
Medium sand	31.22
Fine sand	8.62
Silt and Clay	10.21
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.95
5.00	99.79
4.00	99.60
2.00	98.46
1.25	94.46
1.00	86.87
0.630	50.06
0.400	22.49
0.250	19.71
0.200	18.83
0.160	17.95
0.125	17.85
0.080	10.36
0.063	10.21

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>04/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#510_A - C</td> </tr> <tr> <td>Specimen depth:</td> <td>2 - 2.15m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	04/10/2022	PointId - Sample:	EC GI#510_A - C	Specimen depth:	2 - 2.15m
Sampling date:	See VC logs								
Test date:	04/10/2022								
PointId - Sample:	EC GI#510_A - C								
Specimen depth:	2 - 2.15m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



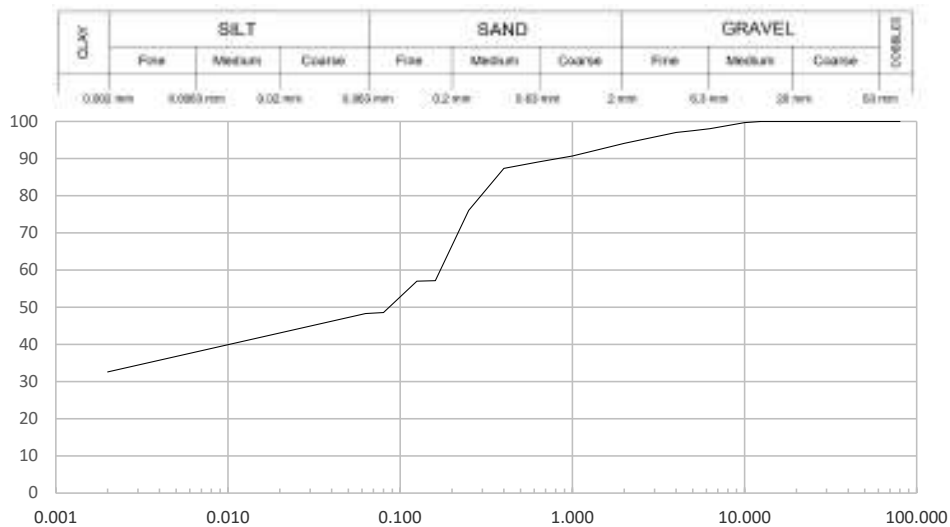
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.13
Fine Gravel	1.14
Coarse sand	11.10
Medium sand	19.34
Fine sand	49.47
Silt and Clay	18.82
Silt	16.49
Clay	2.33

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.87
5.00	99.68
4.00	99.49
2.00	98.73
1.25	97.77
1.00	95.27
0.630	87.63
0.400	83.23
0.250	80.61
0.200	68.29
0.160	55.98
0.125	54.99
0.080	19.47
0.063	18.82

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	04/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#258 - B
		Specimen depth:	0.32 - 0.57m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



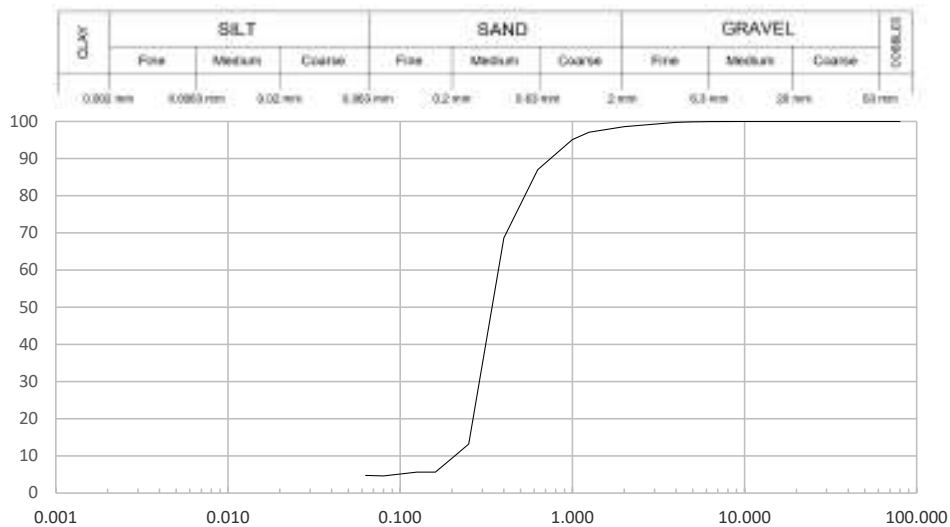
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.96
Fine Gravel	3.95
Coarse sand	5.04
Medium sand	22.43
Fine sand	18.30
Silt and Clay	48.33
Silt	15.73
Clay	32.60

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.71
6.3	98.04
5.00	97.47
4.00	97.02
2.00	94.10
1.25	91.79
1.00	90.72
0.630	89.05
0.400	87.40
0.250	76.10
0.200	66.62
0.160	57.14
0.125	57.03
0.080	48.61
0.063	48.33

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 04/10/2022 PointId - Sample: EC GI#VC5_A - C Specimen depth: 2 - 2.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



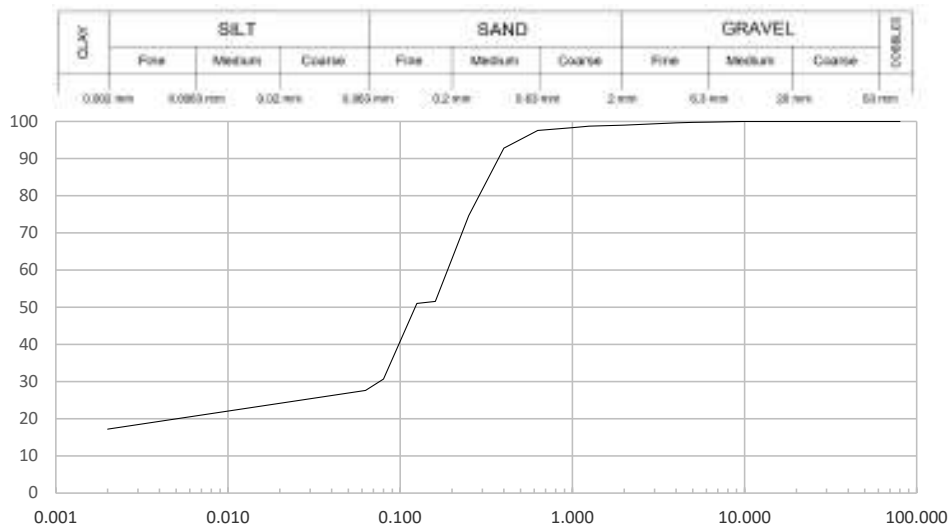
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.06
Fine Gravel	1.35
Coarse sand	11.54
Medium sand	77.63
Fine sand	4.67
Silt and Clay	4.75
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.94
5.00	99.88
4.00	99.73
2.00	98.59
1.25	97.07
1.00	95.15
0.630	87.05
0.400	68.63
0.250	13.21
0.200	9.42
0.160	5.63
0.125	5.63
0.080	4.62
0.063	4.75

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#545_A - B Specimen depth: 0.7 - 0.9m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



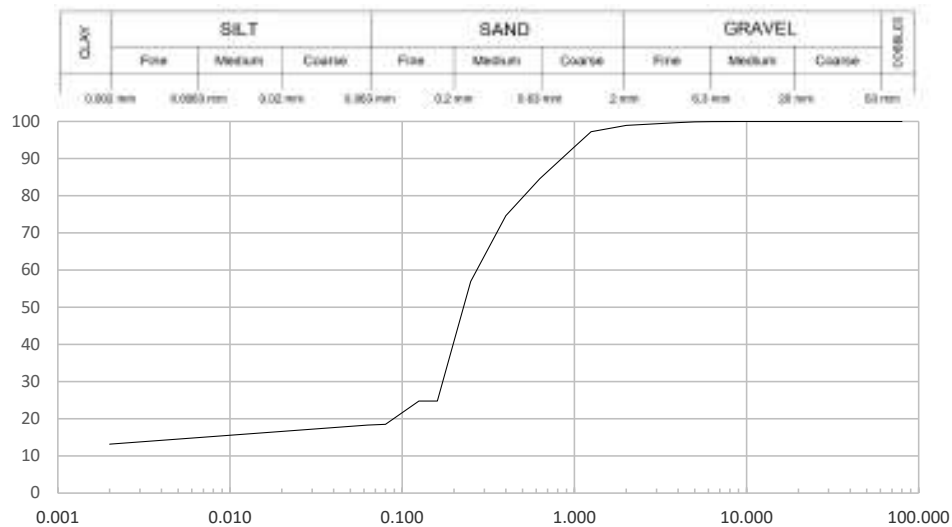
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.15
Fine Gravel	0.82
Coarse sand	1.49
Medium sand	34.46
Fine sand	35.45
Silt and Clay	27.64
Silt	10.43
Clay	17.21

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.85
5.00	99.73
4.00	99.60
2.00	99.03
1.25	98.71
1.00	98.30
0.630	97.55
0.400	92.84
0.250	74.63
0.200	63.09
0.160	51.55
0.125	51.04
0.080	30.71
0.063	27.64

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#VC4_A - B Specimen depth: 0.7 - 1.05m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



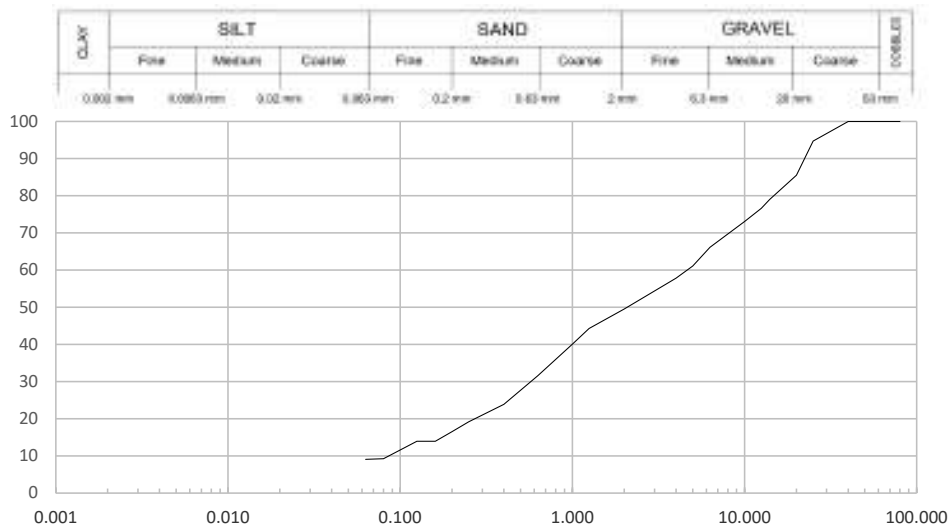
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.03
Fine Gravel	1.01
Coarse sand	14.38
Medium sand	43.70
Fine sand	22.59
Silt and Clay	18.29
Silt	5.12
Clay	13.17

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.97
5.00	99.88
4.00	99.66
2.00	98.97
1.25	97.23
1.00	93.17
0.630	84.58
0.400	74.66
0.250	56.97
0.200	40.88
0.160	24.80
0.125	24.78
0.080	18.48
0.063	18.29

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#425 - D Specimen depth: 3 - 3.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



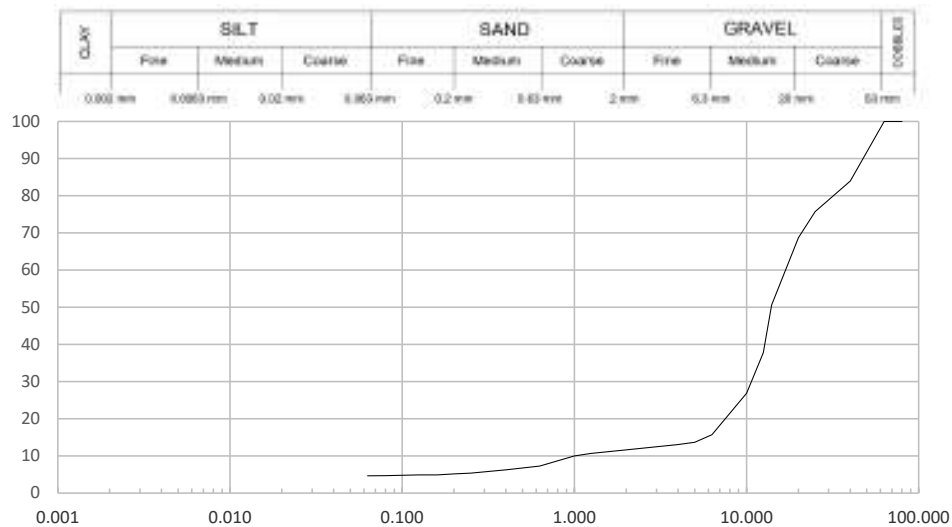
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	14.46
Medium Gravel	19.41
Fine Gravel	16.57
Coarse sand	17.96
Medium sand	15.04
Fine sand	7.48
Silt and Clay	9.09
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	94.72
20.0	85.54
14.0	78.96
12.5	76.59
10.0	73.05
6.3	66.13
5.00	61.13
4.00	57.83
2.00	49.56
1.25	44.28
1.00	40.05
0.630	31.60
0.400	23.91
0.250	19.19
0.200	16.56
0.160	13.93
0.125	13.93
0.080	9.24
0.063	9.09

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#468 - B Specimen depth: 1.05 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



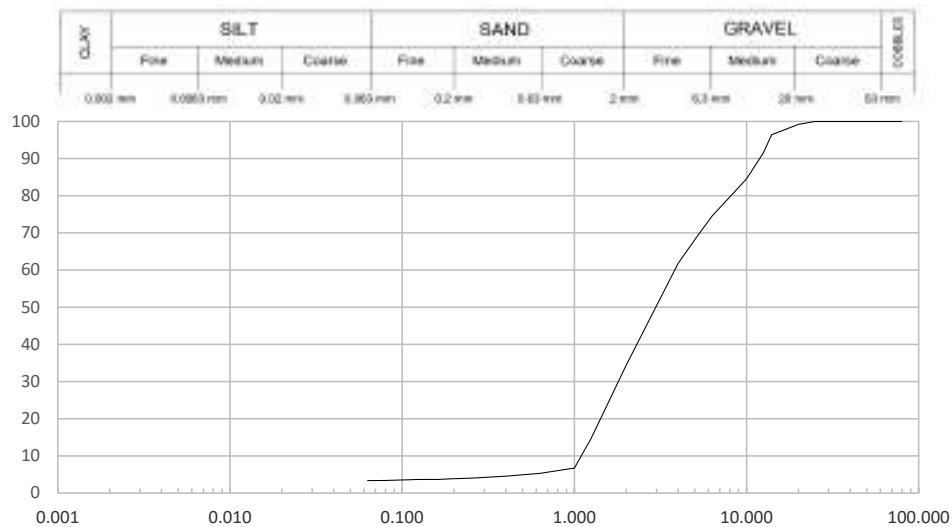
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	31.30
Medium Gravel	53.00
Fine Gravel	4.04
Coarse sand	4.38
Medium sand	2.13
Fine sand	0.49
Silt and Clay	4.65
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	83.98
25.0	75.74
20.0	68.70
14.0	50.65
12.5	37.79
10.0	26.91
6.3	15.69
5.00	13.71
4.00	13.03
2.00	11.65
1.25	10.69
1.00	10.00
0.630	7.28
0.400	6.23
0.250	5.39
0.200	5.15
0.160	4.90
0.125	4.89
0.080	4.67
0.063	4.65

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#477 - B Specimen depth: 0.8 - 0.95m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



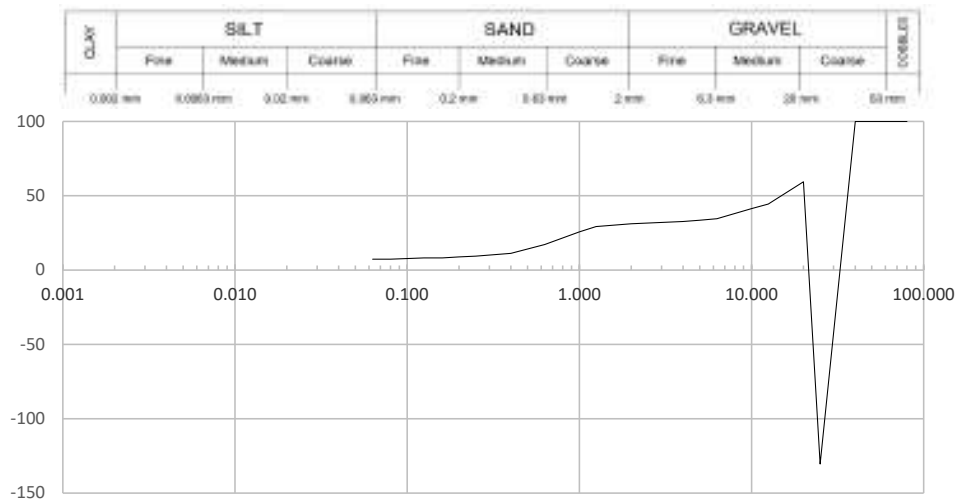
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.77
Medium Gravel	24.72
Fine Gravel	40.05
Coarse sand	29.15
Medium sand	1.45
Fine sand	0.48
Silt and Clay	3.37
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	99.23
14.0	96.41
12.5	91.54
10.0	84.55
6.3	74.50
5.00	68.15
4.00	61.81
2.00	34.45
1.25	14.73
1.00	6.76
0.630	5.30
0.400	4.58
0.250	4.04
0.200	3.85
0.160	3.66
0.125	3.65
0.080	3.39
0.063	3.37

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 29/09/2022 PointId - Sample: EC GI#478_Aa - A Specimen depth: 0 - 0.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



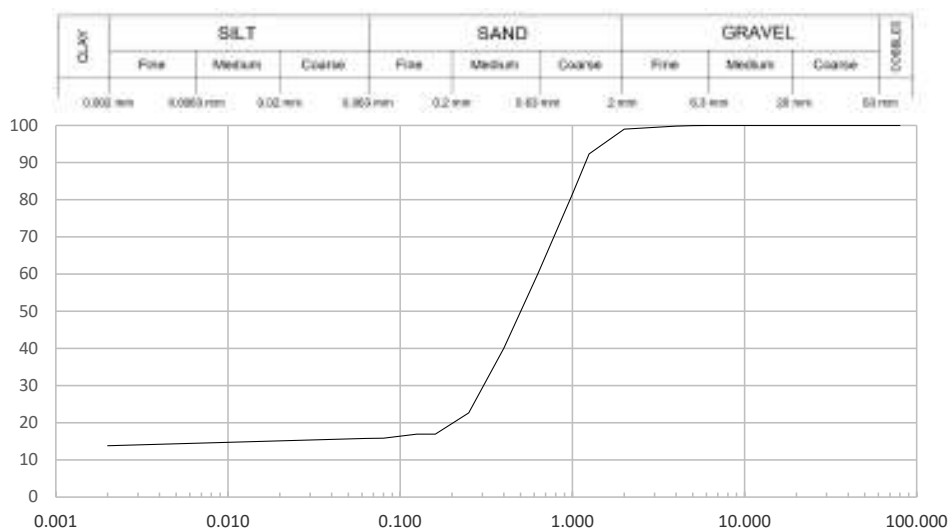
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	40.67
Medium Gravel	24.72
Fine Gravel	3.47
Coarse sand	13.87
Medium sand	8.47
Fine sand	1.50
Silt and Clay	7.31
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	100.00
1.25	100.00
1.00	100.00
0.630	100.00
0.400	100.00
0.250	100.00
0.200	100.00
0.160	100.00
0.125	100.00
0.080	100.00
0.063	100.00

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#464_A - B Specimen depth: 0.55 - 0.7m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



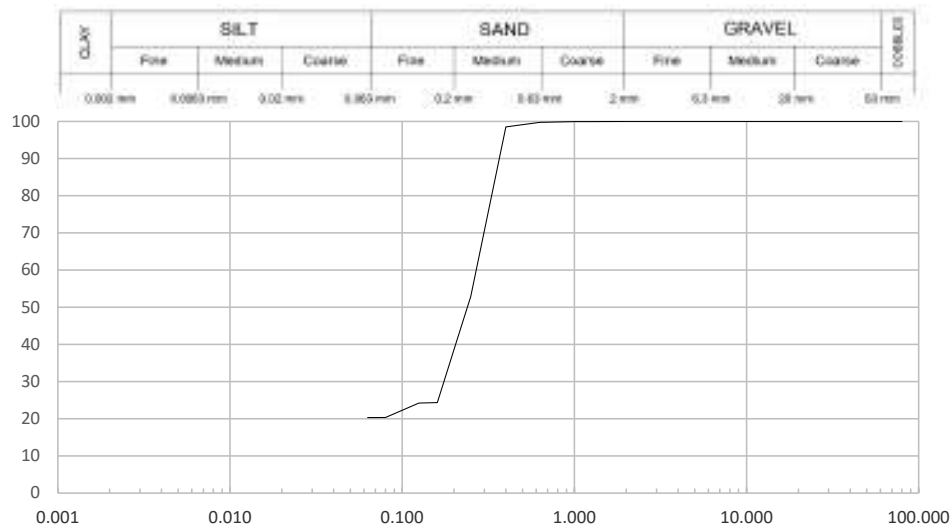
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.99
Coarse sand	39.03
Medium sand	40.16
Fine sand	4.03
Silt and Clay	15.79
Silt	1.97
Clay	13.82

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.95
4.00	99.84
2.00	99.01
1.25	92.35
1.00	81.54
0.630	59.98
0.400	40.09
0.250	22.68
0.200	19.82
0.160	16.96
0.125	16.96
0.080	15.86
0.063	15.79

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#468 - B
		Specimen depth:	1.05 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



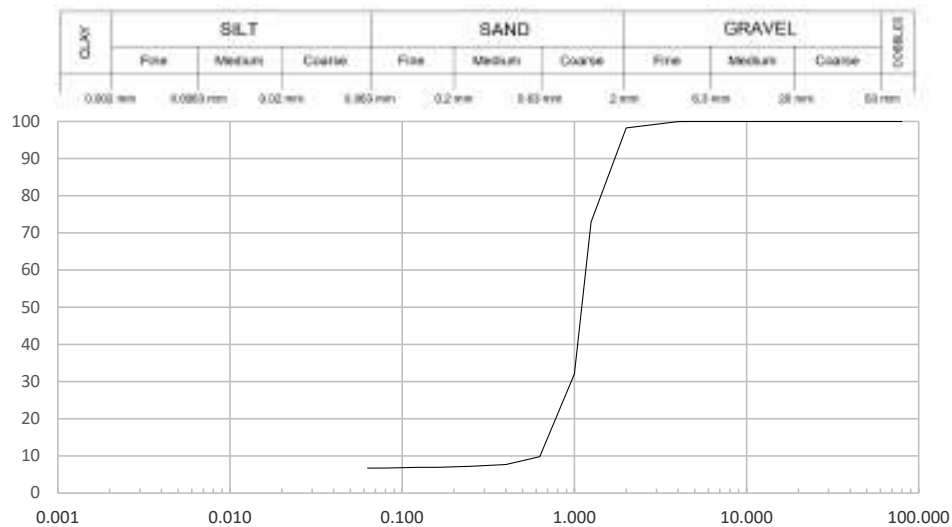
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.00
Coarse sand	0.25
Medium sand	61.13
Fine sand	18.30
Silt and Clay	20.32
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	100.00
1.25	99.97
1.00	99.92
0.630	99.75
0.400	98.51
0.250	52.90
0.200	38.62
0.160	24.34
0.125	24.21
0.080	20.37
0.063	20.32

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#465_Aa - B Specimen depth: 1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



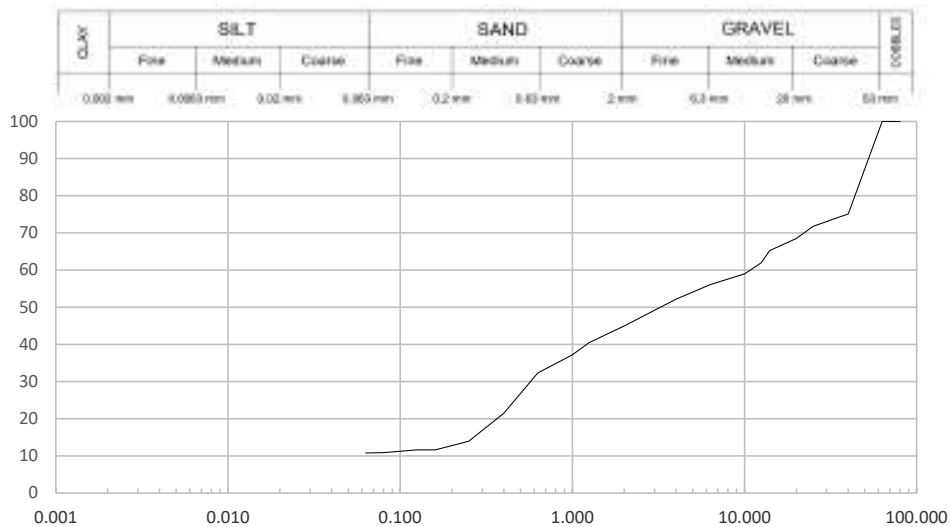
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	1.75
Coarse sand	88.47
Medium sand	2.71
Fine sand	0.35
Silt and Clay	6.73
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.94
2.00	98.25
1.25	72.94
1.00	32.07
0.630	9.78
0.400	7.71
0.250	7.23
0.200	7.08
0.160	6.93
0.125	6.92
0.080	6.74
0.063	6.73

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#425 - B Specimen depth: 1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



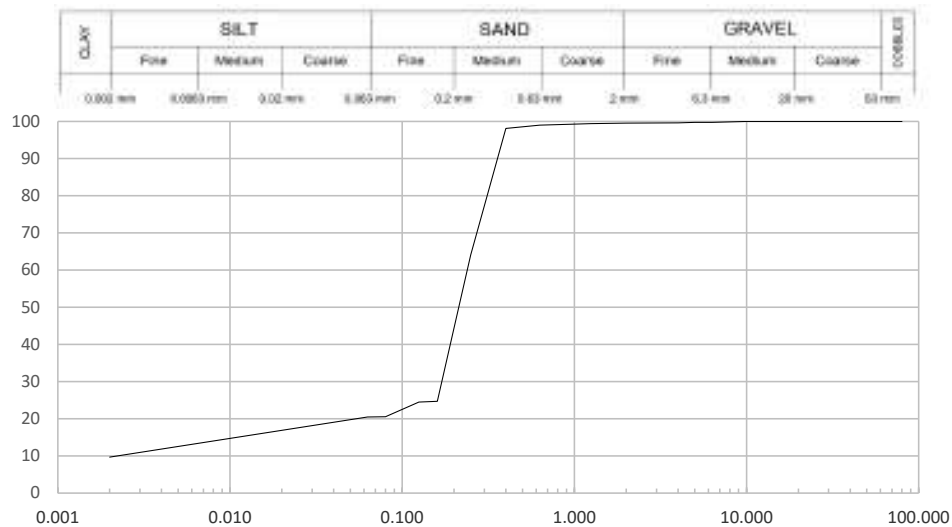
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	31.51
Medium Gravel	12.42
Fine Gravel	11.10
Coarse sand	12.65
Medium sand	19.53
Fine sand	2.00
Silt and Clay	10.79
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	75.13
25.0	71.77
20.0	68.49
14.0	65.27
12.5	61.97
10.0	58.97
6.3	56.08
5.00	54.11
4.00	52.20
2.00	44.98
1.25	40.48
1.00	37.23
0.630	32.33
0.400	21.51
0.250	13.94
0.200	12.79
0.160	11.65
0.125	11.64
0.080	10.91
0.063	10.79

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#467 - B Specimen depth: 0.65 - 0.8m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



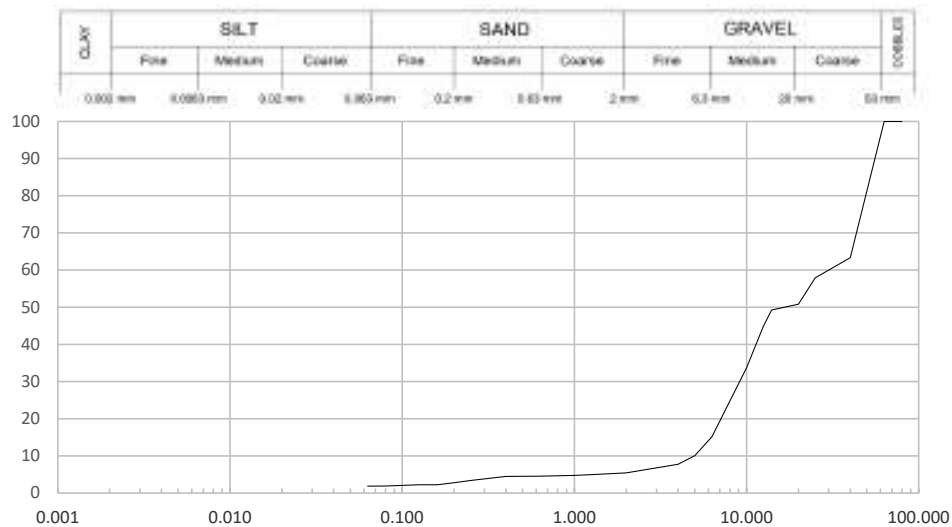
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.28
Fine Gravel	0.17
Coarse sand	0.57
Medium sand	54.58
Fine sand	23.95
Silt and Clay	20.46
Silt	10.78
Clay	9.68

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.72
5.00	99.72
4.00	99.62
2.00	99.56
1.25	99.39
1.00	99.24
0.630	98.98
0.400	98.14
0.250	64.12
0.200	44.40
0.160	24.69
0.125	24.51
0.080	20.54
0.063	20.46

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#528_A - B Specimen depth: 1.95 - 2.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



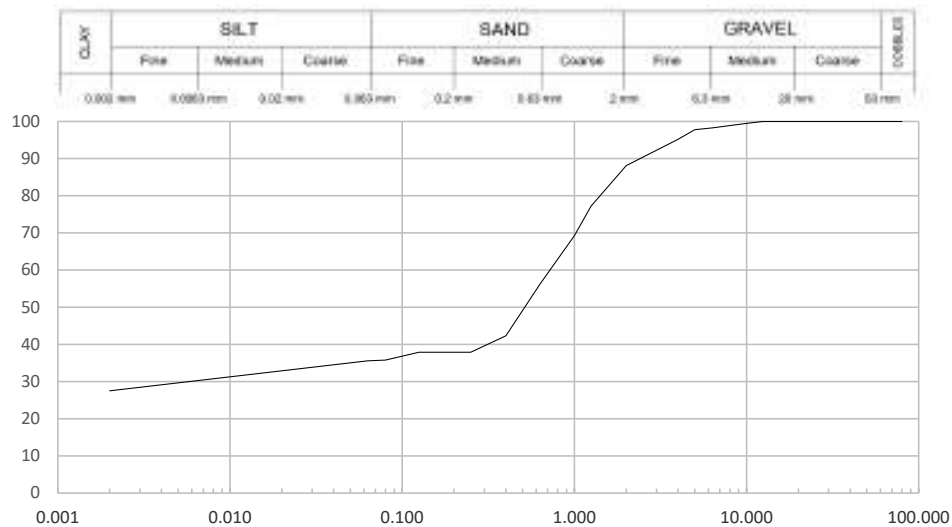
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	49.20
Medium Gravel	35.65
Fine Gravel	9.71
Coarse sand	0.88
Medium sand	1.74
Fine sand	0.94
Silt and Clay	1.87
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	63.33
25.0	57.91
20.0	50.80
14.0	49.29
12.5	44.85
10.0	33.75
6.3	15.15
5.00	10.06
4.00	7.74
2.00	5.44
1.25	4.95
1.00	4.74
0.630	4.56
0.400	4.46
0.250	3.40
0.200	2.81
0.160	2.23
0.125	2.21
0.080	1.89
0.063	1.87

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#475_Aa - A Specimen depth: 0.3 - 0.5m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



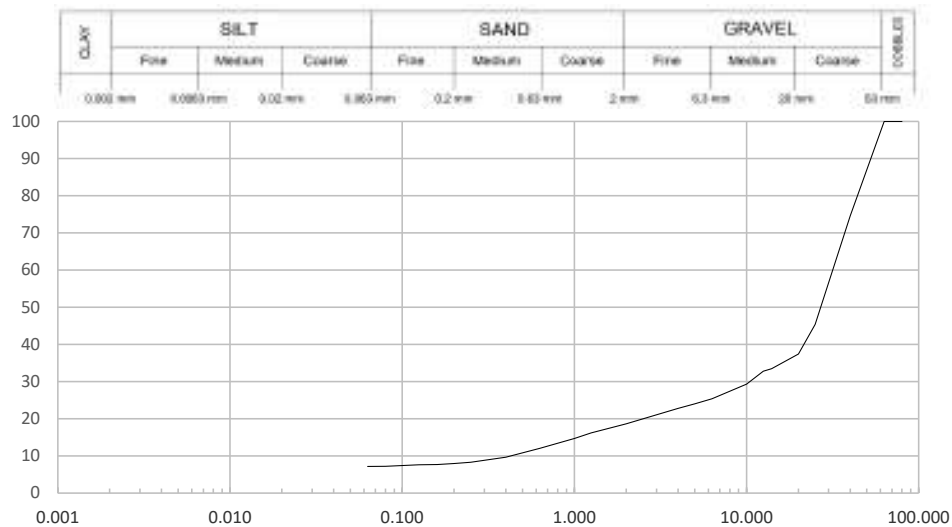
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.73
Fine Gravel	10.14
Coarse sand	31.97
Medium sand	18.23
Fine sand	2.34
Silt and Clay	35.58
Silt	8.06
Clay	27.52

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.45
6.3	98.27
5.00	97.75
4.00	95.20
2.00	88.13
1.25	77.24
1.00	69.28
0.630	56.15
0.400	42.31
0.250	37.93
0.200	37.93
0.160	37.92
0.125	37.91
0.080	35.78
0.063	35.58

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#475_Aa - A Specimen depth: 0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



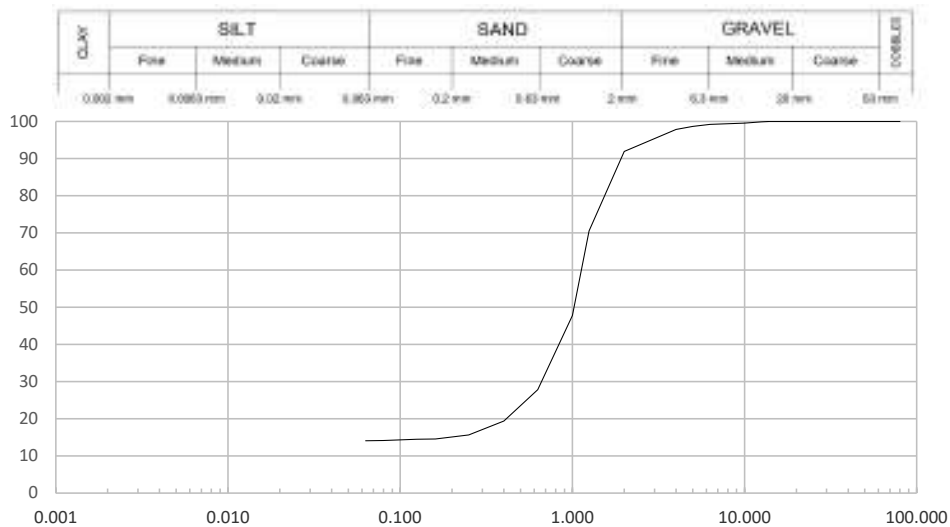
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	62.59
Medium Gravel	12.00
Fine Gravel	6.74
Coarse sand	6.65
Medium sand	4.02
Fine sand	0.82
Silt and Clay	7.17
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	74.65
25.0	45.37
20.0	37.41
14.0	33.50
12.5	32.78
10.0	29.34
6.3	25.41
5.00	24.04
4.00	22.78
2.00	18.67
1.25	16.19
1.00	14.68
0.630	12.02
0.400	9.64
0.250	8.33
0.200	7.99
0.160	7.65
0.125	7.65
0.080	7.21
0.063	7.17

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#VC_1 - E Specimen depth: 4 - 4.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



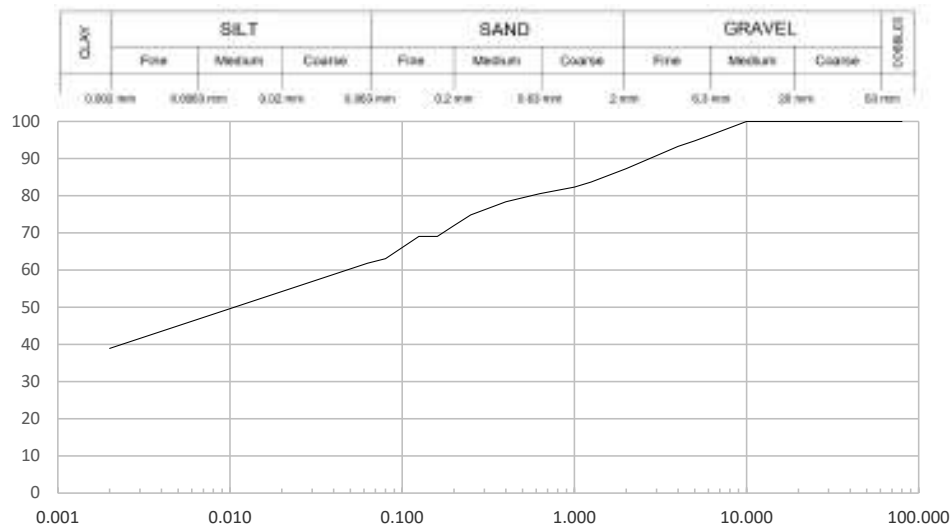
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.78
Fine Gravel	7.27
Coarse sand	64.14
Medium sand	12.71
Fine sand	1.02
Silt and Clay	14.08
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.91
10.0	99.56
6.3	99.22
5.00	98.65
4.00	97.83
2.00	91.95
1.25	70.58
1.00	47.75
0.630	27.81
0.400	19.39
0.250	15.63
0.200	15.10
0.160	14.57
0.125	14.49
0.080	14.14
0.063	14.08

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs
	Test date: 30/09/2022
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#256 - A
	Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



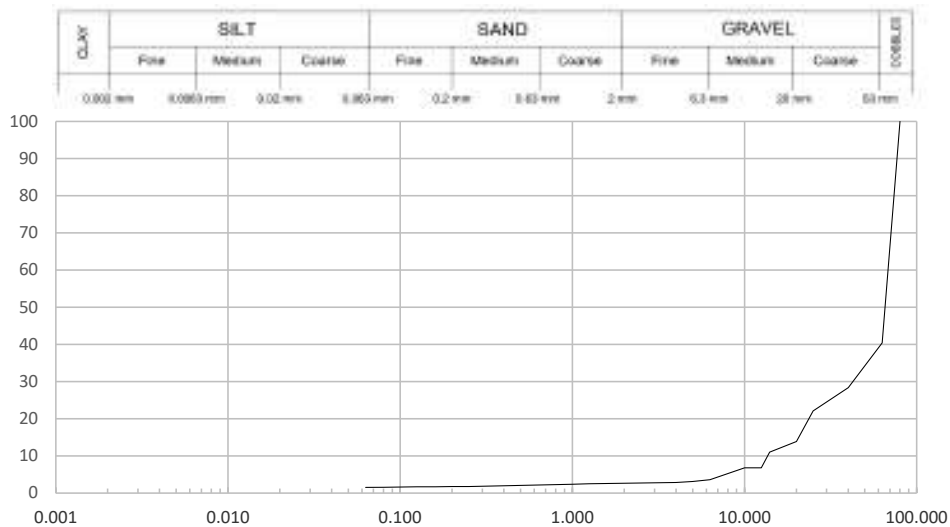
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	3.49
Fine Gravel	9.21
Coarse sand	6.77
Medium sand	8.57
Fine sand	10.13
Silt and Clay	61.85
Silt	22.92
Clay	38.93

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	96.51
5.00	94.78
4.00	93.29
2.00	87.31
1.25	83.67
1.00	82.32
0.630	80.54
0.400	78.38
0.250	74.86
0.200	71.98
0.160	69.09
0.125	69.08
0.080	63.04
0.063	61.85

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#468a - B Specimen depth: 1 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



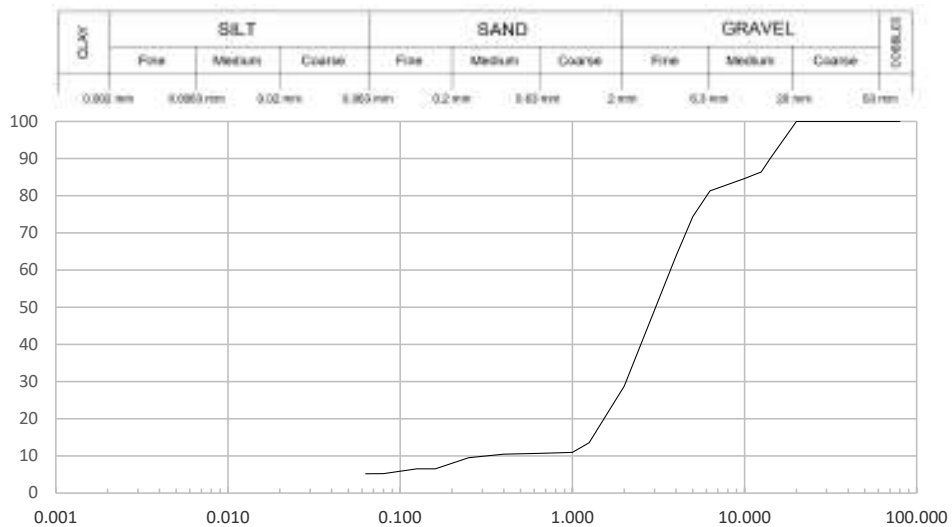
Particle Proportions (%)	
Cobbles	59.56
Coarse Gravel	26.58
Medium Gravel	69.79
Fine Gravel	58.55
Coarse sand	0.42
Medium sand	0.47
Fine sand	0.20
Silt and Clay	1.54
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	40.44
40	28.38
25.0	22.11
20.0	13.86
14.0	11.01
12.5	6.80
10.0	6.80
6.3	3.63
5.00	3.13
4.00	2.86
2.00	2.62
1.25	2.53
1.00	2.41
0.630	2.20
0.400	1.99
0.250	1.80
0.200	1.73
0.160	1.67
0.125	1.67
0.080	1.56
0.063	1.54

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#440_A - B Specimen depth: 1.1 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



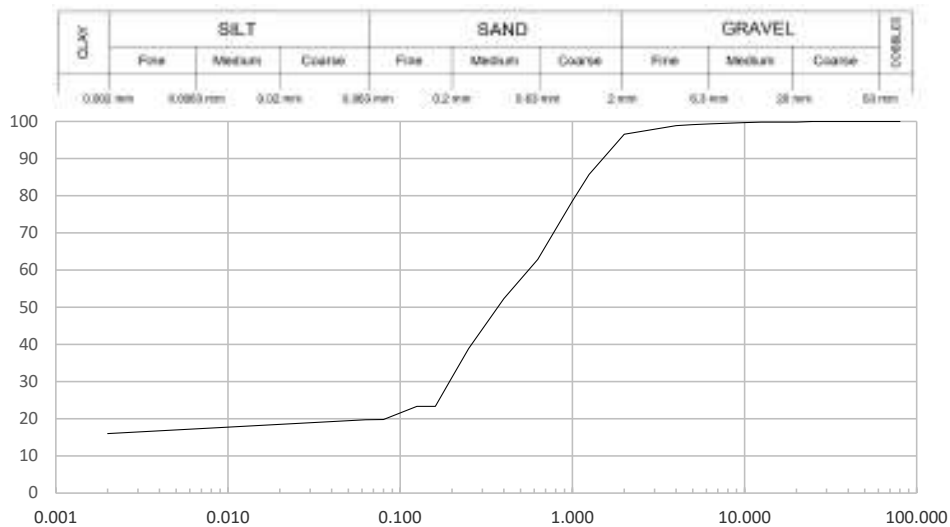
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	18.70
Fine Gravel	52.52
Coarse sand	18.11
Medium sand	2.64
Fine sand	2.83
Silt and Clay	5.20
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	89.83
12.5	86.43
10.0	84.64
6.3	81.30
5.00	74.38
4.00	63.79
2.00	28.78
1.25	13.57
1.00	10.93
0.630	10.67
0.400	10.48
0.250	9.55
0.200	8.03
0.160	6.51
0.125	6.50
0.080	5.24
0.063	5.20

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#VC4_A - C Specimen depth: 1.7 - 1.9m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



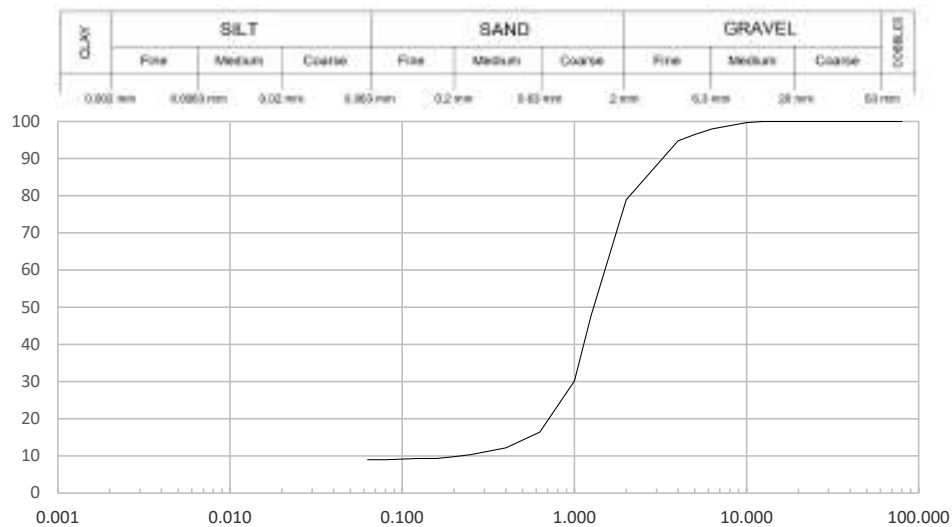
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.21
Medium Gravel	0.43
Fine Gravel	2.79
Coarse sand	33.68
Medium sand	31.75
Fine sand	11.43
Silt and Clay	19.71
Silt	3.70
Clay	16.01

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	99.79
14.0	99.79
12.5	99.79
10.0	99.68
6.3	99.36
5.00	99.13
4.00	98.87
2.00	96.58
1.25	85.72
1.00	78.59
0.630	62.89
0.400	52.31
0.250	38.94
0.200	31.14
0.160	23.34
0.125	23.33
0.080	19.81
0.063	19.71

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#425 - C Specimen depth: 2 - 2.17m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



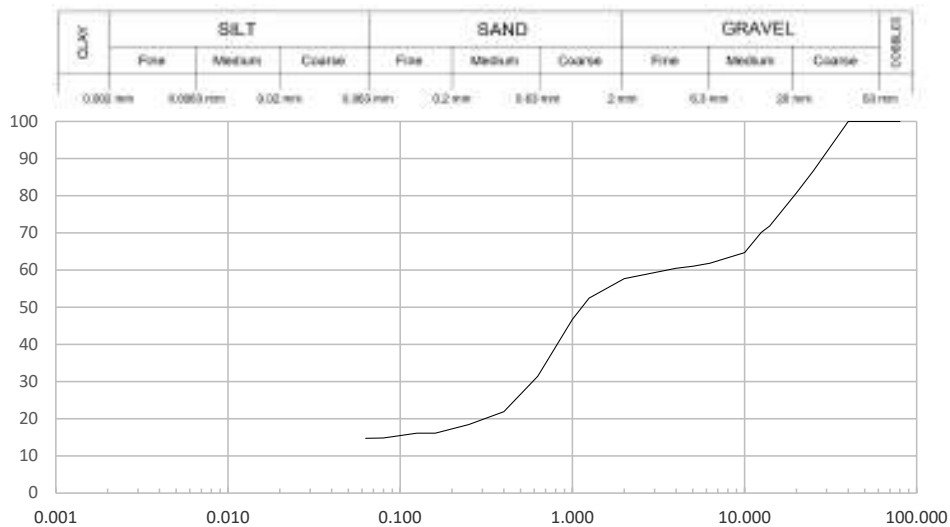
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.05
Fine Gravel	19.02
Coarse sand	62.54
Medium sand	6.57
Fine sand	0.83
Silt and Clay	8.98
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.65
6.3	97.95
5.00	96.46
4.00	94.78
2.00	78.93
1.25	47.73
1.00	30.12
0.630	16.39
0.400	12.20
0.250	10.33
0.200	9.82
0.160	9.31
0.125	9.30
0.080	9.00
0.063	8.98

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>30/09/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#478_A - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0 - 0.12m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	30/09/2022	PointId - Sample:	EC GI#478_A - A	Specimen depth:	0 - 0.12m
Sampling date:	See VC logs								
Test date:	30/09/2022								
PointId - Sample:	EC GI#478_A - A								
Specimen depth:	0 - 0.12m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



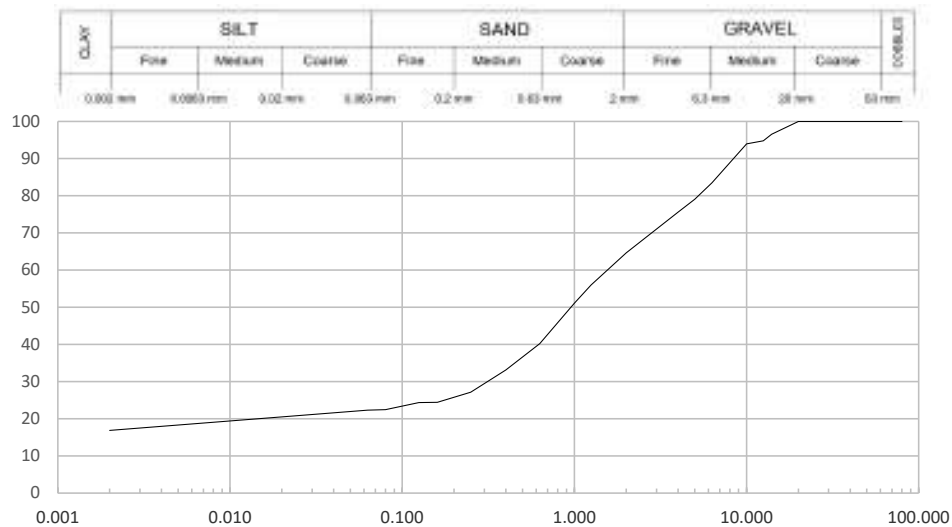
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	19.21
Medium Gravel	18.94
Fine Gravel	4.16
Coarse sand	26.23
Medium sand	14.19
Fine sand	2.53
Silt and Clay	14.74
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	86.60
20.0	80.79
14.0	71.85
12.5	70.13
10.0	64.72
6.3	61.85
5.00	61.05
4.00	60.46
2.00	57.69
1.25	52.47
1.00	46.77
0.630	31.46
0.400	21.90
0.250	18.43
0.200	17.27
0.160	16.11
0.125	16.10
0.080	14.82
0.063	14.74

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#478_Aa - A Specimen depth: 0.5 - 0.65m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



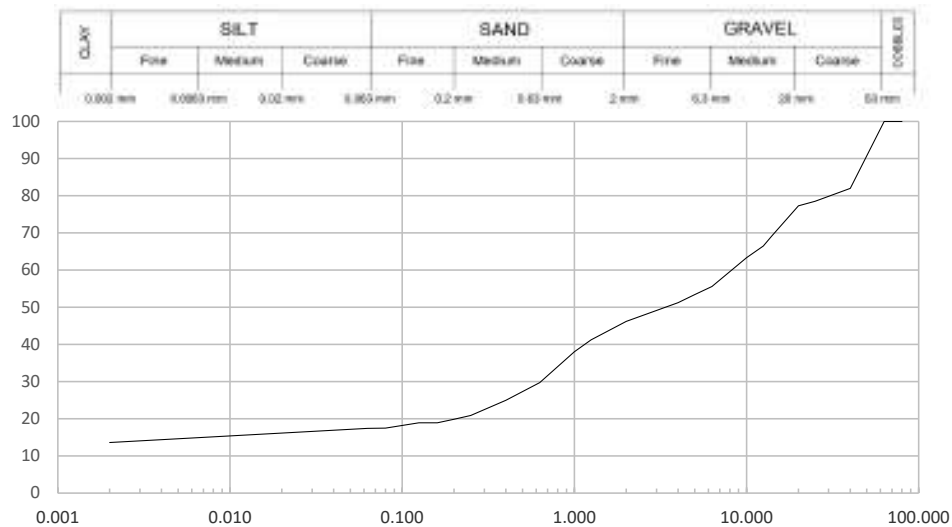
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	16.50
Fine Gravel	18.83
Coarse sand	24.49
Medium sand	14.41
Fine sand	3.46
Silt and Clay	22.31
Silt	5.44
Clay	16.87

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	96.53
12.5	94.80
10.0	93.98
6.3	83.50
5.00	79.10
4.00	75.62
2.00	64.67
1.25	56.02
1.00	51.08
0.630	40.18
0.400	33.15
0.250	27.13
0.200	25.77
0.160	24.41
0.125	24.38
0.080	22.44
0.063	22.31

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#478_A - A
		Specimen depth:	0.3 - 0.45m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



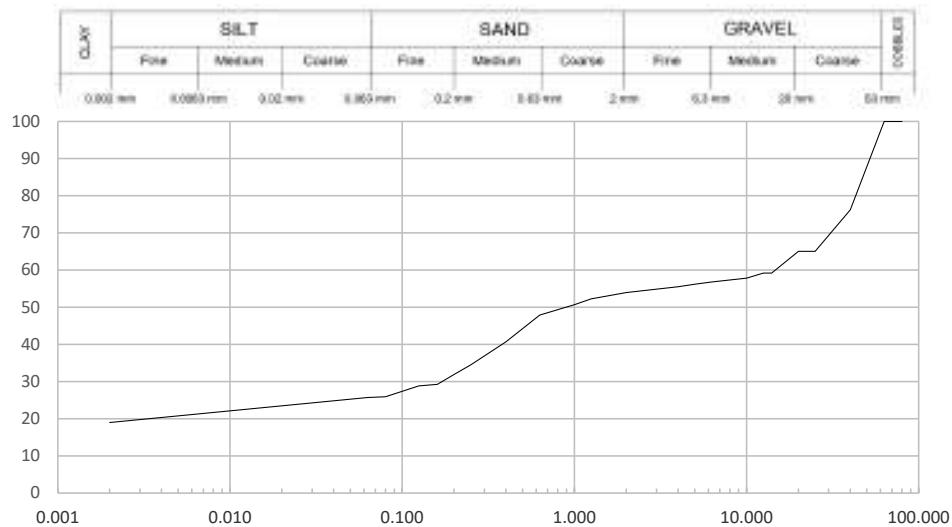
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	22.73
Medium Gravel	21.64
Fine Gravel	9.41
Coarse sand	16.48
Medium sand	9.84
Fine sand	2.49
Silt and Clay	17.40
Silt	3.79
Clay	13.61

Sieve (mm)	% Pass
80	100.00
63	100.00
40	81.99
25.0	78.55
20.0	77.27
14.0	69.16
12.5	66.47
10.0	63.35
6.3	55.62
5.00	53.38
4.00	51.27
2.00	46.21
1.25	41.25
1.00	38.01
0.630	29.73
0.400	24.96
0.250	20.86
0.200	19.89
0.160	18.92
0.125	18.90
0.080	17.49
0.063	17.40

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#468 - B Specimen depth: 1.95 - 2.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



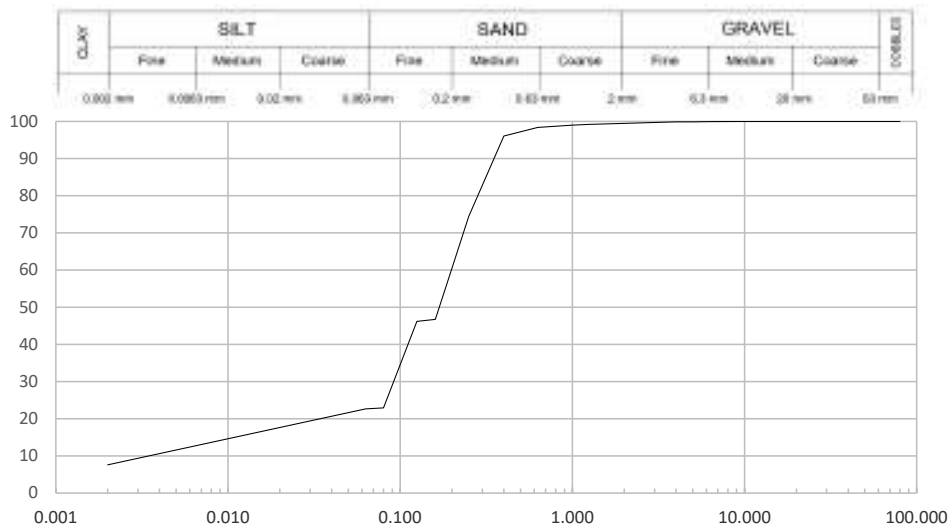
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	34.98
Medium Gravel	8.21
Fine Gravel	2.85
Coarse sand	6.09
Medium sand	15.97
Fine sand	6.17
Silt and Clay	25.73
Silt	6.74
Clay	18.99

Sieve (mm)	% Pass
80	100.00
63	100.00
40	76.23
25.0	65.02
20.0	65.02
14.0	59.19
12.5	59.19
10.0	57.85
6.3	56.81
5.00	56.23
4.00	55.54
2.00	53.96
1.25	52.23
1.00	50.66
0.630	47.87
0.400	40.67
0.250	34.51
0.200	31.90
0.160	29.29
0.125	28.84
0.080	25.93
0.063	25.73

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#VC_1 - C
		Specimen depth:	2 - 2.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.03
Fine Gravel	0.48
Coarse sand	1.11
Medium sand	37.81
Fine sand	37.90
Silt and Clay	22.68
Silt	15.08
Clay	7.60

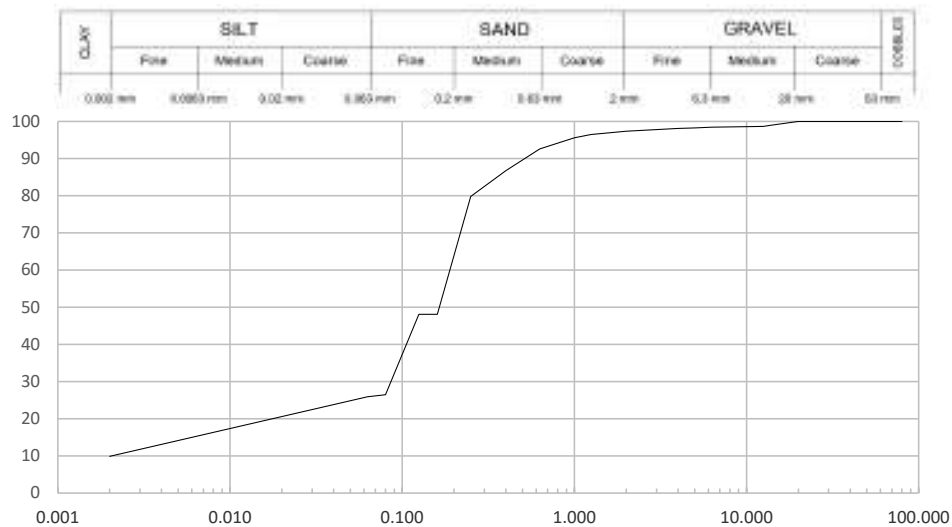
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.97
5.00	99.91
4.00	99.87
2.00	99.50
1.25	99.18
1.00	98.98
0.630	98.39
0.400	96.09
0.250	74.41
0.200	60.58
0.160	46.75
0.125	46.21
0.080	22.96
0.063	22.68

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#425 - D
		Specimen depth:	3.85 - 4m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.56
Fine Gravel	1.06
Coarse sand	4.75
Medium sand	28.67
Fine sand	38.02
Silt and Clay	25.94
Silt	16.05
Clay	9.89

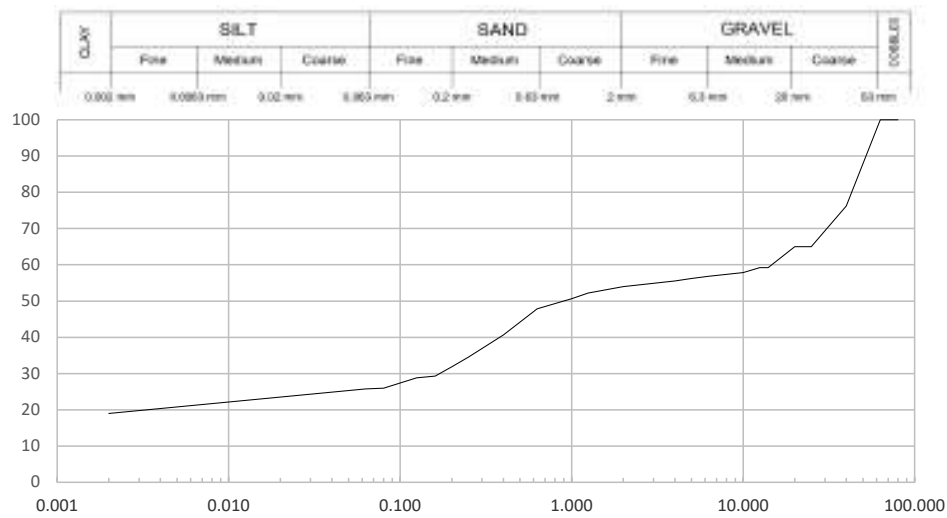
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.03
12.5	98.68
10.0	98.61
6.3	98.44
5.00	98.25
4.00	98.14
2.00	97.38
1.25	96.46
1.00	95.59
0.630	92.63
0.400	86.72
0.250	79.80
0.200	63.97
0.160	48.14
0.125	48.13
0.080	26.48
0.063	25.94

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#468 - B
		Specimen depth:	1.95 - 2.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	34.98
Medium Gravel	8.21
Fine Gravel	2.85
Coarse sand	6.09
Medium sand	15.97
Fine sand	6.17
Silt and Clay	25.73
Silt	6.74
Clay	18.99

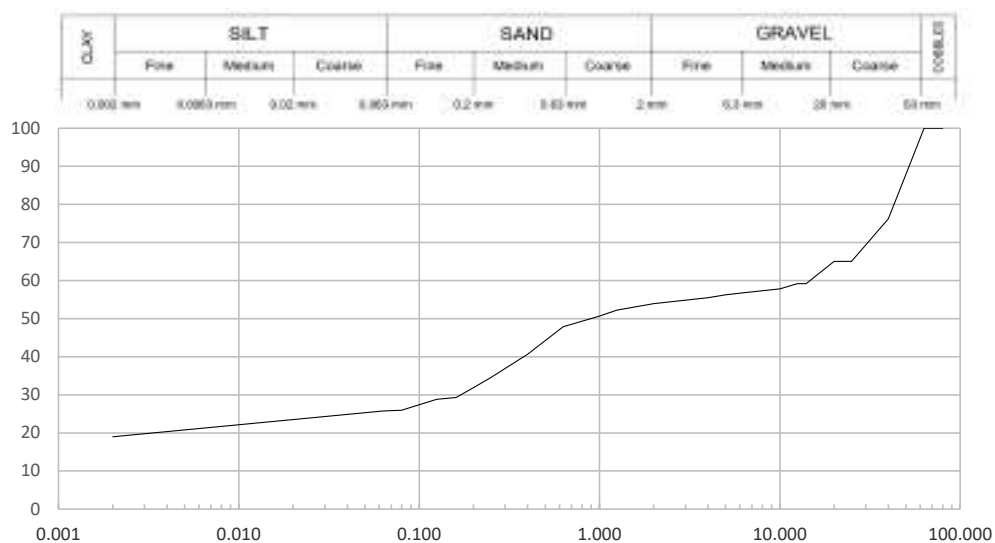
Sieve (mm)	% Pass
80	100.00
63	100.00
40	76.23
25.0	65.02
20.0	65.02
14.0	59.19
12.5	59.19
10.0	57.85
6.3	56.81
5.00	56.23
4.00	55.54
2.00	53.96
1.25	52.23
1.00	50.66
0.630	47.87
0.400	40.67
0.250	34.51
0.200	31.90
0.160	29.29
0.125	28.84
0.080	25.93
0.063	25.73

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente
PROJECT: RTE Export Cable A05

Sampling date: See VC logs
Test date: 30/09/2022
PointId - Sample: EC GI#468 - B
Specimen depth: 1.95 - 2.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



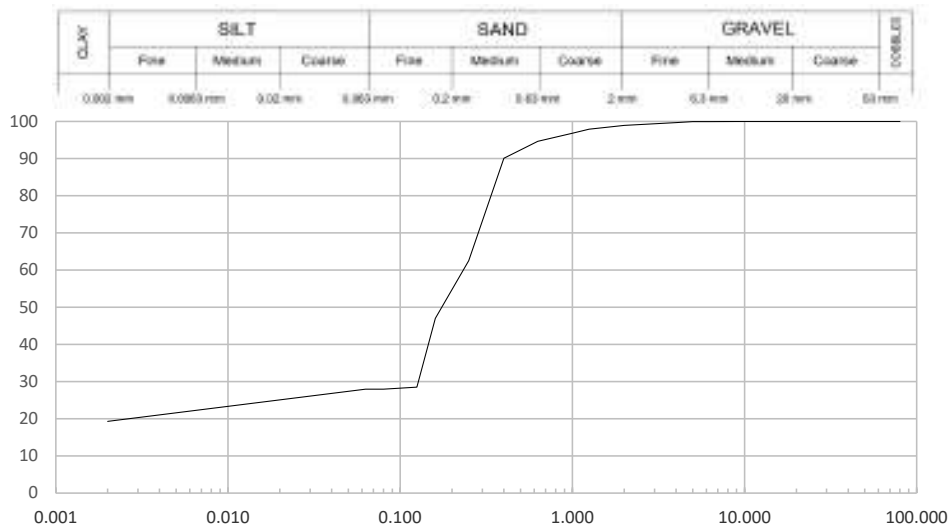
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	34.98
Medium Gravel	8.21
Fine Gravel	2.85
Coarse sand	6.09
Medium sand	15.97
Fine sand	6.17
Silt and Clay	25.73
Silt	6.74
Clay	18.99

Sieve (mm)	% Pass
80	100.00
63	100.00
40	76.23
25.0	65.02
20.0	65.02
14.0	59.19
12.5	59.19
10.0	57.85
6.3	56.81
5.00	56.23
4.00	55.54
2.00	53.96
1.25	52.23
1.00	50.66
0.630	47.87
0.400	40.67
0.250	34.51
0.200	31.90
0.160	29.29
0.125	28.84
0.080	25.93
0.063	25.73

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 30/09/2022 PointId - Sample: EC GI#VC_1 - B Specimen depth: 1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



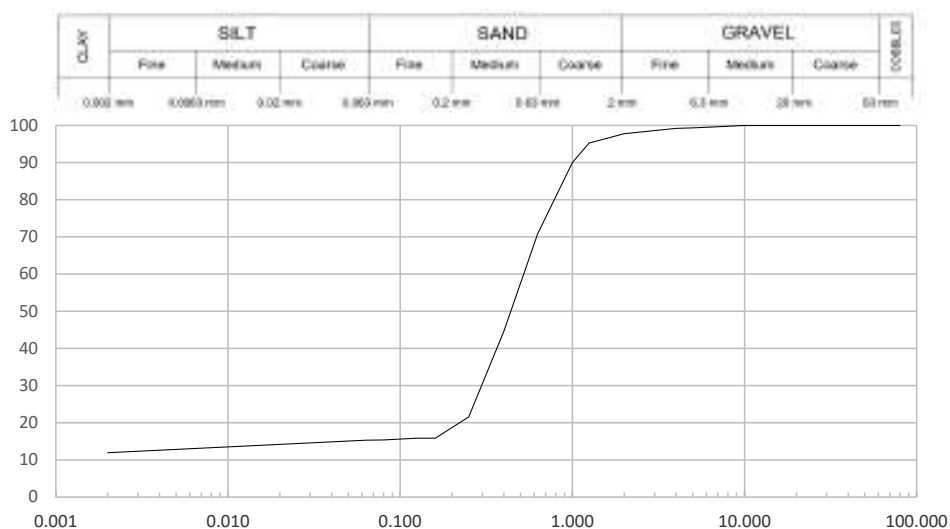
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.04
Fine Gravel	1.04
Coarse sand	4.25
Medium sand	39.87
Fine sand	26.84
Silt and Clay	27.96
Silt	8.66
Clay	19.30

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.96
5.00	99.94
4.00	99.70
2.00	98.92
1.25	97.88
1.00	96.84
0.630	94.67
0.400	90.12
0.250	62.55
0.200	54.80
0.160	47.04
0.125	28.49
0.080	27.96
0.063	27.96

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	30/09/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#334_A - E
		Specimen depth:	4 - 4.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



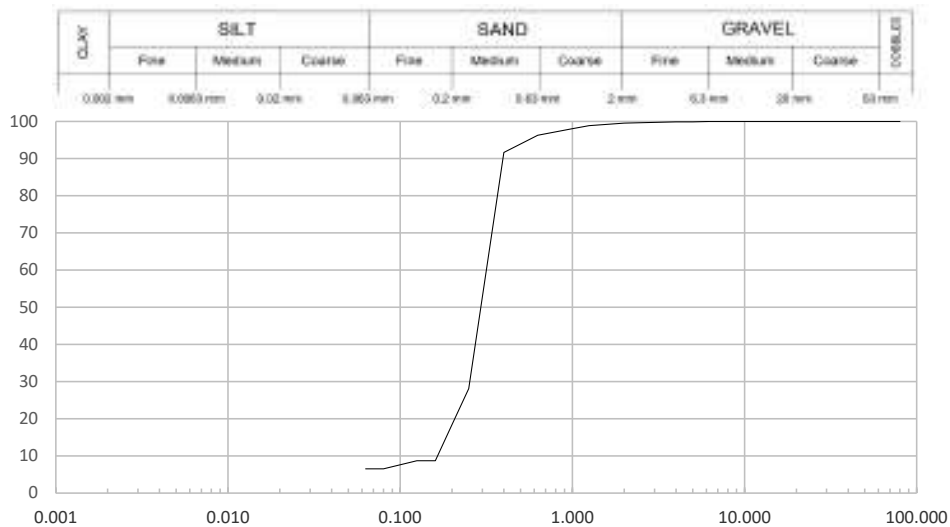
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.48
Fine Gravel	1.73
Coarse sand	26.90
Medium sand	52.16
Fine sand	3.43
Silt and Clay	15.30
Silt	3.36
Clay	11.94

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.52
5.00	99.37
4.00	99.21
2.00	97.79
1.25	95.24
1.00	90.05
0.630	70.89
0.400	44.61
0.250	21.60
0.200	18.73
0.160	15.86
0.125	15.86
0.080	15.34
0.063	15.30

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#334_A - D Specimen depth: 3 - 3.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



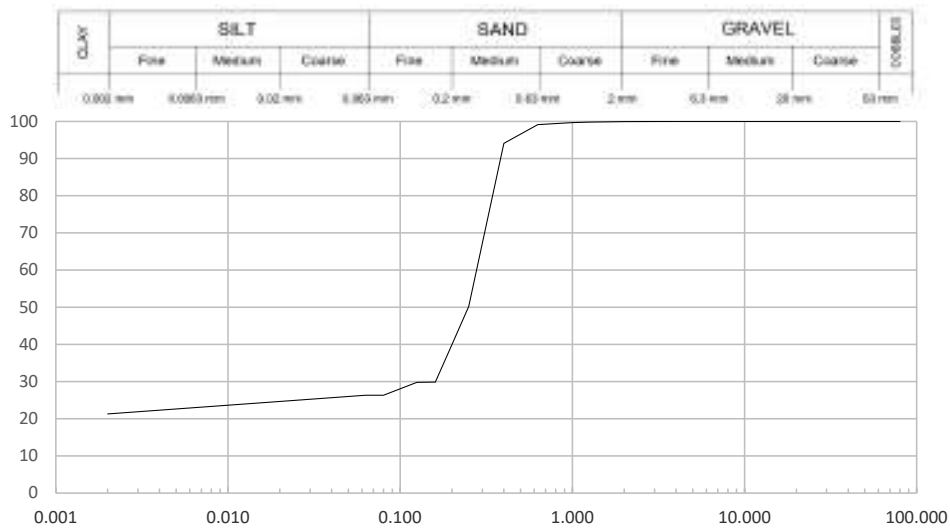
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.43
Coarse sand	3.31
Medium sand	77.83
Fine sand	11.91
Silt and Clay	6.53
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.88
4.00	99.86
2.00	99.57
1.25	98.85
1.00	98.04
0.630	96.26
0.400	91.68
0.250	28.13
0.200	18.44
0.160	8.74
0.125	8.72
0.080	6.56
0.063	6.53

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	03/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#334_A - C
		Specimen depth:	2 - 2.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.05
Coarse sand	0.80
Medium sand	59.11
Fine sand	13.73
Silt and Clay	26.31
Silt	5.01
Clay	21.30

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.95
1.25	99.83
1.00	99.68
0.630	99.15
0.400	94.12
0.250	50.23
0.200	40.04
0.160	29.85
0.125	29.79
0.080	26.36
0.063	26.31

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A05

Sampling date:

Test date:

PointId - Sample:

Specimen depth:

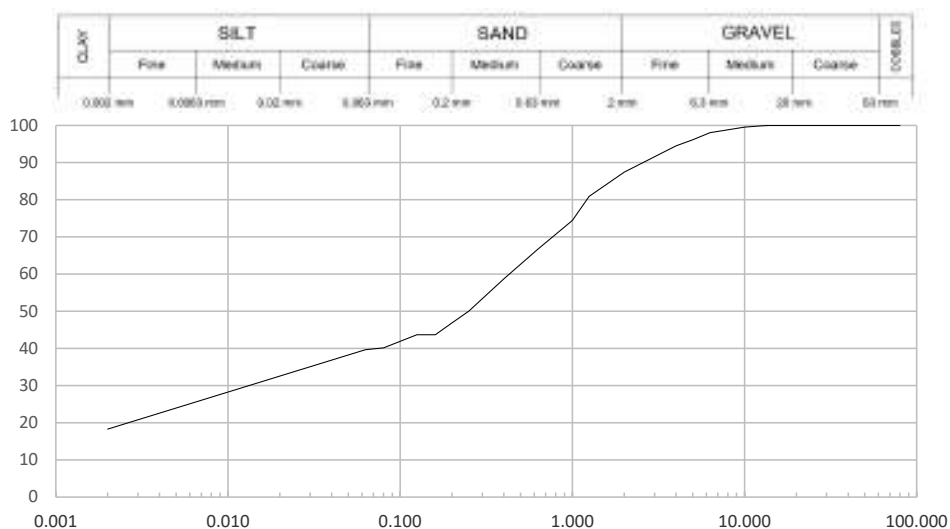
See VC logs

03/10/2022

EC GI#10_Aa - A

0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



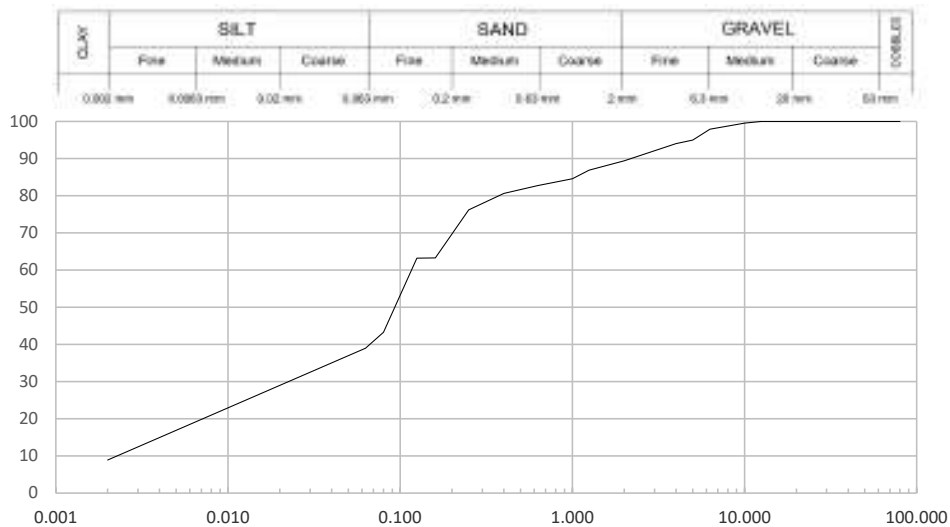
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.95
Fine Gravel	10.63
Coarse sand	20.75
Medium sand	19.82
Fine sand	7.21
Silt and Clay	39.65
Silt	21.36
Clay	18.29

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.91
10.0	99.57
6.3	98.05
5.00	96.13
4.00	94.52
2.00	87.43
1.25	80.92
1.00	74.43
0.630	66.68
0.400	58.72
0.250	50.04
0.200	46.86
0.160	43.68
0.125	43.65
0.080	40.15
0.063	39.65

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs	
	Test date: 03/10/2022	
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#257 - A	
	Specimen depth: 0 - 0.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



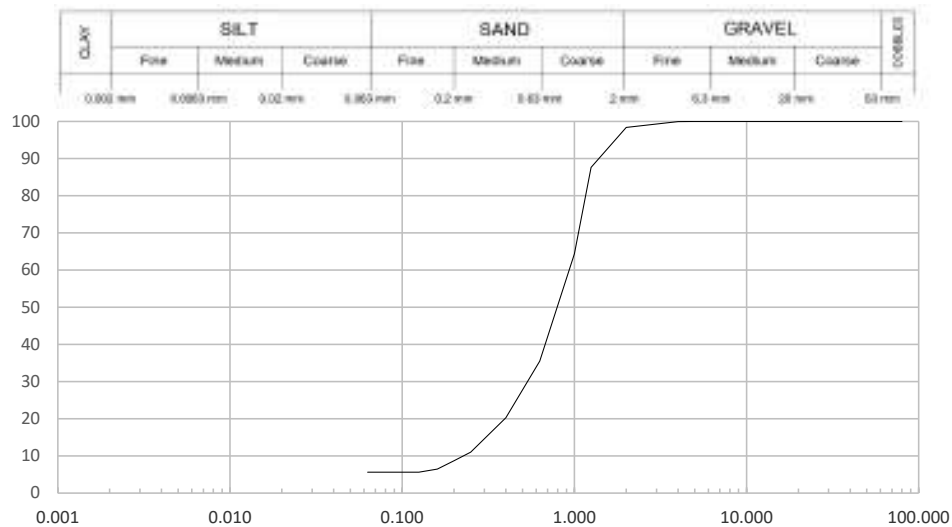
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.08
Fine Gravel	8.49
Coarse sand	6.67
Medium sand	13.01
Fine sand	30.79
Silt and Clay	38.96
Silt	30.06
Clay	8.90

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.56
6.3	97.92
5.00	95.01
4.00	94.01
2.00	89.43
1.25	86.87
1.00	84.55
0.630	82.76
0.400	80.61
0.250	76.22
0.200	69.75
0.160	63.27
0.125	63.24
0.080	43.30
0.063	38.96

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#336 - B Specimen depth: 1 - 1.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	1.59
Coarse sand	62.90
Medium sand	26.79
Fine sand	3.09
Silt and Clay	5.63
Silt	
Clay	

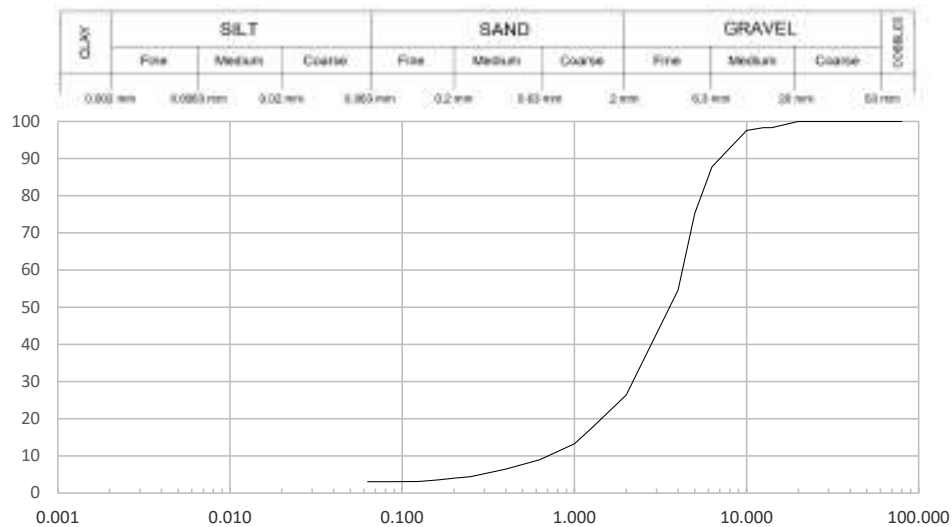
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.97
2.00	98.41
1.25	87.63
1.00	64.39
0.630	35.51
0.400	20.27
0.250	10.99
0.200	8.71
0.160	6.44
0.125	5.63
0.080	5.63
0.063	5.63

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	03/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#253 - B
		Specimen depth:	1.85 - 1.95m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



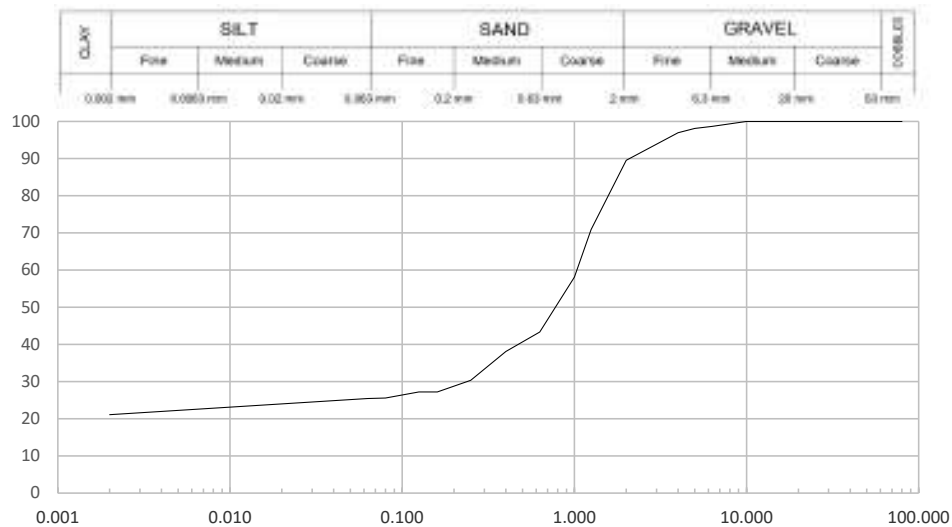
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	12.24
Fine Gravel	61.34
Coarse sand	17.42
Medium sand	5.02
Fine sand	0.90
Silt and Clay	3.08
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	98.34
12.5	98.34
10.0	97.55
6.3	87.76
5.00	75.25
4.00	54.66
2.00	26.41
1.25	17.33
1.00	13.24
0.630	9.00
0.400	6.46
0.250	4.44
0.200	3.98
0.160	3.52
0.125	3.10
0.080	3.08
0.063	3.08

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs	
	Test date: 03/10/2022	
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#256 - B	
	Specimen depth: 1 - 1.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



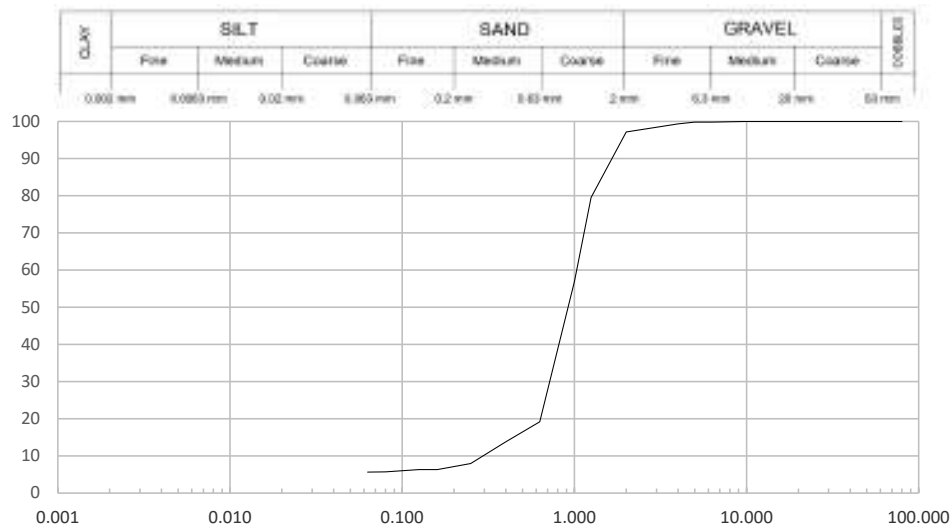
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.36
Fine Gravel	9.10
Coarse sand	46.17
Medium sand	14.57
Fine sand	3.38
Silt and Clay	25.42
Silt	4.32
Clay	21.10

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	98.64
5.00	98.12
4.00	96.95
2.00	89.54
1.25	70.91
1.00	58.14
0.630	43.37
0.400	38.08
0.250	30.37
0.200	28.80
0.160	27.22
0.125	27.22
0.080	25.58
0.063	25.42

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	03/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#512 - B
		Specimen depth:	1.4 - 1.5m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



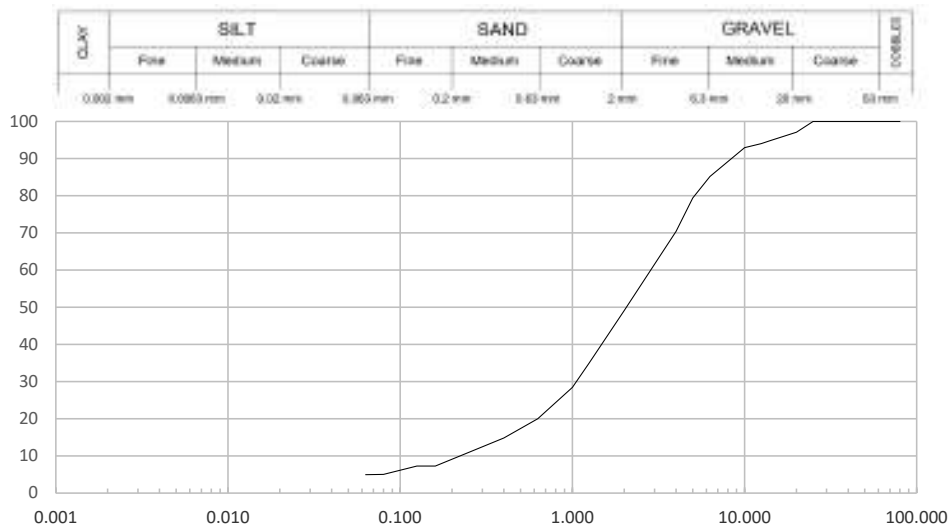
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.15
Fine Gravel	2.67
Coarse sand	77.99
Medium sand	12.06
Fine sand	1.48
Silt and Clay	5.65
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.85
5.00	99.85
4.00	99.36
2.00	97.19
1.25	79.56
1.00	56.90
0.630	19.20
0.400	13.82
0.250	7.94
0.200	7.14
0.160	6.33
0.125	6.32
0.080	5.70
0.063	5.65

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#258 - C Specimen depth: 1.32 - 1.47m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



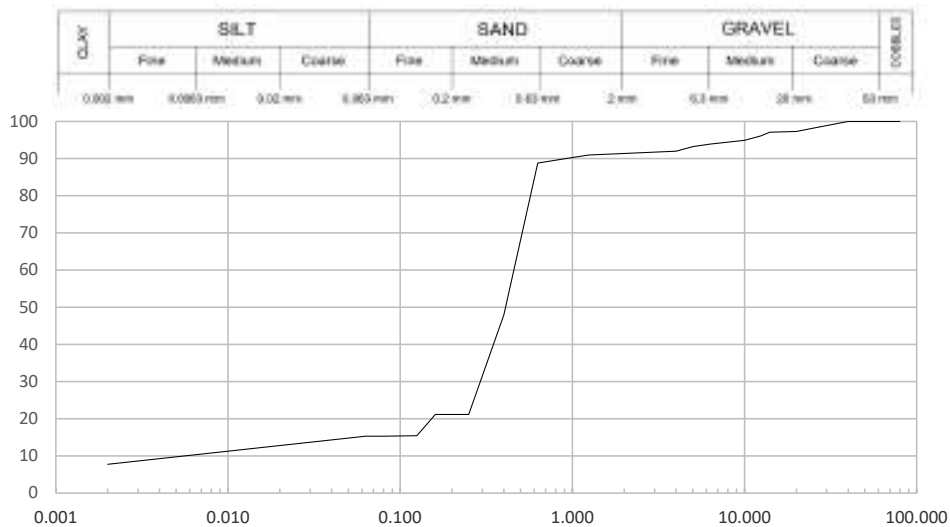
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	2.87
Medium Gravel	11.93
Fine Gravel	36.05
Coarse sand	29.13
Medium sand	10.90
Fine sand	4.16
Silt and Clay	4.96
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	97.13
14.0	94.76
12.5	94.05
10.0	92.91
6.3	85.20
5.00	79.39
4.00	70.42
2.00	49.15
1.25	34.95
1.00	28.43
0.630	20.02
0.400	14.80
0.250	10.92
0.200	9.12
0.160	7.31
0.125	7.31
0.080	5.03
0.063	4.96

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#334_A - C Specimen depth: 2 - 2.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



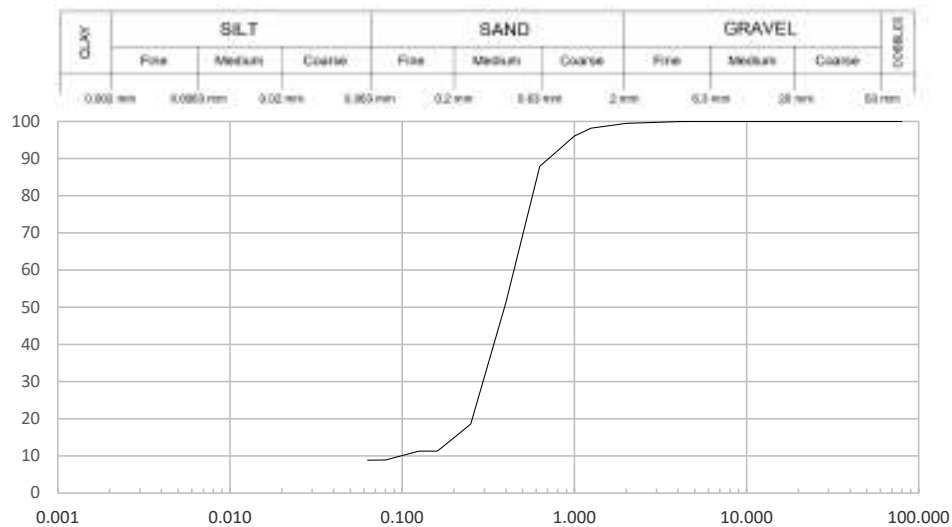
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	2.69
Medium Gravel	3.39
Fine Gravel	2.53
Coarse sand	2.61
Medium sand	67.60
Fine sand	5.85
Silt and Clay	15.33
Silt	7.58
Clay	7.75

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	98.20
20.0	97.31
14.0	97.09
12.5	96.16
10.0	94.89
6.3	93.92
5.00	93.21
4.00	92.02
2.00	91.39
1.25	90.99
1.00	90.28
0.630	88.78
0.400	47.99
0.250	21.19
0.200	21.17
0.160	21.15
0.125	15.43
0.080	15.34
0.063	15.33

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#252 - C Specimen depth: 1.87 - 2.02m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



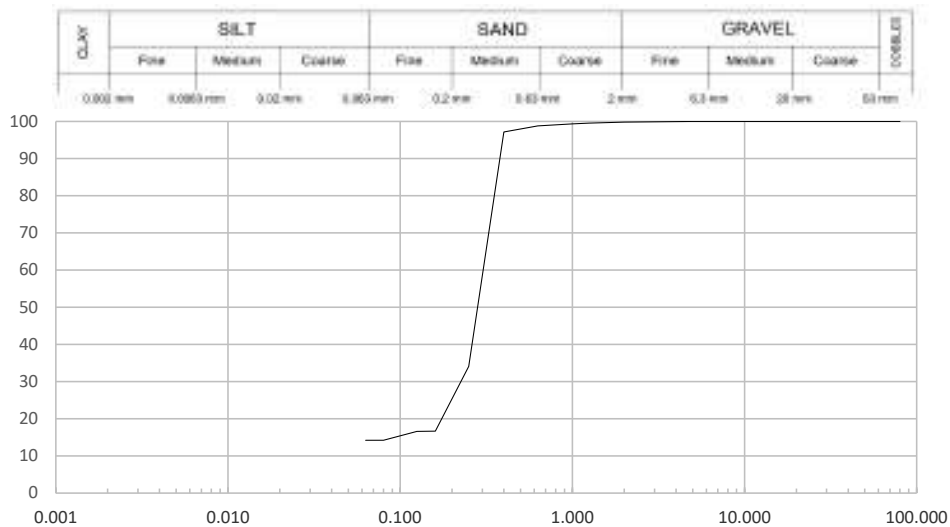
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.51
Coarse sand	11.57
Medium sand	72.98
Fine sand	6.09
Silt and Clay	8.85
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.96
2.00	99.49
1.25	98.18
1.00	96.08
0.630	87.91
0.400	51.24
0.250	18.57
0.200	14.93
0.160	11.30
0.125	11.27
0.080	8.91
0.063	8.85

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#334_A - B Specimen depth: 1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



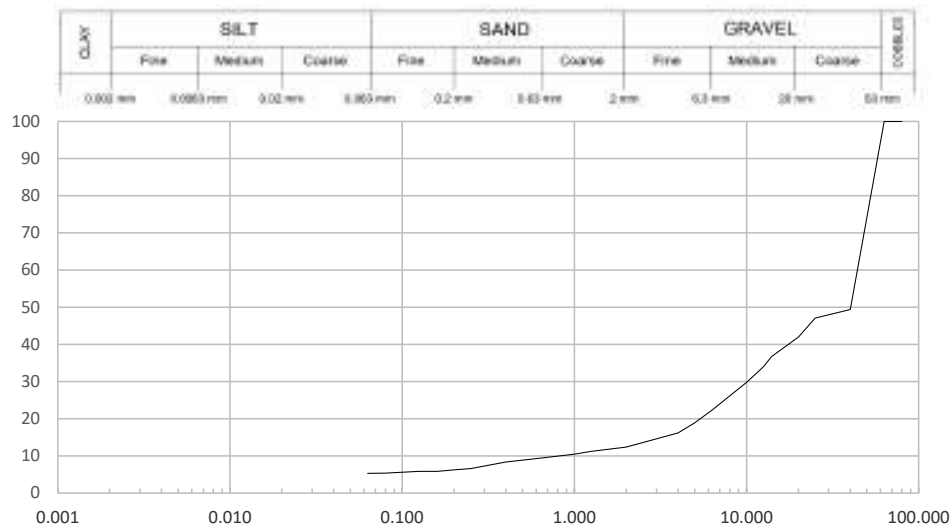
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.21
Coarse sand	0.97
Medium sand	73.43
Fine sand	11.17
Silt and Clay	14.21
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.96
2.00	99.79
1.25	99.54
1.00	99.33
0.630	98.82
0.400	97.18
0.250	34.12
0.200	25.39
0.160	16.65
0.125	16.63
0.080	14.24
0.063	14.21

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 03/10/2022 PointId - Sample: EC GI#253 - C Specimen depth: 2 - 2.3m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



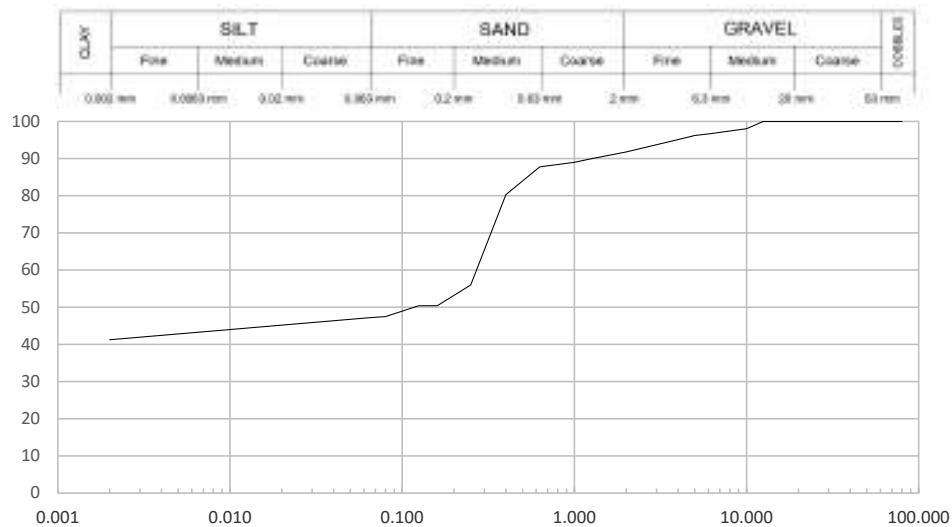
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	58.03
Medium Gravel	19.67
Fine Gravel	9.89
Coarse sand	3.01
Medium sand	3.17
Fine sand	0.92
Silt and Clay	5.32
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	49.41
25.0	47.06
20.0	41.97
14.0	36.75
12.5	33.94
10.0	29.82
6.3	22.30
5.00	18.92
4.00	16.17
2.00	12.41
1.25	11.22
1.00	10.46
0.630	9.40
0.400	8.33
0.250	6.62
0.200	6.24
0.160	5.86
0.125	5.85
0.080	5.35
0.063	5.32

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	06/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#257 - B
		Specimen depth:	0.75 - 0.9m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



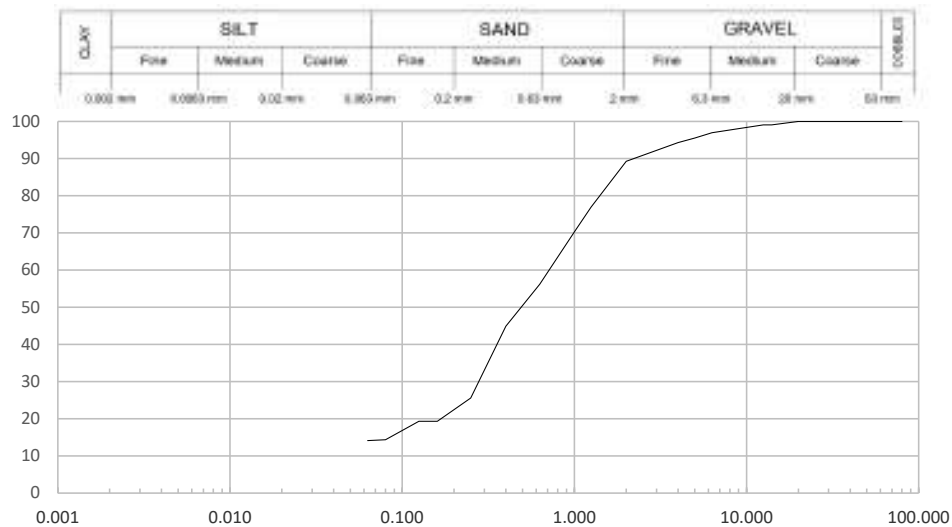
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	3.26
Fine Gravel	4.92
Coarse sand	4.01
Medium sand	34.58
Fine sand	6.08
Silt and Clay	47.14
Silt	5.88
Clay	41.26

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	98.03
6.3	96.74
5.00	96.25
4.00	95.12
2.00	91.82
1.25	89.98
1.00	89.00
0.630	87.81
0.400	80.26
0.250	56.00
0.200	53.23
0.160	50.45
0.125	50.42
0.080	47.46
0.063	47.14

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 06/10/2022 PointId - Sample: EC GI#517 - B Specimen depth: 1.3 - 1.5m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



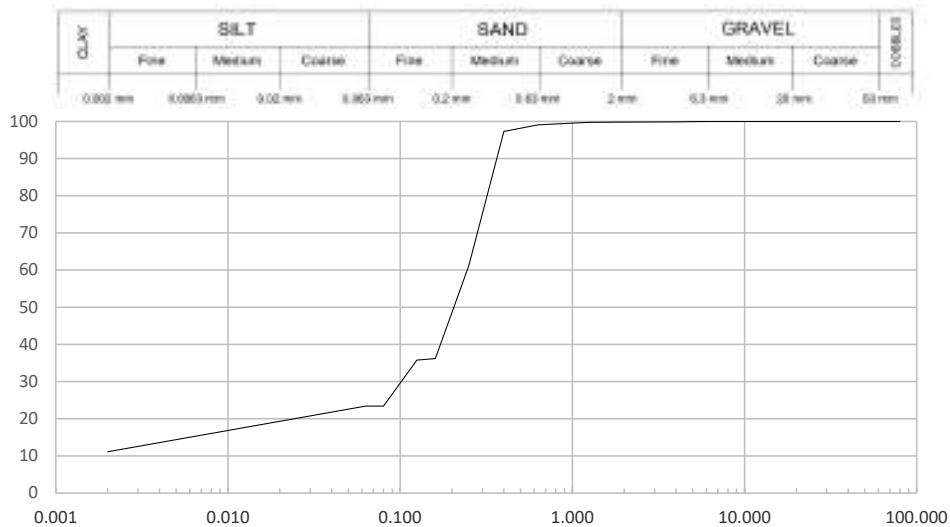
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	3.06
Fine Gravel	7.64
Coarse sand	33.10
Medium sand	33.75
Fine sand	8.33
Silt and Clay	14.13
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.06
12.5	99.06
10.0	98.38
6.3	96.94
5.00	95.53
4.00	94.31
2.00	89.31
1.25	76.98
1.00	70.31
0.630	56.20
0.400	44.93
0.250	25.60
0.200	22.46
0.160	19.31
0.125	19.31
0.080	14.32
0.063	14.13

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>06/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#342_A - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1 - 1.1m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	06/10/2022	PointId - Sample:	EC GI#342_A - B	Specimen depth:	1 - 1.1m
Sampling date:	See VC logs								
Test date:	06/10/2022								
PointId - Sample:	EC GI#342_A - B								
Specimen depth:	1 - 1.1m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



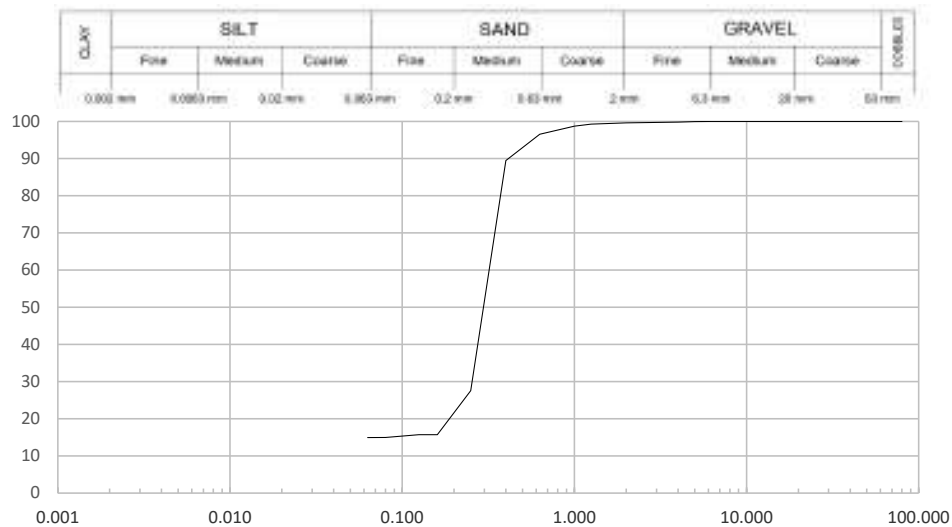
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.16
Coarse sand	0.75
Medium sand	50.42
Fine sand	25.29
Silt and Clay	23.38
Silt	12.26
Clay	11.12

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.93
4.00	99.91
2.00	99.84
1.25	99.73
1.00	99.57
0.630	99.09
0.400	97.33
0.250	61.13
0.200	48.67
0.160	36.20
0.125	35.81
0.080	23.40
0.063	23.38

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>06/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#338 - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1.8 - 2m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	06/10/2022	PointId - Sample:	EC GI#338 - B	Specimen depth:	1.8 - 2m
Sampling date:	See VC logs								
Test date:	06/10/2022								
PointId - Sample:	EC GI#338 - B								
Specimen depth:	1.8 - 2m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



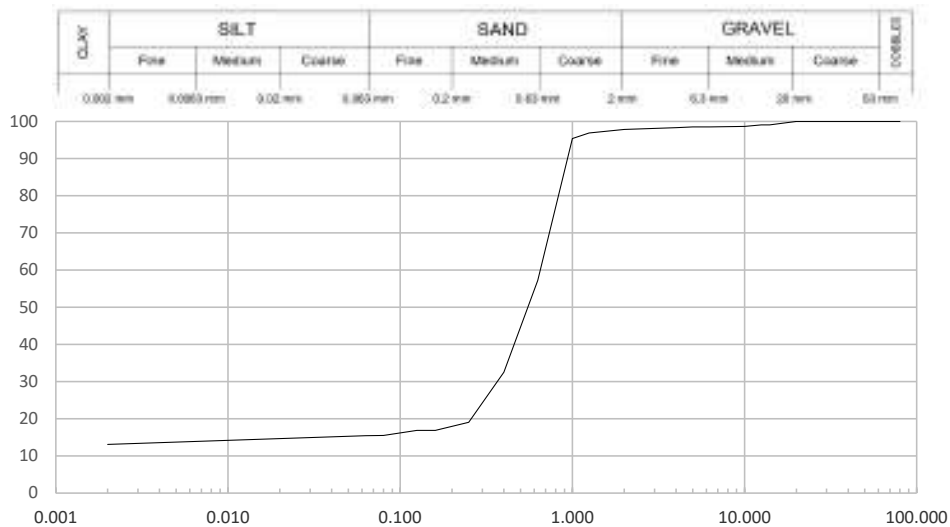
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.36
Coarse sand	3.12
Medium sand	74.90
Fine sand	6.68
Silt and Clay	14.94
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.93
4.00	99.82
2.00	99.64
1.25	99.30
1.00	98.74
0.630	96.52
0.400	89.49
0.250	27.53
0.200	21.62
0.160	15.71
0.125	15.69
0.080	14.97
0.063	14.94

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 06/10/2022 PointId - Sample: EC GI#VC_1 - D Specimen depth: 3 - 3.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



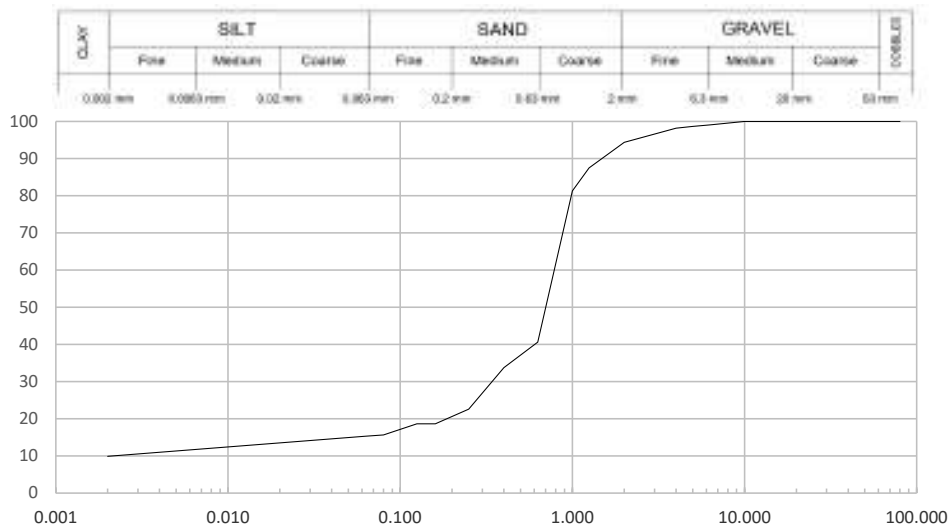
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.47
Fine Gravel	0.70
Coarse sand	40.58
Medium sand	39.28
Fine sand	2.52
Silt and Clay	15.45
Silt	2.35
Clay	13.10

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.08
12.5	99.08
10.0	98.68
6.3	98.53
5.00	98.49
4.00	98.33
2.00	97.83
1.25	96.88
1.00	95.37
0.630	57.25
0.400	32.51
0.250	19.06
0.200	17.97
0.160	16.88
0.125	16.87
0.080	15.51
0.063	15.45

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	06/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#544 - B
		Specimen depth:	1.55 - 1.65m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



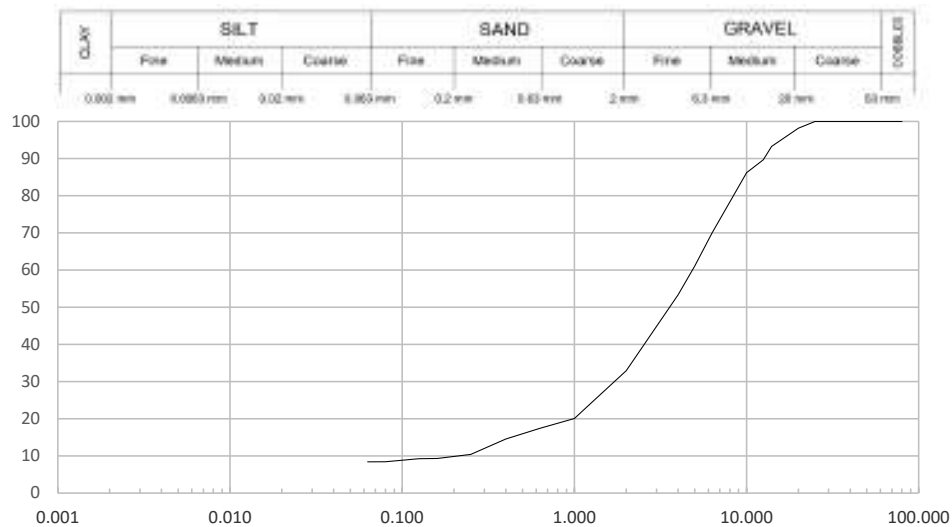
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.96
Fine Gravel	4.66
Coarse sand	53.77
Medium sand	19.97
Fine sand	5.33
Silt and Clay	15.31
Silt	5.41
Clay	9.90

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.04
5.00	98.67
4.00	98.22
2.00	94.38
1.25	87.53
1.00	81.33
0.630	40.62
0.400	33.77
0.250	22.62
0.200	20.64
0.160	18.67
0.125	18.66
0.080	15.62
0.063	15.31

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#VC2_A - B Specimen depth: 1.36 - 1.46m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



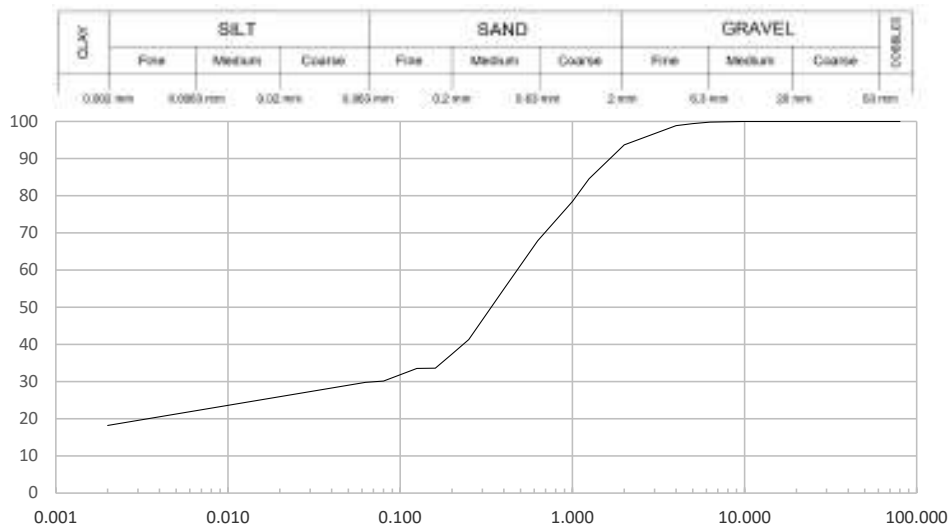
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	1.79
Medium Gravel	28.24
Fine Gravel	37.01
Coarse sand	15.54
Medium sand	7.56
Fine sand	1.45
Silt and Clay	8.41
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	98.21
14.0	93.29
12.5	89.71
10.0	86.20
6.3	69.97
5.00	61.11
4.00	53.31
2.00	32.96
1.25	24.19
1.00	20.10
0.630	17.42
0.400	14.54
0.250	10.44
0.200	9.86
0.160	9.29
0.125	9.28
0.080	8.42
0.063	8.41

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#101a - A Specimen depth: 0 - 0.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



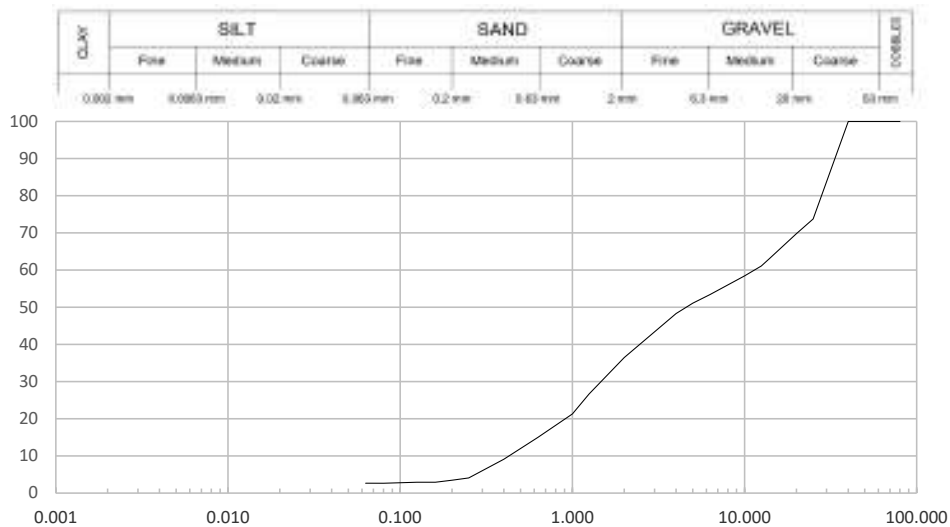
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.21
Fine Gravel	6.13
Coarse sand	25.78
Medium sand	30.44
Fine sand	7.67
Silt and Clay	29.77
Silt	11.57
Clay	18.20

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.79
5.00	99.44
4.00	98.86
2.00	93.66
1.25	84.58
1.00	78.43
0.630	67.88
0.400	54.93
0.250	41.29
0.200	37.44
0.160	33.59
0.125	33.58
0.080	30.14
0.063	29.77

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#VC5_A - B Specimen depth: 1 - 1.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



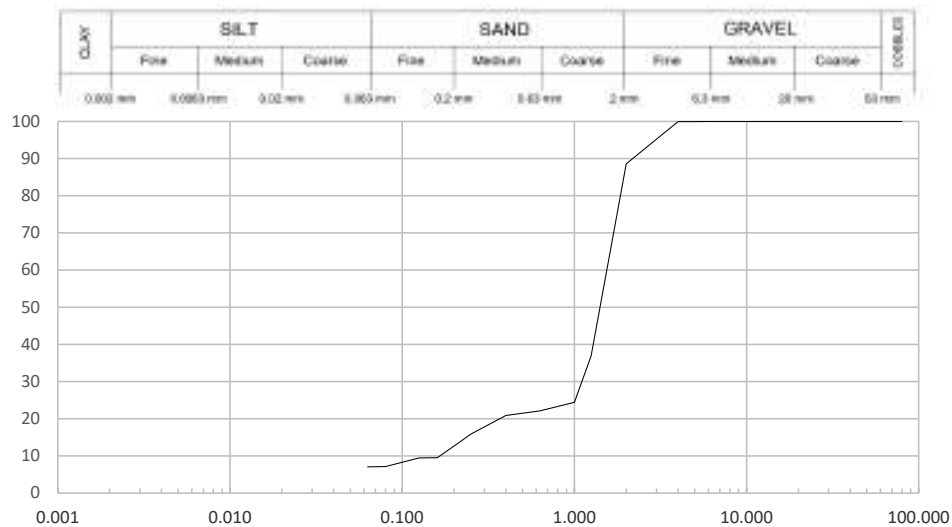
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	30.18
Medium Gravel	16.40
Fine Gravel	16.99
Coarse sand	21.45
Medium sand	11.50
Fine sand	0.82
Silt and Clay	2.66
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	73.73
20.0	69.82
14.0	63.11
12.5	61.07
10.0	58.43
6.3	53.42
5.00	51.11
4.00	48.30
2.00	36.44
1.25	26.68
1.00	21.28
0.630	14.98
0.400	9.10
0.250	4.08
0.200	3.49
0.160	2.89
0.125	2.89
0.080	2.69
0.063	2.66

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#440_A - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



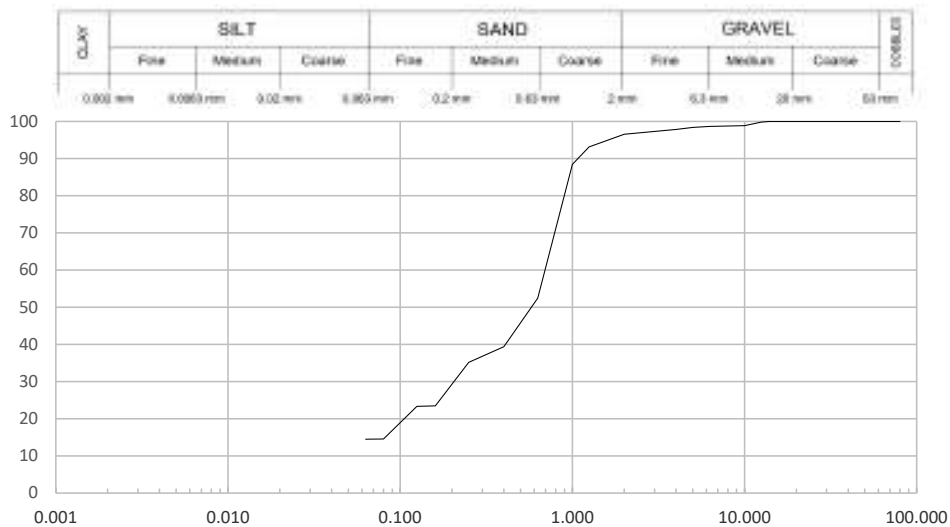
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	11.41
Coarse sand	66.49
Medium sand	9.42
Fine sand	5.61
Silt and Clay	7.06
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.99
4.00	99.97
2.00	88.59
1.25	36.86
1.00	24.43
0.630	22.09
0.400	20.85
0.250	15.85
0.200	12.68
0.160	9.51
0.125	9.48
0.080	7.14
0.063	7.06

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#510_A - B
		Specimen depth:	1 - 1.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



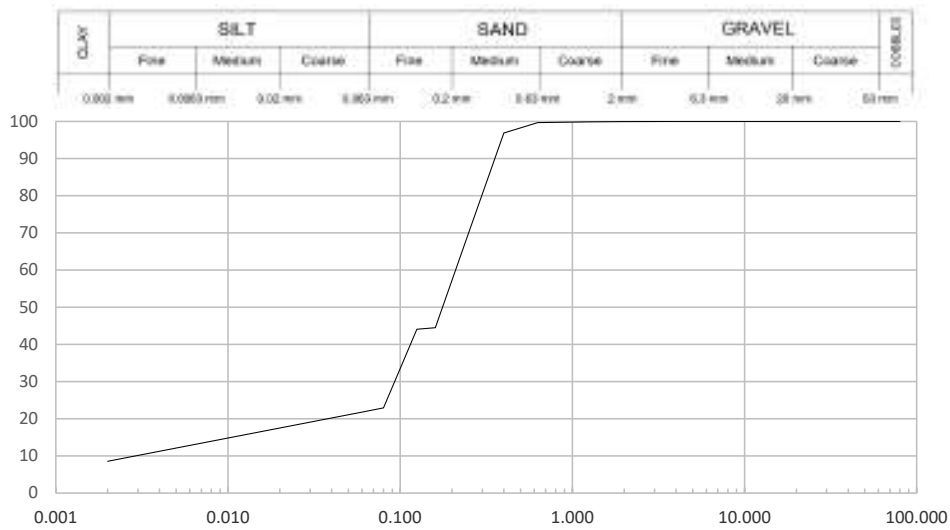
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.31
Fine Gravel	2.17
Coarse sand	44.05
Medium sand	23.14
Fine sand	14.83
Silt and Clay	14.50
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.81
10.0	98.87
6.3	98.69
5.00	98.37
4.00	97.88
2.00	96.52
1.25	93.12
1.00	88.47
0.630	52.47
0.400	39.41
0.250	35.18
0.200	29.33
0.160	23.48
0.125	23.37
0.080	14.53
0.063	14.50

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#VC2_A - B
		Specimen depth:	1.8 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



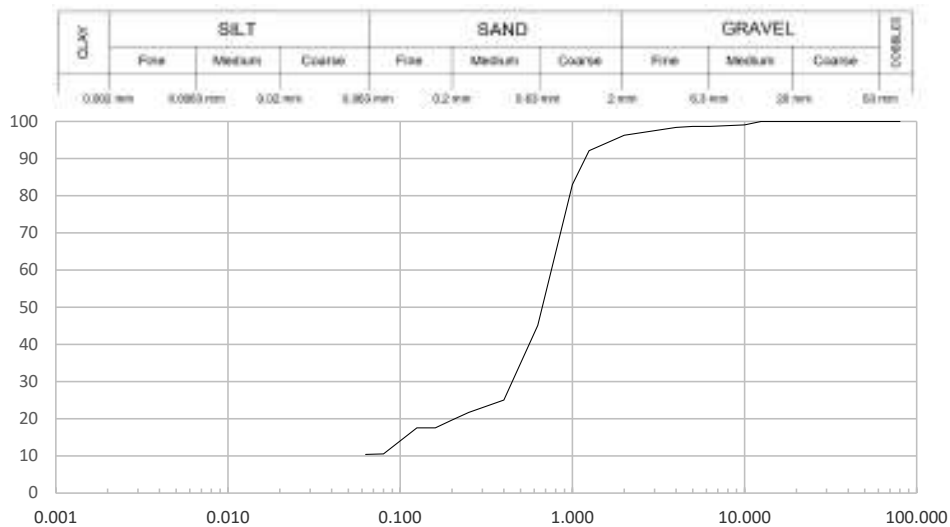
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.03
Coarse sand	0.29
Medium sand	42.39
Fine sand	35.28
Silt and Clay	22.01
Silt	13.45
Clay	8.56

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.97
1.25	99.89
1.00	99.82
0.630	99.67
0.400	96.91
0.250	70.08
0.200	57.29
0.160	44.49
0.125	44.06
0.080	22.95
0.063	22.01

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#508_A - B Specimen depth: 1.75 - 2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



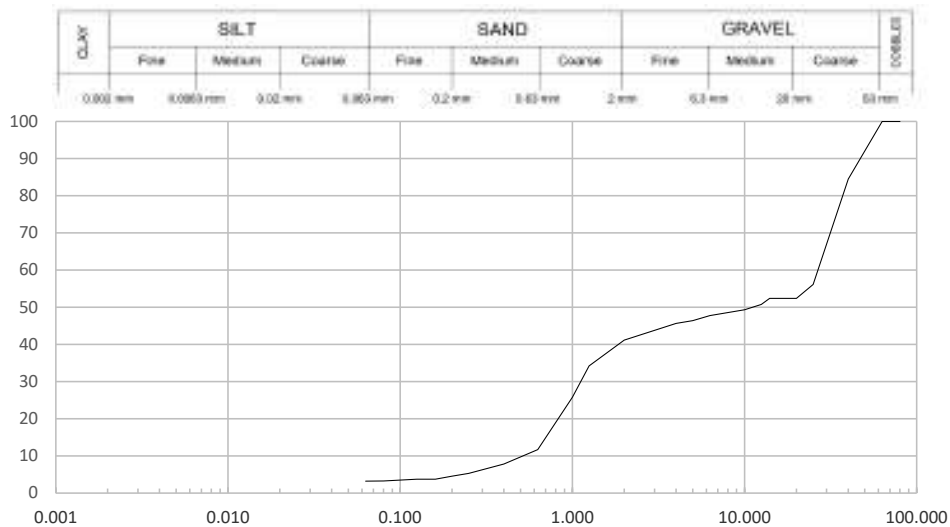
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.35
Fine Gravel	2.39
Coarse sand	51.14
Medium sand	25.49
Fine sand	9.22
Silt and Clay	10.41
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.06
6.3	98.65
5.00	98.65
4.00	98.38
2.00	96.26
1.25	92.14
1.00	82.99
0.630	45.12
0.400	25.02
0.250	21.72
0.200	19.63
0.160	17.54
0.125	17.54
0.080	10.53
0.063	10.41

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#VC5_A - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



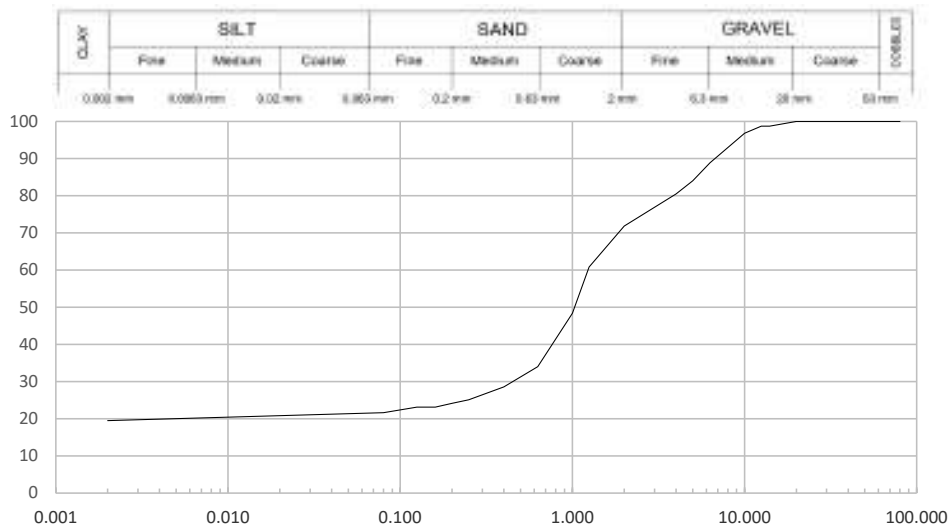
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	47.62
Medium Gravel	4.61
Fine Gravel	6.63
Coarse sand	29.43
Medium sand	7.19
Fine sand	1.31
Silt and Clay	3.22
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	84.53
25.0	56.14
20.0	52.38
14.0	52.38
12.5	50.73
10.0	49.33
6.3	47.77
5.00	46.43
4.00	45.63
2.00	41.14
1.25	34.20
1.00	25.82
0.630	11.72
0.400	7.84
0.250	5.29
0.200	4.53
0.160	3.77
0.125	3.76
0.080	3.24
0.063	3.22

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#205 - A
		Specimen depth:	0.15 - 0.3m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



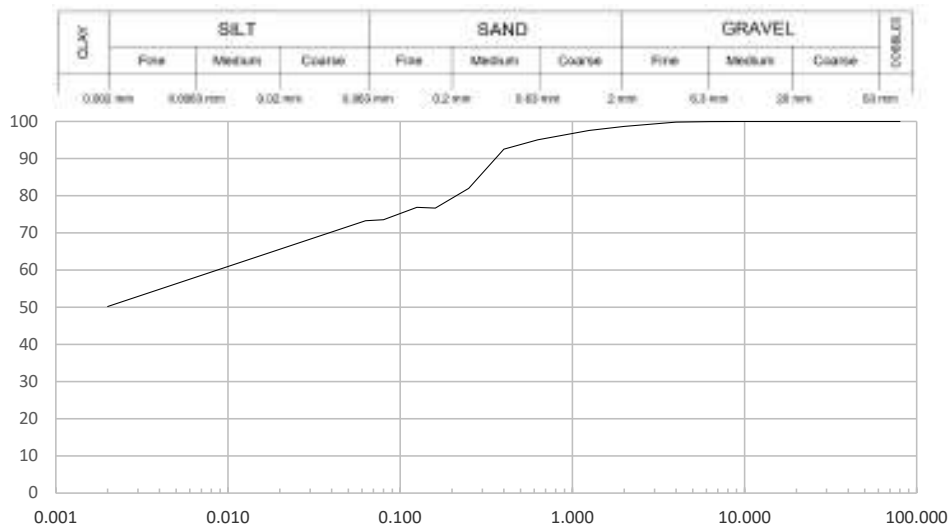
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	11.16
Fine Gravel	17.02
Coarse sand	37.79
Medium sand	9.88
Fine sand	2.67
Silt and Clay	21.48
Silt	1.98
Clay	19.50

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	98.74
12.5	98.74
10.0	96.85
6.3	88.84
5.00	84.03
4.00	80.48
2.00	71.82
1.25	60.83
1.00	48.38
0.630	34.03
0.400	28.55
0.250	25.13
0.200	24.15
0.160	23.16
0.125	23.16
0.080	21.63
0.063	21.48

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#101 - A Specimen depth: 0.6 - 0.75m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



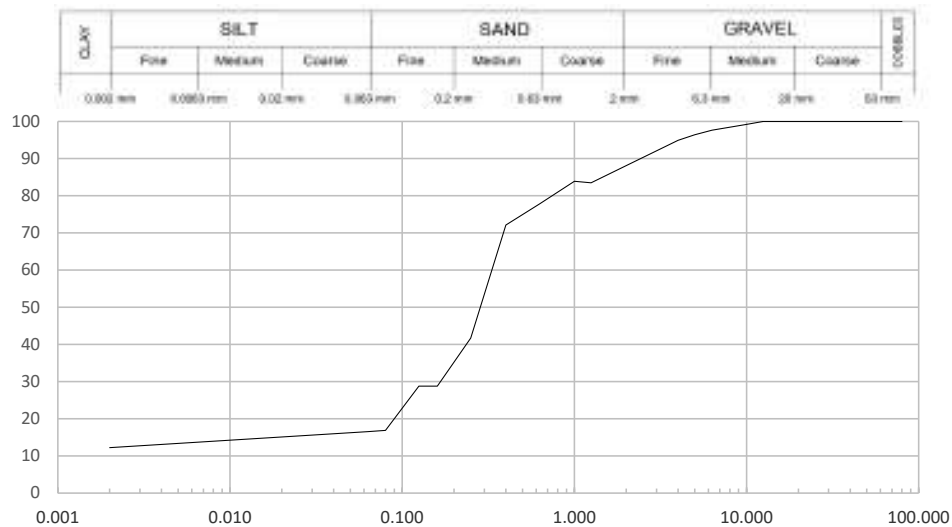
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.03
Fine Gravel	1.29
Coarse sand	3.64
Medium sand	15.70
Fine sand	6.06
Silt and Clay	73.28
Silt	23.08
Clay	50.20

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.97
5.00	99.90
4.00	99.80
2.00	98.68
1.25	97.55
1.00	96.79
0.630	95.04
0.400	92.53
0.250	81.99
0.200	79.34
0.160	76.69
0.125	76.88
0.080	73.53
0.063	73.28

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#546 - A
		Specimen depth:	0.55 - 0.65m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



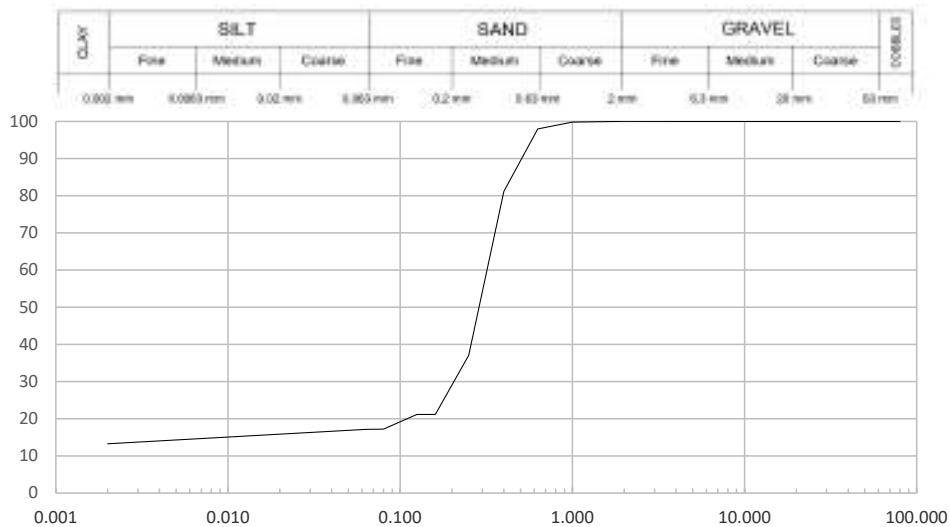
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.38
Fine Gravel	9.48
Coarse sand	10.29
Medium sand	42.58
Fine sand	18.71
Silt and Clay	16.55
Silt	4.32
Clay	12.23

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.20
6.3	97.62
5.00	96.40
4.00	94.91
2.00	88.14
1.25	83.45
1.00	83.92
0.630	77.84
0.400	72.10
0.250	41.72
0.200	35.26
0.160	28.80
0.125	28.78
0.080	16.87
0.063	16.55

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs	
	Test date: 07/10/2022	
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#103 - A	
	Specimen depth: 0.15 - 0.3m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



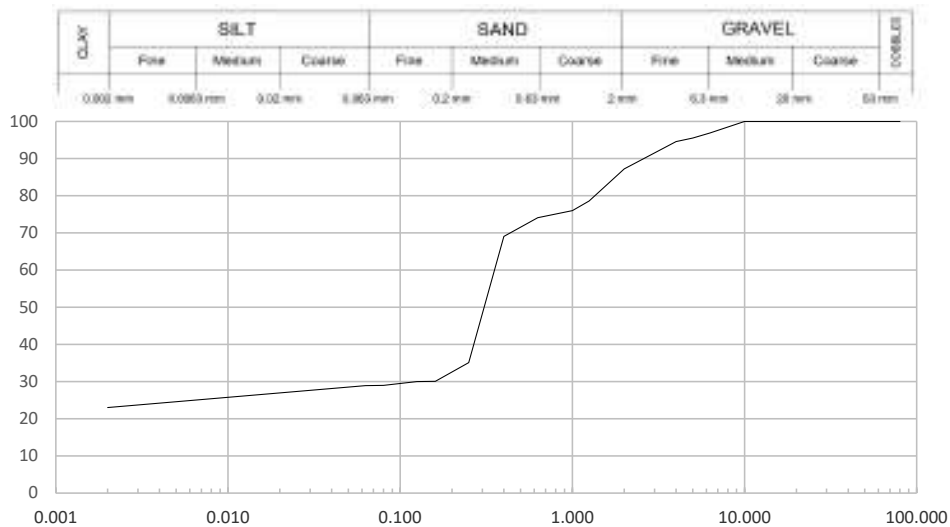
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.01
Coarse sand	1.99
Medium sand	68.86
Fine sand	12.01
Silt and Clay	17.13
Silt	3.86
Clay	13.27

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.99
1.25	99.92
1.00	99.83
0.630	98.01
0.400	81.15
0.250	37.11
0.200	29.15
0.160	21.18
0.125	21.16
0.080	17.20
0.063	17.13

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#255 - C Specimen depth: 2 - 2.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	3.13
Fine Gravel	9.67
Coarse sand	13.10
Medium sand	41.54
Fine sand	3.62
Silt and Clay	28.95
Silt	5.93
Clay	23.02

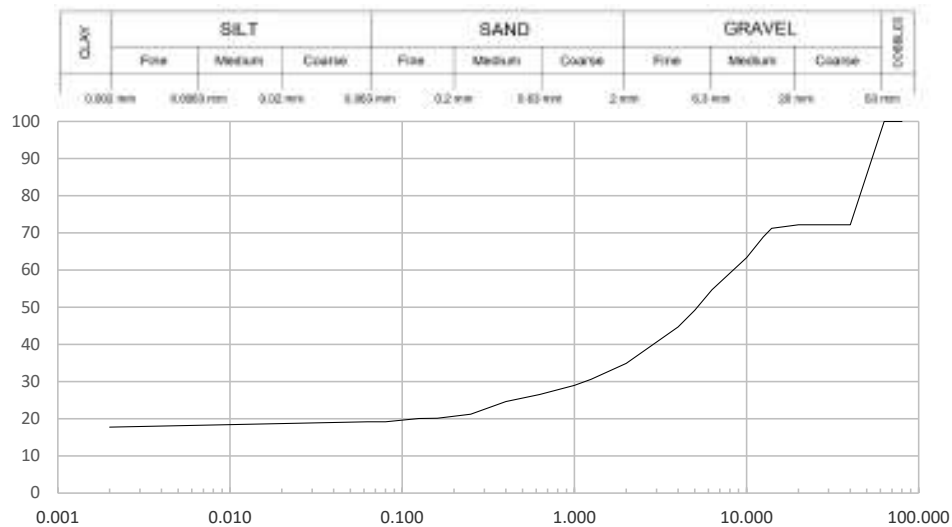
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	96.87
5.00	95.56
4.00	94.57
2.00	87.21
1.25	78.57
1.00	75.97
0.630	74.11
0.400	69.04
0.250	35.09
0.200	32.57
0.160	30.05
0.125	30.04
0.080	29.00
0.063	28.95

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#101 - B
		Specimen depth:	1.1 - 1.3m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	27.79
Medium Gravel	17.53
Fine Gravel	19.77
Coarse sand	8.35
Medium sand	5.87
Fine sand	1.51
Silt and Clay	19.16
Silt	1.41
Clay	17.75

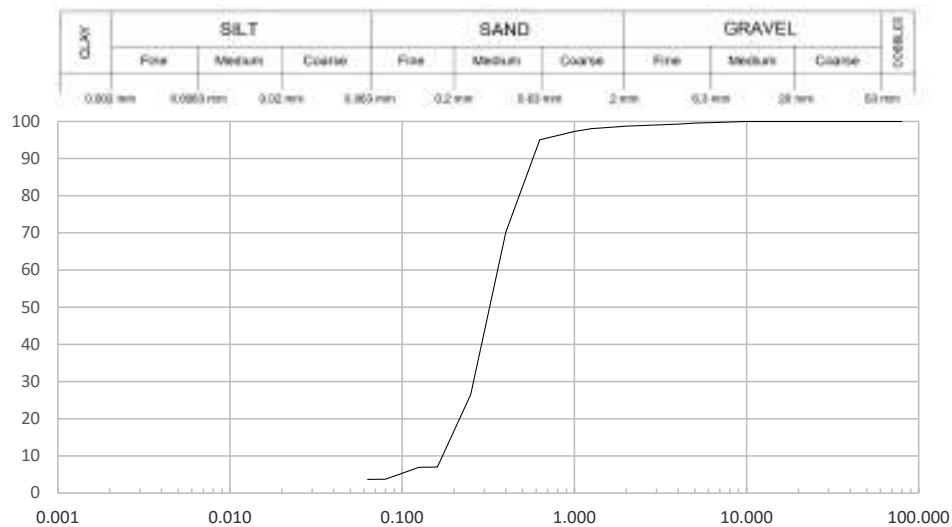
Sieve (mm)	% Pass
80	100.00
63	100.00
40	72.21
25.0	72.21
20.0	72.21
14.0	71.26
12.5	68.91
10.0	63.37
6.3	54.68
5.00	49.20
4.00	44.71
2.00	34.90
1.25	30.62
1.00	28.97
0.630	26.55
0.400	24.66
0.250	21.25
0.200	20.68
0.160	20.11
0.125	20.09
0.080	19.22
0.063	19.16

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#334_A - A
		Specimen depth:	0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



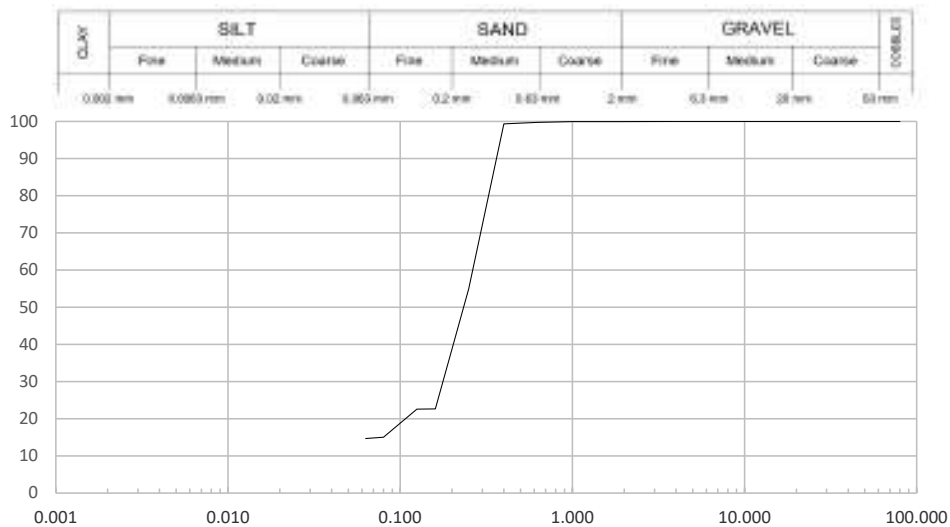
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.32
Fine Gravel	0.93
Coarse sand	3.73
Medium sand	78.26
Fine sand	13.08
Silt and Clay	3.68
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.68
5.00	99.53
4.00	99.31
2.00	98.75
1.25	98.05
1.00	97.29
0.630	95.02
0.400	70.21
0.250	26.50
0.200	16.76
0.160	7.02
0.125	6.97
0.080	3.73
0.063	3.68

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#336 - A Specimen depth: 0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



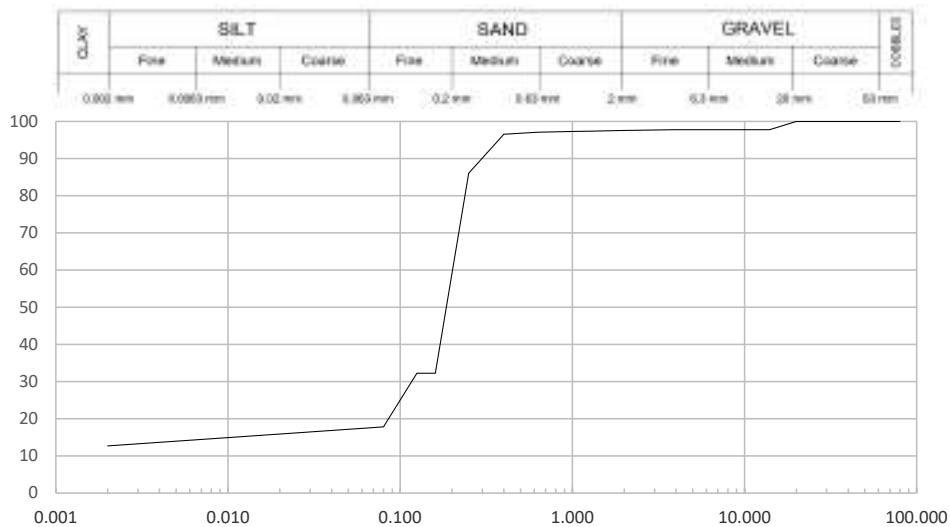
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.02
Coarse sand	0.20
Medium sand	60.96
Fine sand	24.13
Silt and Clay	14.69
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.98
1.25	99.97
1.00	99.93
0.630	99.78
0.400	99.33
0.250	54.96
0.200	38.82
0.160	22.68
0.125	22.62
0.080	15.02
0.063	14.69

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#260_A - A
		Specimen depth:	0 - 0.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



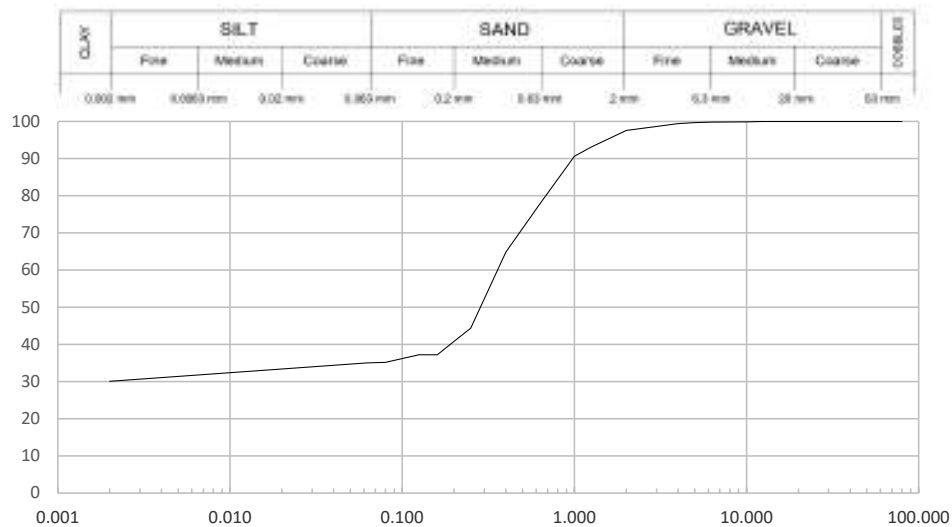
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.25
Fine Gravel	0.16
Coarse sand	0.48
Medium sand	37.94
Fine sand	41.67
Silt and Clay	17.50
Silt	4.80
Clay	12.70

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	97.75
12.5	97.75
10.0	97.75
6.3	97.75
5.00	97.75
4.00	97.75
2.00	97.59
1.25	97.40
1.00	97.27
0.630	97.11
0.400	96.57
0.250	86.06
0.200	59.17
0.160	32.28
0.125	32.23
0.080	17.85
0.063	17.50

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>07/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#250 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0.1 - 0.3m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	07/10/2022	PointId - Sample:	EC GI#250 - A	Specimen depth:	0.1 - 0.3m
Sampling date:	See VC logs								
Test date:	07/10/2022								
PointId - Sample:	EC GI#250 - A								
Specimen depth:	0.1 - 0.3m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



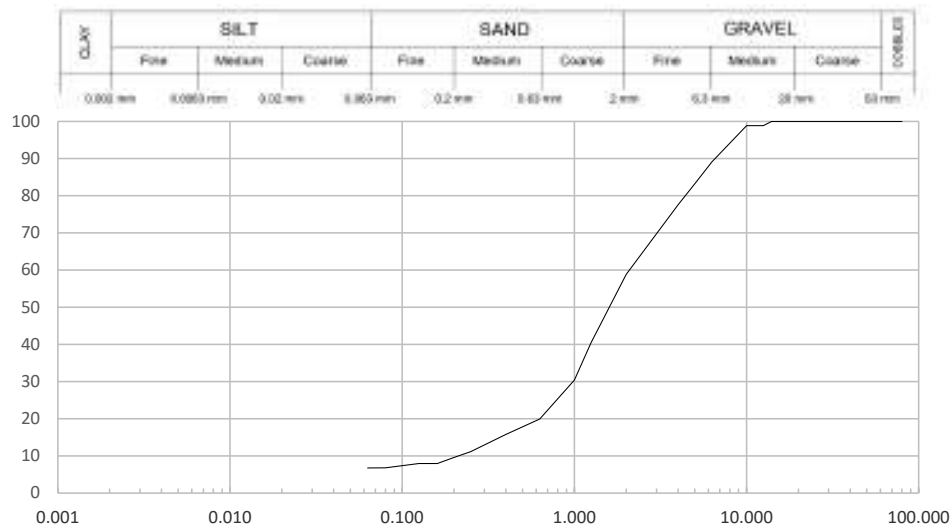
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.17
Fine Gravel	2.27
Coarse sand	19.80
Medium sand	36.97
Fine sand	5.78
Silt and Clay	35.02
Silt	4.94
Clay	30.08

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.89
6.3	99.83
5.00	99.67
4.00	99.42
2.00	97.56
1.25	93.10
1.00	90.65
0.630	77.76
0.400	64.85
0.250	44.35
0.200	40.80
0.160	37.25
0.125	37.24
0.080	35.15
0.063	35.02

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>07/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#255 - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1.2 - 1.4m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	07/10/2022	PointId - Sample:	EC GI#255 - B	Specimen depth:	1.2 - 1.4m
Sampling date:	See VC logs								
Test date:	07/10/2022								
PointId - Sample:	EC GI#255 - B								
Specimen depth:	1.2 - 1.4m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



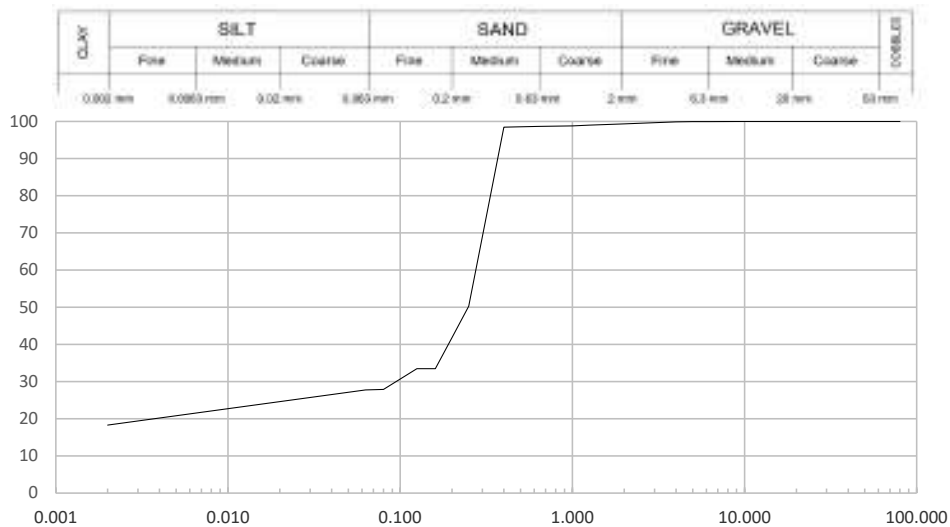
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	10.89
Fine Gravel	30.25
Coarse sand	38.95
Medium sand	10.34
Fine sand	2.82
Silt and Clay	6.76
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	98.88
10.0	98.88
6.3	89.11
5.00	83.22
4.00	77.57
2.00	58.87
1.25	40.52
1.00	30.40
0.630	19.92
0.400	15.76
0.250	11.18
0.200	9.58
0.160	7.99
0.125	7.98
0.080	6.80
0.063	6.76

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#259 - A
		Specimen depth:	0.85 - 1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



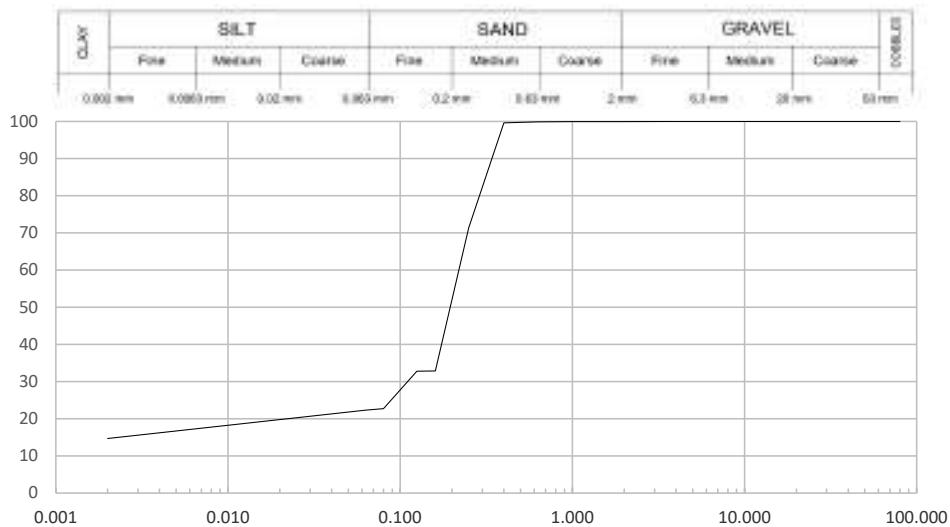
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.05
Fine Gravel	0.60
Coarse sand	0.72
Medium sand	56.75
Fine sand	14.15
Silt and Clay	27.73
Silt	9.43
Clay	18.30

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.95
5.00	99.95
4.00	99.90
2.00	99.35
1.25	98.98
1.00	98.83
0.630	98.63
0.400	98.43
0.250	50.28
0.200	41.88
0.160	33.48
0.125	33.45
0.080	27.89
0.063	27.73

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>07/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#253 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0 - 0.2m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	07/10/2022	PointId - Sample:	EC GI#253 - A	Specimen depth:	0 - 0.2m
Sampling date:	See VC logs								
Test date:	07/10/2022								
PointId - Sample:	EC GI#253 - A								
Specimen depth:	0 - 0.2m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



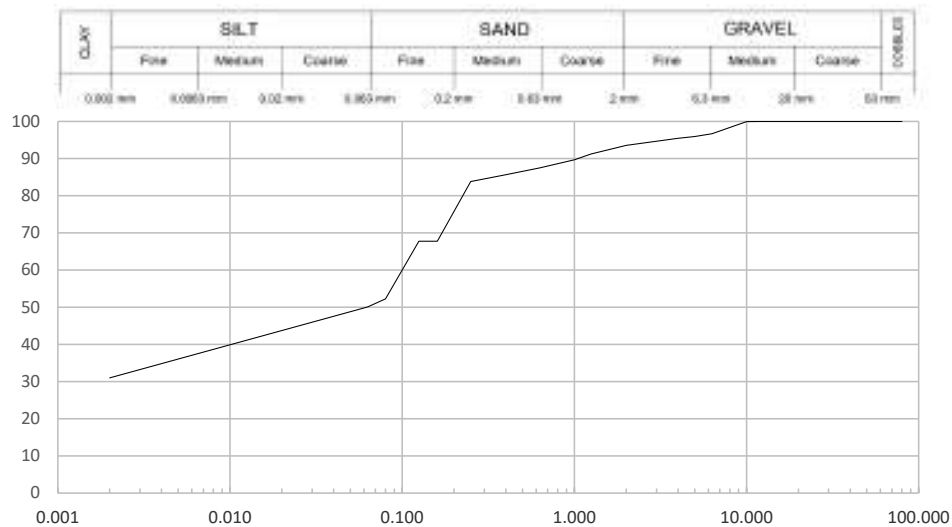
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.01
Coarse sand	0.10
Medium sand	47.75
Fine sand	29.82
Silt and Clay	22.31
Silt	7.62
Clay	14.69

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.99
1.25	99.97
1.00	99.95
0.630	99.88
0.400	99.65
0.250	71.39
0.200	52.14
0.160	32.89
0.125	32.81
0.080	22.71
0.063	22.31

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#258 - A Specimen depth: 0 - 0.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	3.31
Fine Gravel	3.10
Coarse sand	6.10
Medium sand	11.70
Fine sand	25.72
Silt and Clay	50.08
Silt	
Clay	

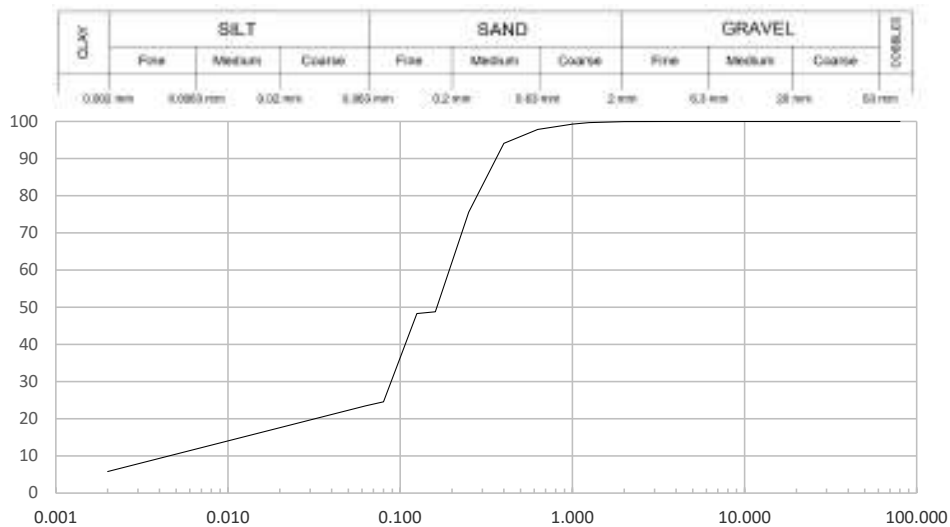
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.92
6.3	96.69
5.00	95.97
4.00	95.48
2.00	93.59
1.25	91.22
1.00	89.71
0.630	87.49
0.400	85.65
0.250	83.83
0.200	75.79
0.160	67.76
0.125	67.74
0.080	52.25
0.063	50.08

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#517 - A
		Specimen depth:	0.1 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



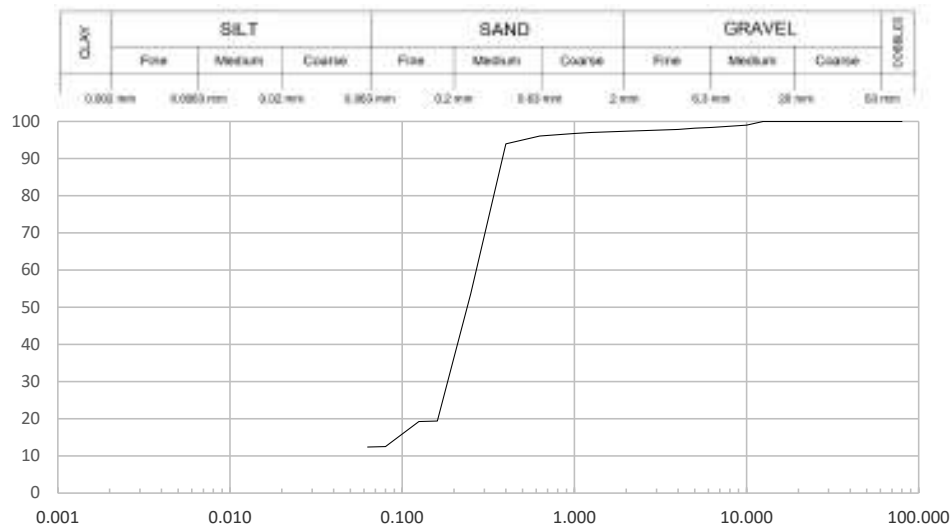
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.04
Coarse sand	2.13
Medium sand	35.65
Fine sand	38.73
Silt and Clay	23.46
Silt	17.66
Clay	5.80

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.96
1.25	99.71
1.00	99.29
0.630	97.83
0.400	94.09
0.250	75.59
0.200	62.18
0.160	48.78
0.125	48.32
0.080	24.57
0.063	23.46

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#333 - A
		Specimen depth:	0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



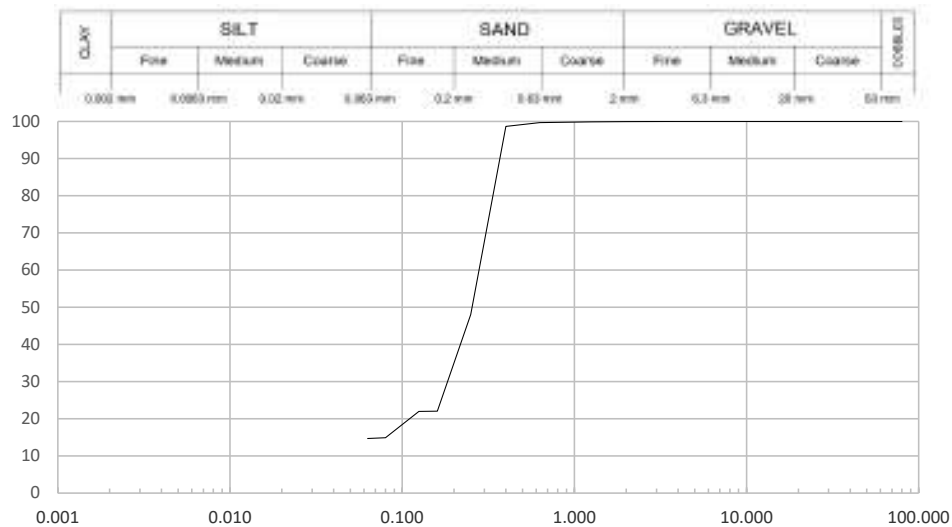
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.58
Fine Gravel	1.07
Coarse sand	1.26
Medium sand	59.59
Fine sand	24.11
Silt and Clay	12.40
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.04
6.3	98.42
5.00	98.15
4.00	97.83
2.00	97.35
1.25	97.04
1.00	96.78
0.630	96.09
0.400	93.97
0.250	53.65
0.200	36.51
0.160	19.37
0.125	19.28
0.080	12.49
0.063	12.40

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente	Sampling date: See VC logs	
	Test date: 07/10/2022	
PROJECT: RTE Export Cable A05	PointId - Sample: EC GI#439_A - A	
	Specimen depth: 0 - 0.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



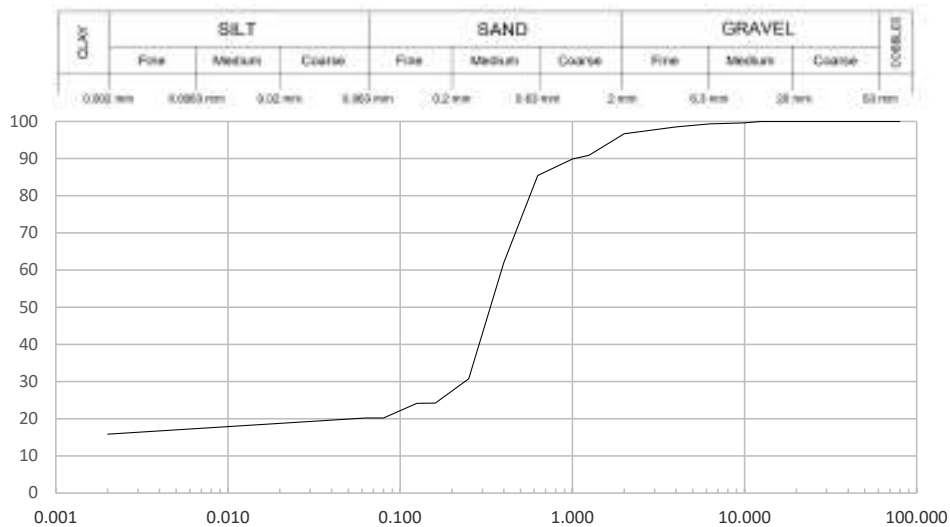
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.05
Coarse sand	0.27
Medium sand	64.63
Fine sand	20.35
Silt and Clay	14.69
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.95
1.25	99.88
1.00	99.83
0.630	99.67
0.400	98.67
0.250	48.06
0.200	35.04
0.160	22.02
0.125	22.00
0.080	14.92
0.063	14.69

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 07/10/2022 PointId - Sample: EC GI#516_A - B Specimen depth: 1 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.68
Fine Gravel	2.66
Coarse sand	11.23
Medium sand	57.97
Fine sand	7.28
Silt and Clay	20.18
Silt	4.32
Clay	15.86

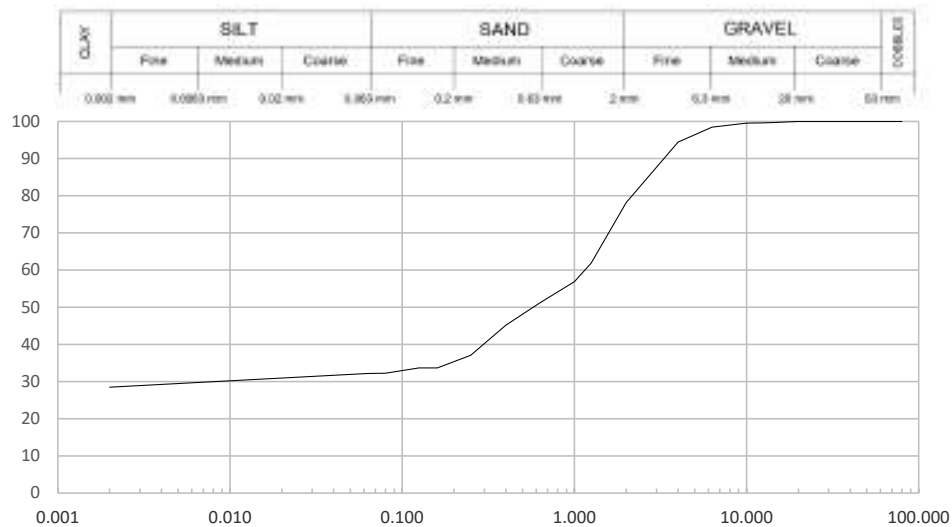
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.63
6.3	99.32
5.00	98.92
4.00	98.55
2.00	96.66
1.25	90.91
1.00	89.92
0.630	85.43
0.400	62.06
0.250	30.73
0.200	27.46
0.160	24.19
0.125	24.17
0.080	20.21
0.063	20.18

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#10_A - B
		Specimen depth:	1.05 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



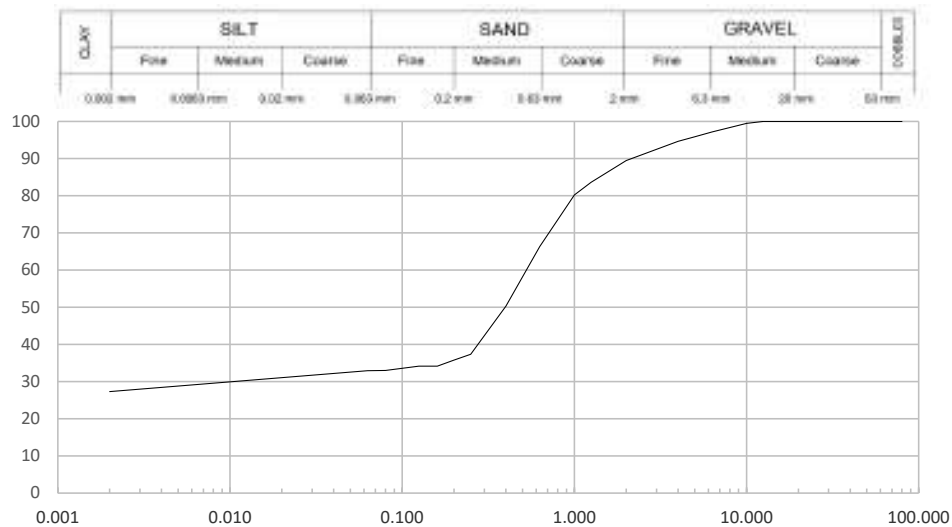
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.54
Fine Gravel	20.30
Coarse sand	26.98
Medium sand	15.81
Fine sand	3.18
Silt and Clay	32.19
Silt	3.69
Clay	28.50

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.68
12.5	99.60
10.0	99.53
6.3	98.46
5.00	96.39
4.00	94.43
2.00	78.16
1.25	61.83
1.00	56.90
0.630	51.18
0.400	45.21
0.250	37.07
0.200	35.37
0.160	33.68
0.125	33.66
0.080	32.26
0.063	32.19

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	07/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#101 - A
		Specimen depth:	0.15 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



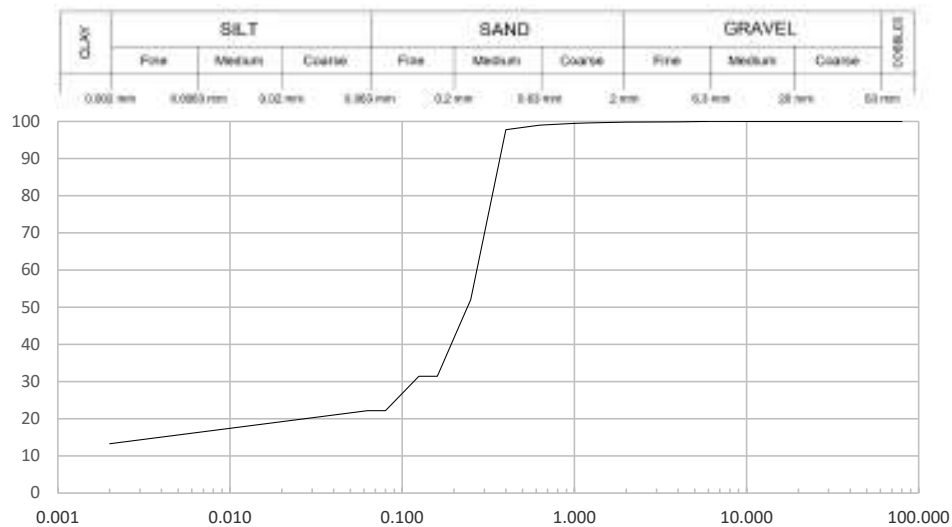
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.81
Fine Gravel	7.68
Coarse sand	23.13
Medium sand	30.59
Fine sand	2.85
Silt and Clay	32.93
Silt	5.62
Clay	27.31

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.47
6.3	97.19
5.00	95.89
4.00	94.62
2.00	89.50
1.25	83.62
1.00	80.23
0.630	66.37
0.400	50.26
0.250	37.38
0.200	35.78
0.160	34.18
0.125	34.17
0.080	32.98
0.063	32.93

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>07/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#519_A - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1 - 1.15m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	07/10/2022	PointId - Sample:	EC GI#519_A - B	Specimen depth:	1 - 1.15m
Sampling date:	See VC logs								
Test date:	07/10/2022								
PointId - Sample:	EC GI#519_A - B								
Specimen depth:	1 - 1.15m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



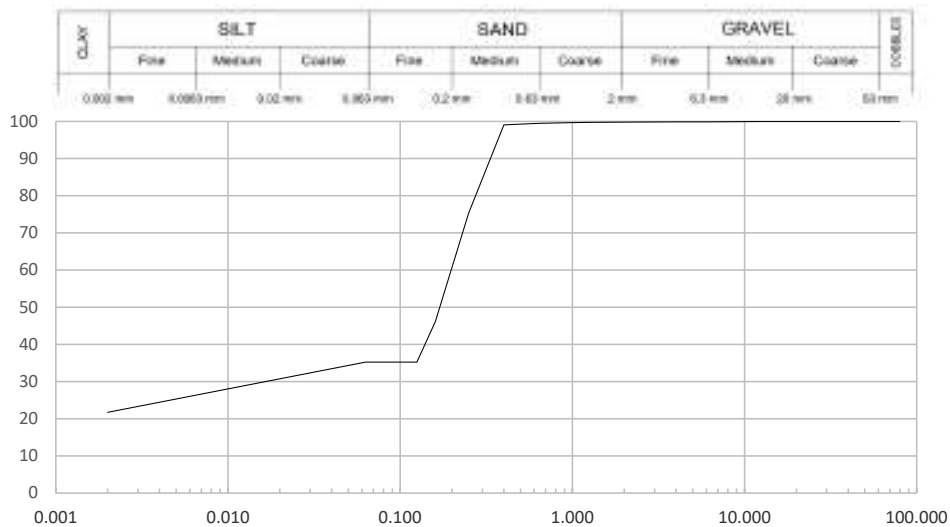
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.19
Coarse sand	0.81
Medium sand	57.24
Fine sand	19.58
Silt and Clay	22.17
Silt	8.89
Clay	13.28

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.97
4.00	99.90
2.00	99.80
1.25	99.64
1.00	99.49
0.630	98.99
0.400	97.79
0.250	52.07
0.200	41.75
0.160	31.43
0.125	31.41
0.080	22.19
0.063	22.17

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#512 - A Specimen depth: 0 - 0.15m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



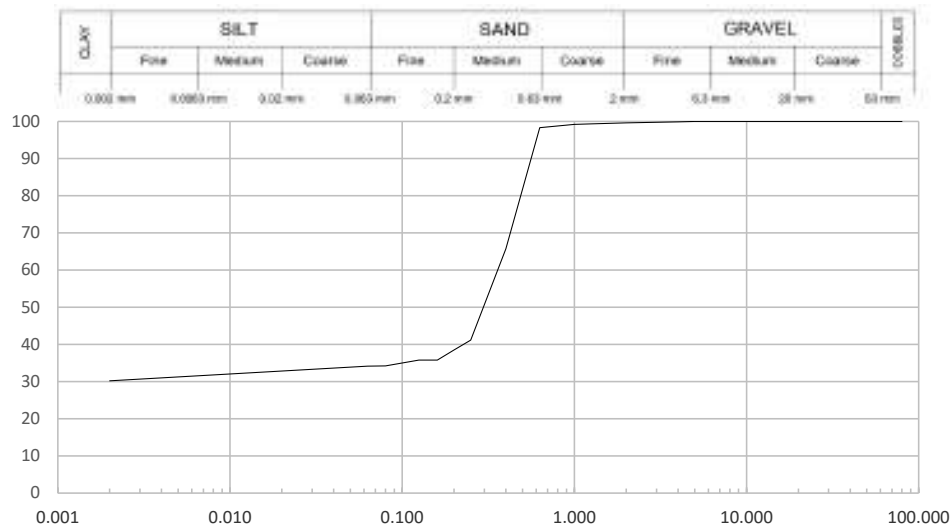
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.09
Fine Gravel	0.11
Coarse sand	0.29
Medium sand	38.75
Fine sand	25.52
Silt and Clay	35.23
Silt	13.50
Clay	21.73

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.93
6.3	99.91
5.00	99.89
4.00	99.87
2.00	99.80
1.25	99.73
1.00	99.66
0.630	99.51
0.400	99.09
0.250	75.38
0.200	60.75
0.160	46.12
0.125	35.27
0.080	35.25
0.063	35.23

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#103 - B Specimen depth: 1.05 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



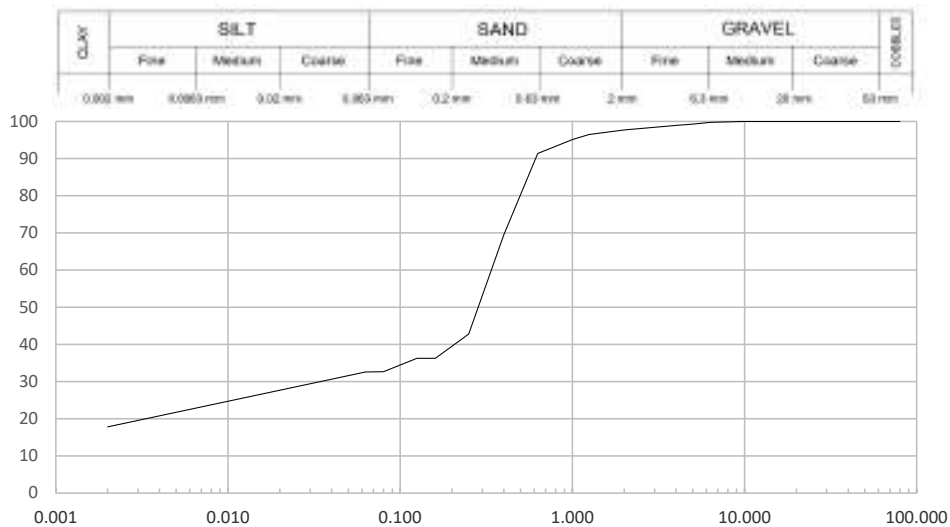
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.39
Coarse sand	1.32
Medium sand	59.81
Fine sand	4.32
Silt and Clay	34.16
Silt	3.95
Clay	30.21

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.89
2.00	99.61
1.25	99.34
1.00	99.21
0.630	98.29
0.400	65.72
0.250	41.15
0.200	38.48
0.160	35.81
0.125	35.80
0.080	34.25
0.063	34.16

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#544 - A Specimen depth: 0 - 0.1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



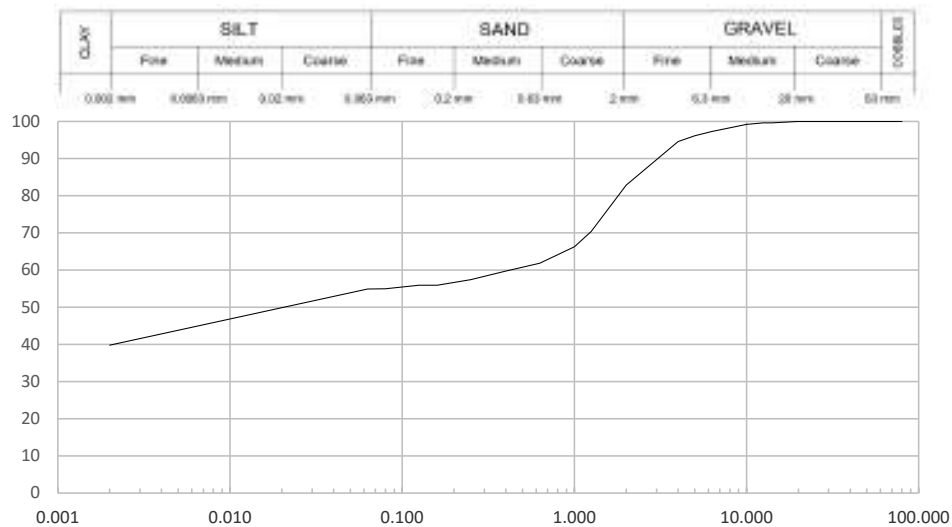
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.23
Fine Gravel	2.05
Coarse sand	6.30
Medium sand	51.87
Fine sand	6.97
Silt and Clay	32.57
Silt	14.75
Clay	17.82

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.77
5.00	99.29
4.00	98.91
2.00	97.71
1.25	96.50
1.00	95.12
0.630	91.41
0.400	69.56
0.250	42.80
0.200	39.54
0.160	36.28
0.125	36.24
0.080	32.67
0.063	32.57

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#10_A - C Specimen depth: 2 - 2.15m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



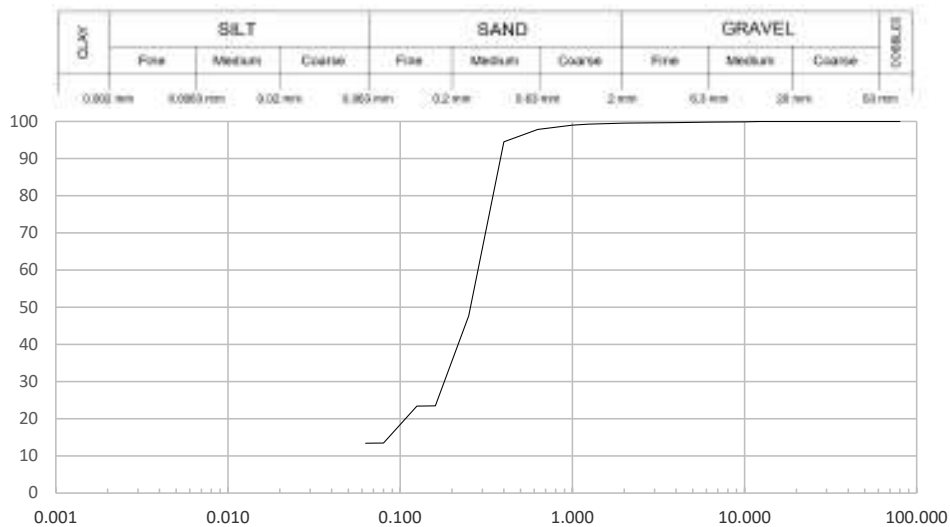
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	2.69
Fine Gravel	14.43
Coarse sand	21.05
Medium sand	5.13
Fine sand	1.78
Silt and Clay	54.92
Silt	15.12
Clay	39.80

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	99.62
12.5	99.62
10.0	99.24
6.3	97.31
5.00	96.13
4.00	94.61
2.00	82.89
1.25	70.36
1.00	66.26
0.630	61.83
0.400	59.77
0.250	57.44
0.200	56.70
0.160	55.96
0.125	55.95
0.080	54.97
0.063	54.92

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>20/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#510_A - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0 - 0.2m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	20/10/2022	PointId - Sample:	EC GI#510_A - A	Specimen depth:	0 - 0.2m
Sampling date:	See VC logs								
Test date:	20/10/2022								
PointId - Sample:	EC GI#510_A - A								
Specimen depth:	0 - 0.2m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.21
Fine Gravel	0.24
Coarse sand	1.71
Medium sand	62.26
Fine sand	22.16
Silt and Clay	13.42
Silt	
Clay	

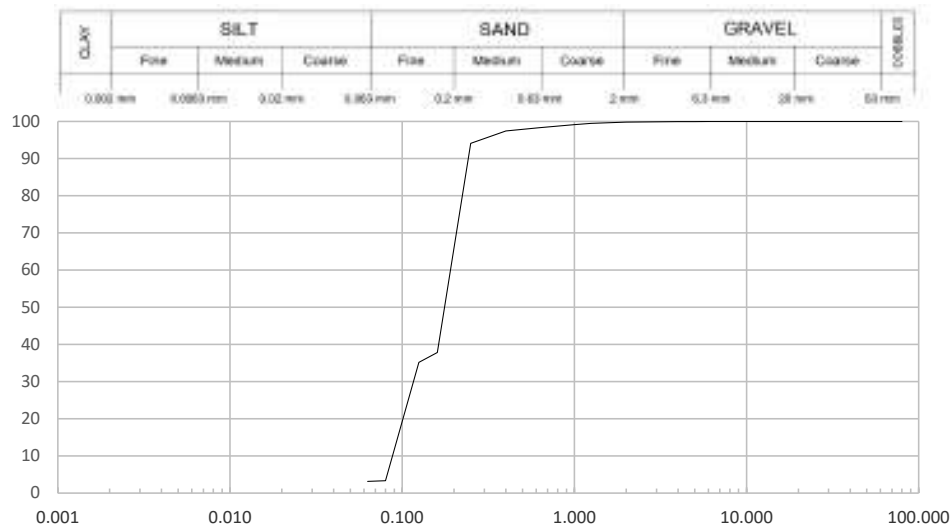
Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.91
6.3	99.79
5.00	99.74
4.00	99.68
2.00	99.55
1.25	99.29
1.00	98.97
0.630	97.83
0.400	94.53
0.250	47.69
0.200	35.58
0.160	23.46
0.125	23.44
0.080	13.45
0.063	13.42

SOIL TESTS

CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#516_A - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



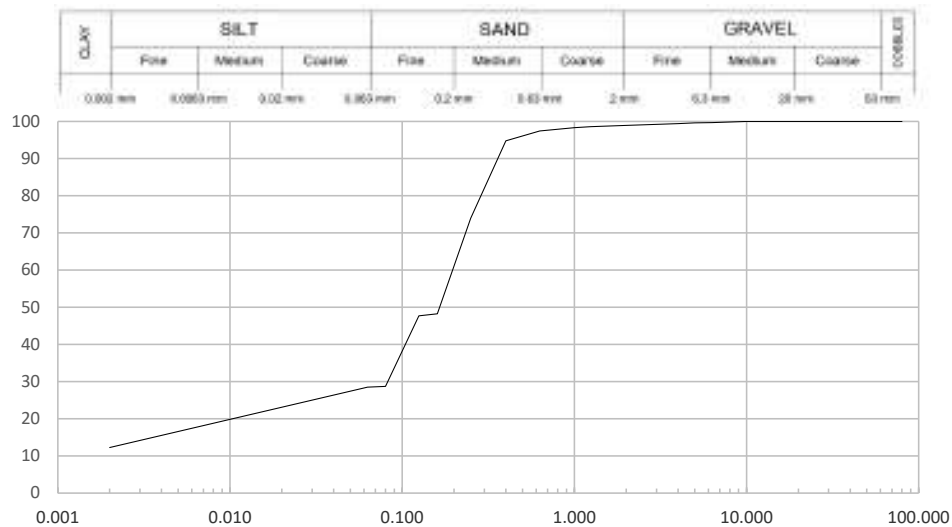
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.18
Coarse sand	1.47
Medium sand	32.37
Fine sand	62.82
Silt and Clay	3.15
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.97
4.00	99.95
2.00	99.82
1.25	99.49
1.00	99.15
0.630	98.34
0.400	97.44
0.250	94.10
0.200	65.97
0.160	37.84
0.125	35.19
0.080	3.34
0.063	3.15

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#519_A - A Specimen depth: 0 - 0.2m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



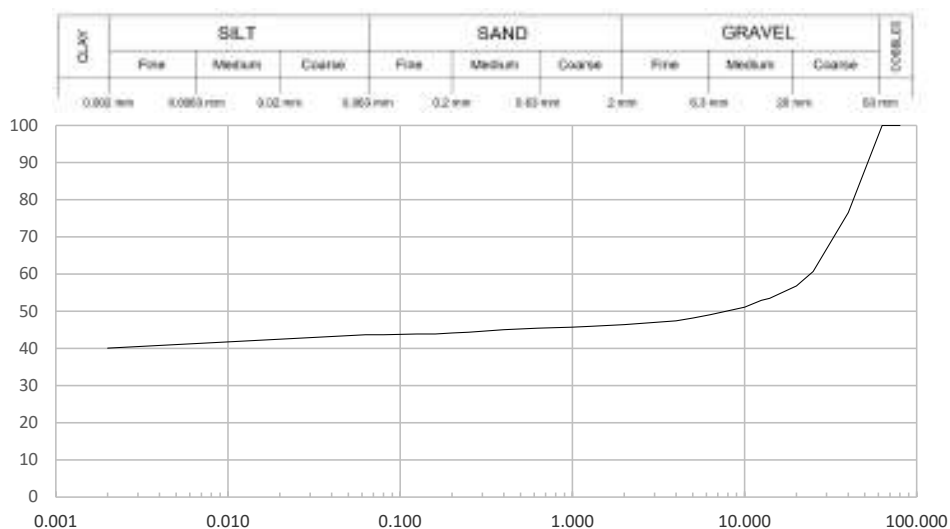
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.34
Fine Gravel	0.71
Coarse sand	1.53
Medium sand	36.31
Fine sand	32.59
Silt and Clay	28.51
Silt	16.25
Clay	12.26

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.66
5.00	99.59
4.00	99.42
2.00	98.95
1.25	98.59
1.00	98.29
0.630	97.42
0.400	94.78
0.250	73.96
0.200	61.10
0.160	48.24
0.125	47.67
0.080	28.68
0.063	28.51

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#102 - B Specimen depth: 1.7 - 1.9m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	43.16
Medium Gravel	7.79
Fine Gravel	2.66
Coarse sand	0.97
Medium sand	1.30
Fine sand	0.43
Silt and Clay	43.70
Silt	3.62
Clay	40.08

Sieve (mm)	% Pass
80	100.00
63	100.00
40	76.55
25.0	60.68
20.0	56.84
14.0	53.47
12.5	52.95
10.0	51.08
6.3	49.06
5.00	48.17
4.00	47.44
2.00	46.40
1.25	45.92
1.00	45.70
0.630	45.43
0.400	45.06
0.250	44.37
0.200	44.13
0.160	43.90
0.125	43.90
0.080	43.70
0.063	43.70

SOIL TESTS

CLASSIFICATION

CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A05

Sampling date:

See VC logs

Test date:

20/10/2022

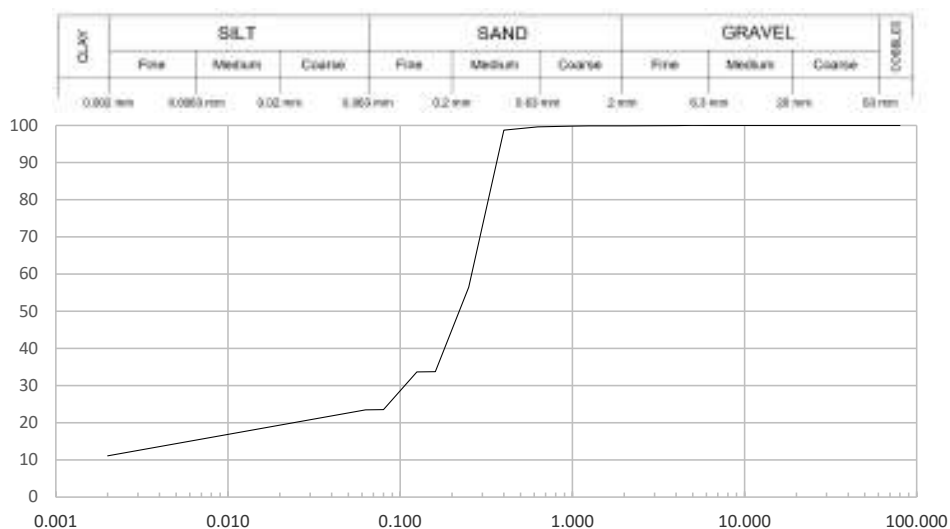
PointId - Sample:

EC GI#508_A - A

Specimen depth:

0.85 - 0.95m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



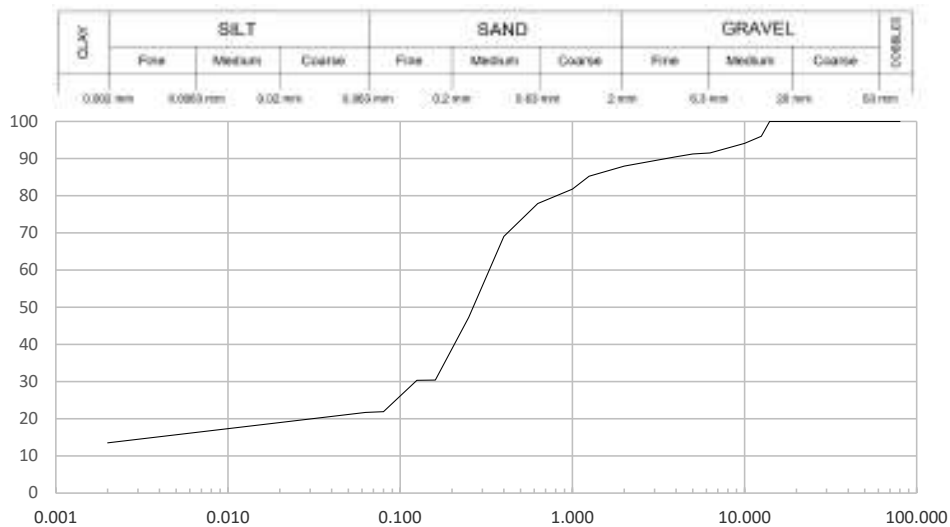
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.08
Coarse sand	0.29
Medium sand	54.53
Fine sand	21.63
Silt and Clay	23.47
Silt	12.37
Clay	11.10

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.99
4.00	99.99
2.00	99.92
1.25	99.86
1.00	99.81
0.630	99.63
0.400	98.76
0.250	56.47
0.200	45.10
0.160	33.74
0.125	33.70
0.080	23.51
0.063	23.47

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#250 - B
		Specimen depth:	1.8 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



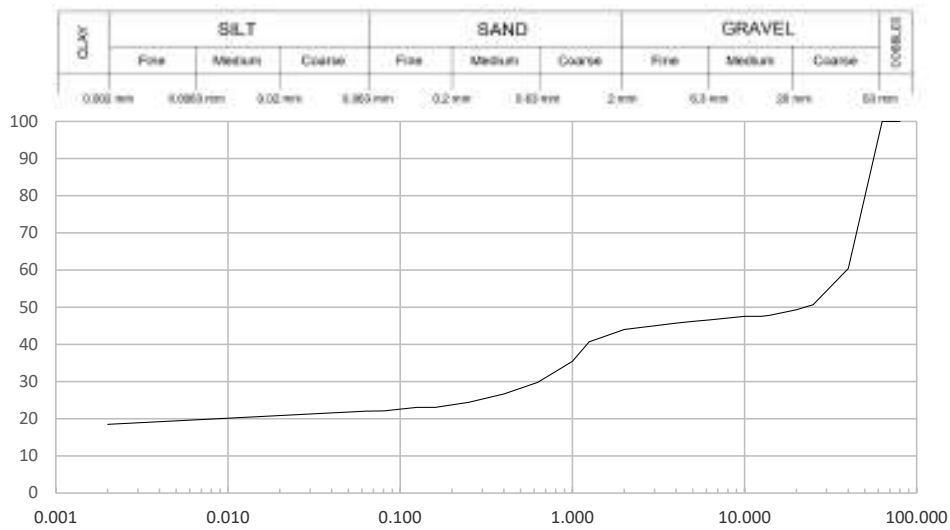
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	8.46
Fine Gravel	3.54
Coarse sand	10.10
Medium sand	39.05
Fine sand	17.18
Silt and Clay	21.67
Silt	8.15
Clay	13.52

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	96.04
10.0	94.07
6.3	91.54
5.00	91.22
4.00	90.51
2.00	88.01
1.25	85.29
1.00	81.75
0.630	77.91
0.400	69.06
0.250	47.30
0.200	38.86
0.160	30.41
0.125	30.35
0.080	21.88
0.063	21.67

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#205 - B Specimen depth: 1.7 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



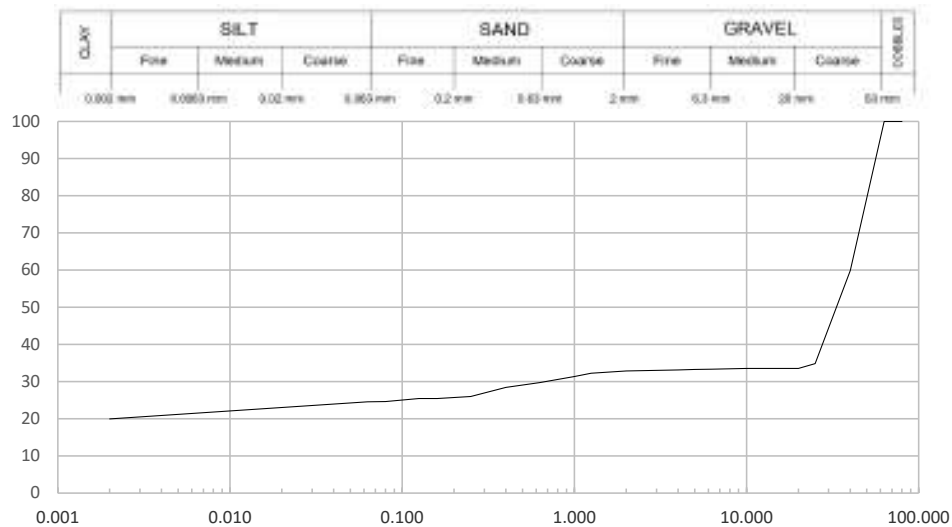
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	50.67
Medium Gravel	2.70
Fine Gravel	2.60
Coarse sand	14.21
Medium sand	6.05
Fine sand	1.73
Silt and Clay	22.03
Silt	3.53
Clay	18.50

Sieve (mm)	% Pass
80	100.00
63	100.00
40	60.42
25.0	50.68
20.0	49.33
14.0	47.86
12.5	47.55
10.0	47.55
6.3	46.63
5.00	46.20
4.00	45.76
2.00	44.03
1.25	40.68
1.00	35.46
0.630	29.82
0.400	26.64
0.250	24.44
0.200	23.76
0.160	23.09
0.125	23.09
0.080	22.08
0.063	22.03

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#205 - A
		Specimen depth:	0.8 - 1m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



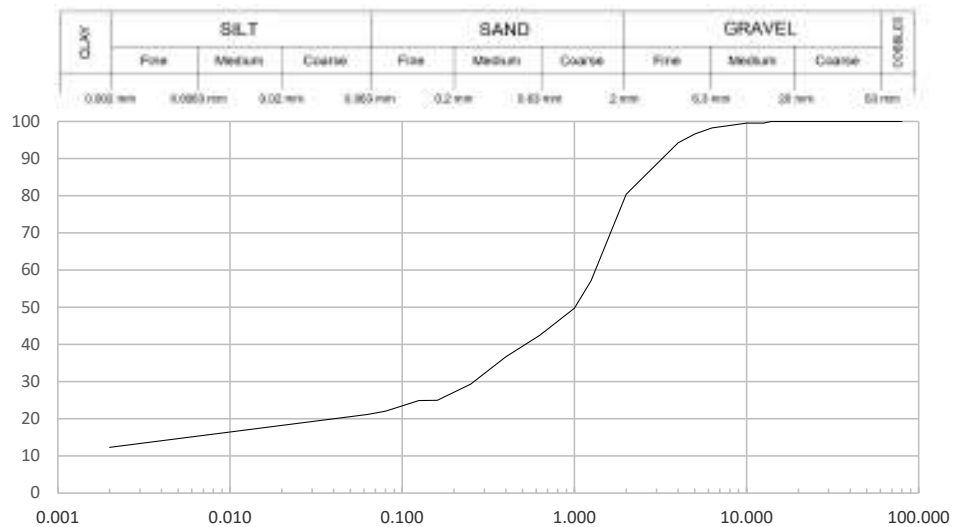
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	66.45
Medium Gravel	0.23
Fine Gravel	0.48
Coarse sand	3.08
Medium sand	4.04
Fine sand	1.16
Silt and Clay	24.56
Silt	4.60
Clay	19.96

Sieve (mm)	% Pass
80	100.00
63	100.00
40	59.88
25.0	34.86
20.0	33.55
14.0	33.55
12.5	33.55
10.0	33.55
6.3	33.32
5.00	33.24
4.00	33.13
2.00	32.84
1.25	32.22
1.00	31.39
0.630	29.76
0.400	28.41
0.250	26.00
0.200	25.72
0.160	25.44
0.125	25.43
0.080	24.63
0.063	24.56

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#10_A - A Specimen depth: 0 - 0.3m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



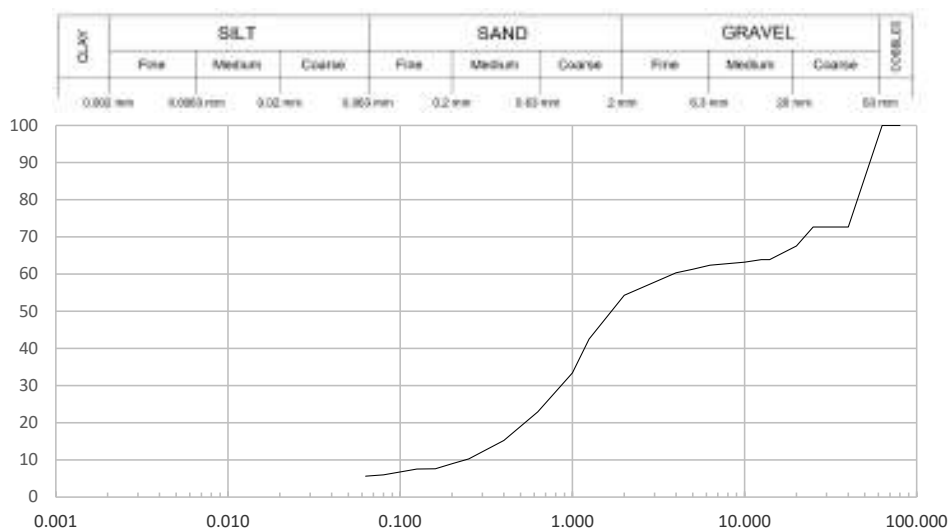
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.72
Fine Gravel	17.84
Coarse sand	37.97
Medium sand	15.33
Fine sand	6.00
Silt and Clay	21.13
Silt	8.82
Clay	12.31

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.57
10.0	99.57
6.3	98.28
5.00	96.63
4.00	94.23
2.00	80.44
1.25	57.15
1.00	49.75
0.630	42.47
0.400	36.71
0.250	29.30
0.200	27.13
0.160	24.96
0.125	24.92
0.080	22.03
0.063	21.13

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#544 - A Specimen depth: 0.55 - 0.65m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



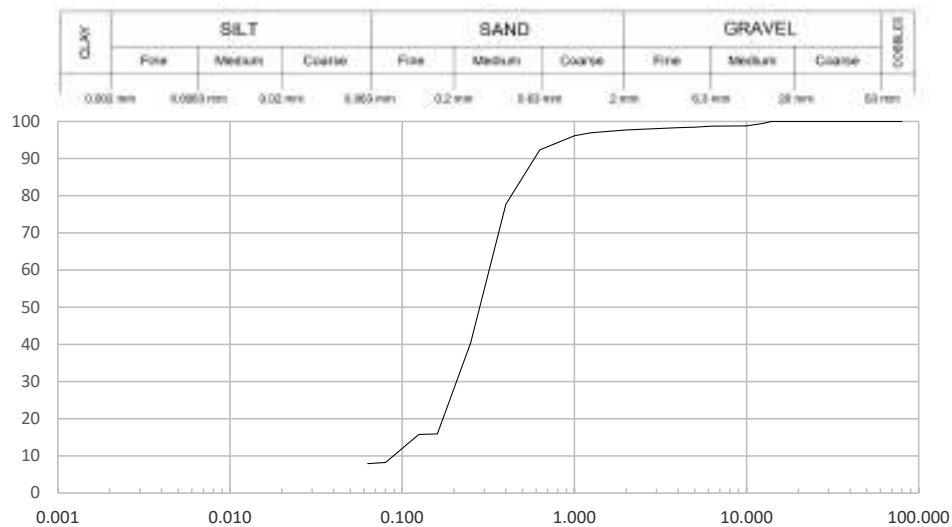
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	32.42
Medium Gravel	5.19
Fine Gravel	8.12
Coarse sand	31.32
Medium sand	14.00
Fine sand	3.32
Silt and Clay	5.63
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	72.68
25.0	72.68
20.0	67.58
14.0	63.87
12.5	63.87
10.0	63.22
6.3	62.39
5.00	61.29
4.00	60.35
2.00	54.27
1.25	42.52
1.00	33.43
0.630	22.95
0.400	15.24
0.250	10.29
0.200	8.95
0.160	7.61
0.125	7.58
0.080	6.01
0.063	5.63

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#102 - B
		Specimen depth:	1.15 - 1.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



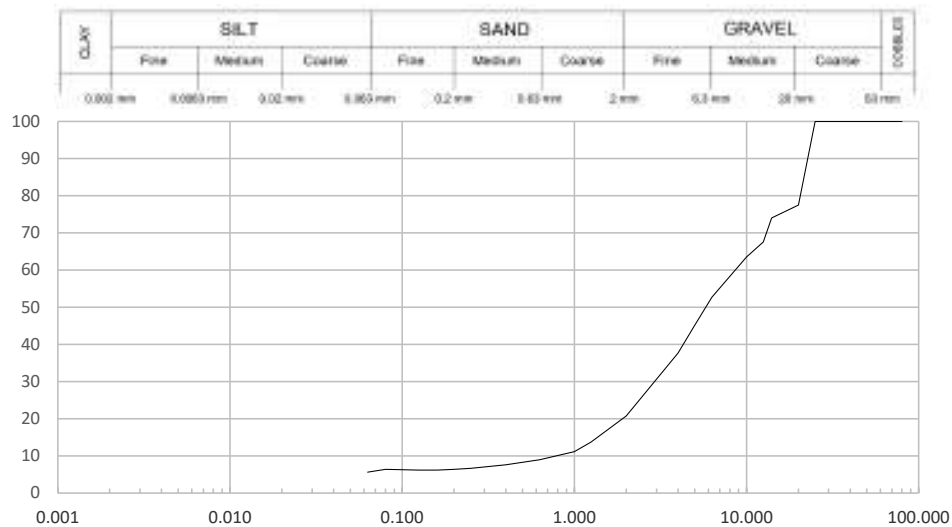
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.30
Fine Gravel	0.97
Coarse sand	5.41
Medium sand	64.12
Fine sand	20.26
Silt and Clay	7.93
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	99.49
10.0	98.79
6.3	98.70
5.00	98.46
4.00	98.31
2.00	97.73
1.25	96.93
1.00	96.15
0.630	92.32
0.400	77.68
0.250	40.47
0.200	28.19
0.160	15.91
0.125	15.82
0.080	8.25
0.063	7.93

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#179_A - B
		Specimen depth:	1.4 - 1.8m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



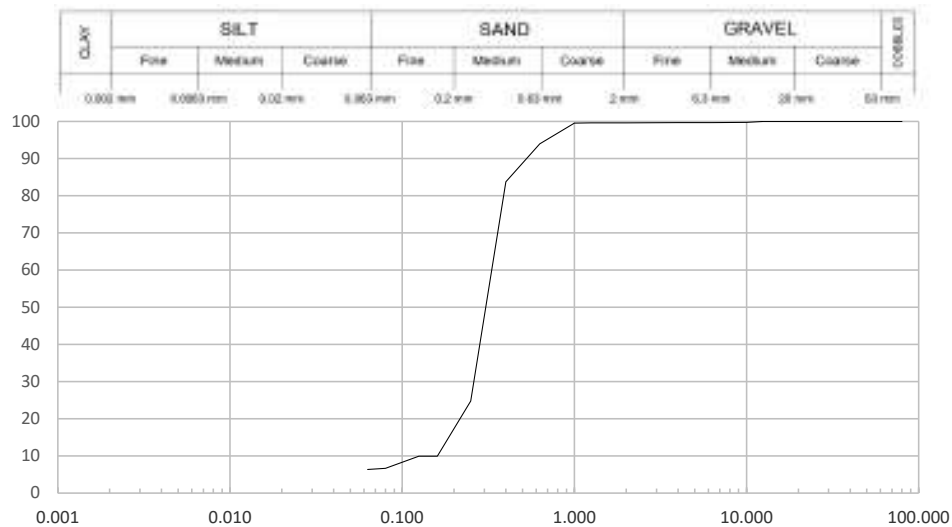
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	22.49
Medium Gravel	24.79
Fine Gravel	31.99
Coarse sand	11.74
Medium sand	2.57
Fine sand	0.79
Silt and Clay	5.63
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	77.51
14.0	74.02
12.5	67.58
10.0	63.52
6.3	52.73
5.00	45.15
4.00	37.70
2.00	20.73
1.25	13.74
1.00	11.14
0.630	8.99
0.400	7.59
0.250	6.67
0.200	6.42
0.160	6.17
0.125	6.17
0.080	6.42
0.063	5.63

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#104_A - B Specimen depth: 1.05 - 1.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



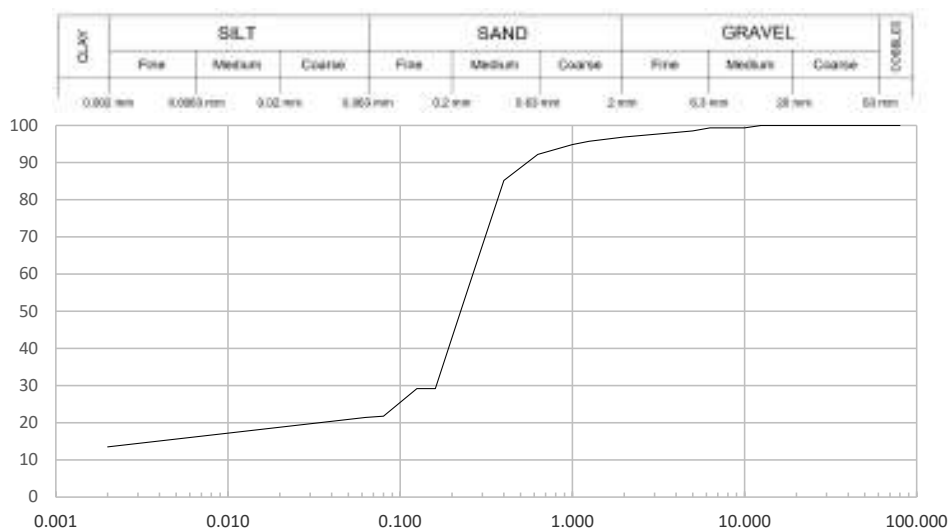
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.34
Fine Gravel	0.02
Coarse sand	5.64
Medium sand	76.64
Fine sand	10.99
Silt and Clay	6.36
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.77
6.3	99.66
5.00	99.66
4.00	99.66
2.00	99.63
1.25	99.59
1.00	99.53
0.630	93.99
0.400	83.75
0.250	24.76
0.200	17.35
0.160	9.94
0.125	9.90
0.080	6.66
0.063	6.36

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#251 - A
		Specimen depth:	0.8 - 0.95m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



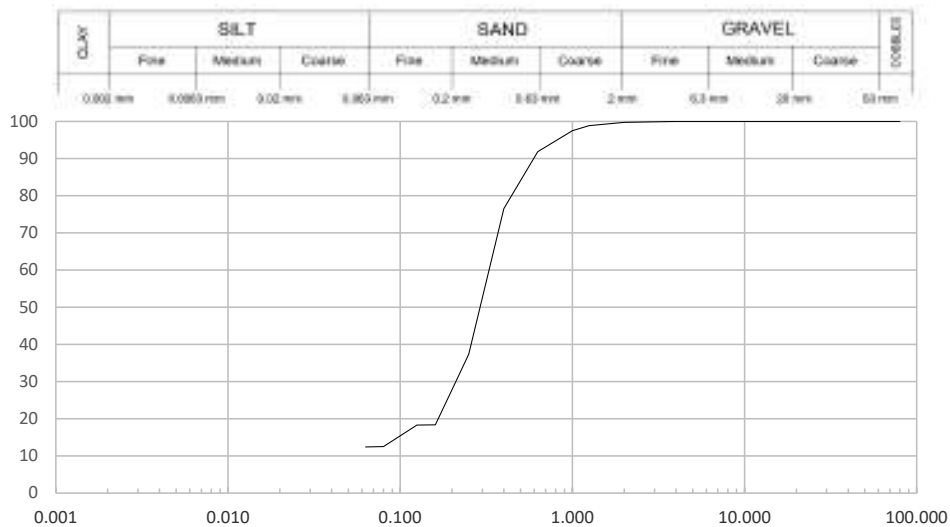
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.68
Fine Gravel	2.42
Coarse sand	4.70
Medium sand	49.29
Fine sand	21.44
Silt and Clay	21.46
Silt	7.95
Clay	13.51

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	99.32
6.3	99.32
5.00	98.51
4.00	98.13
2.00	96.89
1.25	95.72
1.00	94.89
0.630	92.19
0.400	85.22
0.250	56.58
0.200	42.90
0.160	29.22
0.125	29.18
0.080	21.76
0.063	21.46

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#252 - B Specimen depth: 0.97 - 1.28m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



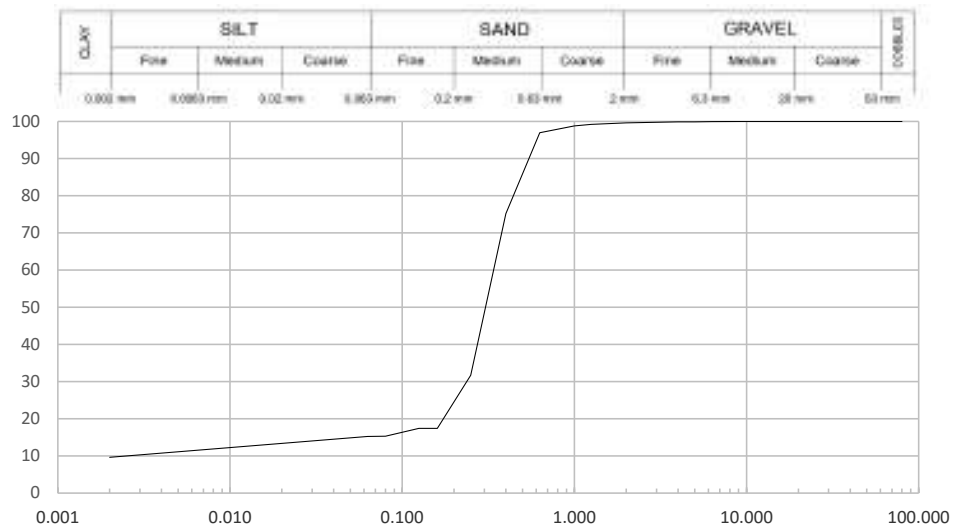
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.27
Coarse sand	7.85
Medium sand	64.02
Fine sand	15.44
Silt and Clay	12.42
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.73
1.25	98.85
1.00	97.52
0.630	91.88
0.400	76.58
0.250	37.37
0.200	27.86
0.160	18.35
0.125	18.30
0.080	12.53
0.063	12.42

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#104_A - A
		Specimen depth:	0.05 - 0.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



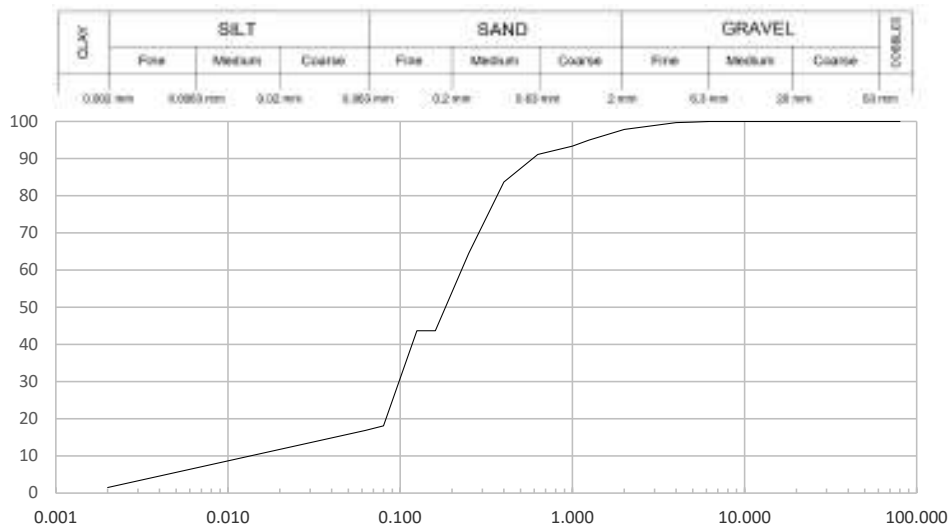
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.07
Fine Gravel	0.32
Coarse sand	2.65
Medium sand	72.38
Fine sand	9.37
Silt and Clay	15.21
Silt	5.58
Clay	9.63

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.93
5.00	99.91
4.00	99.89
2.00	99.61
1.25	99.20
1.00	98.82
0.630	96.96
0.400	75.20
0.250	31.73
0.200	24.58
0.160	17.44
0.125	17.42
0.080	15.28
0.063	15.21

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#VC2_A - A Specimen depth: 0 - 0.1m	

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



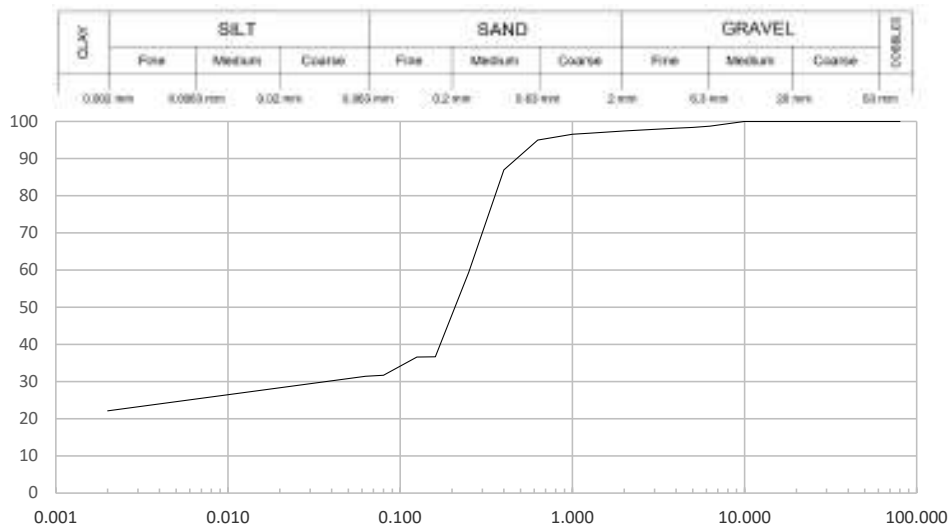
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	2.13
Coarse sand	6.75
Medium sand	37.03
Fine sand	37.19
Silt and Clay	16.90
Silt	15.40
Clay	1.50

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.83
4.00	99.70
2.00	97.87
1.25	94.99
1.00	93.38
0.630	91.12
0.400	83.69
0.250	64.49
0.200	54.09
0.160	43.70
0.125	43.66
0.080	18.11
0.063	16.90

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#338 - A
		Specimen depth:	0.1 - 0.25m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



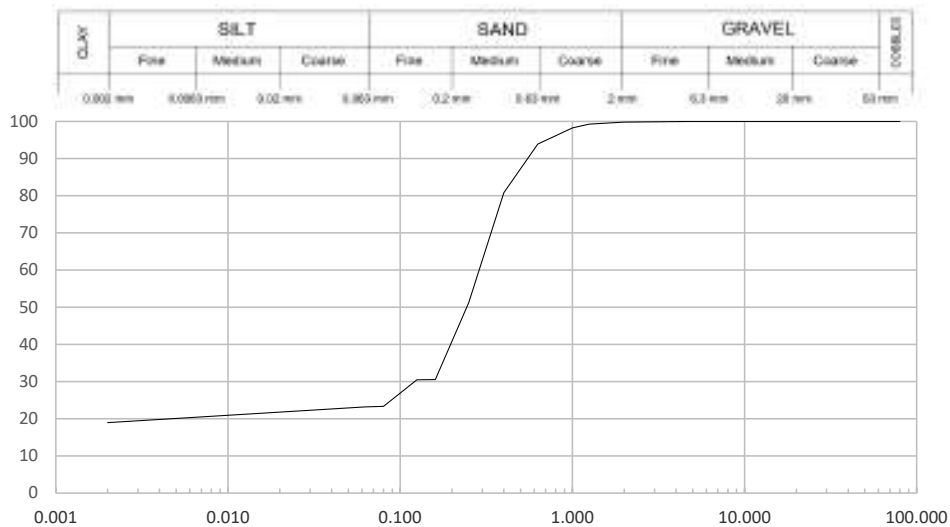
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	1.24
Fine Gravel	1.32
Coarse sand	2.47
Medium sand	46.96
Fine sand	16.55
Silt and Clay	31.46
Silt	9.33
Clay	22.13

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	98.76
5.00	98.36
4.00	98.20
2.00	97.44
1.25	96.84
1.00	96.52
0.630	94.97
0.400	86.95
0.250	59.37
0.200	48.01
0.160	36.66
0.125	36.63
0.080	31.68
0.063	31.46

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#252 - A
		Specimen depth:	0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



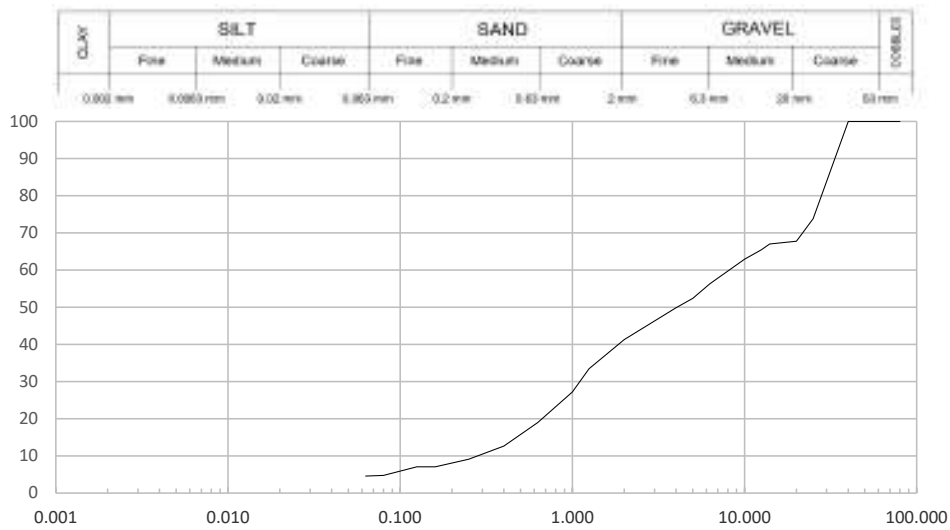
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.17
Coarse sand	5.94
Medium sand	53.01
Fine sand	17.69
Silt and Clay	23.18
Silt	4.22
Clay	18.96

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.94
2.00	99.83
1.25	99.30
1.00	98.27
0.630	93.89
0.400	80.83
0.250	51.23
0.200	40.88
0.160	30.52
0.125	30.50
0.080	23.34
0.063	23.18

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#VC2_A - A Specimen depth: 0.27 - 0.42m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



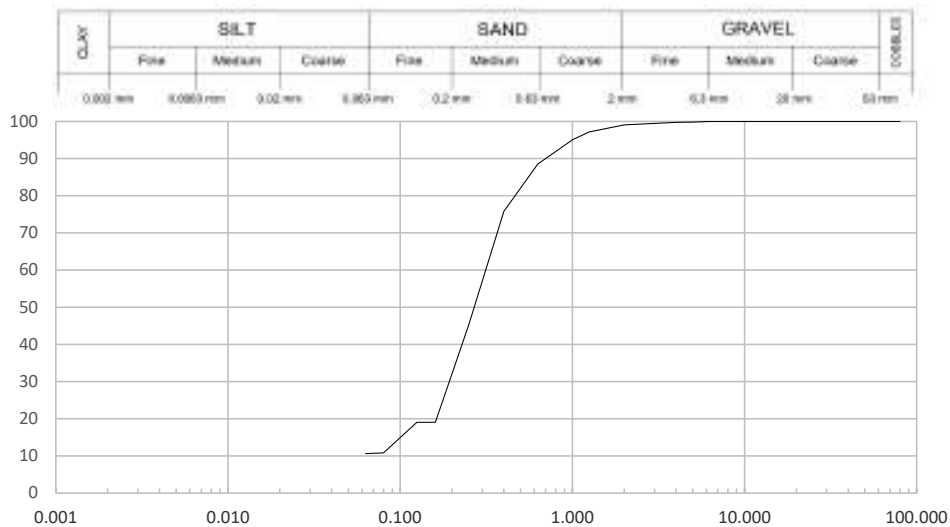
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	32.23
Medium Gravel	11.46
Fine Gravel	15.02
Coarse sand	22.32
Medium sand	10.87
Fine sand	3.53
Silt and Clay	4.59
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	73.81
20.0	67.77
14.0	67.03
12.5	65.44
10.0	62.91
6.3	56.31
5.00	52.36
4.00	49.89
2.00	41.30
1.25	33.45
1.00	27.22
0.630	18.98
0.400	12.68
0.250	9.14
0.200	8.11
0.160	7.08
0.125	7.08
0.080	4.74
0.063	4.59

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	Sampling date: See VC logs Test date: 20/10/2022 PointId - Sample: EC GI#102 - A Specimen depth: 0.05 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



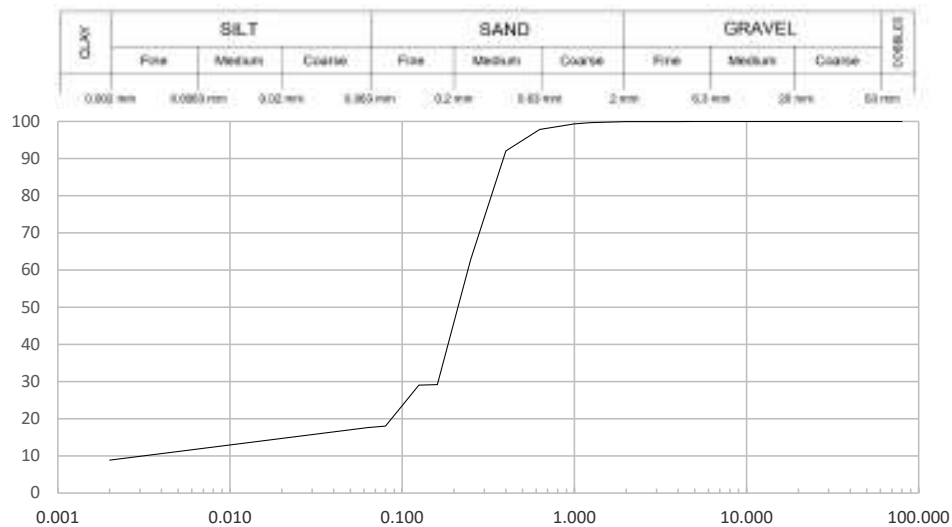
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.92
Coarse sand	10.55
Medium sand	56.39
Fine sand	21.52
Silt and Clay	10.62
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	99.83
4.00	99.77
2.00	99.08
1.25	97.19
1.00	95.09
0.630	88.53
0.400	75.83
0.250	45.23
0.200	32.14
0.160	19.05
0.125	19.02
0.080	10.84
0.063	10.62

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	20/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	EC GI#251 - B
		Specimen depth:	1.8 - 2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



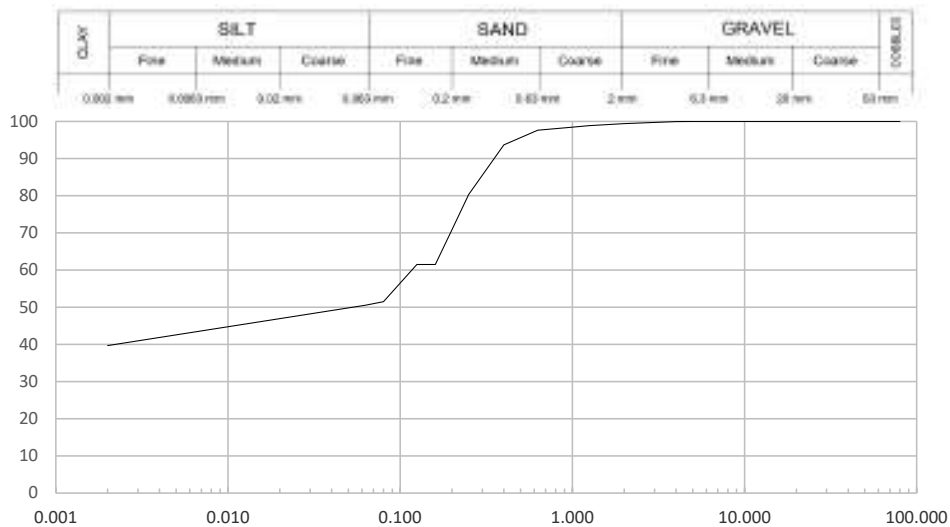
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.08
Coarse sand	2.10
Medium sand	51.77
Fine sand	28.46
Silt and Clay	17.59
Silt	8.72
Clay	8.87

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.98
2.00	99.92
1.25	99.66
1.00	99.32
0.630	97.83
0.400	92.05
0.250	62.89
0.200	46.05
0.160	29.21
0.125	29.06
0.080	18.00
0.063	17.59

SOIL TESTS CLASSIFICATION

CLIENT:	Tecnoambiente	Sampling date:	See VC logs
		Test date:	23/10/2022
PROJECT:	RTE Export Cable A05	PointId - Sample:	ECGI#251 - C
		Specimen depth:	2 - 2.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



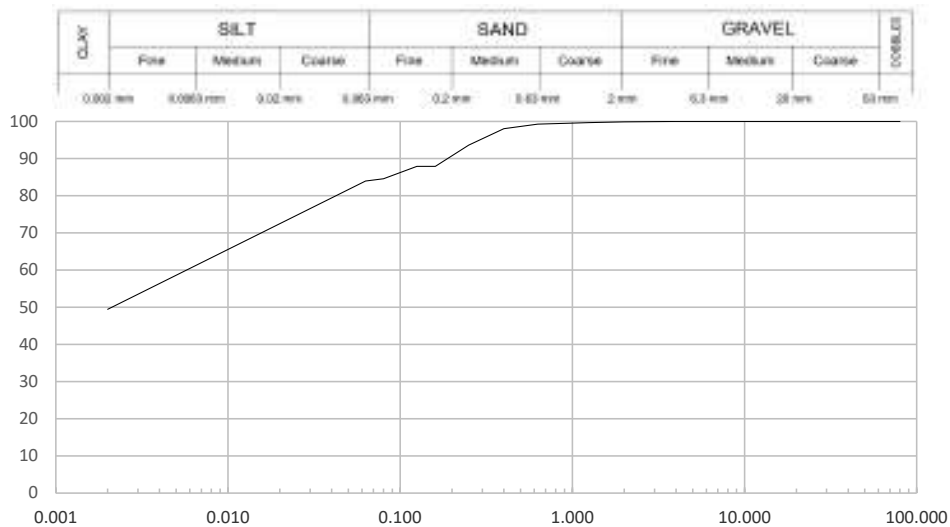
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.60
Coarse sand	1.73
Medium sand	26.74
Fine sand	20.35
Silt and Clay	50.59
Silt	10.90
Clay	39.69

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	99.95
2.00	99.40
1.25	98.90
1.00	98.48
0.630	97.67
0.400	93.72
0.250	80.35
0.200	70.93
0.160	61.52
0.125	61.50
0.080	51.49
0.063	50.59

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>23/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#254_A - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0.25 - 0.35m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	23/10/2022	PointId - Sample:	EC GI#254_A - A	Specimen depth:	0.25 - 0.35m
Sampling date:	See VC logs								
Test date:	23/10/2022								
PointId - Sample:	EC GI#254_A - A								
Specimen depth:	0.25 - 0.35m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



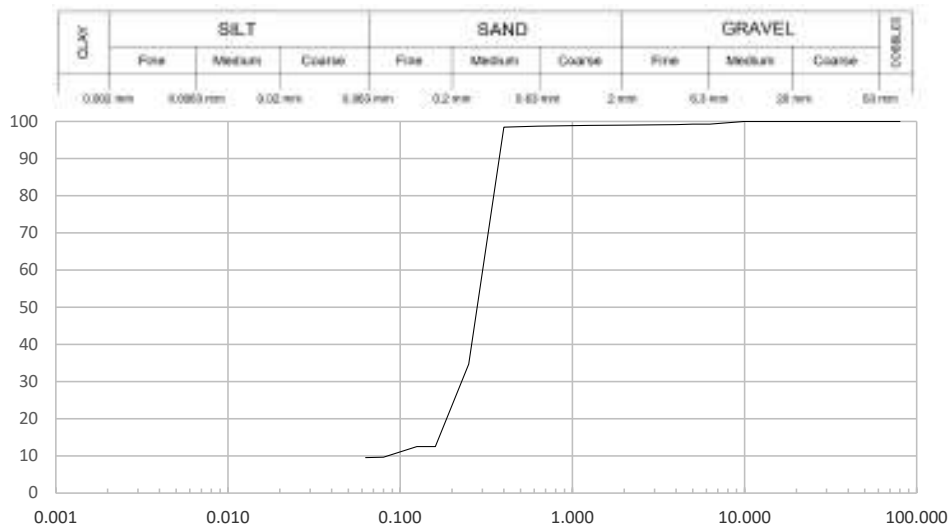
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.00
Fine Gravel	0.13
Coarse sand	0.59
Medium sand	8.51
Fine sand	6.80
Silt and Clay	83.97
Silt	34.52
Clay	49.45

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	100.00
5.00	100.00
4.00	100.00
2.00	99.87
1.25	99.70
1.00	99.57
0.630	99.28
0.400	98.02
0.250	93.63
0.200	90.78
0.160	87.92
0.125	87.91
0.080	84.59
0.063	83.97

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>23/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#427 - B</td> </tr> <tr> <td>Specimen depth:</td> <td>1.55 - 1.75m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	23/10/2022	PointId - Sample:	EC GI#427 - B	Specimen depth:	1.55 - 1.75m
Sampling date:	See VC logs								
Test date:	23/10/2022								
PointId - Sample:	EC GI#427 - B								
Specimen depth:	1.55 - 1.75m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



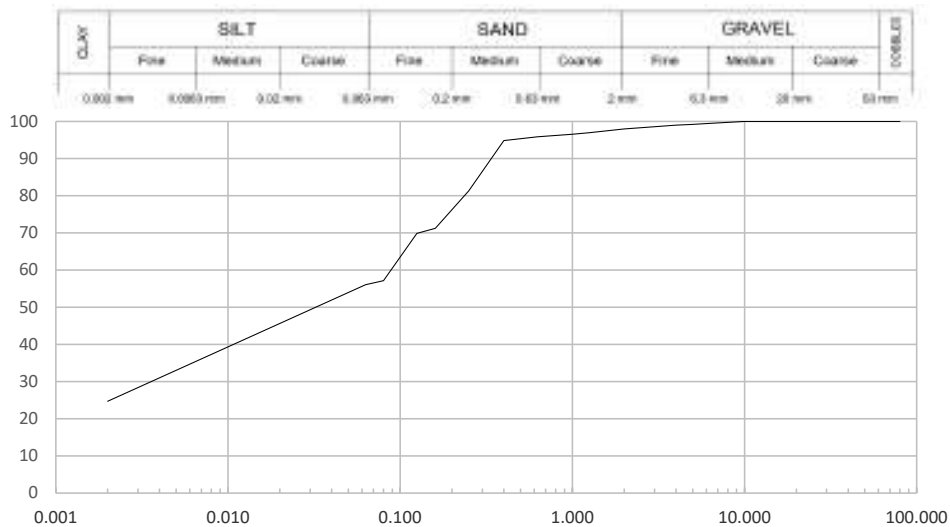
Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.71
Fine Gravel	0.32
Coarse sand	0.25
Medium sand	75.11
Fine sand	14.06
Silt and Clay	9.55
Silt	
Clay	

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.29
5.00	99.26
4.00	99.16
2.00	98.97
1.25	98.96
1.00	98.88
0.630	98.73
0.400	98.45
0.250	34.69
0.200	23.61
0.160	12.54
0.125	12.50
0.080	9.63
0.063	9.55

SOIL TESTS CLASSIFICATION

CLIENT: Tecnoambiente PROJECT: RTE Export Cable A05	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sampling date:</td> <td>See VC logs</td> </tr> <tr> <td>Test date:</td> <td>23/10/2022</td> </tr> <tr> <td>PointId - Sample:</td> <td>EC GI#427 - A</td> </tr> <tr> <td>Specimen depth:</td> <td>0.55 - 0.75m</td> </tr> </table>	Sampling date:	See VC logs	Test date:	23/10/2022	PointId - Sample:	EC GI#427 - A	Specimen depth:	0.55 - 0.75m
Sampling date:	See VC logs								
Test date:	23/10/2022								
PointId - Sample:	EC GI#427 - A								
Specimen depth:	0.55 - 0.75m								

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	0.00
Medium Gravel	0.51
Fine Gravel	1.49
Coarse sand	2.13
Medium sand	19.60
Fine sand	20.18
Silt and Clay	56.09
Silt	31.38
Clay	24.71

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	100.00
14.0	100.00
12.5	100.00
10.0	100.00
6.3	99.49
5.00	99.18
4.00	99.02
2.00	98.01
1.25	96.99
1.00	96.58
0.630	95.87
0.400	94.83
0.250	81.31
0.200	76.27
0.160	71.23
0.125	69.88
0.080	57.17
0.063	56.09

SOIL TESTS

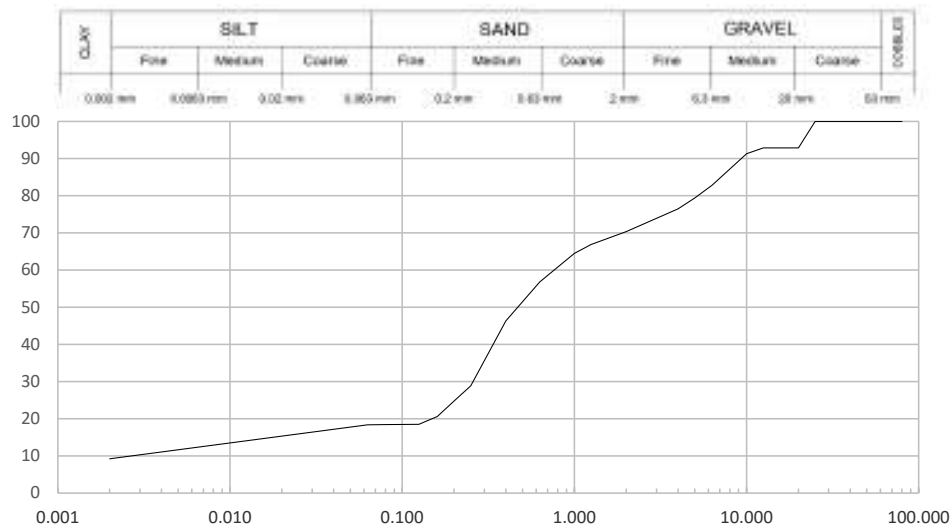
CLASSIFICATION

CLIENT: Tecnoambiente

PROJECT: RTE Export Cable A05

Sampling date: See VC logs
Test date: 23/10/2022
PointId - Sample: EC GI#427 - A
Specimen depth: 0 - 0.2m

PARTICLE SIZE DISTRIBUTION - BS EN ISO 17892-2: 2016



Particle Proportions (%)	
Cobbles	0.00
Coarse Gravel	7.12
Medium Gravel	10.10
Fine Gravel	12.44
Coarse sand	13.49
Medium sand	32.10
Fine sand	6.35
Silt and Clay	18.40
Silt	9.17
Clay	9.23

Sieve (mm)	% Pass
80	100.00
63	100.00
40	100.00
25.0	100.00
20.0	92.88
14.0	92.88
12.5	92.88
10.0	91.31
6.3	82.78
5.00	79.40
4.00	76.45
2.00	70.34
1.25	66.92
1.00	64.53
0.630	56.85
0.400	46.30
0.250	28.87
0.200	24.75
0.160	20.63
0.125	18.50
0.080	18.41
0.063	18.40



CLIENT:

Company: LABOCAT CALIDAD, S. L. (B63638167)

Address: C. VENDRELL, 49. 08227 TERRASSA

Mr./Mrs.: RAUL MIRANDA

PROJECT:

OFFSHORE A05

Number of laboratory test report
2022-6427-18537

Samples: Sent by the client
Materials tested: Soils
Date first reception: 20-09-22
Date last reception:

SUMMARY OF WORKS:

- SAMPLES Nº	40
- SOIL MOISTURE	1
- DENSITY	1
- PARTICLE SIZE DISTRIBUTION BY SIEVING	5
- PARTICLE SIZE DIST. BY SEDIMENTATION	1
- SOIL DIRECT SHEARBOX - Remoulded sample	1
- SOIL DIRECT SHEARBOX	23
- SOIL TRIAXIAL - Remoulded sample	1
- SOIL TRIAXIAL - UU 1.5'	13
- POINT LOAD TEST	3

DOCUMENT CONTROL:

Version	Date	Pages	Modifications	Written by	Checked by	Approved by
1	17-11-22	143		BLANCA MONEO ALONSO	FRANCESC GARCÍA FERNÁNDEZ	FRANCESC GARCÍA FERNÁNDEZ

Validation date: 17-11-22
GEOTECHNICAL LABORATORY MANAGER

This report presents the results obtained in the laboratory tests carried out by applying the indicated regulation, with no more responsibility than that derived from the correct use of the appropriate equipment, techniques and procedures. The results refer exclusively to the test specimen indicated in each case and are the property of the Client. Without your authorization GCQ SA will not communicate them to a third party. GCQ SA is not responsible for the interpretation or improper use that may be made of this document. No publication or reproduction is authorized without the consent of GCQ SA, and all results must always be fully reflected.

FRANCESC GARCÍA FERNÁNDEZ
Geologist
COLLEGIATE ICOG 1885



SUMMARY OF TESTS

LABOCAT CALIDAD, S. L. (B63638167)
PROJECT RTE A05

2022-6427-18537

SAMPLES N°	2022GC-5777	2022GC-5778	2022GC-5779	2022GC-5780	2022GC-5781	2022GC-5782	2022GC-5783	2022GC-5784	2022GC-5785
Situation	EC GI#528_Aa SAMPLE C	EC GI#440_A SAMPLE A	EC GI#VC_1 SAMPLE A	EC GI#337_A SAMPLE A	EC GI#335_A SAMPLE A	EC GI473 SAMPLE A	EC GI#529 SAMPLE A	EC GI#101a SAMPLE B	EC GI#427 SAMPLE B
Sample type	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Depth (m)	-	-	-	-	-	-	-	-	0.75-1
Majority fraction	SAND								
SOIL MOISTURE									
Soil moisture content (%)									
DENSITY									
Bulk density (Mg/m3)									
Dry density (Mg/m3)									
PARTICLE SIZE DISTRIBUTION BY SIEVING									
Pass through #20 mm (%)	94.3								
Pass through # 5 mm (%)	86.3								
Pass through # 2 mm (%)	73.4								
Pass through # 0.4 mm (%)	56.9								
Pass through # 0.08 mm (%)	14.7								
PARTICLE SIZE DIST. BY SEDIMENTATION									
Particles <0.063 mm (%)									
Silt, between 0.063-0.002 mm (%)									
Clay, <0.002 mm (%)									
SOIL DIRECT SHEARBOX									
Shear angle (º)		39.2	43.1	38.5	40.6	40.6	35.4	26.4	
Cohesion (kPa)		22.1	0.0	14.3	25.5	0.7	25.3	29.2	
SOIL TRIAXIAL									
Remoulded sample									
Test type	UU 1.5'								UU 1.5'
Φ _u (º)	32.9								39.3
c _u (kPa)	0								338
POINT LOAD TEST									
Number of tests									
Mean value of Is(50) (MPa)									



SUMMARY OF TESTS

LABOCAT CALIDAD, S. L. (B63638167)
PROJECT RTE A05

2022-6427-18537

SAMPLES N°	2022GC-5786	2022GC-5787	2022GC-5788	2022GC-5789	2022GC-5790	2022GC-5791	2022GC-5792	2022GC-5793	2022GC-5794
Situation	EC GI#254_A SAMPLE A	EC GI#427 SAMPLE C	EC GI#252 SAMPLE A	EC GI#259 SAMPLE A	EC GI#260_A SAMPLE A	EC GI#257 SAMPLE B	EC GI#333_A SAMPLE A	EC GI#10_A SAMPLE A	EC GI#251 SAMPLE A
Sample type	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Depth (m)	0-0.25	1.76-1.9	-	-	-	-	-	-	-
Majority fraction									SAND
SOIL MOISTURE									
Soil moisture content (%)									
DENSITY									
Bulk density (Mg/m3)									
Dry density (Mg/m3)									
PARTICLE SIZE DISTRIBUTION BY SIEVING									
Pass through #20 mm (%)									100.0
Pass through # 5 mm (%)									100.0
Pass through # 2 mm (%)									99.4
Pass through # 0.4 mm (%)									85.3
Pass through # 0.08 mm (%)									25.8
PARTICLE SIZE DIST. BY SEDIMENTATION									
Particles <0.063 mm (%)									23.2
Silt, between 0.063-0.002 mm (%)									17.6
Clay, <0.002 mm (%)									5.5
SOIL DIRECT SHEARBOX									
Shear angle (º)	0.0		33.2	38.5	36.3	42.7	45.7	45.3	
Cohesion (kPa)	24.2		23.5	8.2	12.7	5.6	8.5	39.2	
SOIL TRIAXIAL									
Remoulded sample									
Test type	UU 1.5'	UU 1.5'							UU 1.5'
Φ _u (º)	0.0	0.0							0.0
c _u (kPa)	5	75							14
POINT LOAD TEST									
Number of tests									
Mean value of Is(50) (MPa)									



SUMMARY OF TESTS

LABOCAT CALIDAD, S. L. (B63638167)
PROJECT RTE A05

2022-6427-18537

SAMPLES N°	2022GC-5794R	2022GC-5795	2022GC-5796	2022GC-5797	2022GC-5798	2022GC-5799	2022GC-5800	2022GC-5801	2022GC-5802
Situation	EC GI#251 SAMPLE A	EC GI#510_A SAMPLE A	EC GI#516_A SAMPLE A	EC GI#512 SAMPLE B	EC GI#338 SAMPLE A	EC GI#101 SAMPLE A	EC GI#517 SAMPLE A	EC GI#250 SAMPLE A	EC GI#255 SAMPLE B
Sample type	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Depth (m)	-	-	-	-	-	-	-	-	-
Majority fraction				SAND					SAND
SOIL MOISTURE									
Soil moisture content (%)									15.9
DENSITY									
Bulk density (Mg/m3)									2.179
Dry density (Mg/m3)									1.880
PARTICLE SIZE DISTRIBUTION BY SIEVING									
Pass through #20 mm (%)				100.0					100.0
Pass through # 5 mm (%)				98.4					94.4
Pass through # 2 mm (%)				96.5					86.4
Pass through # 0.4 mm (%)				91.8					65.1
Pass through # 0.08 mm (%)				4.2					14.9
PARTICLE SIZE DIST. BY SEDIMENTATION									
Particles <0.063 mm (%)									
Silt, between 0.063-0.002 mm (%)									
Clay, <0.002 mm (%)									
SOIL DIRECT SHEARBOX									
Shear angle (º)		46.3	35.9	48.1	35.7		51.7	34.7	
Cohesion (kPa)		0.5	24.1	0.0	13.8		0.0	22.1	
SOIL TRIAXIAL									
Remoulded sample	YES								
Test type	UU 1.5'					UU 1.5'			UU 1.5'
Φu (º)	0.0					4.8			0.0
cu (kPa)	7					2			12
POINT LOAD TEST									
Number of tests									
Mean value of Is(50) (MPa)									



SUMMARY OF TESTS

LABOCAT CALIDAD, S. L. (B63638167)
PROJECT RTE A05

2022-6427-18537

SAMPLES N°	2022GC-5803	2022GC-5804	2022GC-5805	2022GC-5806	2022GC-5807	2022GC-5808	2022GC-5809	2022GC-5810	2022GC-5811
Situation	EC GI#255 SAMPLE A	EC GI#103 SAMPLE A	EC GI#103 SAMPLE B	EC GI#179A SAMPLE A	EC GI#253 SAMPLE B	EC GI#254_A SAMPLE B	EC GI#10_A SAMPLE B	EC GI#104_A SAMPLE A	EC GI#102 SAMPLE A
Sample type	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Depth (m)	-	-	-	-	1-1.2	1.15-1.3	-	-	-
Majority fraction				SAND					
SOIL MOISTURE									
Soil moisture content (%)									
DENSITY									
Bulk density (Mg/m3)									
Dry density (Mg/m3)									
PARTICLE SIZE DISTRIBUTION BY SIEVING									
Pass through #20 mm (%)				100.0					
Pass through # 5 mm (%)				100.0					
Pass through # 2 mm (%)				100.0					
Pass through # 0.4 mm (%)				99.6					
Pass through # 0.08 mm (%)				11.3					
PARTICLE SIZE DIST. BY SEDIMENTATION									
Particles <0.063 mm (%)									
Silt, between 0.063-0.002 mm (%)									
Clay, <0.002 mm (%)									
SOIL DIRECT SHEARBOX									
Shear angle (º)			39.4				38.7	45.9	
Cohesion (kPa)			0.0				62.1	0.0	
SOIL TRIAXIAL									
Remoulded sample									
Test type	UU 1.5'	UU 1.5'			UU 1.5'	UU 1.5'			UU 1.5'
Φu (º)	0.0	40.4			34.3	0.0			44.1
cu (kPa)	9	436			74	51			115
POINT LOAD TEST									
Number of tests									
Mean value of Is(50) (MPa)									

SUMMARY OF TESTS

LABOCAT CALIDAD, S. L. (B63638167)
PROJECT RTE A05

2022-6427-18537

SAMPLES N°	2022GC-5812	2022GC-5813	2022GC-5814	2022GC-5815	2022GC-5816
Situation	EC GI#470 SAMPLE TOE	EC GI#478Aa SAMPLE TOE	EC GI#468 SAMPLE TOE	EC GI#475Aa SAMPLE TOE	EC GI#465_Aa SAMPLE C
Sample type	BAG	BAG	BAG	BAG	BLOCK
Depth (m)	-	-	-	-	3.1-3.55
Majority fraction					
SOIL MOISTURE					
Soil moisture content (%)					
DENSITY					
Bulk density (Mg/m3)					
Dry density (Mg/m3)					
PARTICLE SIZE DISTRIBUTION BY SIEVING					
Pass through #20 mm (%)					
Pass through # 5 mm (%)					
Pass through # 2 mm (%)					
Pass through # 0.4 mm (%)					
Pass through # 0.08 mm (%)					
PARTICLE SIZE DIST. BY SEDIMENTATION					
Particles <0.063 mm (%)					
Silt, between 0.063-0.002 mm (%)					
Clay, <0.002 mm (%)					
SOIL DIRECT SHEARBOX					
Shear angle (º)					
Cohesion (kPa)					
SOIL TRIAXIAL					
Remoulded sample					
Test type					
Φ _u (º)					
c _u (kPa)					
POINT LOAD TEST					
Number of tests					3
Mean value of Is(50) (MPa)	CANCELED	CANCELED	CANCELED	CANCELED	6.59



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5777

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#528_Aa
SAMPLE C

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

26-9-22
LUÍS MOSCOSO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to EN ISO criteria

Depth
m

Observations

P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95
TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5777



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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Sample reference

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95

2022GC-5777

Equipment			Results						
STANDARD SIEVE SERIES PROETI BALANCE GIBERTINI EU-1700 FORN DE DESSECACIÓ ETI-P0228			Sieves		Retained sieves		Passing total sample		
	Nº	Opening mm	Partial g	Total g	Total %	g	%		
	1 1/2"	40		0.00	0.0	822.47	100.0		
	1"	25		19.30	2.3	803.17	97.7		
	3/4"	20		27.80	5.7	775.37	94.3		
	1/2"	12.5		12.66	7.3	762.71	92.7		
	3/8"	10		10.97	8.6	751.74	91.4		
	1/4"	6.3		26.26	11.8	725.48	88.2		
	Nº4	5		15.70	13.7	709.78	86.3		
	Nº10	2		106.07	26.6	603.71	73.4		
	Nº16	1.25	5.11		31.2	565.57	68.8		
	Nº40	0.4	13.12		43.1	467.65	56.9		
	Nº100	0.16	35.70		75.5	201.20	24.5		
	Nº200	0.08	10.72		85.3	121.20	14.7		

Previous calculations		
Predrying temperature (°C)		60
Total dried sample (g)		823.90
M. > 20 mm, washed and dried total (g)		47.10
M. < 20 mm, dried tested (g)		776.80
M. 20-2 mm, washed and dried (g)		171.66
M. 20-2 mm, washed and dried total (g)		171.66
M. > 2mm, washed and dried (g)		218.76
M. < 2 mm, dried tested (g)		81.08
M. < 2 mm, dried tested (g)		80.89
M. < 2 mm, dried total (g)		603.71
Total dried sample (g)		822.47
Hygros. moisture, % (fraction<2 mm)		0.2
Corr. parameter, f (fraction<2 mm)		0.9976
Corr. parameter, f2 (fraction<2 mm)		7.4635

Soil type according to ASTM-D 2487		
% COBBLES > 75 mm		0.0
% GRAVEL 75-4.75 mm	Coarse 75-19 mm	5.9
	Fine 19-4.75 mm	8.9
14.8		
% SAND 4.75-0.075 mm	Coarse 4.75-2 mm	11.8
	Medium 2-0.425 mm	16.1
	Fine 0.425-0.075 mm	43.2
71.1		
% FINE < 0.075 mm		14.1

Soil type according EN ISO 14688		
% COBBLES > 63 mm		0.0
% GRAVEL 63-2 mm	Coarse 63-20 mm	5.7
	Medium 20-6.3 mm	6.1
	Fine 6.3-2 mm	14.8
26.6		
% SAND 2-0.063 mm	Coarse 2-0.63 mm	13.3
	Medium 0.63-0.2 mm	30.2
	Fine 0.2-0.063 mm	17.3
60.8		
% FINE < 0.063 mm		12.6

ASTM-D 2487

EN ISO 14688

Soil type according to ASTM-D 2487				
COBBLES	GRAVEL	SAND	SILT	CLAY

Soil type according EN ISO 14688				
COBBLES	GRAVEL	SAND	SILT	CLAY

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5777****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.735	7.390	7.770
Initial diameter (cm)	3.800	3.610	3.650
Initial area (cm ²)	11.341	10.235	10.463
Initial volume (cm ³)	87.723	75.637	81.298
Initial moisture content (%)	25.6	25.6	25.6
Final moisture content (%)	20.3	23.3	23.9
Initial bulk density (gr/cm ³)	2.132	2.157	2.196
Initial dry density (gr/cm ³)	1.697	1.717	1.748

Initial saturation degree (%) 100.0 100.0 100.0

Final saturation degree (%) 100.0 100.0 100.0

Particle density (gr/cm³) 2.650 (assumed)**Test data and results**

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	1.0000	1.0000	1.0000
Major principal stress (kPa)	156.9	249.1	635.1
Failure stress (kPa)	156.9	249.1	635.1
Failure strain (%)	19.6	20.8	19.8
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

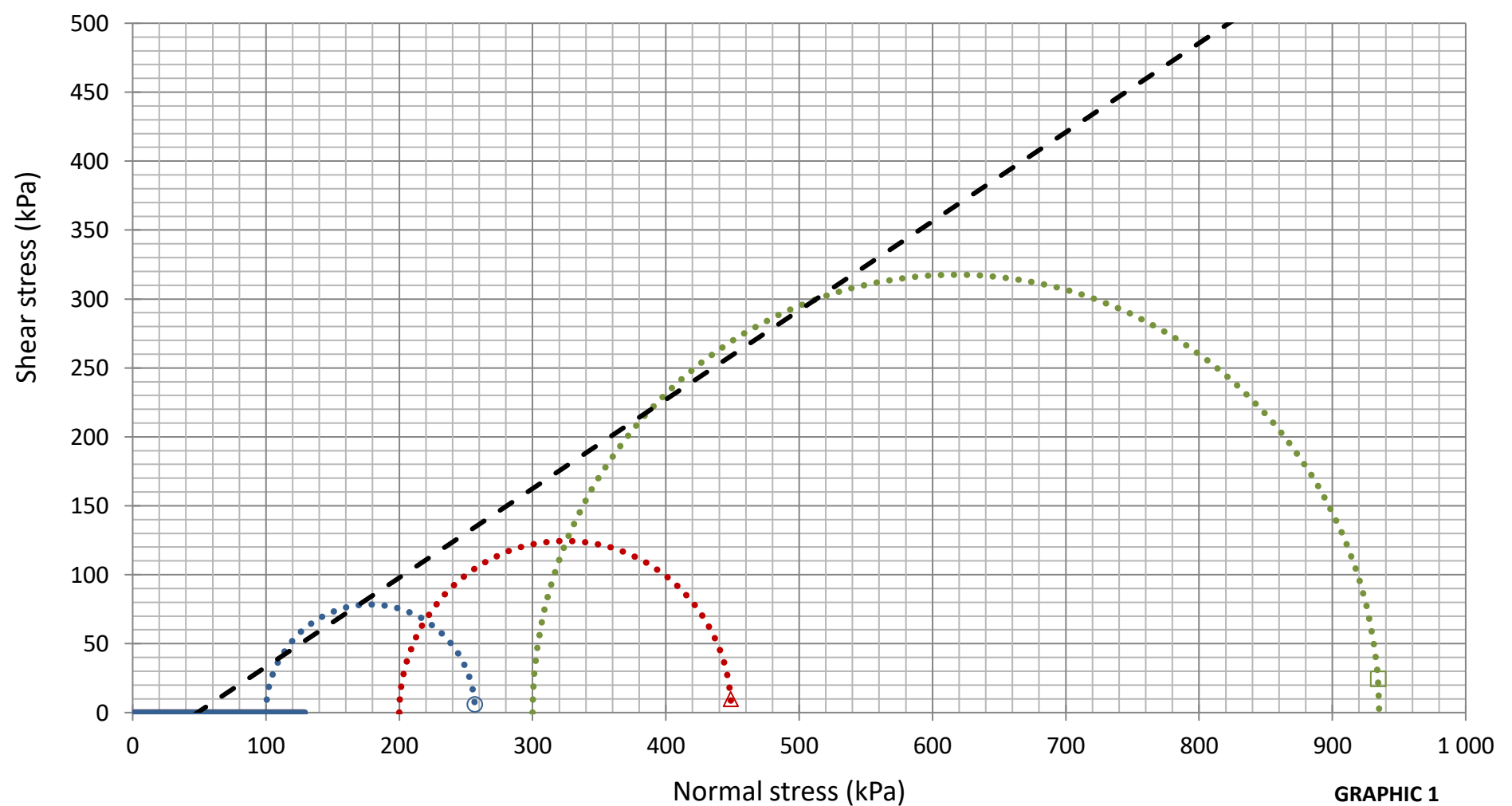
Specimen number	I	II	III
σ_1 (kPa)	256.9	449.1	935.1
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	78.5	124.6	317.6
$(\sigma_1 + \sigma_3)/2$ (kPa)	178.5	324.6	617.6

Estimate total

Φ_u (°)	32.9
C_u (kPa)	0
C_u (kp/cm ²)	0.00

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 27/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

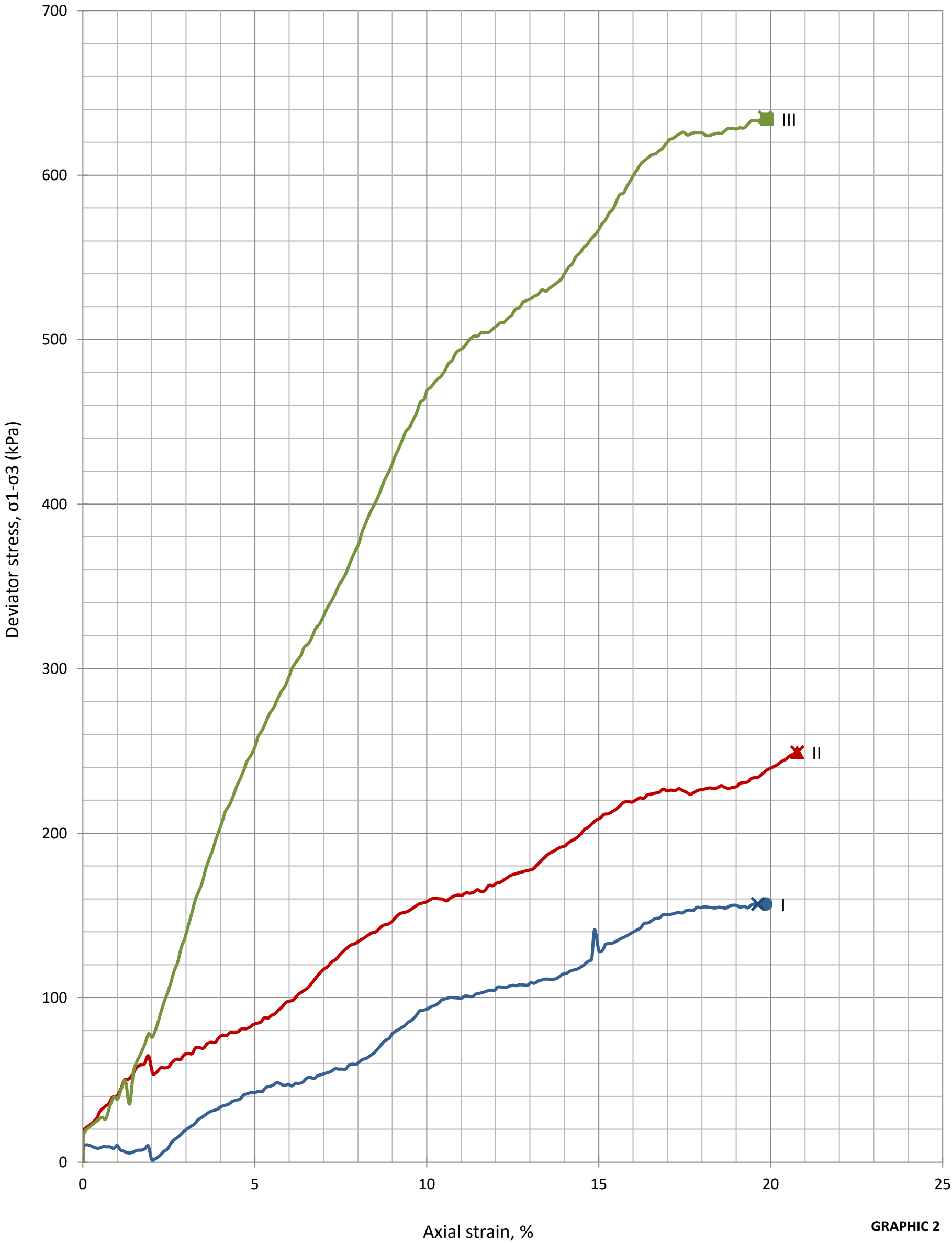
LOCATION: EC GI#528_Aa SAMPLE C TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5777



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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Sample reference

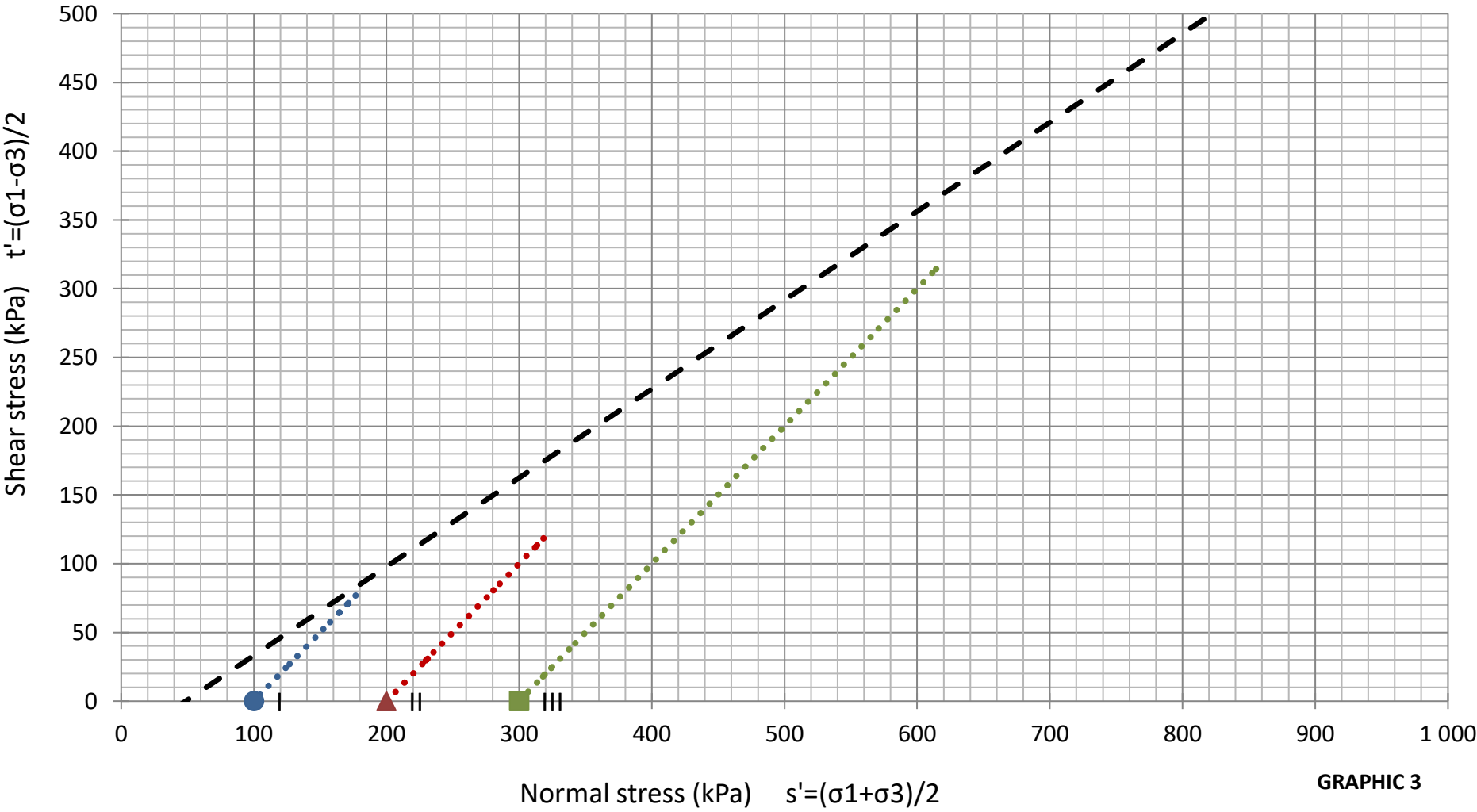
TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5777

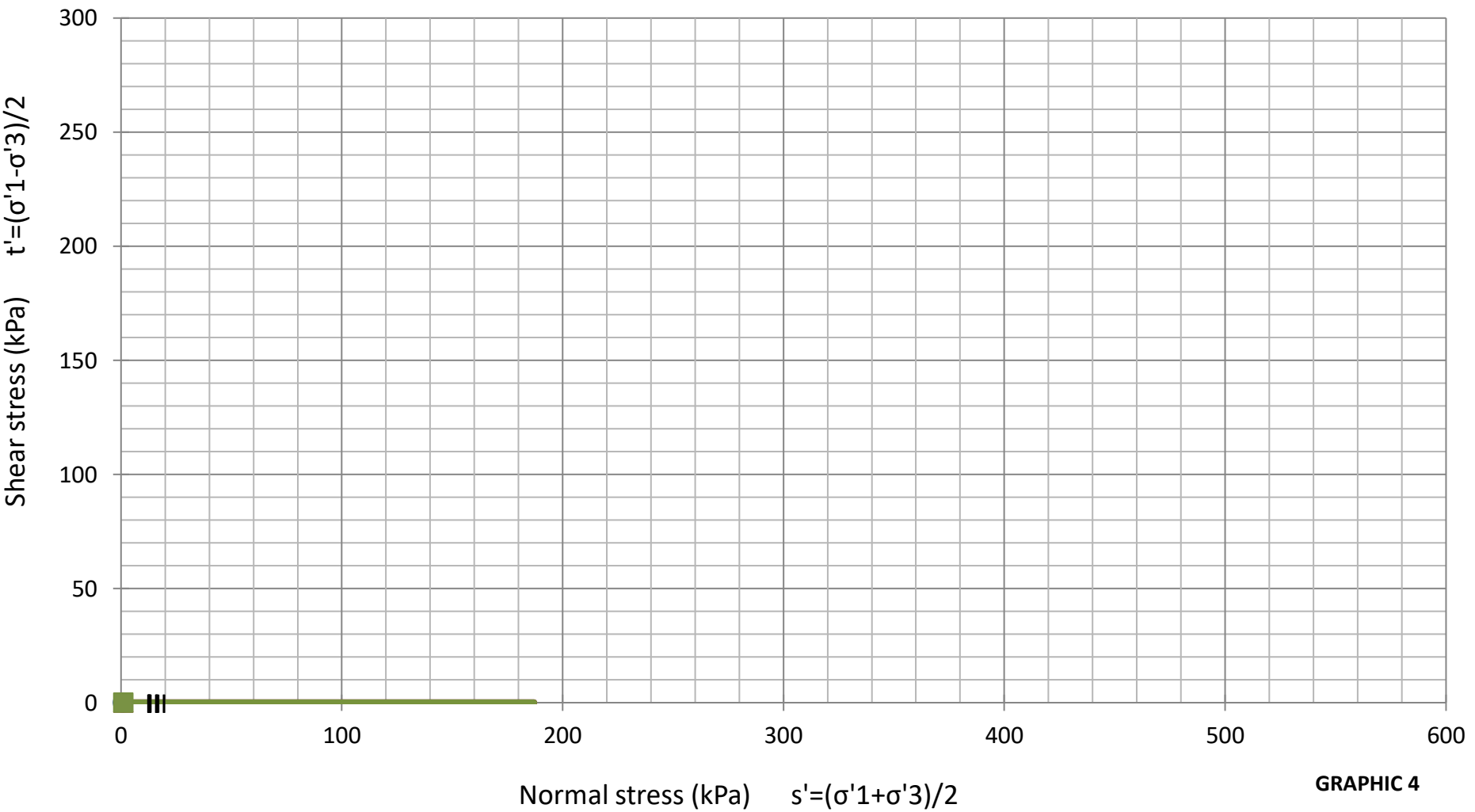
Total stress path parameters

$\Phi_u (^{\circ}) = 32.9$

$C_u \text{ (kPa)} = 0$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#528_Aa SAMPLE C TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5777

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.896	8.7	0.3	0.0	8.4		0.009	108.4				104.2	4.2		
Cell pressure	95	1.904	10.4	0.6	0.0	9.8		0.019	109.8				104.9	4.9		
σ_3 , kPa	145	3.016	30.8	0.8	10.0	20.0		0.030	120.0				110.0	10.0		
700	195	4.125	45.6	1.1	10.0	34.5		0.041	134.5				117.3	17.3		
Back pressure	240	5.115	54.4	1.3	10.0	43.1		0.051	143.1				121.6	21.6		
u_b , kPa	290	6.18	59.5	1.6	10.0	47.9		0.062	147.9				124.0	24.0		
600	340	7.23	67.1	1.8	10.0	55.3		0.073	155.3				127.7	27.7		
σ'_3 , kPa	390	8.251	75.2	2.0	10.0	63.2		0.083	163.2				131.6	31.6		
100	440	9.349	95.1	2.2	10.0	82.9		0.094	182.9				141.5	41.5		
Rate of axial displ.	485	10.341	109.0	2.4	10.0	96.6		0.104	196.6				148.3	48.3		
mm/min	535	11.431	114.8	2.6	10.0	102.2		0.115	202.2				151.1	51.1		
1.0000	585	12.509	120.3	2.8	10.0	107.5		0.126	207.5				153.8	53.8		
	635	13.556	124.2	3.0	10.0	111.2		0.136	211.2				155.6	55.6		
	685	14.575	133.2	3.2	10.0	120.0		0.146	220.0				160.0	60.0		
	730	15.55	148.1	3.3	10.0	134.8		0.156	234.8				167.4	67.4		
	780	16.643	161.6	3.5	10.0	148.1		0.167	248.1				174.1	74.1		
	830	17.751	166.6	3.6	10.0	153.0		0.178	253.0				176.5	76.5		
	880	18.803	169.5	3.8	10.0	155.7		0.189	255.7				177.9	77.9		
	930	19.865	170.8	3.9	10.0	156.9		0.200	256.9				178.5	78.5		
Specimen	0	0.001	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.86	39.7	0.3	0.0	39.4		0.009	239.4				219.7	19.7		
Cell pressure	95	2.034	65.1	0.6	10.7	53.8		0.020	253.8				226.9	26.9		
σ_3 , kPa	145	3.179	77.6	0.9	10.7	66.0		0.032	266.0				233.0	33.0		
800	195	4.285	90.7	1.2	10.7	78.8		0.043	278.8				239.4	39.4		
Back pressure	240	5.281	100.0	1.5	10.7	87.8		0.053	287.8				243.9	43.9		
u_b , kPa	290	6.324	115.3	1.7	10.7	102.9		0.063	302.9				251.5	51.5		
600	340	7.454	138.3	2.0	10.7	125.6		0.075	325.6				262.8	62.8		
σ'_3 , kPa	390	8.638	155.3	2.2	10.7	142.4		0.086	342.4				271.2	71.2		
200	440	9.77	170.1	2.5	10.7	156.9		0.098	356.9				278.5	78.5		
Rate of axial displ.	485	10.796	175.2	2.7	10.7	161.8		0.108	361.8				280.9	80.9		
mm/min	535	11.918	181.6	2.9	10.7	168.0		0.119	368.0				284.0	84.0		
1.0000	585	12.971	191.3	3.1	10.7	177.5		0.130	377.5				288.8	88.8		
	635	14.115	208.1	3.3	10.7	194.1		0.141	394.1				297.1	97.1		
	685	15.281	226.0	3.5	10.7	211.8		0.153	411.8				305.9	105.9		
	730	16.308	235.5	3.6	10.7	221.2		0.163	421.2				310.6	110.6		
	780	17.446	240.4	3.8	10.7	225.9		0.174	425.9				313.0	113.0		
	830	18.562	243.5	3.9	10.7	228.9		0.186	428.9				314.5	114.5		
	880	19.646	248.9	4.1	10.7	234.1		0.196	434.1				317.1	117.1		
	930	20.775	264.0	4.2	10.7	249.1		0.208	449.1				324.6	124.6		
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.902	39.8	0.3	0.0	39.5		0.010	339.5				319.8	19.8		
Cell pressure	95	2.019	87.1	0.6	10.5	76.0		0.020	376.0				338.0	38.0		
σ_3 , kPa	145	3.071	155.6	0.9	10.5	144.2		0.031	444.2				372.1	72.1		
900	195	4.069	219.8	1.1	10.5	208.2		0.042	508.2				404.1	104.1		
Back pressure	240	5.01	264.7	1.4	10.5	252.8		0.051	552.8				426.4	126.4		
u_b , kPa	290	6.096	312.8	1.6	10.5	300.7		0.062	600.7				450.4	150.4		
600	340	7.229	353.5	1.9	10.5	341.1		0.073	641.1				470.6	170.6		
σ'_3 , kPa	390	8.35	407.3	2.1	10.5	394.7		0.084	694.7				497.4	197.4		
300	440	9.391	457.0	2.3	10.5	444.2		0.094	744.2				522.1	222.1		
Rate of axial displ.	485	10.317	489.0	2.5	10.5	476.0		0.104	776.0				538.0	238.0		
mm/min	535	11.37	515.3	2.7	10.5	502.1		0.115	802.1				551.1	251.1		
1.0000	585	12.473	528.3	2.9	10.5	514.9		0.125	814.9				557.5	257.5		
	635	13.57	544.9	3.1	10.5	531.3		0.136	831.3				565.7	265.7		
	685	14.663	571.6	3.3	10.5	557.8		0.147	857.8				578.9	278.9		
	730	15.609	602.2	3.5	10.5	588.2		0.157	888.2				594.1	294.1		
	780	16.653	627.1	3.6	10.5	613.0		0.167	913.0				606.5	306.5		
	830	17.688	639.5	3.8	10.5	625.2		0.178	925.2				612.6	312.6		
	880	18.775	642.8	3.9	10.5	628.4		0.189	928.4				614.2	314.2		
	930	19.891	648.8	4.1	10.5	634.2		0.199	934.2				617.1	317.1		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#440_A SAMPLE A TUBE

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5778

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#440_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#440_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5778

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOXMECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor SI
Prior saturation NO

Prior consolidation NO

Drained failure NO

Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

 100  200  300

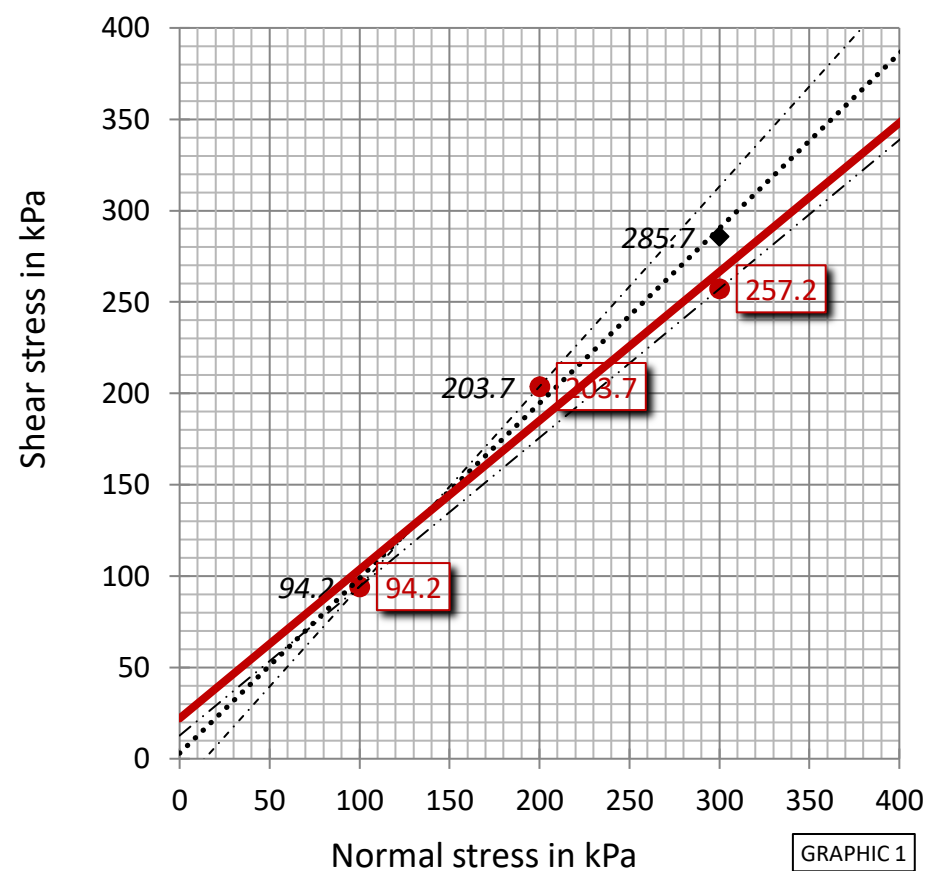
Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	16.334	14.956	15.203
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	4.9	4.9	4.9
Final moisture (%)	11.1	13.4	13.0
Initial bulk density (gr/cm ³)	1.875	1.873	1.868
Initial dry density (gr/cm ³)	1.787	1.786	1.781
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	-0.681	-0.627	-0.253
Initial voids ratio	0.4829	0.4838	0.4879
Voids ratio at end prior consol.	0.4829	0.4838	0.4879
Voids ratio at end of test	0.5251	0.5222	0.5036
Initial saturation degree (%)	26.89	26.84	26.61
Final saturation degree (%)	56.02	68.00	68.41
Max. shear stress (KPa)	94.2	203.7	285.7
Shear stress applied (KPa)	94.2	203.7	257.2

Horizontal speed (mm/min) 0.95941 0.96760 0.95931

Particle density (g/cm³) 2.650 (assumed)

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte



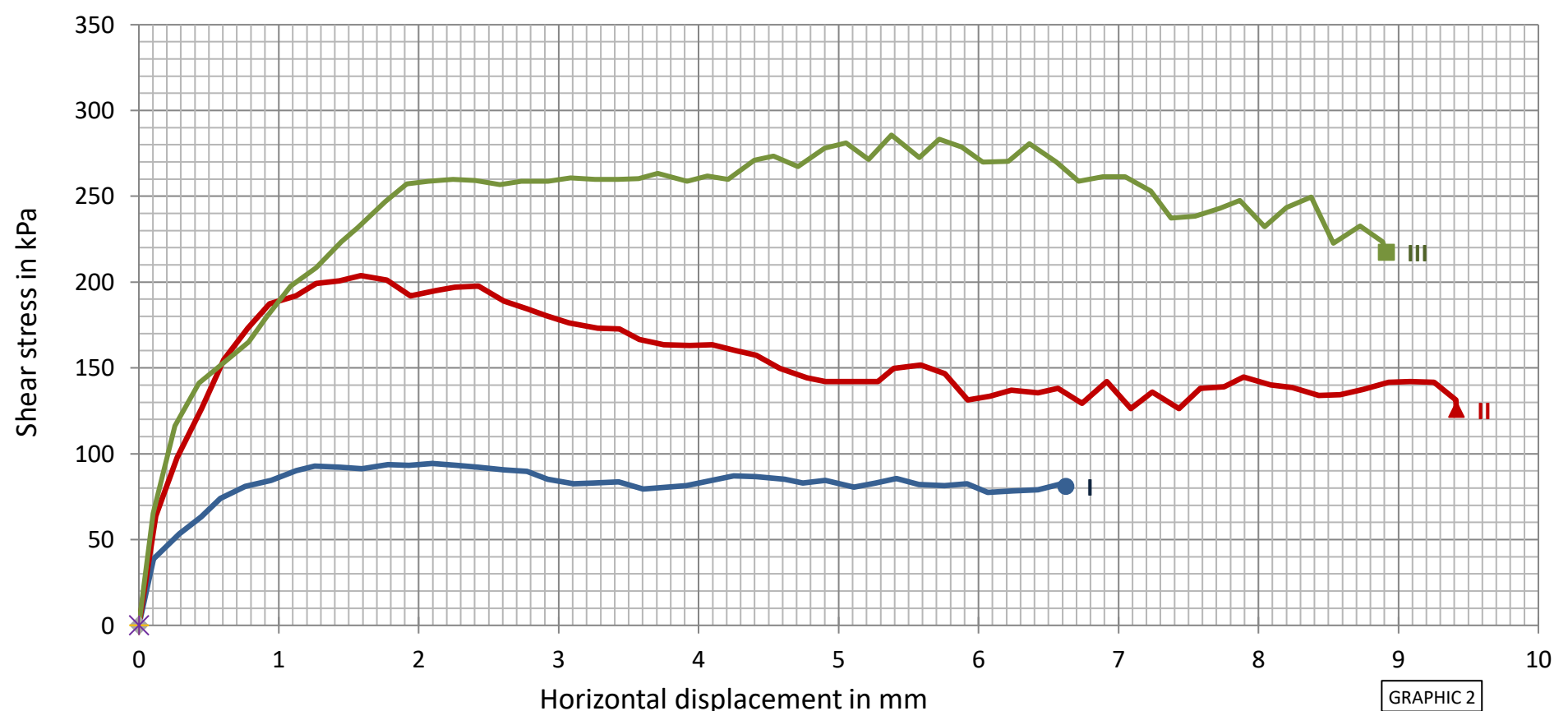
GRAPHIC 1

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)39.2
22.1
0.2343.8
3.1
0.0347.6
0.0
0.0039.2
12.7
0.13

RESIDUAL PARAMETERS



GRAPHIC 2

REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 21/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#VC_1 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5779

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#VC_1
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#VC_1 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5779

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

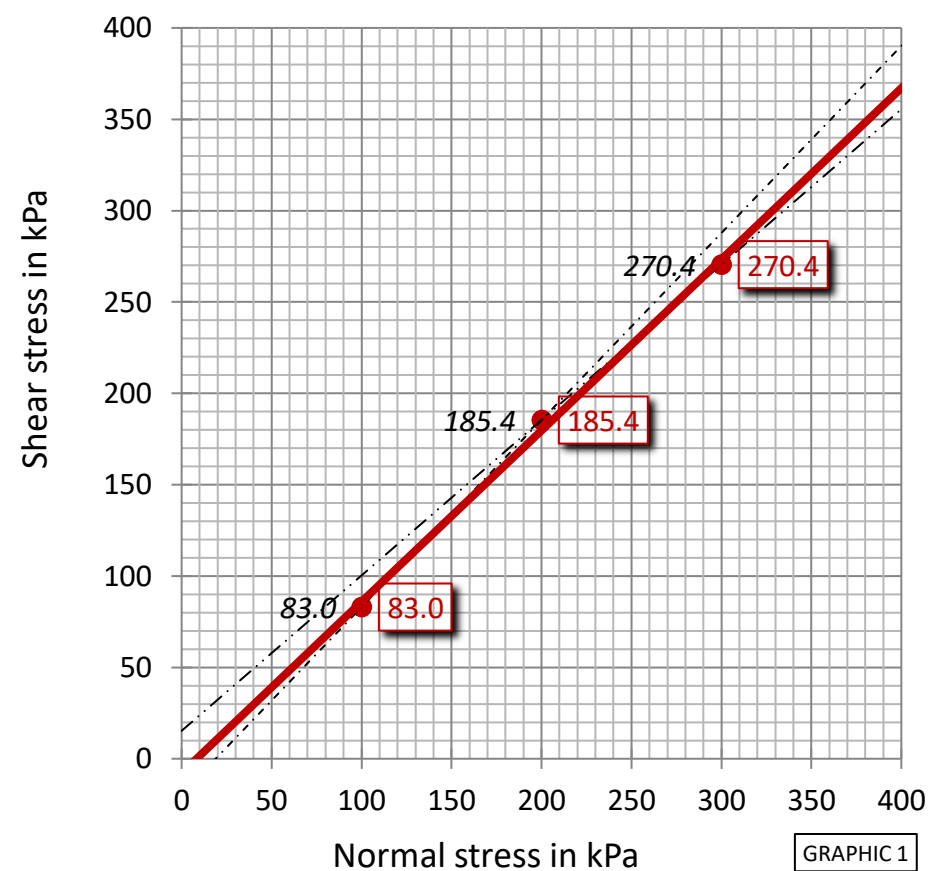
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

● 100 ▲ 200 ■ 300 ◆ 400 ✖ 500 ✖ 600

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.566	15.783	15.169			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	28.9	28.9	28.9			
Final moisture (%)	31.7	29.8	29.2			
Initial bulk density (gr/cm ³)	1.934	1.932	1.933			
Initial dry density (gr/cm ³)	1.500	1.499	1.500			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.580	1.561	1.899			
Initial voids ratio	0.7667	0.7678	0.7667			
Voids ratio at end prior consol.	0.7667	0.7678	0.7667			
Voids ratio at end of test	0.7239	0.6539	0.6265			
Initial saturation degree (%)	99.89	99.75	99.89			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	83.0	185.4	270.4			
Shear stress applied (KPa)	83.0	185.4	270.4			
Horizontal speed (mm/min)	0.96580	0.95927	0.96854			
Particle density (g/cm ³)	2.650 (assumed)					

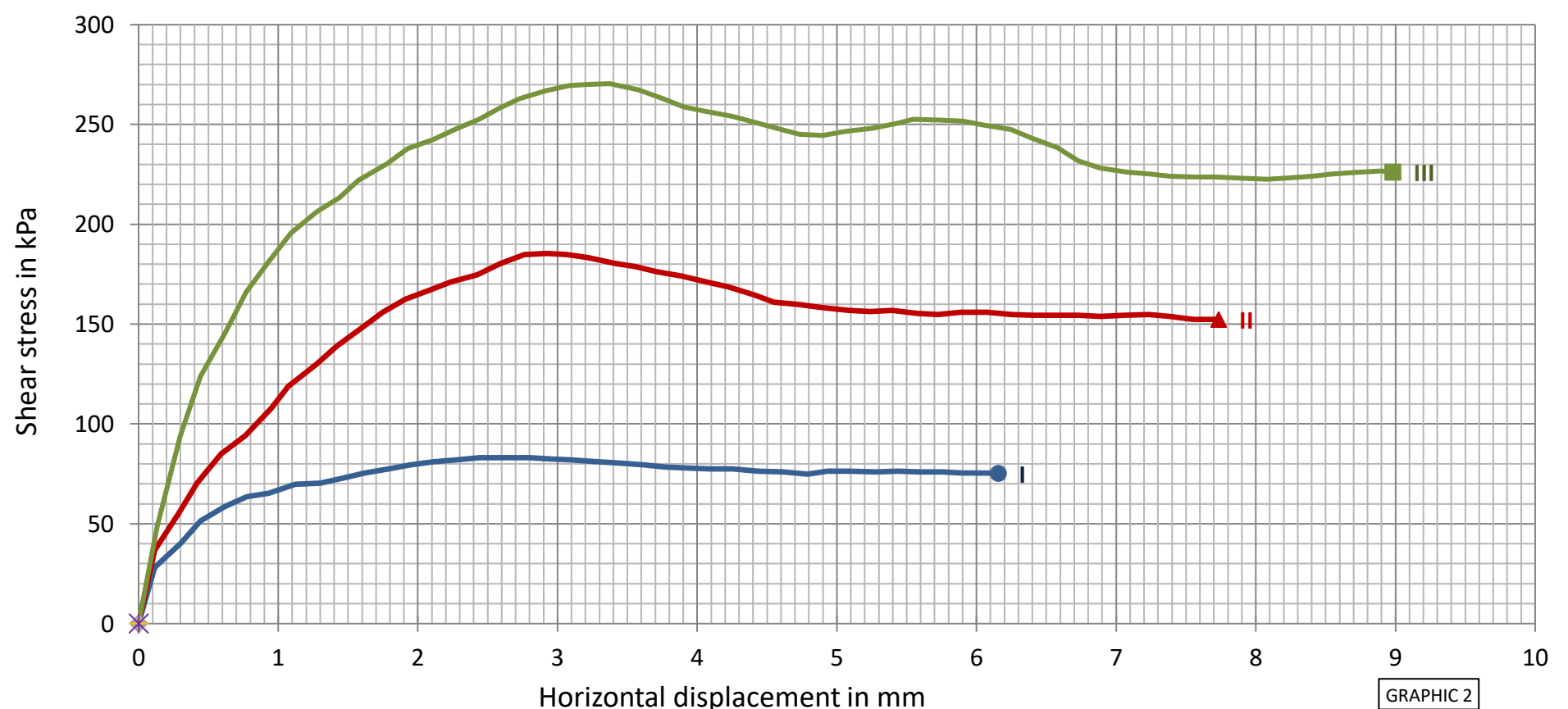


(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	43.1	43.1	45.7	40.4	
Cohesion (kPa)	0.0	0.0	0.0	15.3	
(kp/cm ²)	0.00	0.00	0.00	0.16	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 28/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#337_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5780

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#337_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#337_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5780

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

**DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX****MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS**

Test conditions

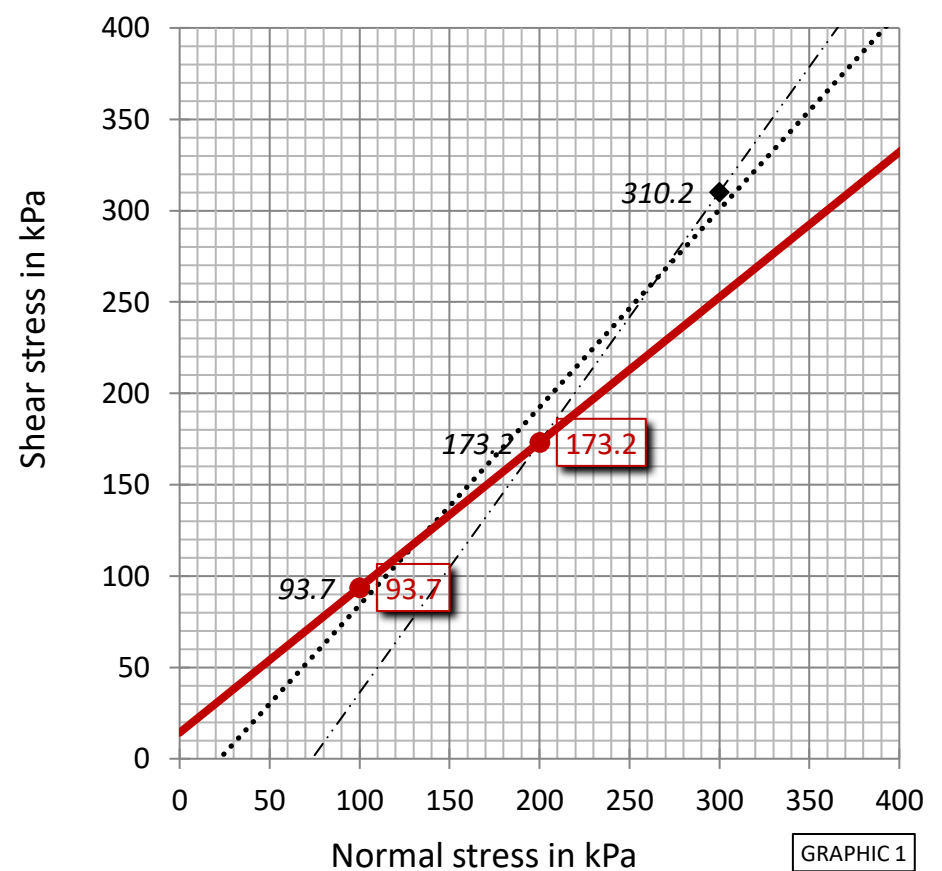
Underwater floor **SI**
Prior saturation **NO**Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

     
100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	17.437	16.603	16.417			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	21.4	21.4	21.4			
Final moisture (%)	23.1	24.1	25.0			
Initial bulk density (gr/cm ³)	1.957	1.927	1.998			
Initial dry density (gr/cm ³)	1.612	1.587	1.646			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	-0.239	0.150	0.666			
Initial voids ratio	0.6439	0.6698	0.6100			
Voids ratio at end prior consol.	0.6439	0.6698	0.6100			
Voids ratio at end of test	0.6603	0.6595	0.5652			
Initial saturation degree (%)	88.07	84.67	92.97			
Final saturation degree (%)	92.71	96.84	100.00			
Max. shear stress (KPa)	93.7	173.2	310.2			
Shear stress applied (KPa)	93.7	173.2				
Horizontal speed (mm/min)	0.93357	0.95587	0.95577			
Particle density (g/cm ³)	2.650 (assumed)					



(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

 **173.166** **310.171**

Results

LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)

38.5

47.3

38.5

53.9

Cohesion (kPa)

14.3

0.0

14.3

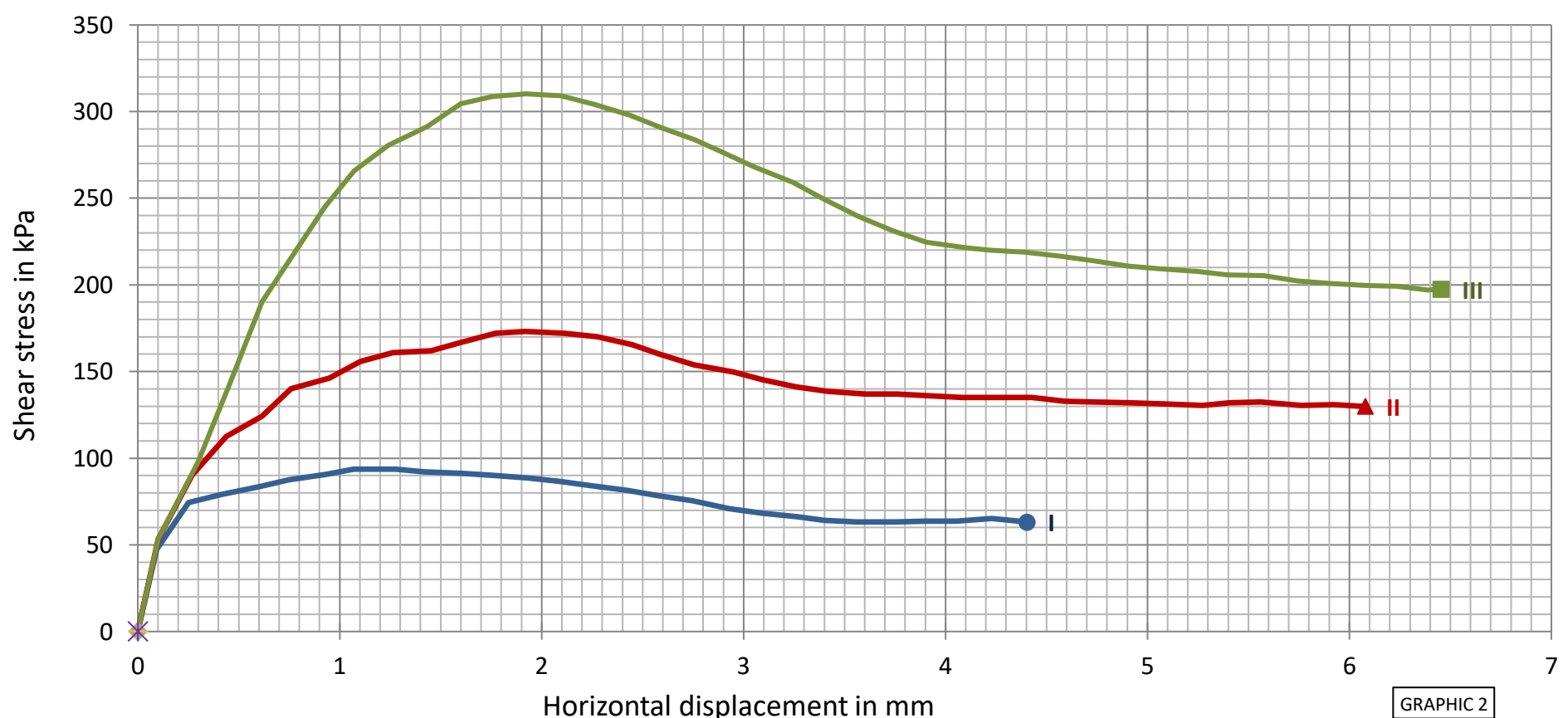
0.0

(kp/cm²)**0.15**

0.00

0.15

0.00



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#335_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5781

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#335_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#335_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5781

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOXMECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

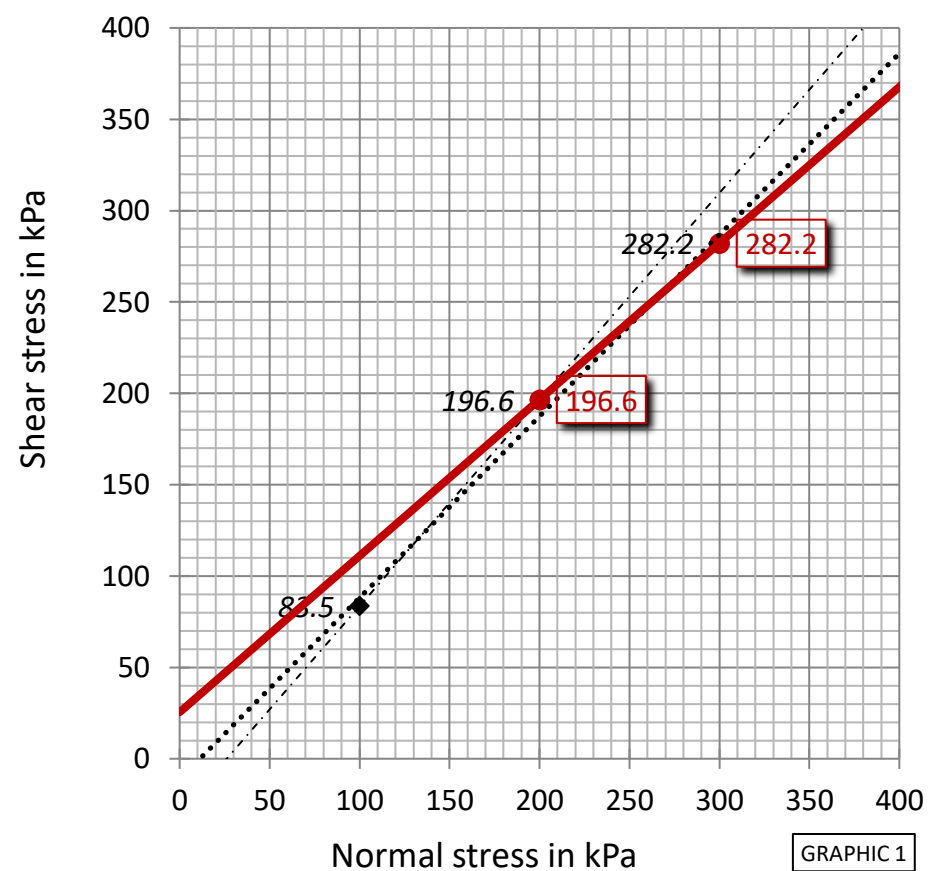
Underwater floor SI
Prior saturation NOPrior consolidation NO
Drained failure NO
Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

     
100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	15.459	15.778	15.858			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	17.0	17.0	17.0			
Final moisture (%)	25.4	23.6	24.4			
Initial bulk density (gr/cm ³)	1.875	1.872	1.871			
Initial dry density (gr/cm ³)	1.603	1.600	1.599			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.280	0.150	0.514			
Initial voids ratio	0.6532	0.6563	0.6573			
Voids ratio at end prior consol.	0.6532	0.6563	0.6573			
Voids ratio at end of test	0.6339	0.6460	0.6217			
Initial saturation degree (%)	68.97	68.64	68.54			
Final saturation degree (%)	100.00	96.81	100.00			
Max. shear stress (KPa)	83.5	196.6	282.2			
Shear stress applied (KPa)		196.6	282.2			
Horizontal speed (mm/min)	0.97048	0.95564	0.95523			
Particle density (g/cm ³)	2.650 (assumed)					



(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

 282.159 282.159

Results

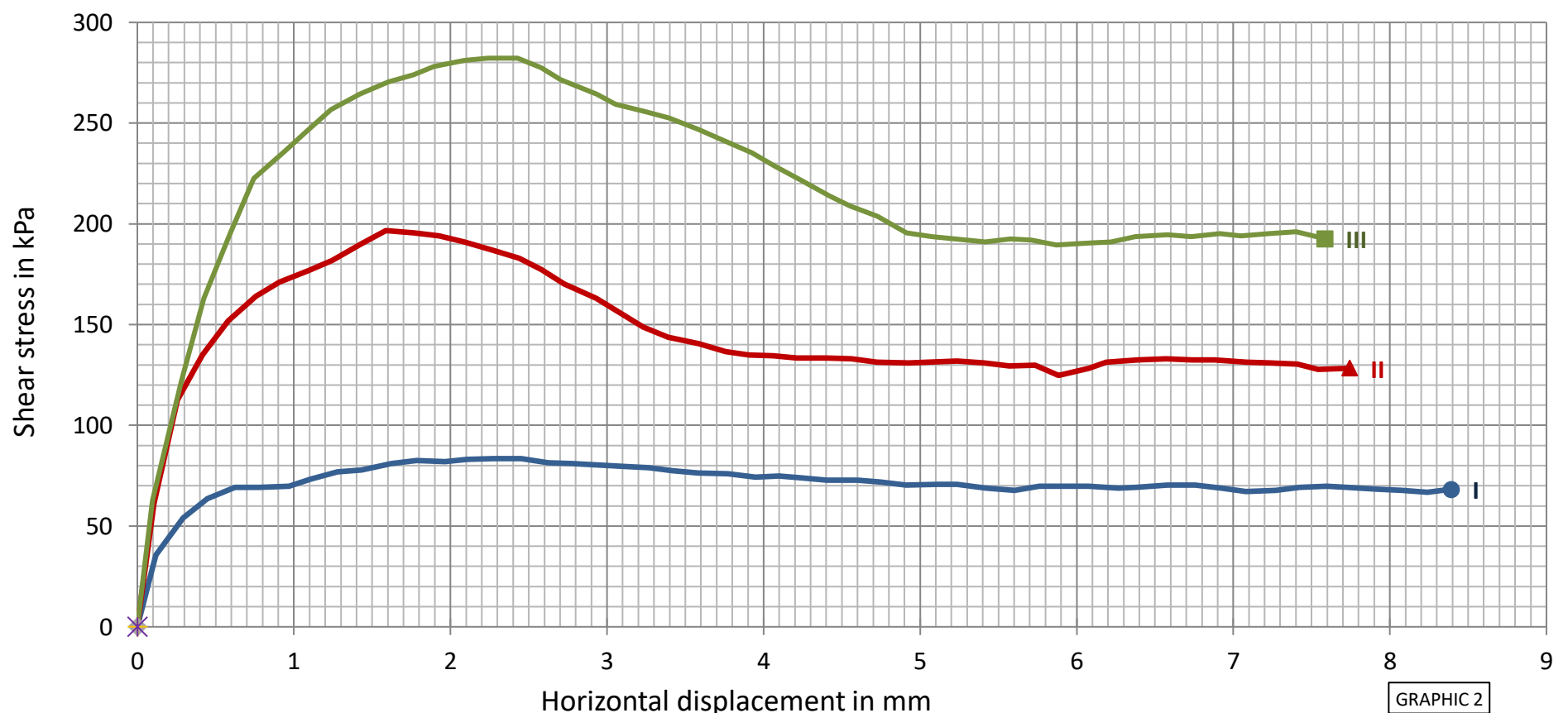
LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)
Cohesion (kPa)
(kp/cm²)40.6
25.5
0.2644.8
0.0
0.0048.5
0.0
0.0040.6
25.5
0.26

REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 06/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI473 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5782

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI473
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI473 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5782

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

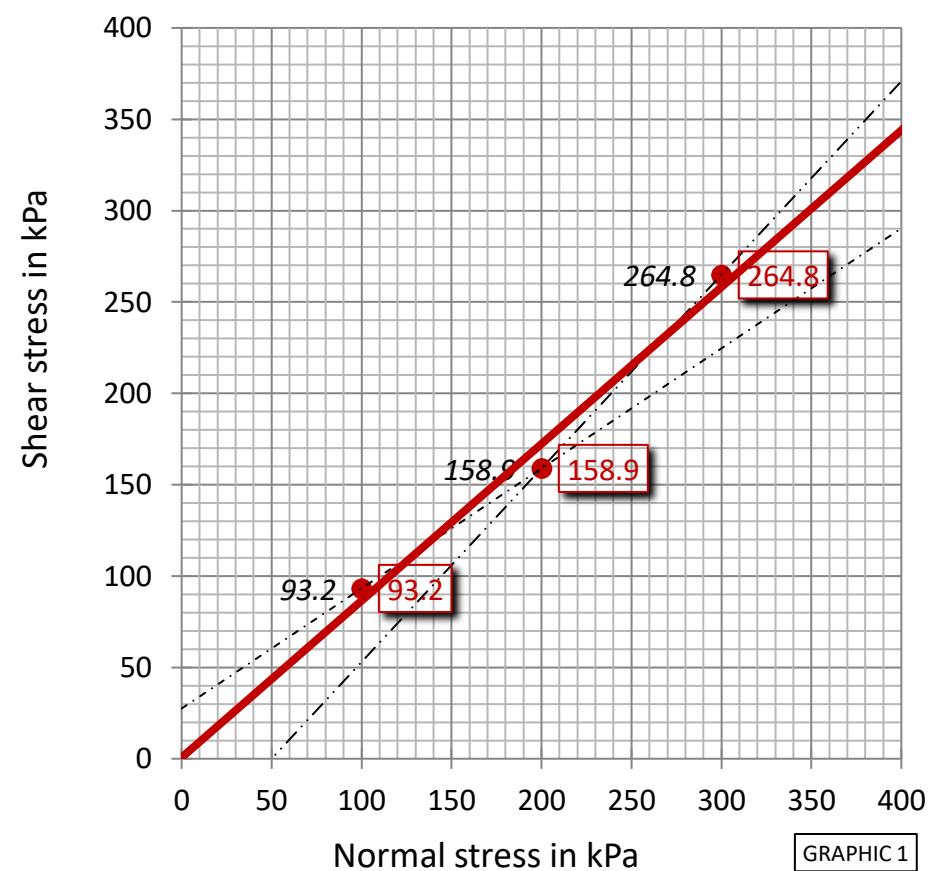
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

● 100 ▲ 200 ■ 300 ◆ 400 ✖ 500 ✖ 600

Test data

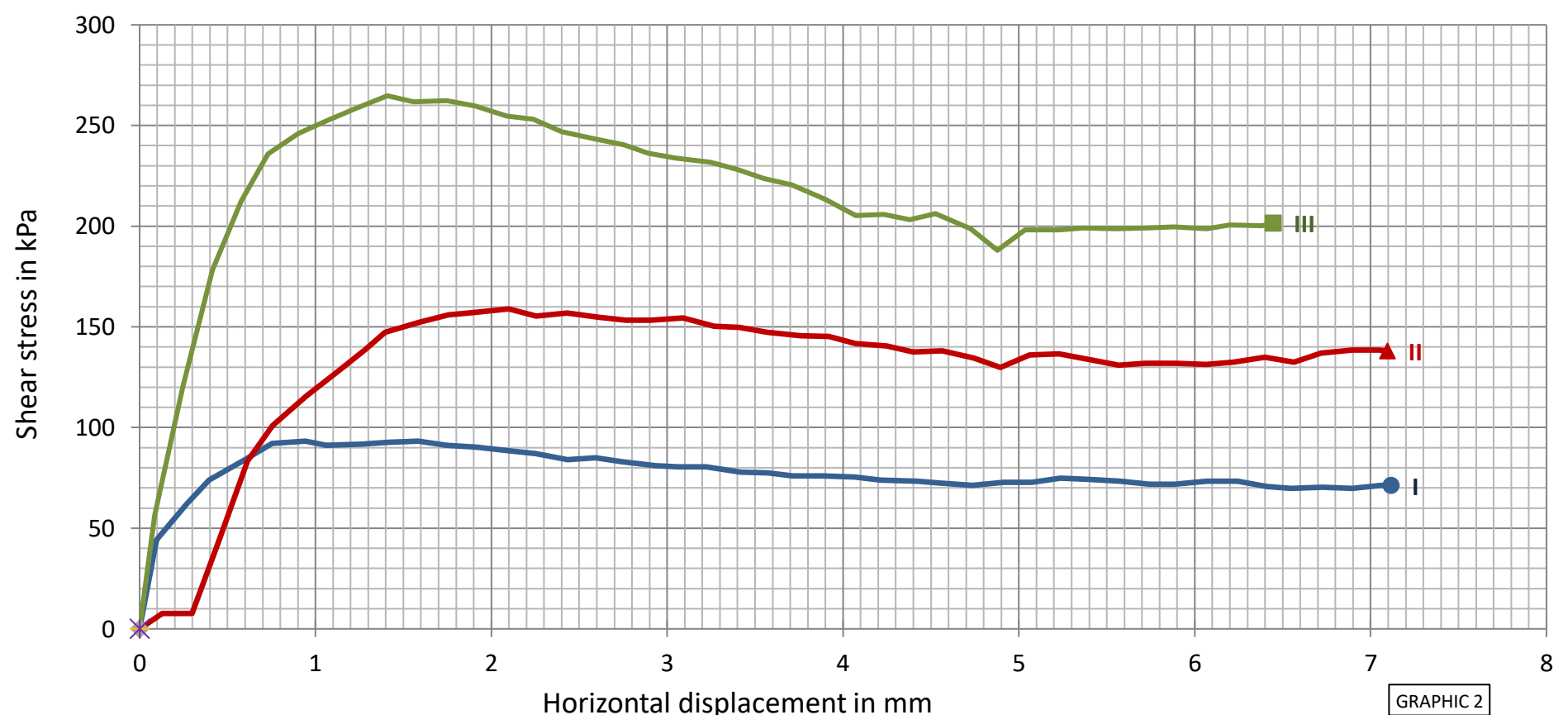
Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.089	16.099	16.422			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	8.9	8.9	8.9			
Final moisture (%)	14.3	14.4	13.4			
Initial bulk density (gr/cm ³)	1.971	1.930	1.966			
Initial dry density (gr/cm ³)	1.810	1.772	1.805			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.069	1.351	0.257			
Initial voids ratio	0.4641	0.4955	0.4681			
Voids ratio at end prior consol.	0.4641	0.4955	0.4681			
Voids ratio at end of test	0.4599	0.4121	0.4523			
Initial saturation degree (%)	50.82	47.60	50.38			
Final saturation degree (%)	82.40	92.60	78.51			
Max. shear stress (KPa)	93.2	158.9	264.8			
Shear stress applied (KPa)	93.2	158.9	264.8			
Horizontal speed (mm/min)	0.95131	0.96375	0.93989			
Particle density (g/cm ³)	2.650 (assumed)					



(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)**40.6**
0.7
0.0140.6
0.7
0.0133.3
27.5
0.2846.7
0.0
0.00LABORATORY INTERPRETATION
ESTIMATION WITH MAXIMUM STRESS
ESTIMATION BETWEEN POINTS 1 AND 2
ESTIMATION BETWEEN POINTS 2 AND 3
RESIDUAL PARAMETERS

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#529 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5783

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#529
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

1-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#529 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5783

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor SI
Prior saturation NO

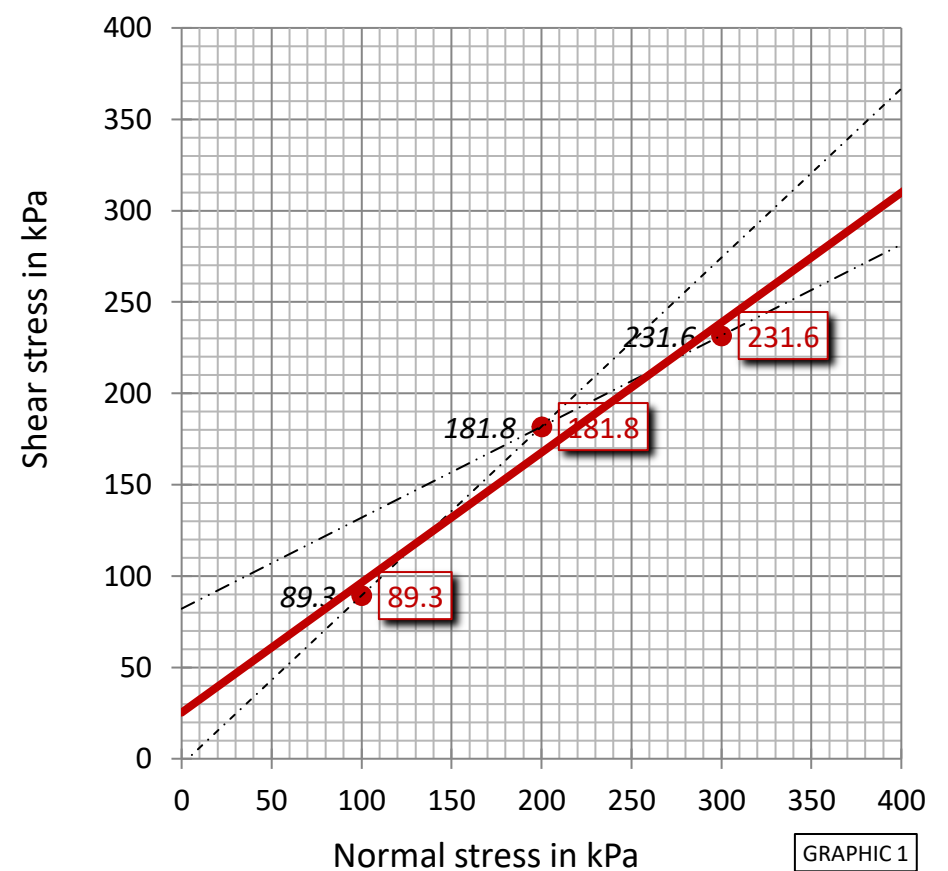
Prior consolidation NO
Drained failure NO
Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

● 100 ▲ 200 ■ 300 ◆ 400 ✱ 500 ✱ 600

Test data

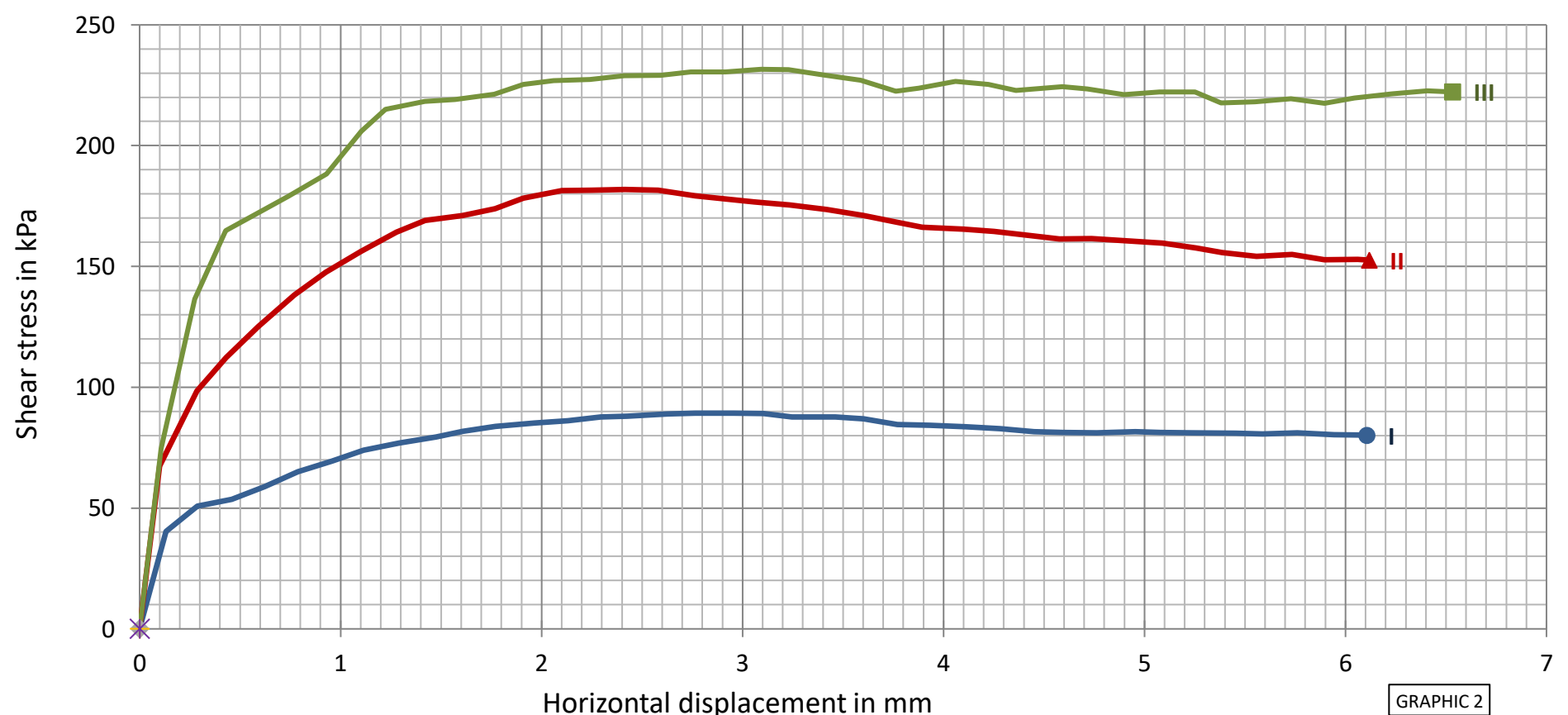
Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.590	16.584	16.378			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	8.5	8.5	8.5			
Final moisture (%)	23.8	26.0	26.2			
Initial bulk density (gr/cm ³)	1.608	1.581	1.606			
Initial dry density (gr/cm ³)	1.482	1.457	1.480			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.017	0.572	0.716			
Initial voids ratio	0.7881	0.8188	0.7905			
Voids ratio at end prior consol.	0.7881	0.8188	0.7905			
Voids ratio at end of test	0.7868	0.7759	0.7369			
Initial saturation degree (%)	28.58	27.51	28.49			
Final saturation degree (%)	80.16	88.80	94.22			
Max. shear stress (KPa)	89.3	181.8	231.6			
Shear stress applied (KPa)	89.3	181.8	231.6			
Horizontal speed (mm/min)	0.96854	0.95294	0.94929			
Particle density (g/cm ³)	2.650 (assumed)					



Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	35.4	35.4	42.8	26.5	
Cohesion (kPa)	25.3	25.3	0.0	82.1	
(kp/cm ²)	0.26	0.26	0.00	0.84	



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101a SAMPLE B TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5784

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#101a
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

4-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101a SAMPLE B TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5784

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

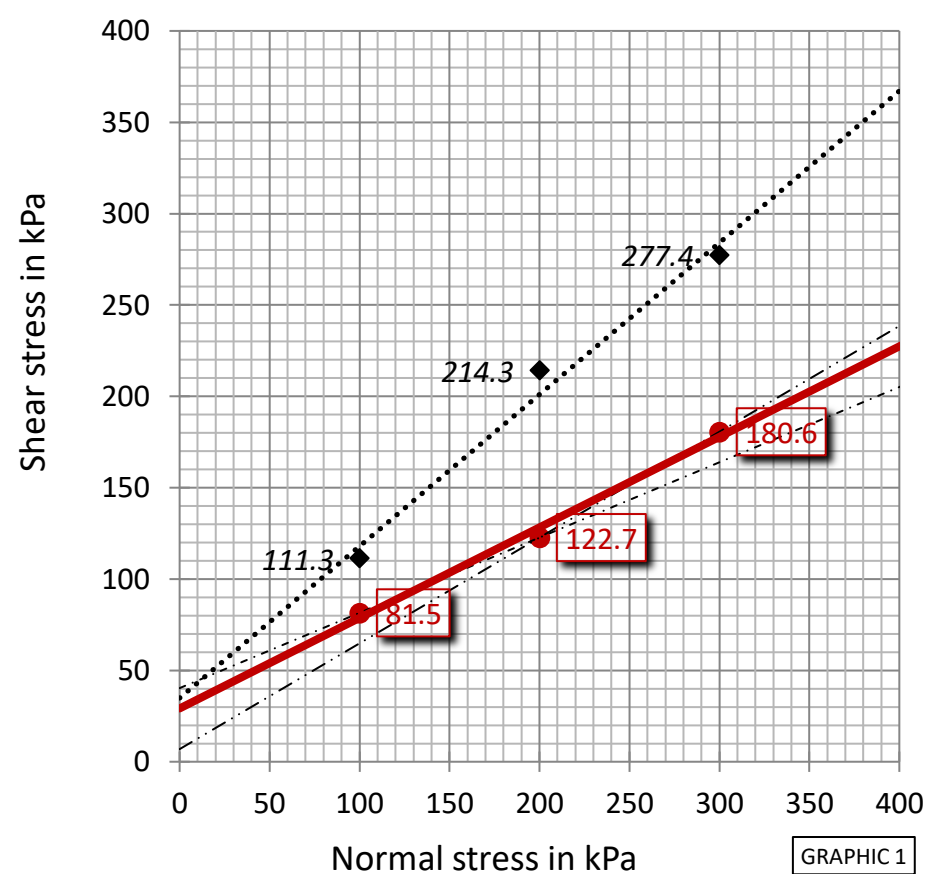
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

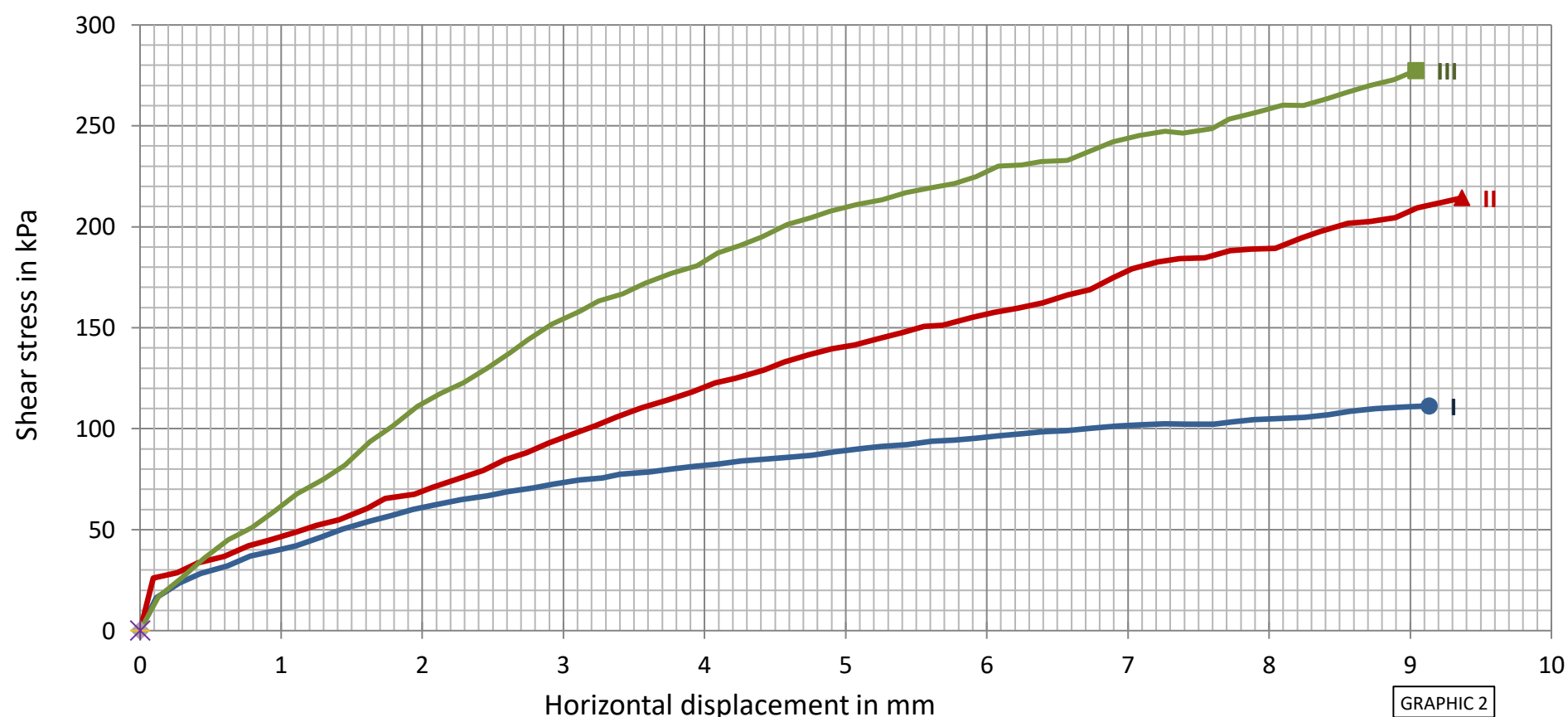
Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	15.094	14.979	15.141			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	46.2	46.2	46.2			
Final moisture (%)	32.8	32.8	33.3			
Initial bulk density (gr/cm ³)	1.833	1.823	1.831			
Initial dry density (gr/cm ³)	1.254	1.247	1.252			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	1.774	2.916	2.919			
Initial voids ratio	1.1132	1.1251	1.1166			
Voids ratio at end prior consol.	1.1132	1.1251	1.1166			
Voids ratio at end of test	0.9565	0.8694	0.8584			
Initial saturation degree (%)	100.00	100.00	100.00			
Final saturation degree (%)	90.87	99.98	100.00			
Max. shear stress (KPa)	111.3	214.3	277.4			
Shear stress applied (KPa)	81.5	122.7	180.6			
Horizontal speed (mm/min)	0.97083	0.95939	0.97452			
Particle density (g/cm ³)	2.650 (assumed)					



Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	26.4	39.7	22.4	30.1	
Cohesion (kPa)	29.2	34.9	40.3	6.9	
(kp/cm ²)	0.30	0.36	0.41	0.07	



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

1 / 6

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5785

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#427
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

0.75
1
TUBE
20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

22-9-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)
0.75	

SEE VC LOG

1

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

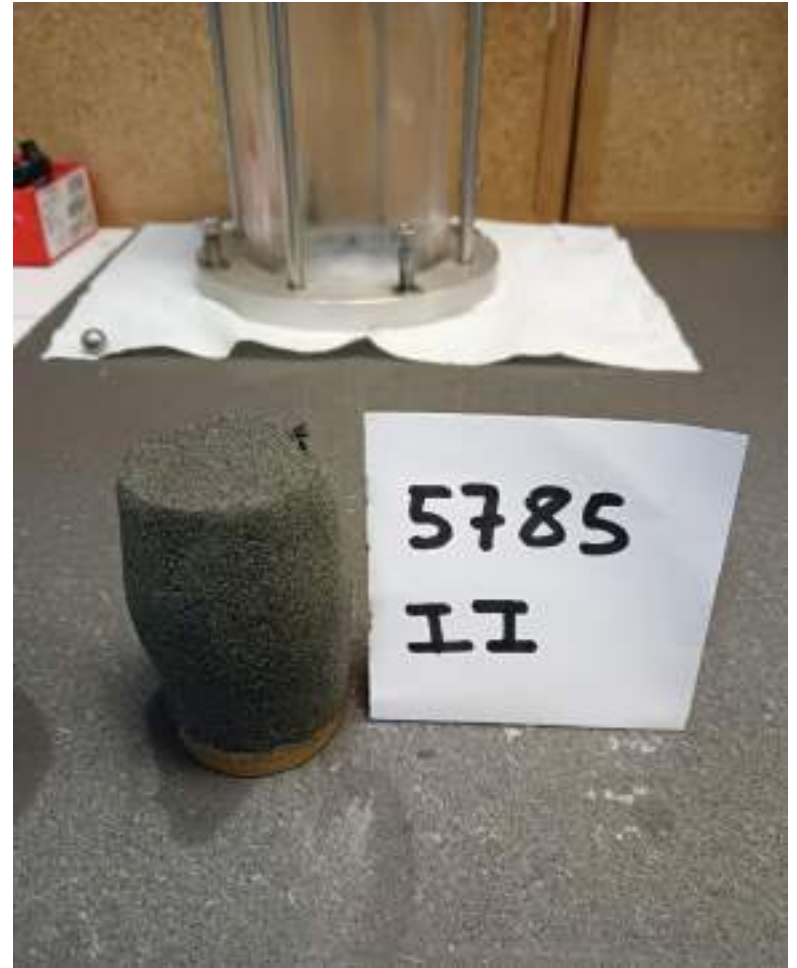
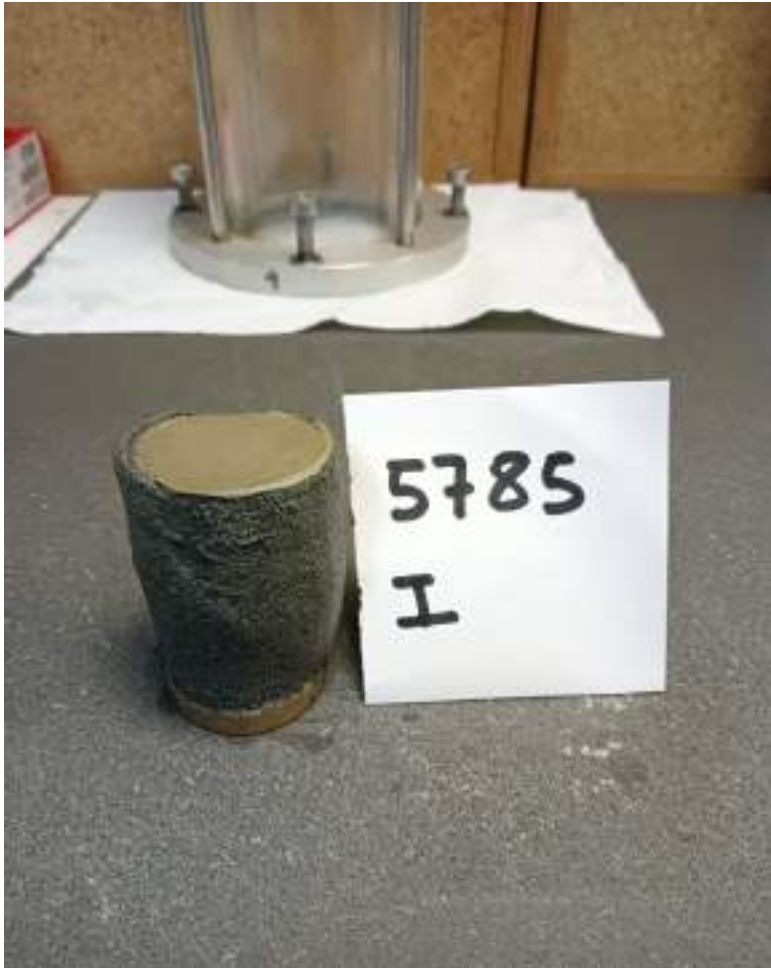
LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

2 / 6

Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5785



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

3 / 6

Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5785

Equipment

MECACISA 1.5' TRIAXIAL CELL
MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.580	7.710	7.640
Initial diameter (cm)	3.900	3.855	3.900
Initial area (cm ²)	11.946	11.672	11.946
Initial volume (cm ³)	90.551	89.991	91.267
Initial moisture content (%)	23.8	23.8	23.8
Final moisture content (%)	25.7	25.1	25.6
Initial bulk density (gr/cm ³)	1.962	2.067	1.968
Initial dry density (gr/cm ³)	1.585	1.670	1.590

Initial saturation degree (%)	93.9	100.0	94.6
Final saturation degree (%)	100.0	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	1.0000	1.0000	1.0000
Major principal stress (kPa)	1902.9	2230.1	2192.3
Failure stress (kPa)	1902.9	2230.1	2192.3
Failure strain (%)	18.3	16.3	14.5
Pore pressure, u_f (kPa)			

Test type

Soil conditions

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

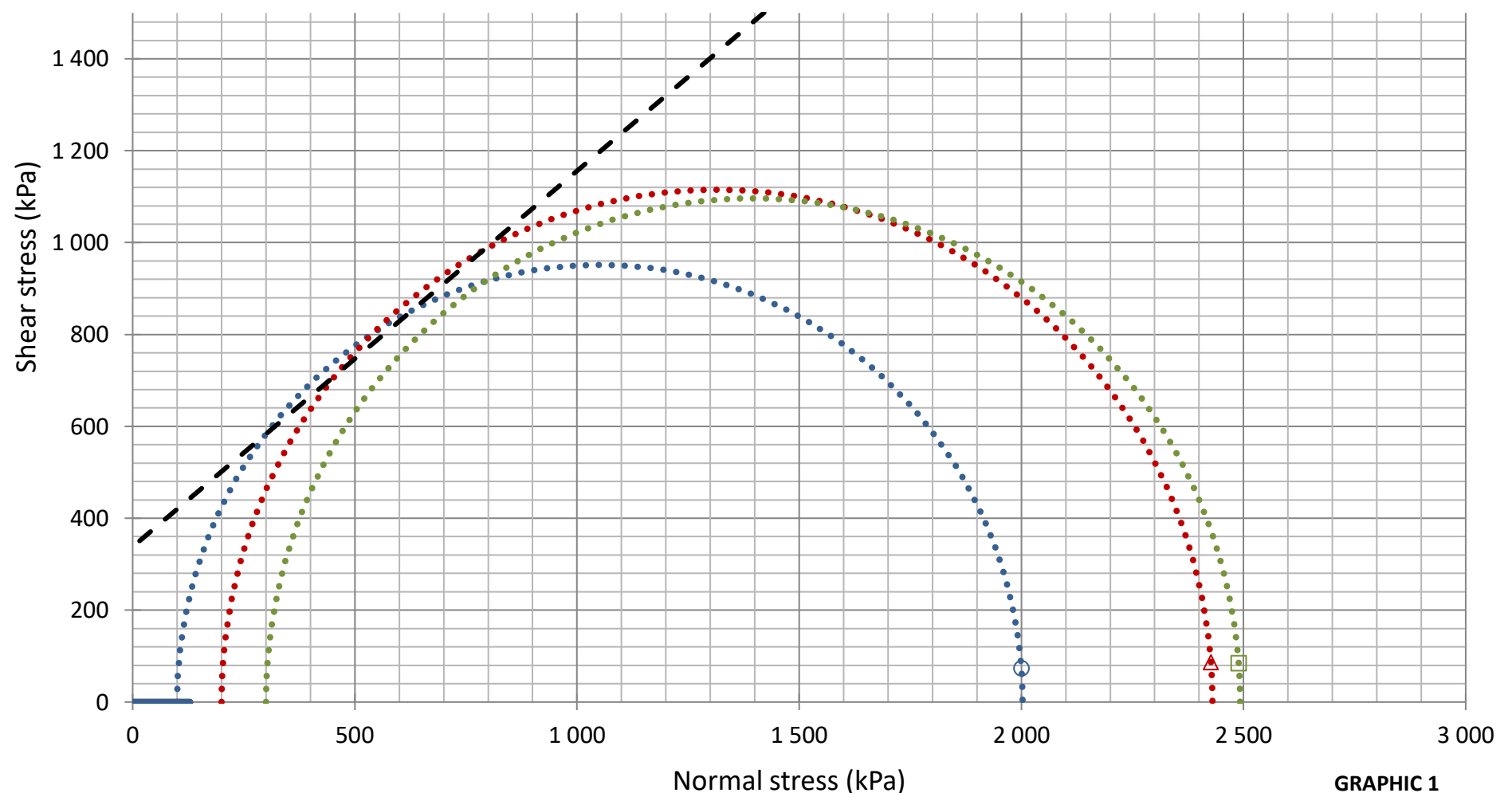
Specimen number	I	II	III
σ_1 (kPa)	2002.9	2430.1	2492.3
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	951.5	1115.1	1096.2
$(\sigma_1 + \sigma_3)/2$ (kPa)	1051.5	1315.1	1396.2

Estimate total

Φ_u (°)	39.3
C_u (kPa)	338
C_u (kp/cm ²)	3.45

Graphic symbols

I total	II total	III total			



REMARKS

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 23/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

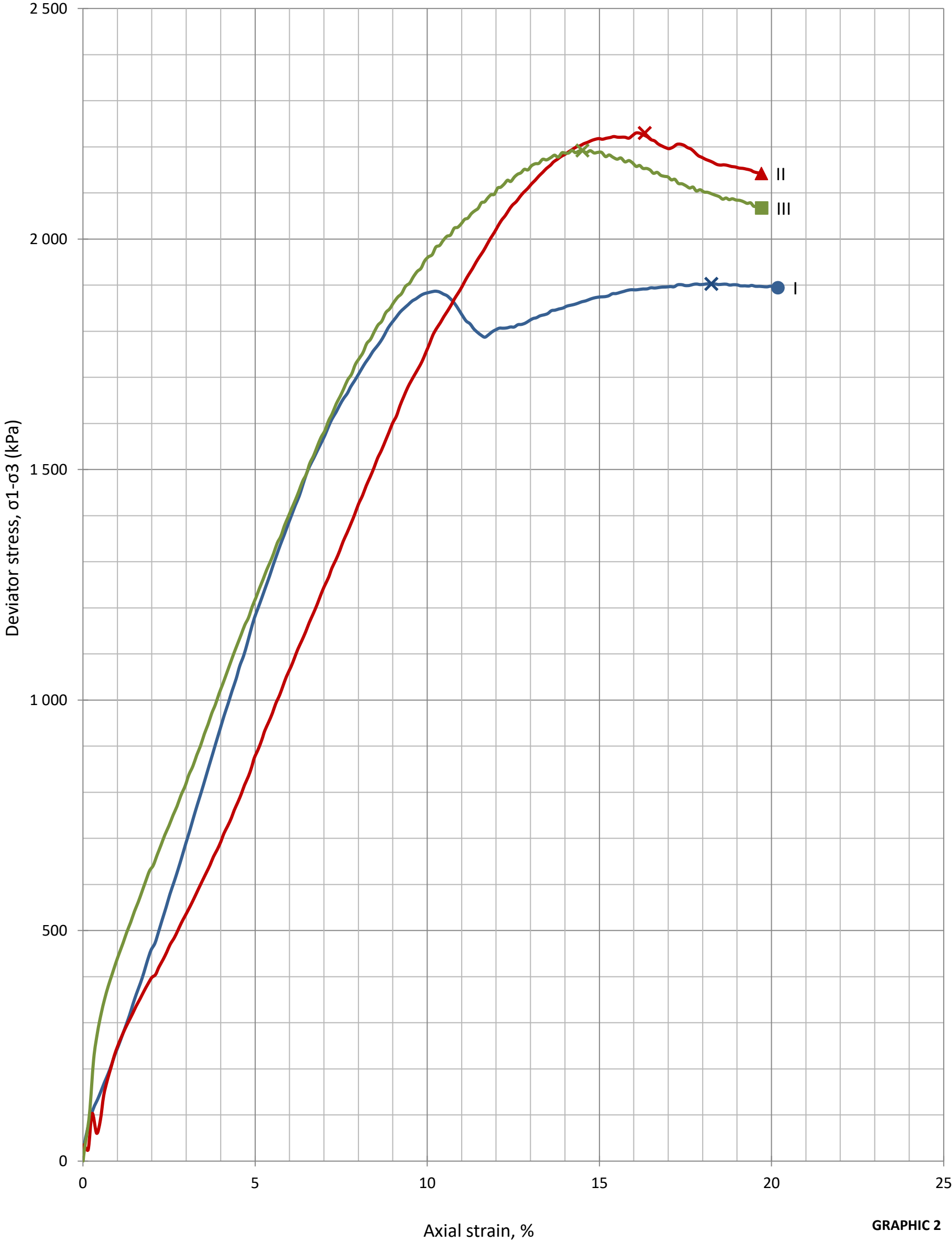
LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5785



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

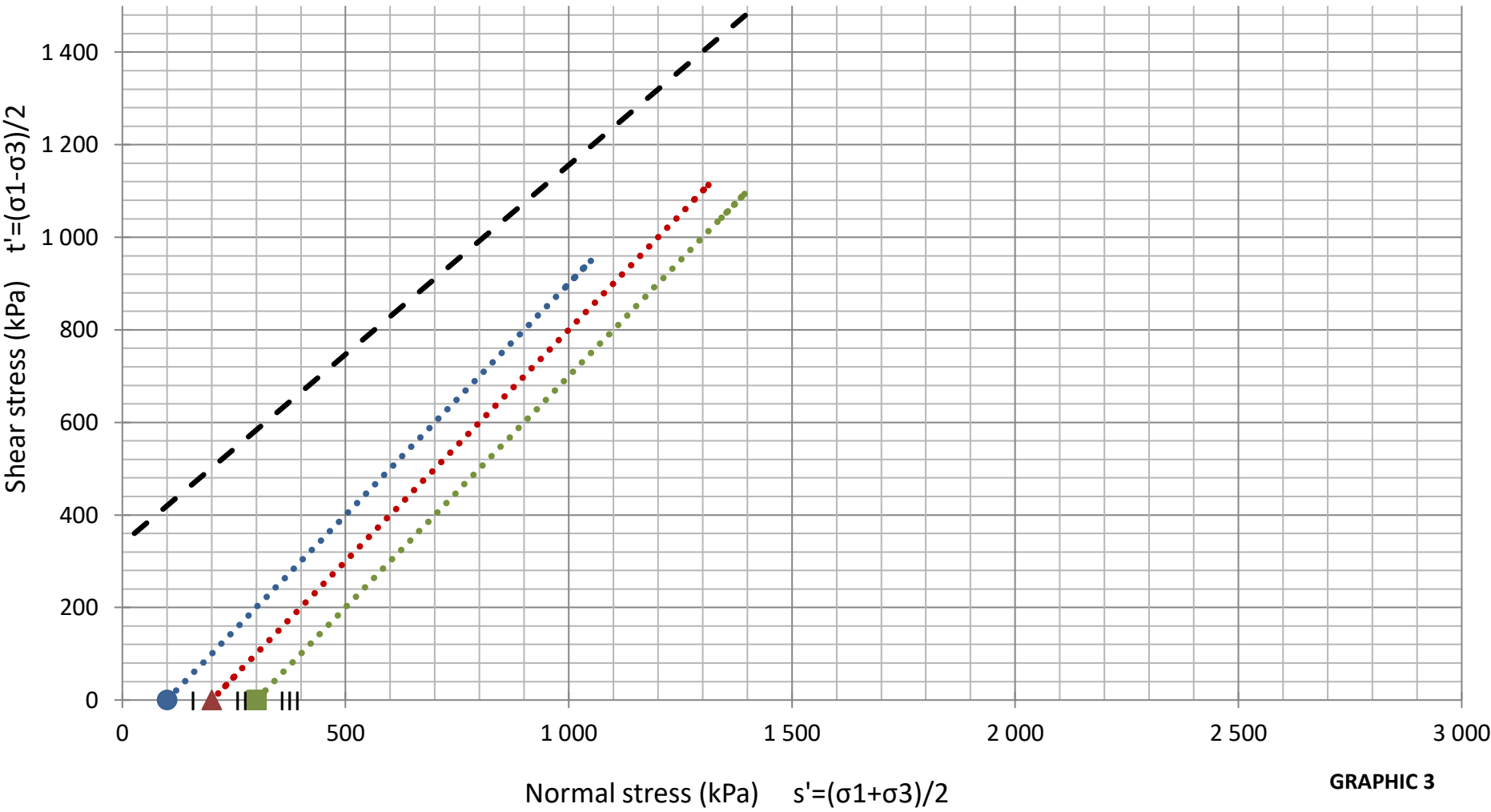
Sample reference

2022GC-5785

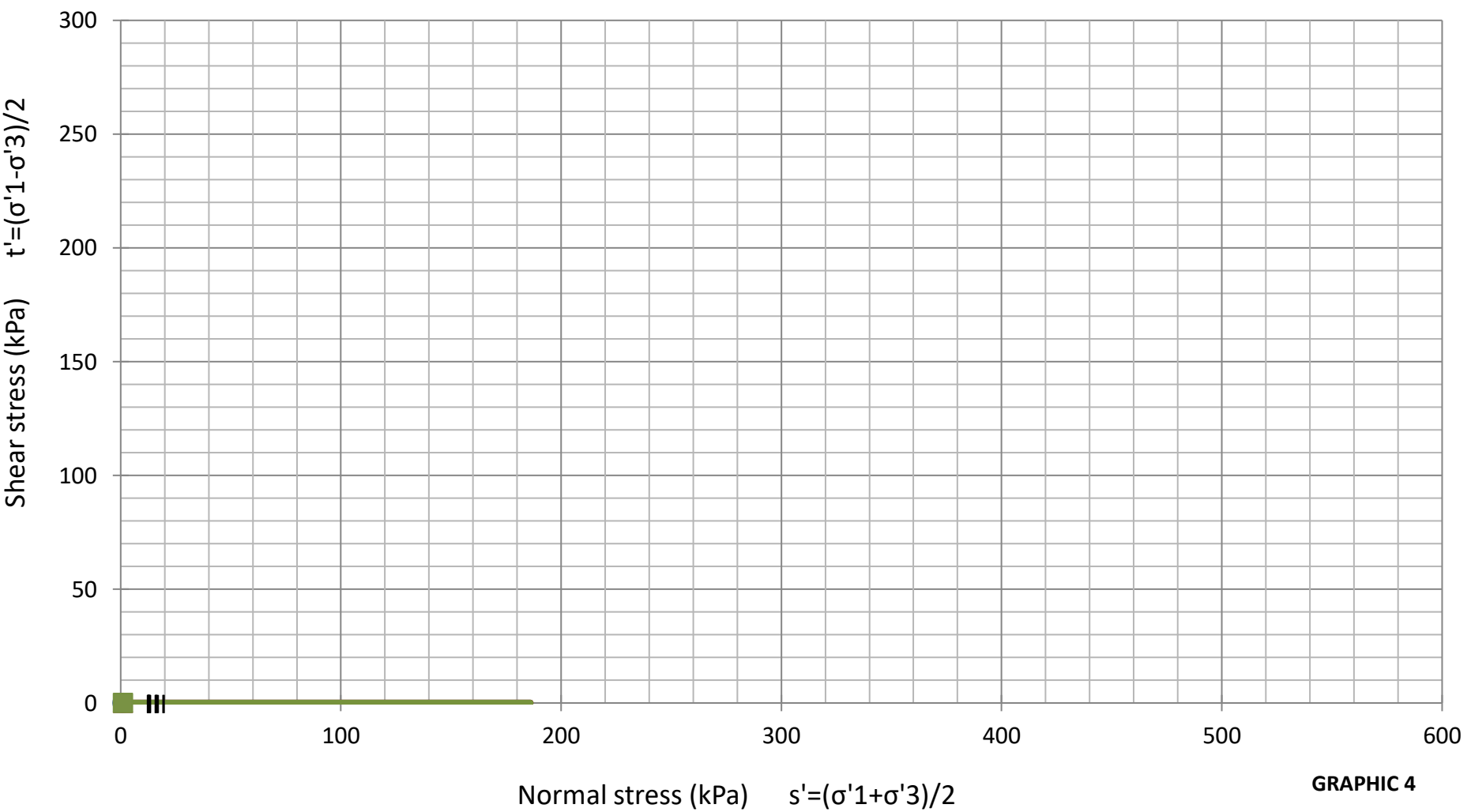
Total stress path parameters

$\Phi_u (^{\circ}) = 39.3$

$C_u \text{ (kPa)} = 338$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE B TUBE / DEPTH: 0.75-1 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5785

Failure process data summary																
	Time	Deform.	(σ1-σ3)m	(Δσ1)m	(Δσ1)fp	(σ1-σ3)	u-ub	ε1	σ1	σ'1	σ'3	Coeff. A	(σ1+σ3)/2	(σ1-σ3)/2	(σ'1+σ'3)/2	(σ'1-σ'3)/2
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.009	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.928	231.2	0.3	0.0	230.9		0.010	330.9				215.5	115.5		
Cell pressure	95	1.977	458.2	0.6	0.0	457.6		0.021	557.6				328.8	228.8		
σ3, kPa	145	3.101	727.0	0.8	9.7	716.5		0.032	816.5				458.3	358.3		
700	190	4.1	977.0	1.1	9.7	966.2		0.042	1066.2				583.1	483.1		
Back pressure	240	5.2	1233.8	1.3	9.7	1222.8		0.053	1322.8				711.4	611.4		
ub, kPa	290	6.282	1453.8	1.6	9.7	1442.5		0.064	1542.5				821.3	721.3		
600	340	7.352	1635.8	1.8	9.7	1624.3		0.075	1724.3				912.2	812.2		
σ'3, kPa	385	8.319	1755.5	2.0	9.7	1743.8		0.085	1843.8				971.9	871.9		
100	435	9.451	1869.9	2.2	9.7	1858.0		0.096	1958.0				1029.0	929.0		
Rate of axial displ.	485	10.577	1889.1	2.4	9.7	1877.0		0.107	1977.0				1038.5	938.5		
mm/min	535	11.671	1799.4	2.6	9.7	1787.1		0.118	1887.1				993.6	893.6		
1.0000	580	12.635	1826.7	2.8	9.7	1814.2		0.128	1914.2				1007.1	907.1		
	630	13.718	1858.5	3.0	9.7	1845.8		0.139	1945.8				1022.9	922.9		
	680	14.823	1884.6	3.1	9.7	1871.8		0.150	1971.8				1035.9	935.9		
	730	15.941	1903.1	3.3	9.7	1890.1		0.161	1990.1				1045.1	945.1		
	775	16.941	1909.1	3.4	9.7	1896.0		0.170	1996.0				1048.0	948.0		
	825	18.048	1915.3	3.6	9.7	1902.0		0.181	2002.0				1051.0	951.0		
	875	19.105	1911.9	3.7	9.7	1898.5		0.192	1998.5				1049.3	949.3		
	925	20.193	1907.9	3.9	9.7	1894.3		0.203	1994.3				1047.2	947.2		
Specimen	0	-0.004	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.91	229.1	0.3	0.0	228.8		0.010	428.8				314.4	114.4		
Cell pressure	95	1.998	398.6	0.6	0.0	398.0		0.021	598.0				399.0	199.0		
σ3, kPa	145	3.063	556.0	0.8	9.8	545.4		0.031	745.4				472.7	272.7		
800	190	4.007	704.1	1.1	9.8	693.2		0.041	893.2				546.6	346.6		
Back pressure	240	4.976	885.4	1.3	9.8	874.3		0.052	1074.3				637.2	437.2		
ub, kPa	290	6.042	1083.3	1.5	9.8	1072.0		0.063	1272.0				736.0	536.0		
600	340	7.132	1277.2	1.8	9.8	1265.6		0.074	1465.6				832.8	632.8		
σ'3, kPa	385	8.121	1455.5	2.0	9.8	1443.7		0.083	1643.7				921.9	721.9		
200	435	9.208	1650.2	2.2	9.8	1638.2		0.094	1838.2				1019.1	819.1		
Rate of axial displ.	485	10.266	1817.7	2.4	9.8	1805.5		0.105	2005.5				1102.8	902.8		
mm/min	535	11.313	1948.0	2.6	9.8	1935.6		0.116	2135.6				1167.8	967.8		
1.0000	580	12.27	2063.7	2.8	9.8	2051.1		0.125	2251.1				1225.6	1025.6		
	630	13.355	2157.4	2.9	9.8	2144.7		0.136	2344.7				1272.4	1072.4		
	680	14.437	2215.2	3.1	9.8	2202.3		0.147	2402.3				1301.2	1101.2		
	730	15.533	2234.0	3.3	9.8	2220.9		0.158	2420.9				1310.5	1110.5		
	775	16.499	2228.9	3.4	9.8	2215.7		0.168	2415.7				1307.9	1107.9		
	825	17.558	2211.9	3.6	9.8	2198.5		0.178	2398.5				1299.3	1099.3		
	875	18.619	2174.5	3.7	9.8	2161.0		0.189	2361.0				1280.5	1080.5		
	925	19.705	2155.8	3.8	9.8	2142.2		0.200	2342.2				1271.1	1071.1		
Specimen	0	0.004	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.951	429.4	0.3	0.0	429.1		0.010	729.1				514.6	214.6		
Cell pressure	95	2.042	651.7	0.6	9.7	641.4		0.021	941.4				620.7	320.7		
σ3, kPa	145	3.194	867.4	0.9	9.7	856.8		0.032	1156.8				728.4	428.4		
900	190	4.166	1067.2	1.1	9.7	1056.4		0.041	1356.4				828.2	528.2		
Back pressure	240	5.231	1272.5	1.3	9.7	1261.5		0.052	1561.5				930.8	630.8		
ub, kPa	290	6.271	1464.1	1.6	9.7	1452.8		0.063	1752.8				1026.4	726.4		
600	340	7.357	1653.9	1.8	9.7	1642.4		0.074	1942.4				1121.2	821.2		
σ'3, kPa	385	8.354	1794.4	2.0	9.7	1782.7		0.084	2082.7				1191.4	891.4		
300	435	9.489	1916.2	2.2	9.7	1904.3		0.095	2204.3				1252.2	952.2		
Rate of axial displ.	485	10.574	2018.1	2.4	9.7	2006.0		0.106	2306.0				1303.0	1003.0		
mm/min	535	11.575	2091.1	2.6	9.7	2078.8		0.117	2378.8				1339.4	1039.4		
1.0000	580	12.426	2137.3	2.7	9.7	2124.9		0.127	2424.9				1362.5	1062.5		
	630	13.468	2184.3	2.9	9.7	2171.7		0.137	2471.7				1385.9	1085.9		
	680	14.513	2204.4	3.1	9.7	2191.6		0.148	2491.6				1395.8	1095.8		
	730	15.626	2188.9	3.3	9.7	2175.9		0.159	2475.9				1388.0	1088.0		
	775	16.573	2155.7	3.4	9.7	2142.6		0.169	2442.6				1371.3	1071.3		
	825	17.622	2123.9	3.5	9.7	2110.7		0.180	2410.7				1355.4	1055.4		
	875	18.681	2102.4	3.7	9.7	2089.0		0.191	2389.0				1344.5	1044.5		
	925	19.714	2080.8	3.8	9.7	2067.3		0.202	2367.3				1333.7	1033.7		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

1 / 7

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5786

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#254_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

0
0.25
TUBE
20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

28-9-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification
AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG	0	
	0.25	

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98
TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

THE REMOULDED TRIAXIAL HAS NOT BEEN MADE DUE TO THE DIFFICULTY IN HANDLING THE SAMPLE SO FINE AND PLASTIC.
IT IS REPLACED BY A DIRECT SHEARBOX TEST

The information contained in this report affects exclusively to the following test sheets with the same sample reference number



Report number: 2022-6427-18537
Edition date: 17-11-22

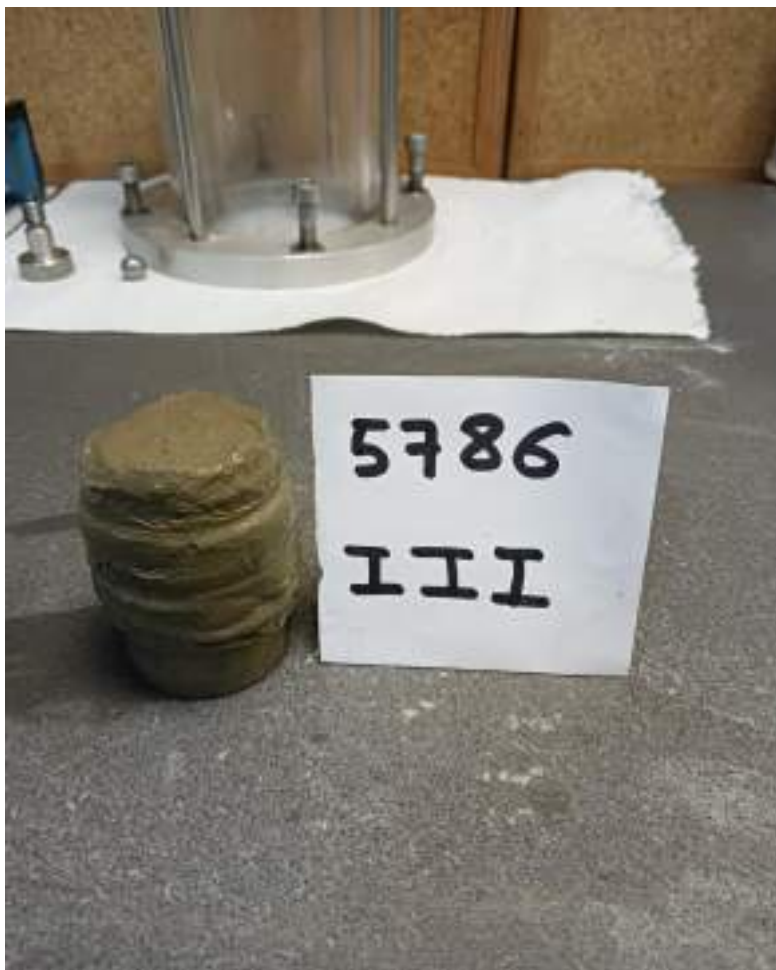
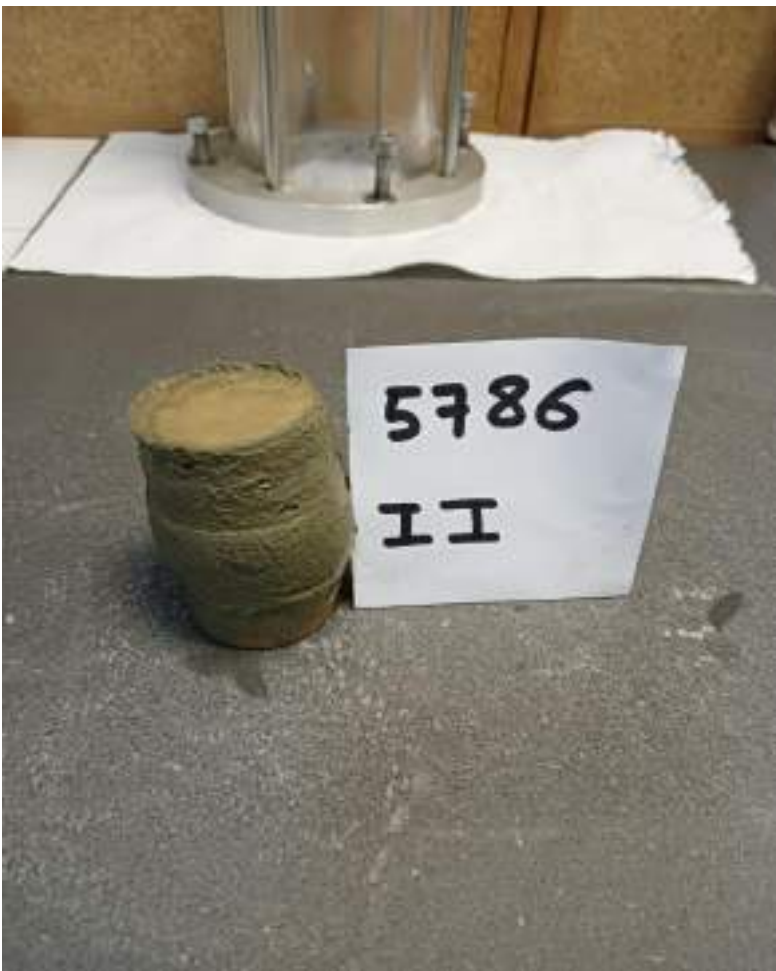
LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

2 / 7

Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5786



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

3 / 7

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5786

Type of test

UU

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX

MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Symbols in graphs 2 to 4 (normal stress, kPa)



Test data

Normal stress (kPa)	100	200	300			
Initial area (cm2)	19.635	19.635	19.635			
Corr. final area (cm2)(*)	16.588	16.580	17.835			
Initial volume (cm3)	46.99	47.58	46.99			
Initial moisture (%)	73.6	73.6	73.6			
Final moisture (%)	72.6	69.7	73.1			
Initial bulk density (gr/cm3)	1.568	1.571	1.566			
Initial dry density (gr/cm3)	0.903	0.905	0.902			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.945	1.324	1.104			
Initial voids ratio	1.9347	1.9282	1.9379			
Voids ratio at end prior consol.	1.9347	1.9282	1.9379			
Voids ratio at end of test	1.8188	1.7682	1.8024			
Initial saturation degree (%)	100.00	100.00	100.00			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	24.2	24.2	24.2			
Shear stress applied (KPa)	24.2	24.2	24.2			
Horizontal speed (mm/min)	0.96153	0.97372	0.93450			
Particle density (g/cm3)	2.650 (assumed)					

Test conditions

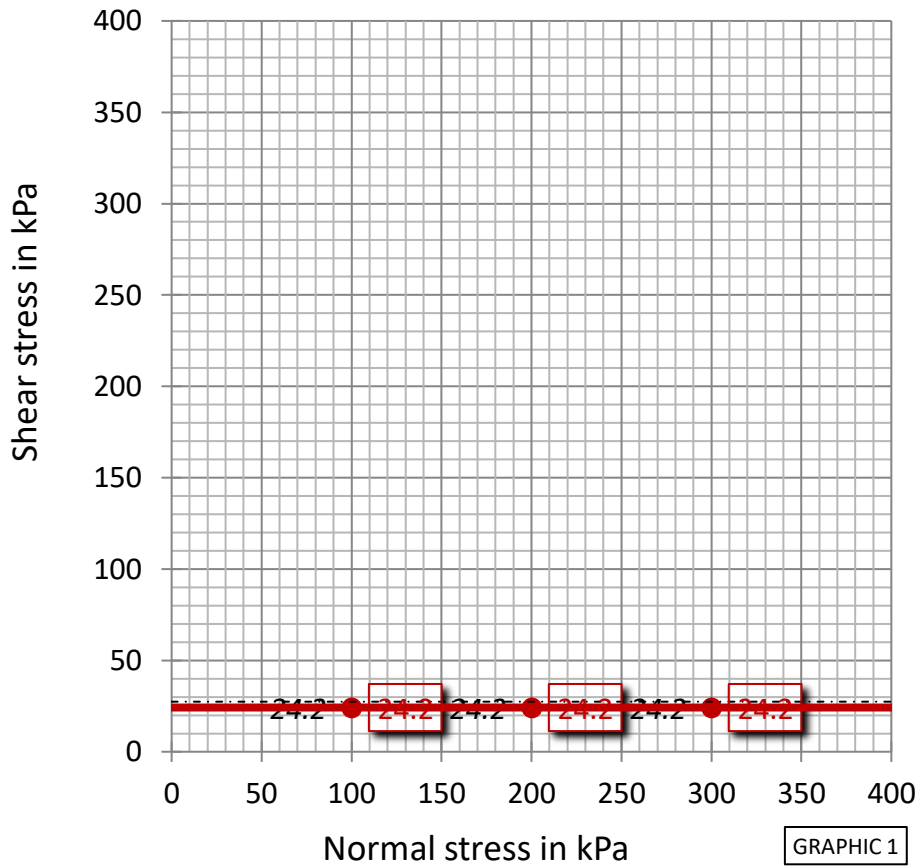
Underwater floor	SI
Prior saturation	NO
Prior consolidation	NO
Drained failure	NO
Residual parameters	NO

Soil conditions

REMOULDED

Specimen remoulding conditions

Max. size coarse part. removed (mm)	---
Remoulding data	NOR. PROCTOR
Densidad seca máx., kN/m3	---
Humedad óptima, %	---
Degree of compaction (%)	---

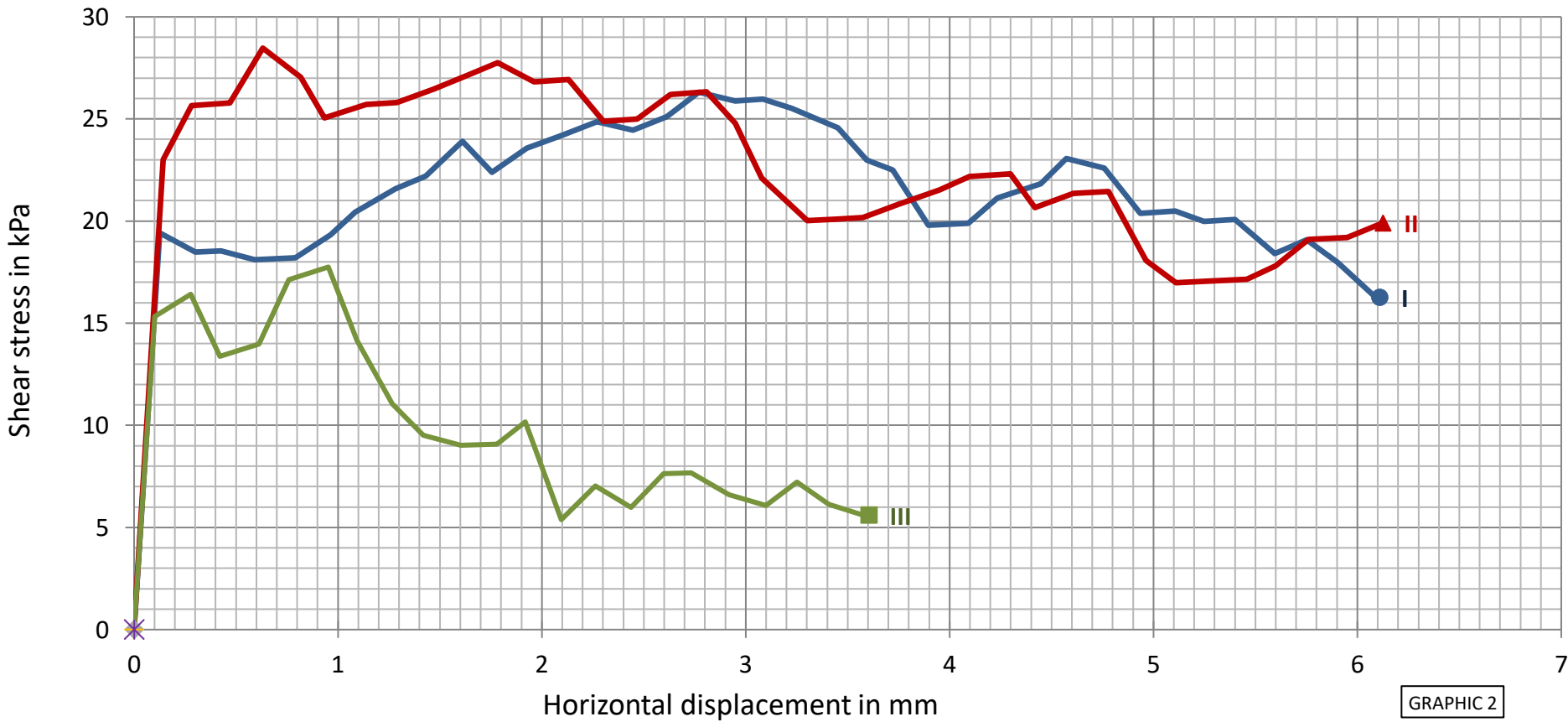


Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm2)

LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
0.0 24.2 0.25	0.0 24.2 0.25	0.0 27.4 0.28	0.0 23.1 0.24	



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5786

Equipment

MECACISA 1.5' TRIAXIAL CELL
MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.930	7.780	7.890
Initial diameter (cm)	3.750	3.760	3.765
Initial area (cm ²)	11.045	11.104	11.133
Initial volume (cm ³)	87.587	86.389	87.839
Initial moisture content (%)	76.7	76.7	76.7
Final moisture content (%)	72.6	72.7	77.2
Initial bulk density (gr/cm ³)	1.501	1.556	1.541
Initial dry density (gr/cm ³)	0.849	0.881	0.872

Initial saturation degree (%)	95.8	100.0	99.7
Final saturation degree (%)	95.8	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	1.0000	1.0000	1.0000
Major principal stress (kPa)	9.8	5.1	17.8
Failure stress (kPa)	9.8	5.1	17.8
Failure strain (%)	0.3	0.7	0.3
Pore pressure, u_f (kPa)			

Test type

Soil conditions

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

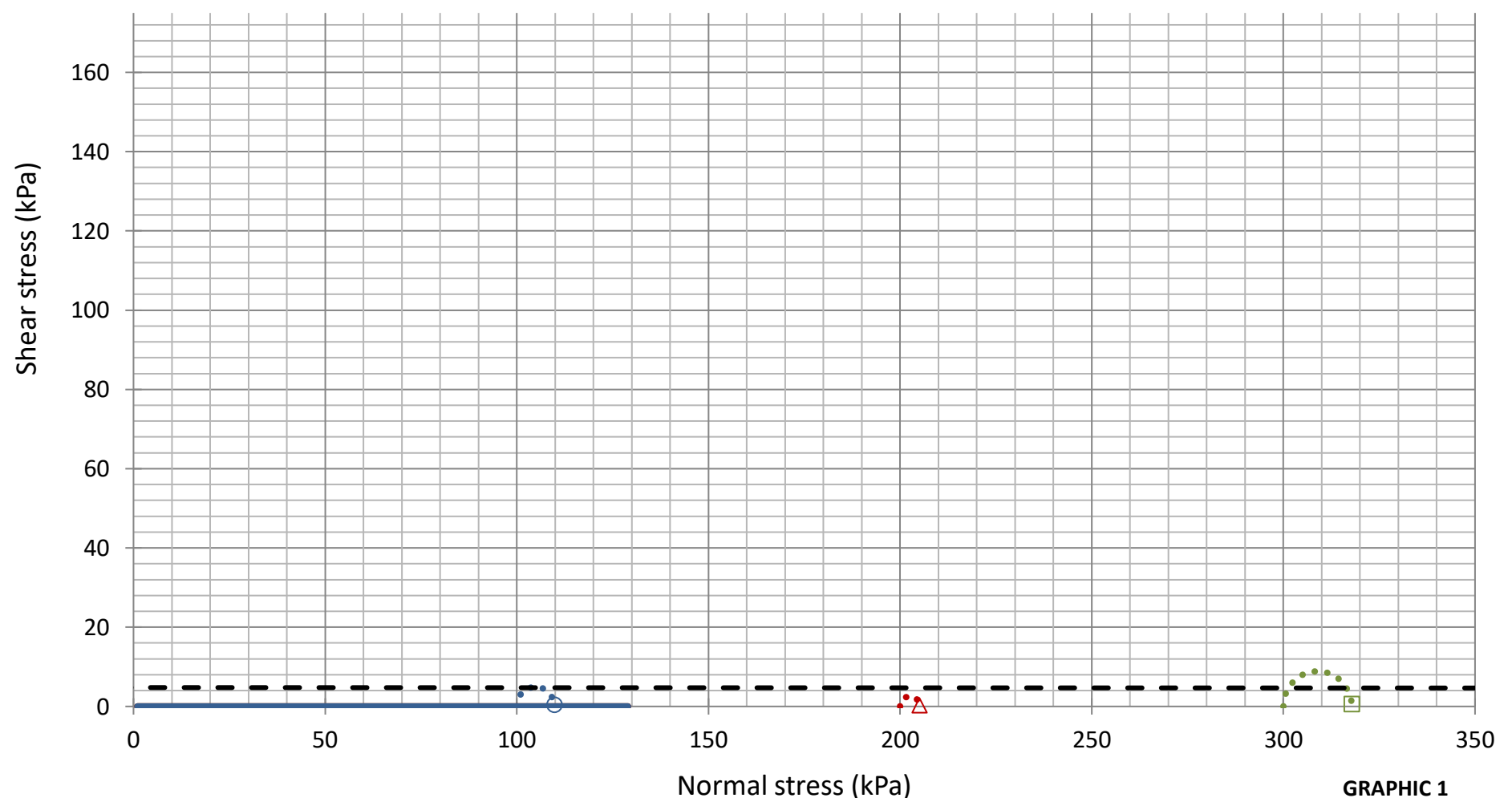
Specimen number	I	II	III
σ_1 (kPa)	109.8	205.1	317.8
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	4.9	2.6	8.9
$(\sigma_1 + \sigma_3)/2$ (kPa)	104.9	202.6	308.9

Estimate total

Φ_u (°)	0.0
C_u (kPa)	5
C_u (kp/cm ²)	0.05

Graphic symbols

			I total	II total	III total



REMARKS

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 29/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

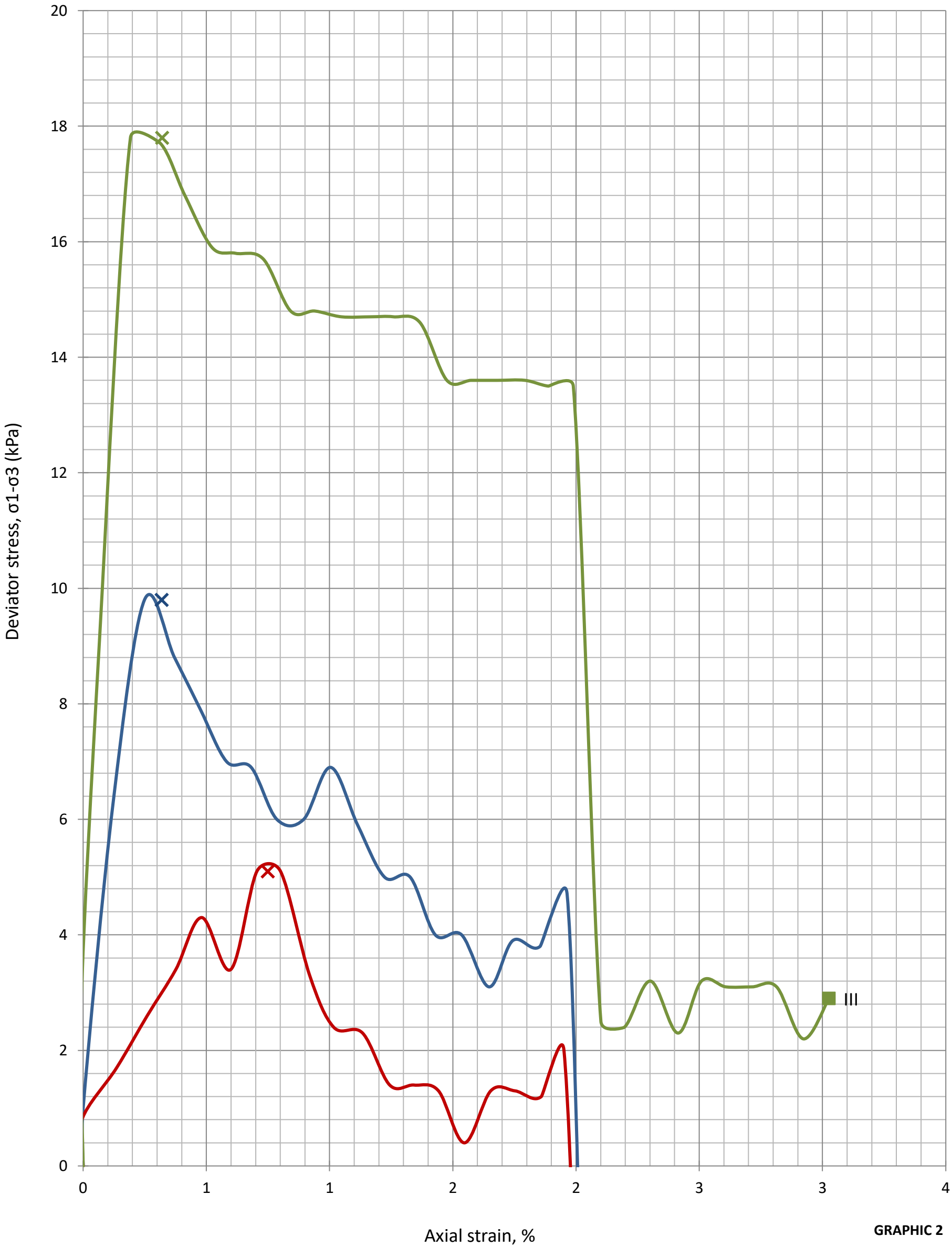
LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5786



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

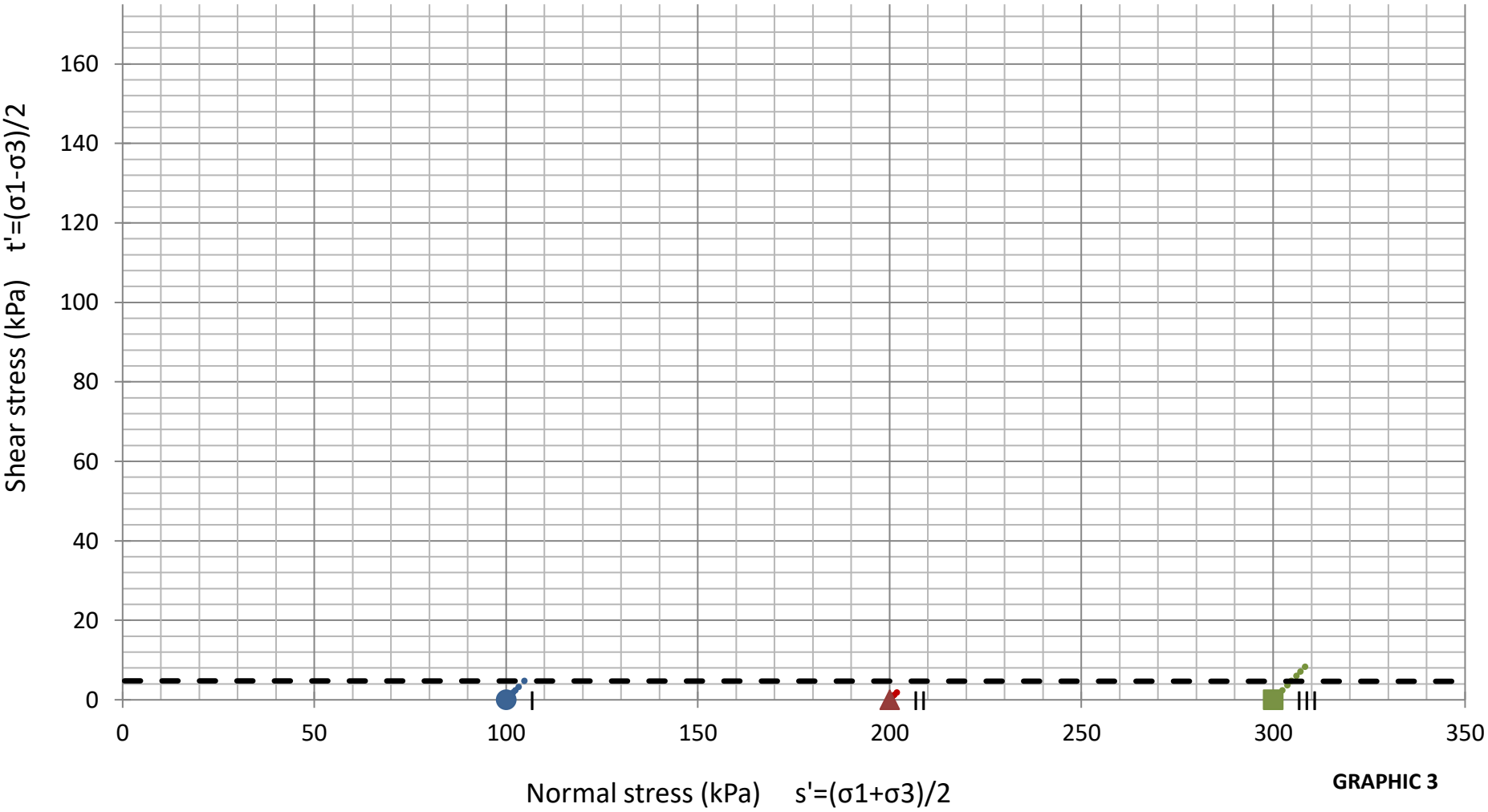
Sample reference

2022GC-5786

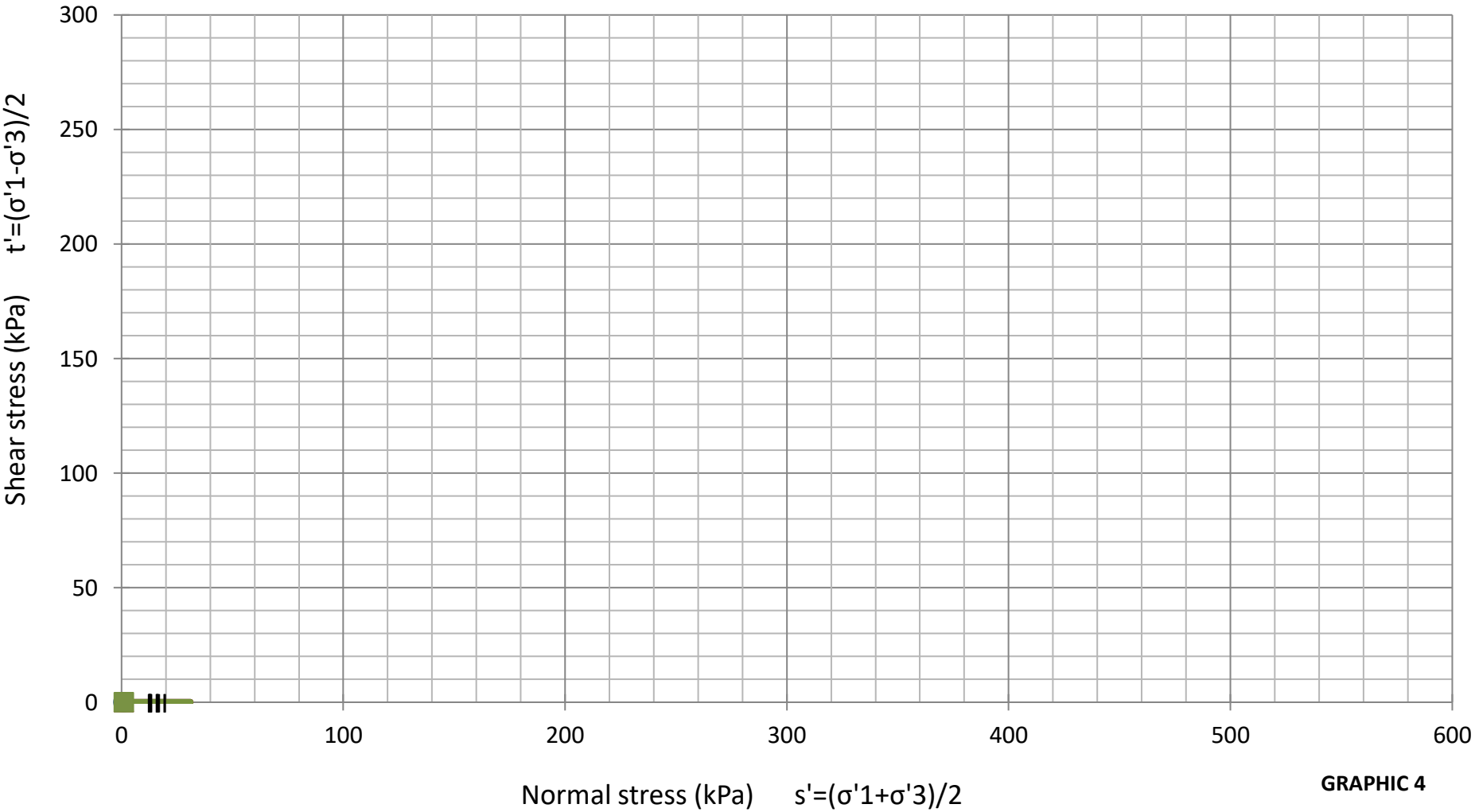
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 5$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE A TUBE / DEPTH: 0-0.25 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5786

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	5	0	1.1	0.1	0.0	1.0		0.001	101.0				100.5	0.5		
Cell pressure	15	0.249	9.9	0.1	0.0	9.8		0.003	109.8				104.9	4.9		
σ_3 , kPa	20	0.371	9.0	0.2	0.0	8.8		0.004	108.8				104.4	4.4		
700	30	0.582	7.2	0.2	0.0	7.0		0.006	107.0				103.5	3.5		
Back pressure	35	0.682	7.2	0.3	0.0	6.9		0.007	106.9				103.5	3.5		
u_b , kPa	45	0.895	6.3	0.3	0.0	6.0		0.009	106.0				103.0	3.0		
600	55	1.114	6.3	0.4	0.0	5.9		0.012	105.9				103.0	3.0		
σ'_3 , kPa	60	1.223	5.4	0.4	0.0	5.0		0.013	105.0				102.5	2.5		
100	70	1.429	4.5	0.5	0.0	4.0		0.015	104.0				102.0	2.0		
Rate of axial displ.	75	1.536	4.5	0.5	0.0	4.0		0.016	104.0				102.0	2.0		
mm/min	85	1.743	4.4	0.5	0.0	3.9		0.018	103.9				102.0	2.0		
1.0000	90	1.854	4.4	0.6	0.0	3.8		0.019	103.8				101.9	1.9		
	100	2.054	5.3	0.6	10.2	-5.5		0.021	94.5				97.3	-2.8		
	110	2.271	6.2	0.7	10.2	-4.7		0.023	95.3				97.7	-2.4		
	115	2.366	7.1	0.7	10.2	-3.8		0.024	96.2				98.1	-1.9		
	125	2.578	7.9	0.8	10.2	-3.1		0.026	96.9				98.5	-1.6		
	130	2.676	8.8	0.8	10.2	-2.2		0.027	97.8				98.9	-1.1		
	140	2.889	9.7	0.8	10.2	-1.3		0.029	98.7				99.4	-0.6		
	150	3.091	9.6	0.9	10.2	-1.5		0.032	98.5				99.3	-0.8		
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	5	-0.005	0.9	0.1	0.0	0.8		0.001	200.8				200.4	0.4		
Cell pressure	15	0.26	2.7	0.1	0.0	2.6		0.003	202.6				201.3	1.3		
σ_3 , kPa	20	0.376	3.6	0.2	0.0	3.4		0.004	203.4				201.7	1.7		
800	30	0.599	3.6	0.2	0.0	3.4		0.006	203.4				201.7	1.7		
Back pressure	35	0.705	5.4	0.3	0.0	5.1		0.007	205.1				202.6	2.6		
u_b , kPa	45	0.919	3.6	0.3	0.0	3.3		0.010	203.3				201.7	1.7		
600	55	1.134	2.7	0.4	0.0	2.3		0.012	202.3				201.2	1.2		
σ'_3 , kPa	60	1.244	1.8	0.4	0.0	1.4		0.013	201.4				200.7	0.7		
200	70	1.442	1.8	0.5	0.0	1.3		0.015	201.3				200.7	0.7		
Rate of axial displ.	75	1.547	0.9	0.5	0.0	0.4		0.016	200.4				200.2	0.2		
mm/min	85	1.752	1.8	0.5	0.0	1.3		0.018	201.3				200.7	0.7		
1.0000	90	1.859	1.8	0.6	0.0	1.2		0.019	201.2				200.6	0.6		
	100	2.051	3.5	0.6	10.1	-7.2		0.021	192.8				196.4	-3.6		
	110	2.262	3.5	0.7	10.1	-7.3		0.024	192.7				196.4	-3.7		
	115	2.366	2.6	0.7	10.1	-8.2		0.025	191.8				195.9	-4.1		
	125	2.553	2.6	0.7	10.1	-8.2		0.027	191.8				195.9	-4.1		
	130	2.647	3.5	0.8	10.1	-7.4		0.028	192.6				196.3	-3.7		
	140	2.85	2.6	0.8	10.1	-8.3		0.030	191.7				195.9	-4.2		
	150	3.041	1.7	0.9	10.1	-9.3		0.032	190.7				195.4	-4.7		
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	5	-0.008	2.9	0.1	0.0	2.8		0.001	302.8				301.4	1.4		
Cell pressure	15	0.192	17.9	0.1	0.0	17.8		0.003	317.8				308.9	8.9		
σ_3 , kPa	20	0.314	17.9	0.2	0.0	17.7		0.004	317.7				308.9	8.8		
900	30	0.523	16.1	0.2	0.0	15.9		0.006	315.9				308.0	7.9		
Back pressure	35	0.618	16.0	0.2	0.0	15.8		0.007	315.8				307.9	7.9		
u_b , kPa	45	0.842	15.1	0.3	0.0	14.8		0.010	314.8				307.4	7.4		
600	55	1.048	15.1	0.4	0.0	14.7		0.012	314.7				307.4	7.3		
σ'_3 , kPa	60	1.167	15.1	0.4	0.0	14.7		0.013	314.7				307.4	7.3		
300	70	1.367	15.0	0.4	0.0	14.6		0.015	314.6				307.3	7.3		
Rate of axial displ.	75	1.476	14.1	0.5	0.0	13.6		0.016	313.6				306.8	6.8		
mm/min	85	1.682	14.1	0.5	0.0	13.6		0.018	313.6				306.8	6.8		
1.0000	90	1.793	14.1	0.5	0.0	13.6		0.019	313.6				306.8	6.8		
	100	1.989	14.1	0.6	0.0	13.5		0.021	313.5				306.8	6.8		
	110	2.196	13.2	0.7	10.1	2.4		0.023	302.4				301.2	1.2		
	115	2.302	14.0	0.7	10.1	3.2		0.024	303.2				301.6	1.6		
	125	2.509	14.0	0.7	10.1	3.2		0.026	303.2				301.6	1.6		
	130	2.608	14.0	0.8	10.1	3.1		0.027	303.1				301.6	1.6		
	140	2.814	14.0	0.8	10.1	3.1		0.030	303.1				301.6	1.6		
	150	3.026	13.9	0.9	10.1	2.9		0.032	302.9				301.5	1.4		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5787

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#427
SAMPLE C

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

1.76
1.9
TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG	1.76	
	1.9	

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

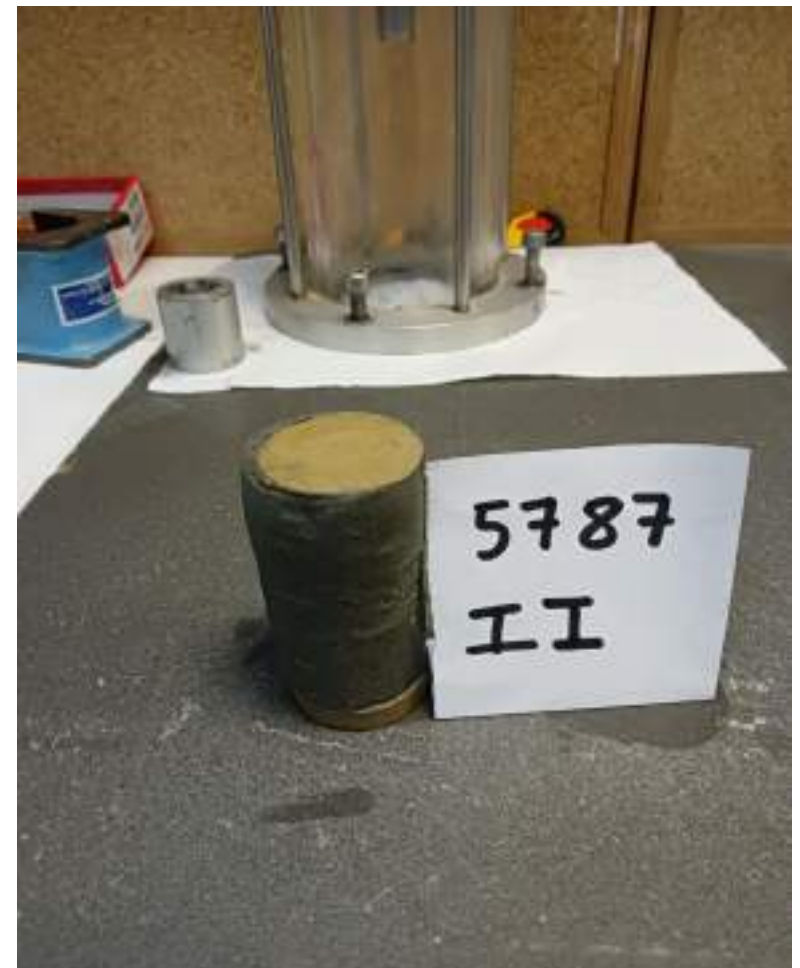
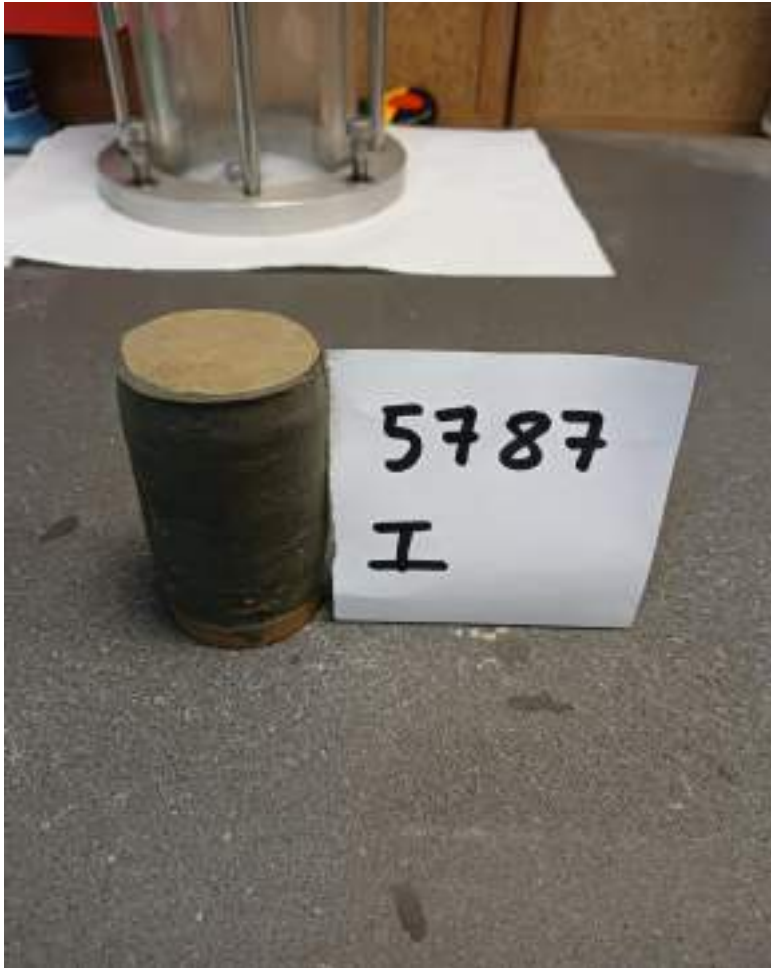
LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5787



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5787

Equipment

MECACISA 1.5' TRIAXIAL CELL
MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.780	7.880	7.990
Initial diameter (cm)	3.820	3.845	3.900
Initial area (cm ²)	11.461	11.611	11.946
Initial volume (cm ³)	89.167	91.495	95.449
Initial moisture content (%)	33.7	33.7	33.7
Final moisture content (%)	31.9	30.3	31.6
Initial bulk density (gr/cm ³)	1.967	1.993	1.934
Initial dry density (gr/cm ³)	1.471	1.491	1.447

Initial saturation degree (%) 100.0 100.0 100.0

Final saturation degree (%) 100.0 100.0 100.0

Particle density (gr/cm³) 2.650 (assumed)

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	1.0000	1.0000	1.0000
Major principal stress (kPa)	129.9	181.0	169.7
Failure stress (kPa)	129.9	181.0	169.7
Failure strain (%)	19.8	19.6	18.7
Pore pressure, u_f (kPa)			

Test type

Soil conditions

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

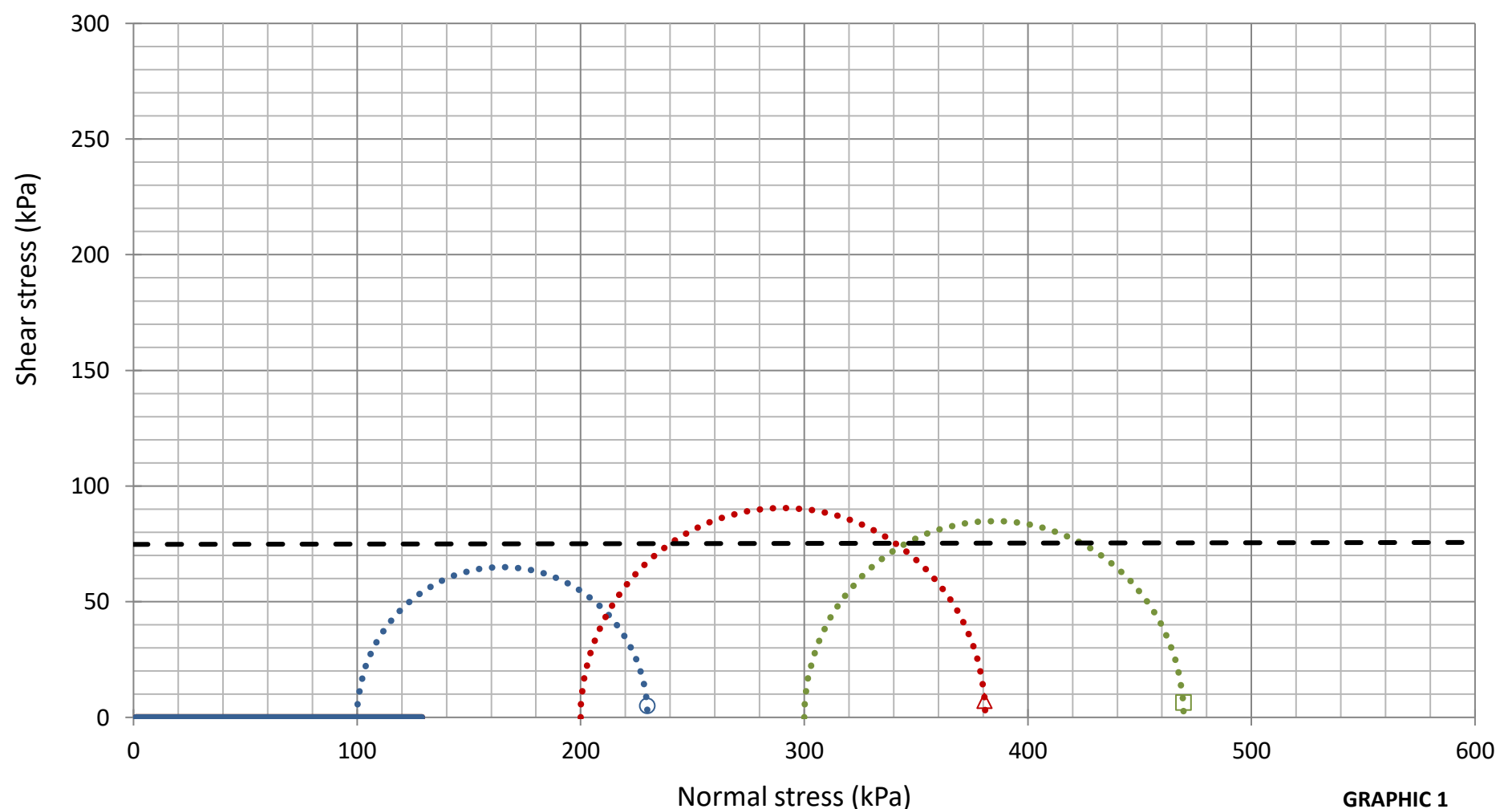
Specimen number	I	II	III
σ_1 (kPa)	229.9	381.0	469.7
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	65.0	90.5	84.9
$(\sigma_1 + \sigma_3)/2$ (kPa)	165.0	290.5	384.9

Estimate total

Φ_u (°)	0.0
C_u (kPa)	75
C_u (kp/cm ²)	0.76

Graphic symbols

I total	II total	III total			



GRAPHIC 1

REMARKS

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 22/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

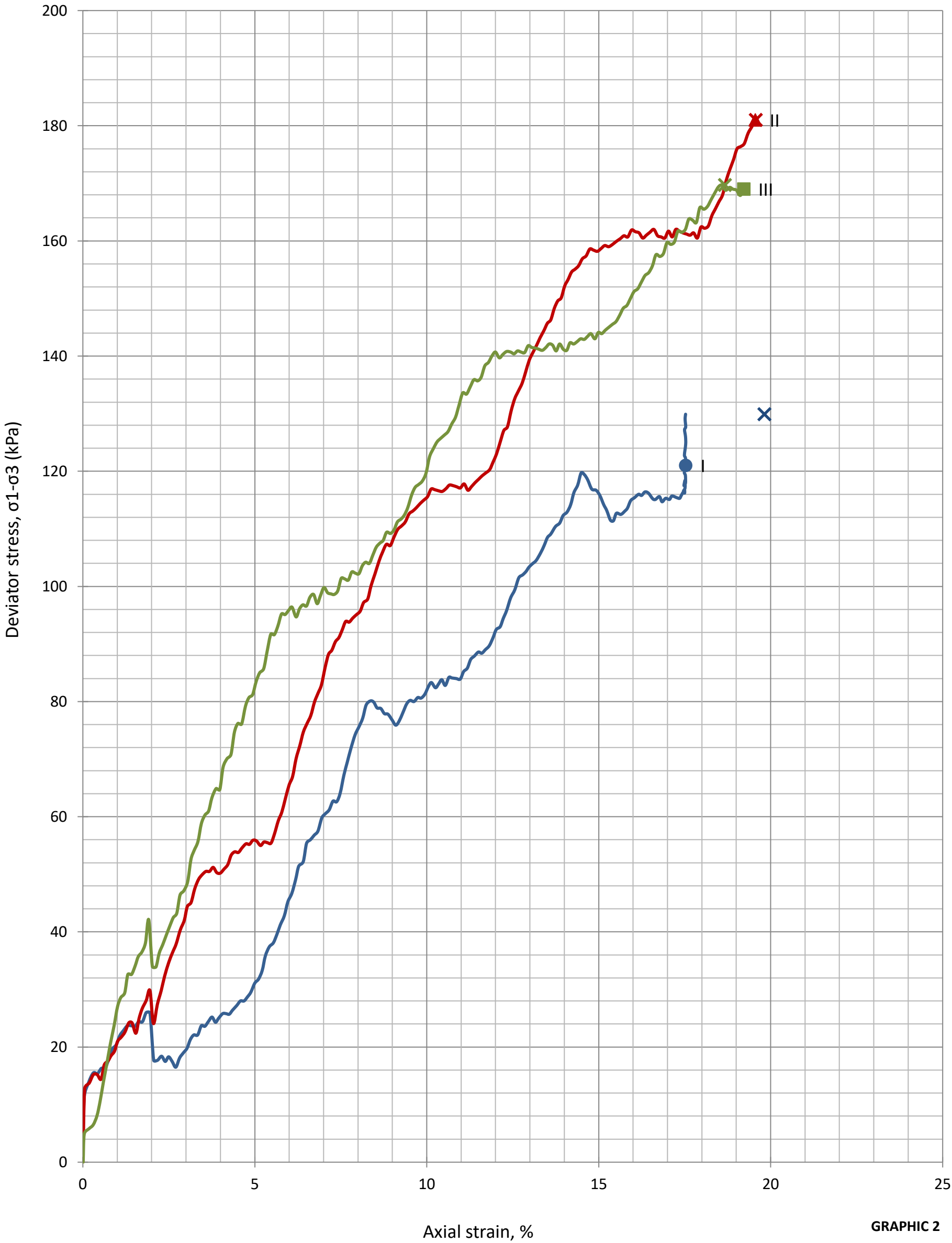
LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5787



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

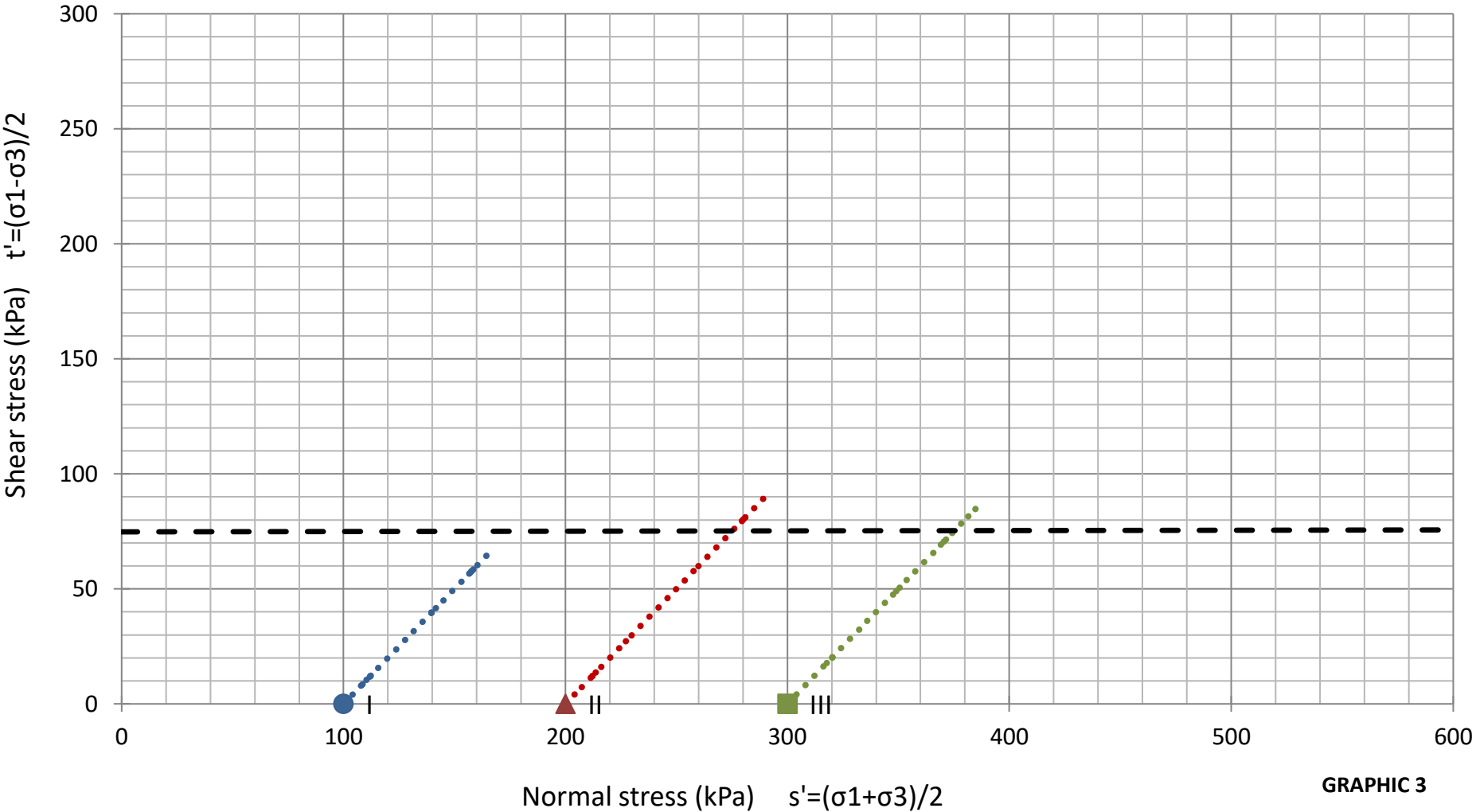
Sample reference

2022GC-5787

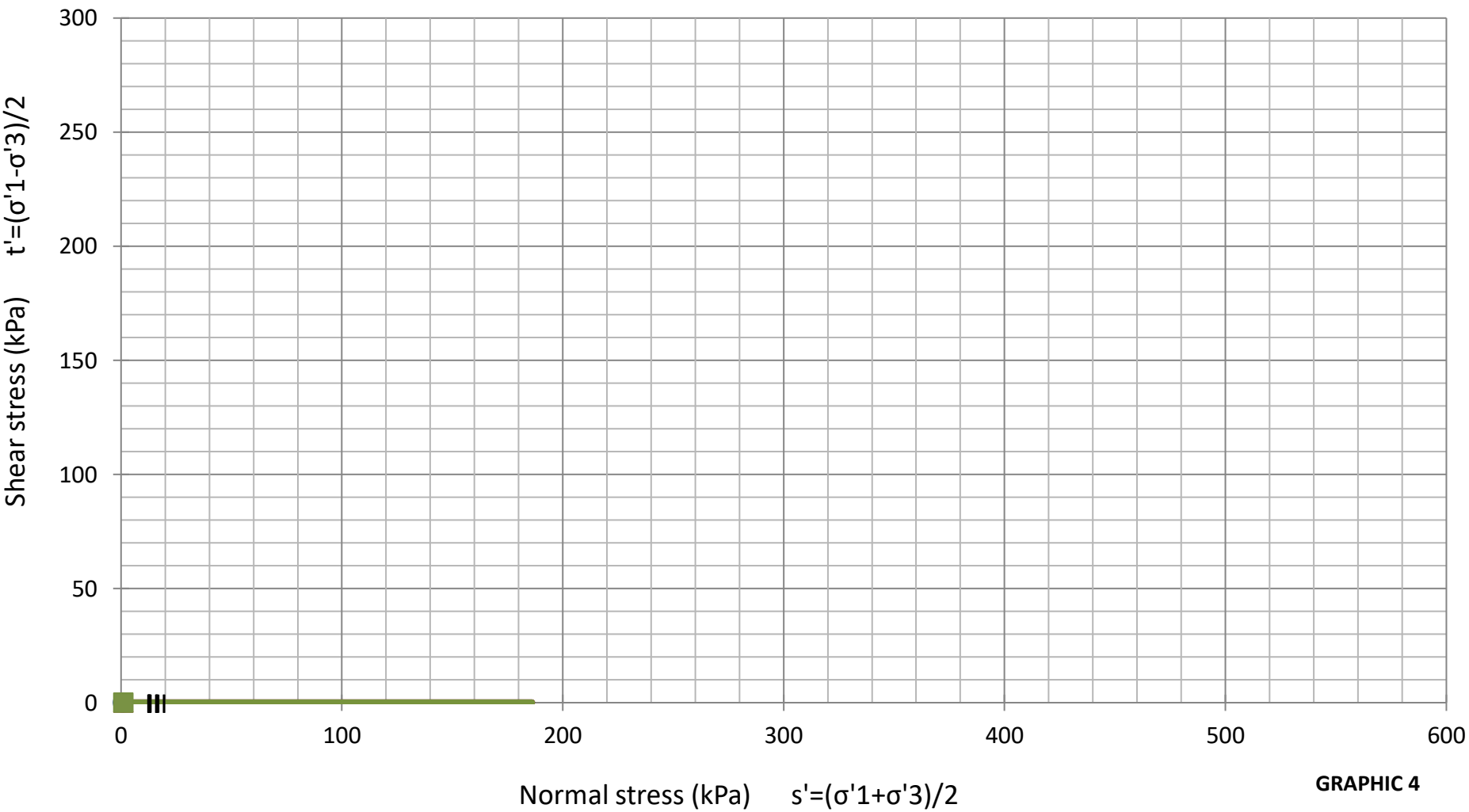
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 75$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#427 SAMPLE C TUBE / DEPTH: 1.76-1.9 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5787

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.005	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.972	20.7	0.3	0.0	20.4		0.010	120.4				110.2	10.2		
Cell pressure	95	2.06	28.2	0.6	9.9	17.7		0.020	117.7				108.9	8.8		
σ_3 , kPa	145	3.126	32.1	0.9	9.9	21.3		0.031	121.3				110.7	10.7		
700	190	4.067	36.8	1.1	9.9	25.8		0.041	125.8				112.9	12.9		
Back pressure	240	5.109	43.0	1.3	9.9	31.8		0.051	131.8				115.9	15.9		
u_b , kPa	290	6.188	60.6	1.6	9.9	49.1		0.062	149.1				124.6	24.6		
600	340	7.273	74.4	1.8	9.9	62.7		0.073	162.7				131.4	31.4		
σ'_3 , kPa	385	8.238	91.3	2.0	9.9	79.4		0.082	179.4				139.7	39.7		
100	435	9.308	90.2	2.2	9.9	78.1		0.093	178.1				139.1	39.1		
Rate of axial displ.	485	10.349	95.4	2.4	9.9	83.1		0.104	183.1				141.6	41.6		
mm/min	535	11.384	100.4	2.6	9.9	87.9		0.115	187.9				144.0	44.0		
1.0000	580	12.322	108.5	2.8	9.9	95.8		0.124	195.8				147.9	47.9		
	630	13.414	120.0	3.0	9.9	107.1		0.135	207.1				153.6	53.6		
	680	14.489	132.7	3.1	9.9	119.7		0.146	219.7				159.9	59.9		
	730	15.515	125.9	3.3	9.9	112.7		0.156	212.7				156.4	56.4		
	775	16.446	129.5	3.4	9.9	116.2		0.166	216.2				158.1	58.1		
	825	17.402	129.3	3.6	9.9	115.8		0.177	215.8				157.9	57.9		
	875	17.49	133.3	3.6	9.9	119.8		0.187	219.8				159.9	59.9		
	925	17.527	143.4	3.6	9.9	129.9		0.198	229.9				165.0	65.0		
Specimen	0	0.001	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.922	19.6	0.3	0.0	19.3		0.010	219.3				209.7	9.7		
Cell pressure	95	1.951	30.4	0.6	0.0	29.8		0.020	229.8				214.9	14.9		
σ_3 , kPa	145	3.037	55.1	0.8	9.9	44.4		0.031	244.4				222.2	22.2		
800	190	3.995	61.2	1.1	9.9	50.2		0.040	250.2				225.1	25.1		
Back pressure	240	5.049	67.0	1.3	9.9	55.8		0.051	255.8				227.9	27.9		
u_b , kPa	290	6.1	78.4	1.5	9.9	67.0		0.061	267.0				233.5	33.5		
600	340	7.143	99.9	1.8	9.9	88.2		0.072	288.2				244.1	44.1		
σ'_3 , kPa	385	8.065	107.6	2.0	9.9	95.7		0.081	295.7				247.9	47.9		
200	435	9.156	122.0	2.2	9.9	109.9		0.092	309.9				255.0	55.0		
Rate of axial displ.	485	10.233	129.1	2.4	9.9	116.8		0.103	316.8				258.4	58.4		
mm/min	535	11.297	129.8	2.6	9.9	117.3		0.113	317.3				258.7	58.7		
1.0000	580	12.243	139.8	2.8	9.9	127.1		0.123	327.1				263.6	63.6		
	630	13.297	156.0	2.9	9.9	143.2		0.133	343.2				271.6	71.6		
	680	14.315	168.1	3.1	9.9	155.1		0.144	355.1				277.6	77.6		
	730	15.404	172.6	3.3	9.9	159.4		0.154	359.4				279.7	79.7		
	775	16.386	174.3	3.4	9.9	161.0		0.164	361.0				280.5	80.5		
	825	17.448	174.9	3.6	9.9	161.4		0.175	361.4				280.7	80.7		
	875	18.496	180.4	3.7	9.9	166.8		0.185	366.8				283.4	83.4		
	925	19.554	194.7	3.8	9.9	181.0		0.196	381.0				290.5	90.5		
Specimen	0	0.008	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.908	24.0	0.3	0.0	23.7		0.009	323.7				311.9	11.9		
Cell pressure	95	1.916	42.7	0.6	0.0	42.1		0.020	342.1				321.1	21.1		
σ_3 , kPa	145	2.931	57.6	0.8	9.7	47.1		0.030	347.1				323.6	23.6		
900	190	3.876	75.6	1.0	9.7	64.9		0.040	364.9				332.5	32.5		
Back pressure	240	4.937	92.2	1.3	9.7	81.2		0.050	381.2				340.6	40.6		
u_b , kPa	290	5.98	107.0	1.5	9.7	95.8		0.060	395.8				347.9	47.9		
600	340	7.012	111.2	1.7	9.7	99.8		0.071	399.8				349.9	49.9		
σ'_3 , kPa	385	7.924	113.9	1.9	9.7	102.3		0.080	402.3				351.2	51.2		
300	435	8.945	121.0	2.1	9.7	109.2		0.091	409.2				354.6	54.6		
Rate of axial displ.	485	9.981	131.7	2.3	9.7	119.7		0.101	419.7				359.9	59.9		
mm/min	535	11.046	145.8	2.5	9.7	133.6		0.112	433.6				366.8	66.8		
1.0000	580	11.999	153.1	2.7	9.7	140.7		0.121	440.7				370.4	70.4		
	630	13.053	154.1	2.9	9.7	141.5		0.131	441.5				370.8	70.8		
	680	14.072	153.7	3.0	9.7	141.0		0.142	441.0				370.5	70.5		
	730	15.089	156.8	3.2	9.7	143.9		0.152	443.9				372.0	72.0		
	775	16.027	164.2	3.3	9.7	151.2		0.162	451.2				375.6	75.6		
	825	17.098	172.6	3.5	9.7	159.4		0.172	459.4				379.7	79.7		
	875	18.165	179.3	3.6	9.7	166.0		0.183	466.0				383.0	83.0		
	925	19.218	182.4	3.7	9.7	169.0		0.193	469.0				384.5	84.5		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#252 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5788

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#252
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

5-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#252 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5788

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

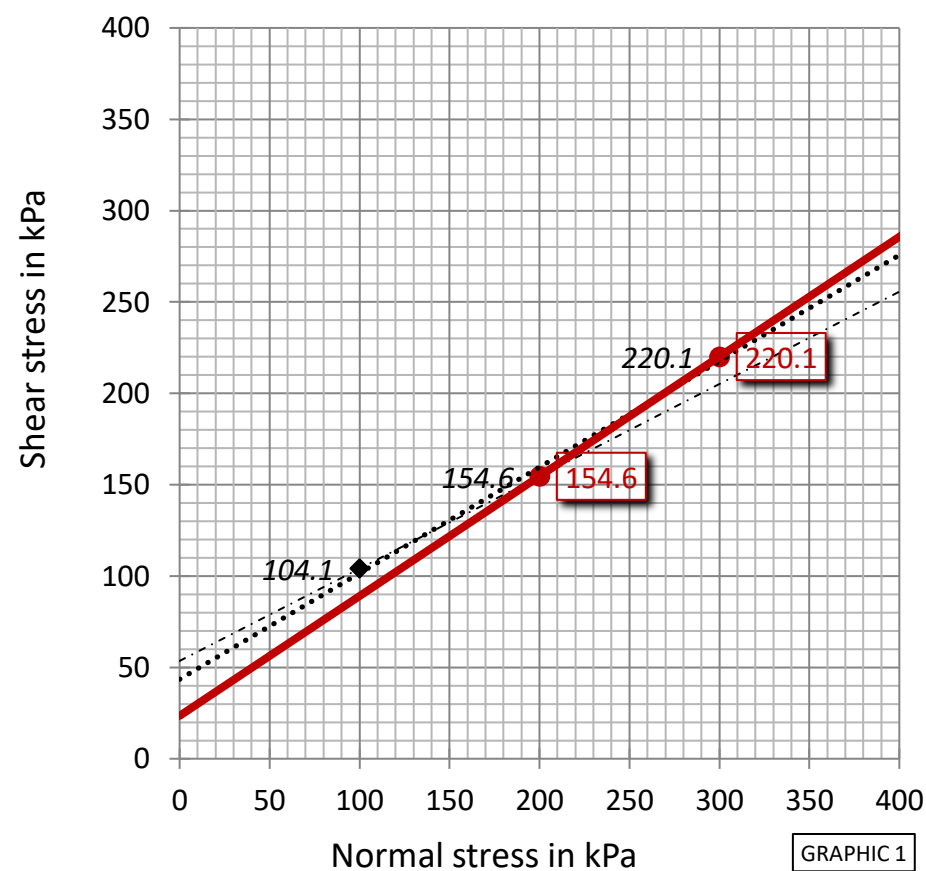
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

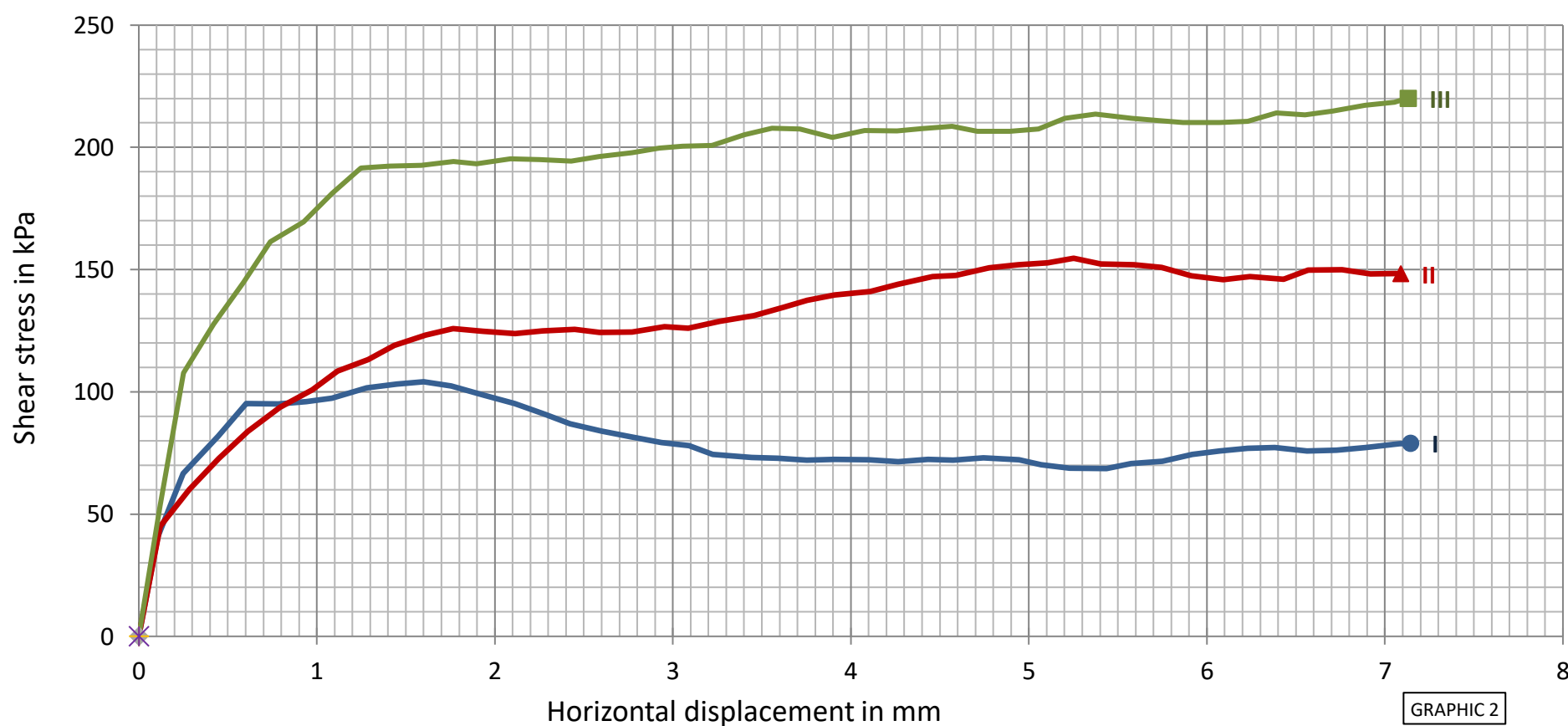
Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.075	16.102	16.082			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	24.4	24.4	24.4			
Final moisture (%)	21.6	29.9	30.2			
Initial bulk density (gr/cm ³)	2.015	1.990	2.013			
Initial dry density (gr/cm ³)	1.620	1.600	1.618			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.192	2.075	2.858			
Initial voids ratio	0.6358	0.6563	0.6378			
Voids ratio at end prior consol.	0.6358	0.6563	0.6378			
Voids ratio at end of test	0.6227	0.5145	0.4422			
Initial saturation degree (%)	100.00	98.52	100.00			
Final saturation degree (%)	91.92	100.00	100.00			
Max. shear stress (KPa)	104.1	154.6	220.1			
Shear stress applied (KPa)		154.6	220.1			
Horizontal speed (mm/min)	0.95935	0.96748	0.95304			
Particle density (g/cm ³)	2.650 (assumed)					



Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	33.2	30.1	26.8	33.2	
Cohesion (kPa)	23.5	43.5	53.5	23.5	
(kp/cm ²)	0.24	0.44	0.55	0.24	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 05/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#259 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5789

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#259
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#259 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5789

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

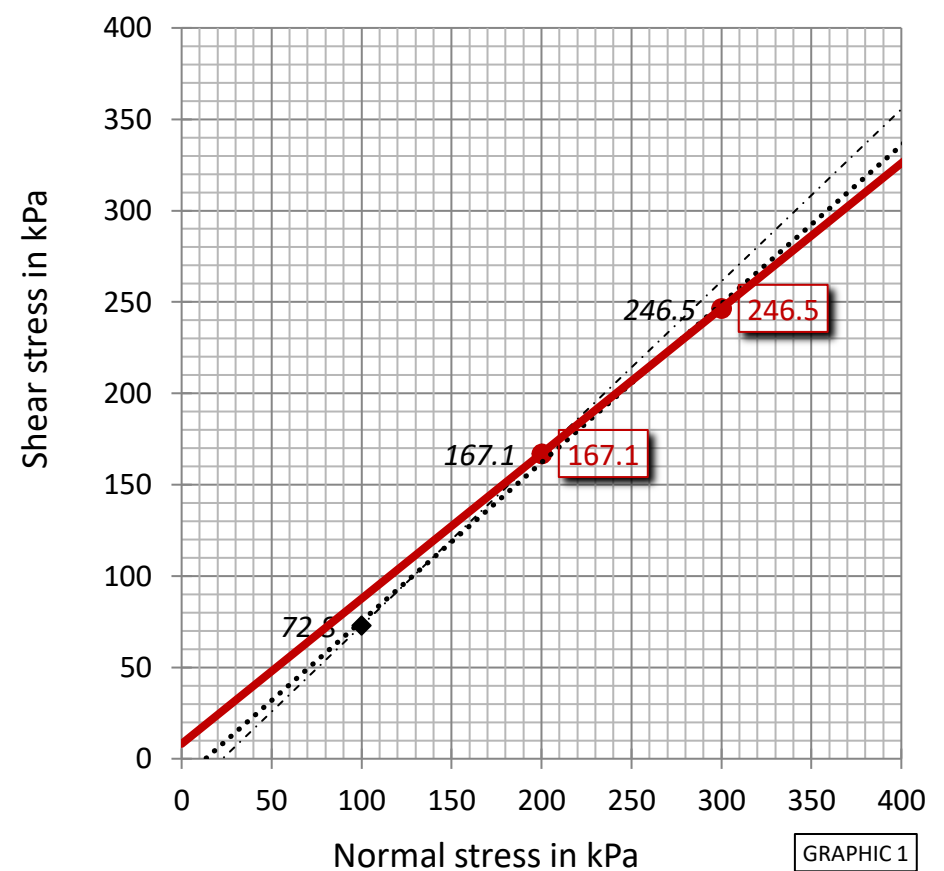
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.574	16.411	15.953			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	20.8	20.8	20.8			
Final moisture (%)	21.9	21.4	21.9			
Initial bulk density (gr/cm ³)	2.073	2.066	2.080			
Initial dry density (gr/cm ³)	1.716	1.710	1.722			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.344	0.884	1.450			
Initial voids ratio	0.5443	0.5497	0.5389			
Voids ratio at end prior consol.	0.5443	0.5497	0.5389			
Voids ratio at end of test	0.5221	0.4932	0.4457			
Initial saturation degree (%)	100.00	100.00	100.00			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	72.8	167.1	246.5			
Shear stress applied (KPa)		167.1	246.5			
Horizontal speed (mm/min)	0.96107	0.94767	0.96007			
Particle density (g/cm ³)	2.650 (assumed)					

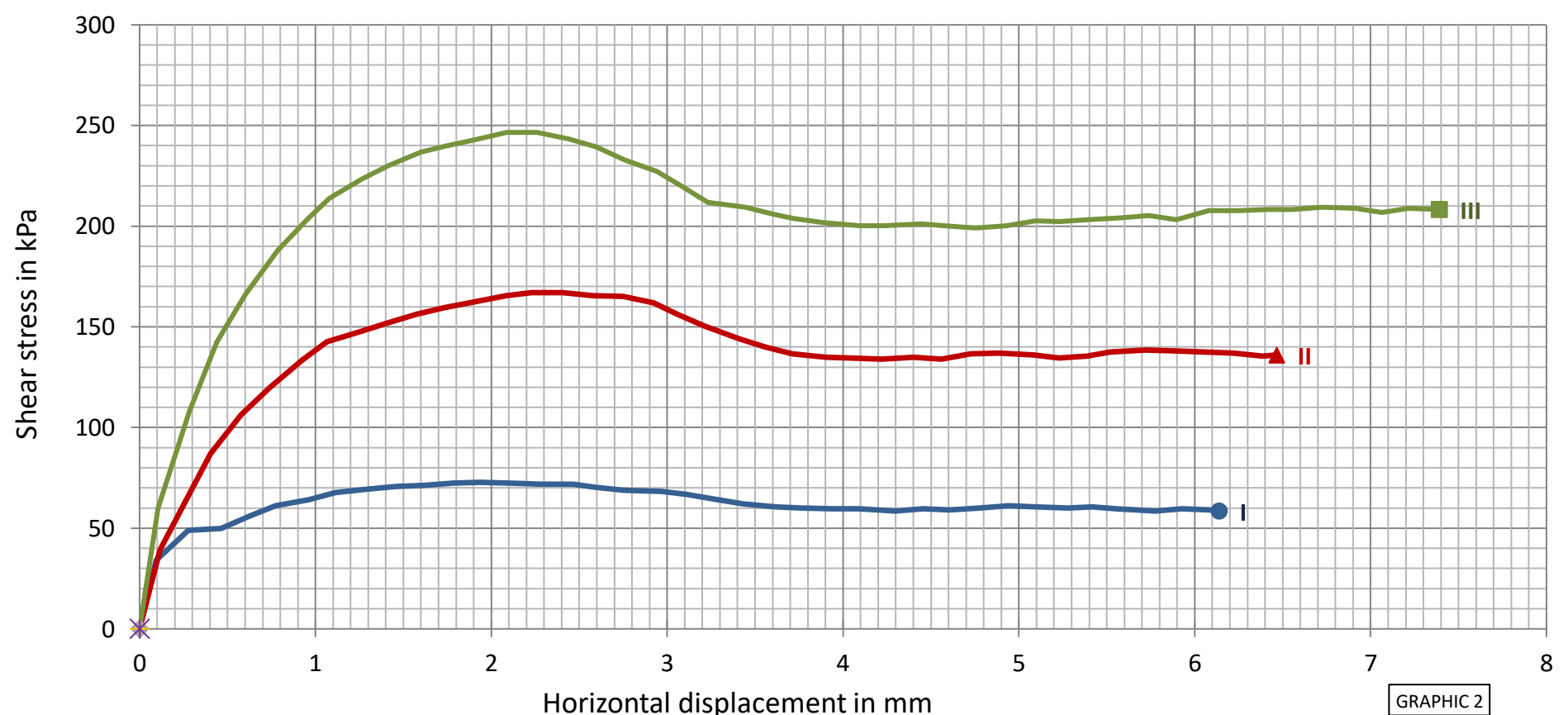


(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	38.5	41.0	43.3	38.5	
Cohesion (kPa)	8.2	0.0	0.0	8.2	
(kp/cm ²)	0.08	0.00	0.00	0.08	



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#260_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5790

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#260_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

5-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#260_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5790**Type of test****UU****Soil conditions****UNDISTURBED****Equipment**DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOXMECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS**Test conditions**Underwater floor SI
Prior saturation NOPrior consolidation NO
Drained failure NO
Residual parameters NO**Symbols in graphs 2 to 4 (normal stress, kPa)**

● 100 ▲ 200 ■ 300 ◆ 400 ✱ 500 ✱ 600

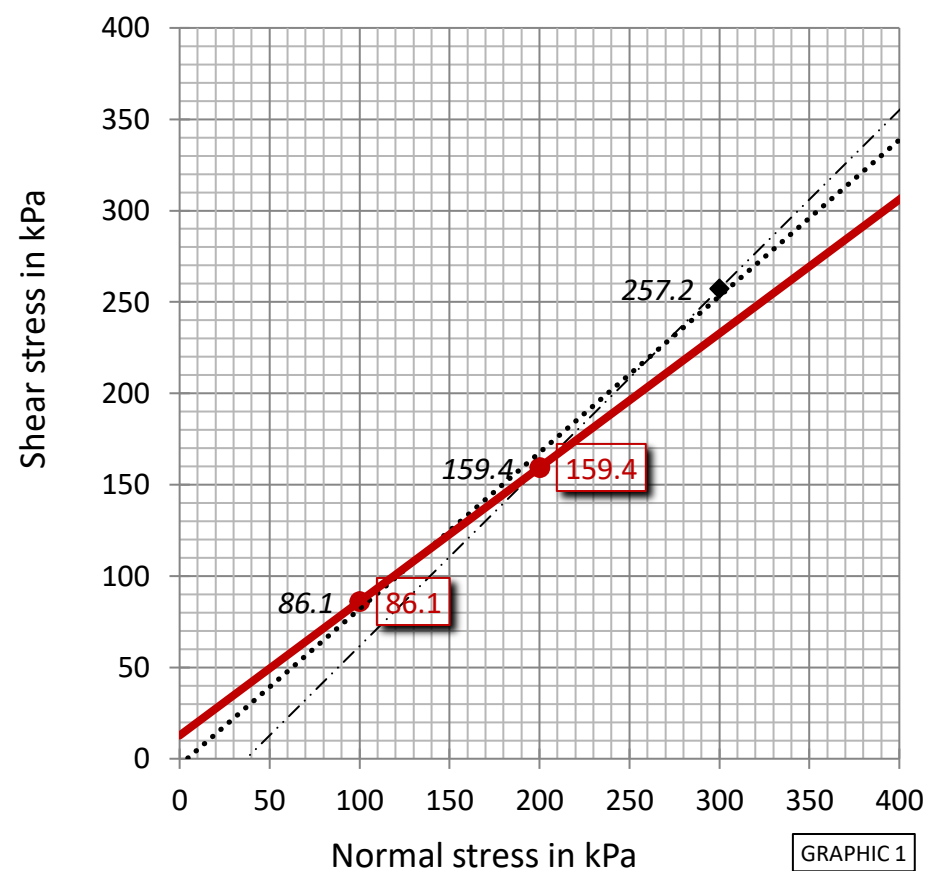
Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	16.569	16.104	15.789
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	20.2	20.2	20.2
Final moisture (%)	21.7	21.3	21.4
Initial bulk density (gr/cm ³)	2.104	2.099	2.103
Initial dry density (gr/cm ³)	1.750	1.746	1.750
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	0.640	1.102	1.252
Initial voids ratio	0.5143	0.5178	0.5143
Voids ratio at end prior consol.	0.5143	0.5178	0.5143
Voids ratio at end of test	0.4738	0.4488	0.4351
Initial saturation degree (%)	100.00	100.00	100.00
Final saturation degree (%)	100.00	100.00	100.00
Max. shear stress (KPa)	86.1	159.4	257.2
Shear stress applied (KPa)	86.1	159.4	

Horizontal speed (mm/min) 0.95899 0.95884 0.94349

Particle density (g/cm³) 2.650 (assumed)

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte



GRAPHIC 1

Symbols in graphic 1

—●— 159.415

- - -◆- - - 257.203

- - - - -

- - - - -

- - -○- - -

Results

LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)

36.3

40.6

36.3

44.4

Cohesion (kPa)

12.7

0.0

12.7

0.0

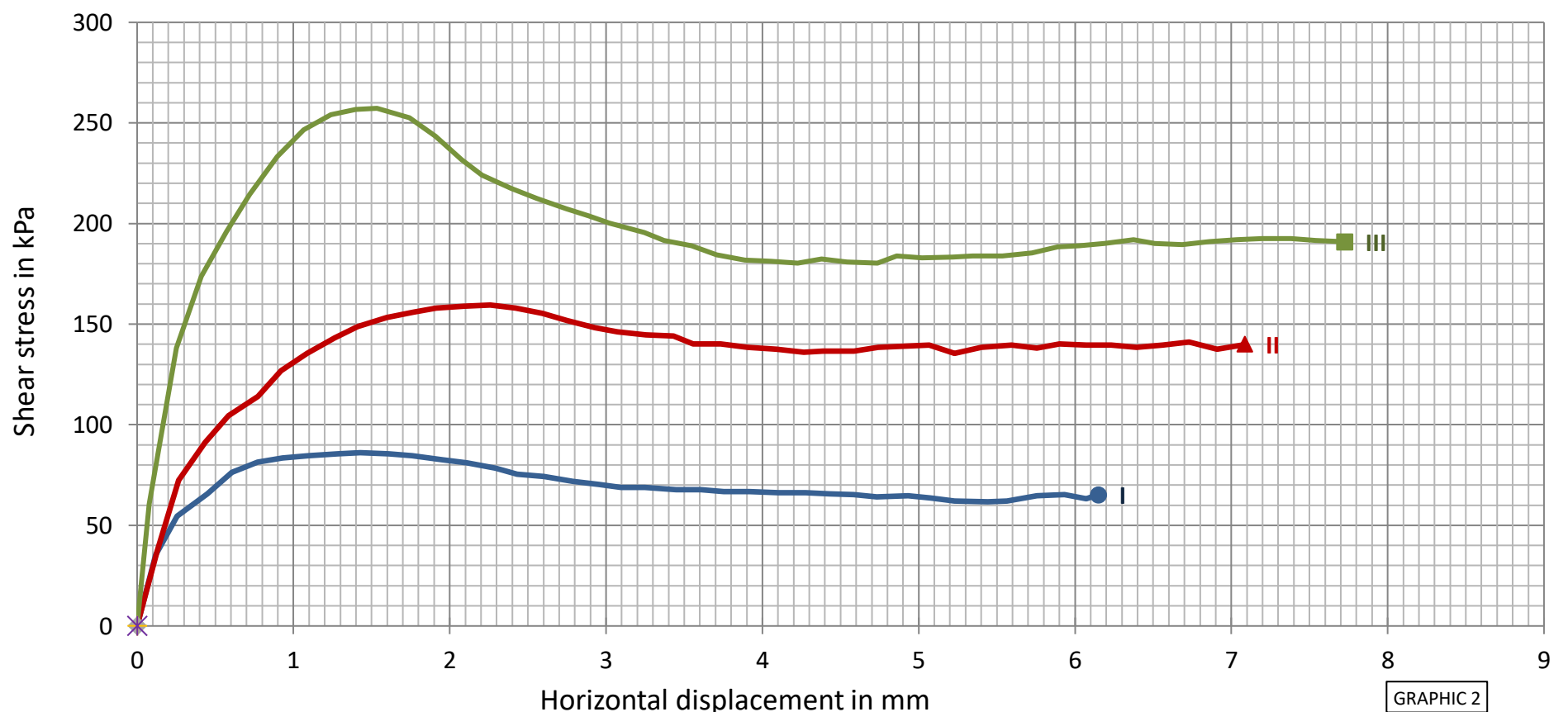
(kp/cm²)

0.13

0.00

0.13

0.00



GRAPHIC 2

REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 05/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#257 SAMPLE B TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5791

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#257
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

4-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#257 SAMPLE B TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5791

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

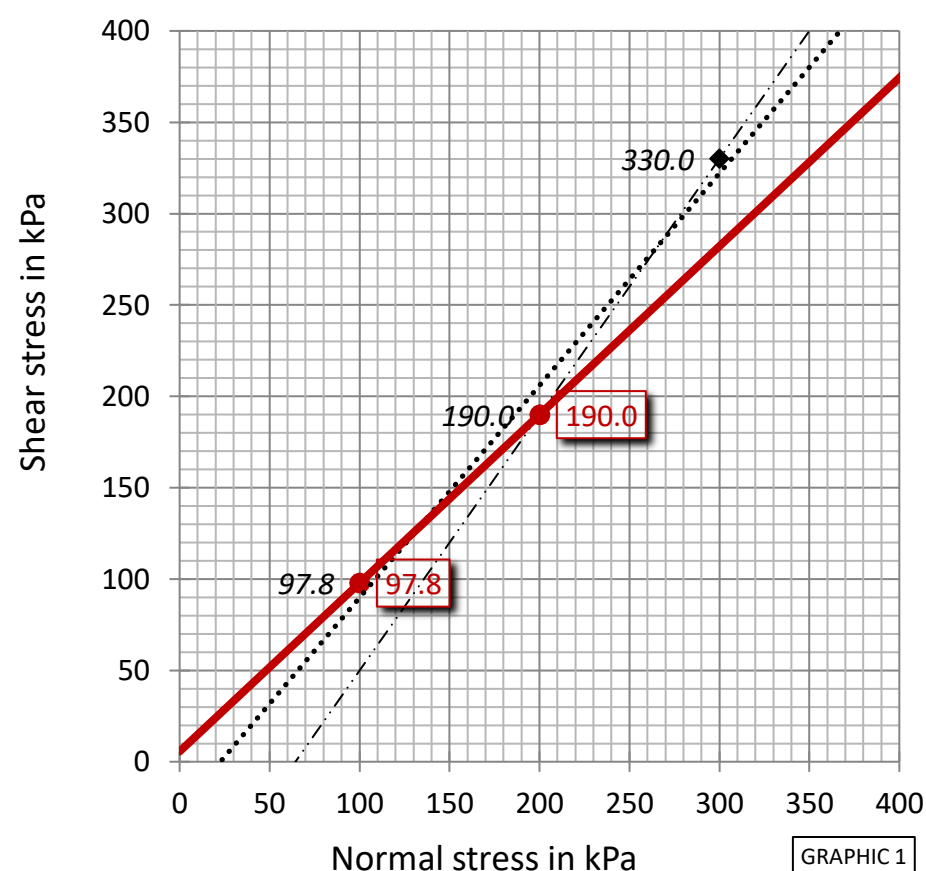
Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	15.799	15.946	15.919
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	20.4	20.4	20.4
Final moisture (%)	20.0	21.4	21.1
Initial bulk density (gr/cm ³)	2.080	2.061	2.085
Initial dry density (gr/cm ³)	1.728	1.712	1.732
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	0.196	0.610	1.011
Initial voids ratio	0.5336	0.5479	0.5300
Voids ratio at end prior consol.	0.5336	0.5479	0.5300
Voids ratio at end of test	0.5210	0.5089	0.4654
Initial saturation degree (%)	100.00	98.67	100.00
Final saturation degree (%)	100.00	100.00	100.00
Max. shear stress (KPa)	97.8	190.0	330.0
Shear stress applied (KPa)	97.8	190.0	

Horizontal speed (mm/min) 0.96329 0.96142 0.96224

Particle density (g/cm³) 2.650 (assumed)

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte



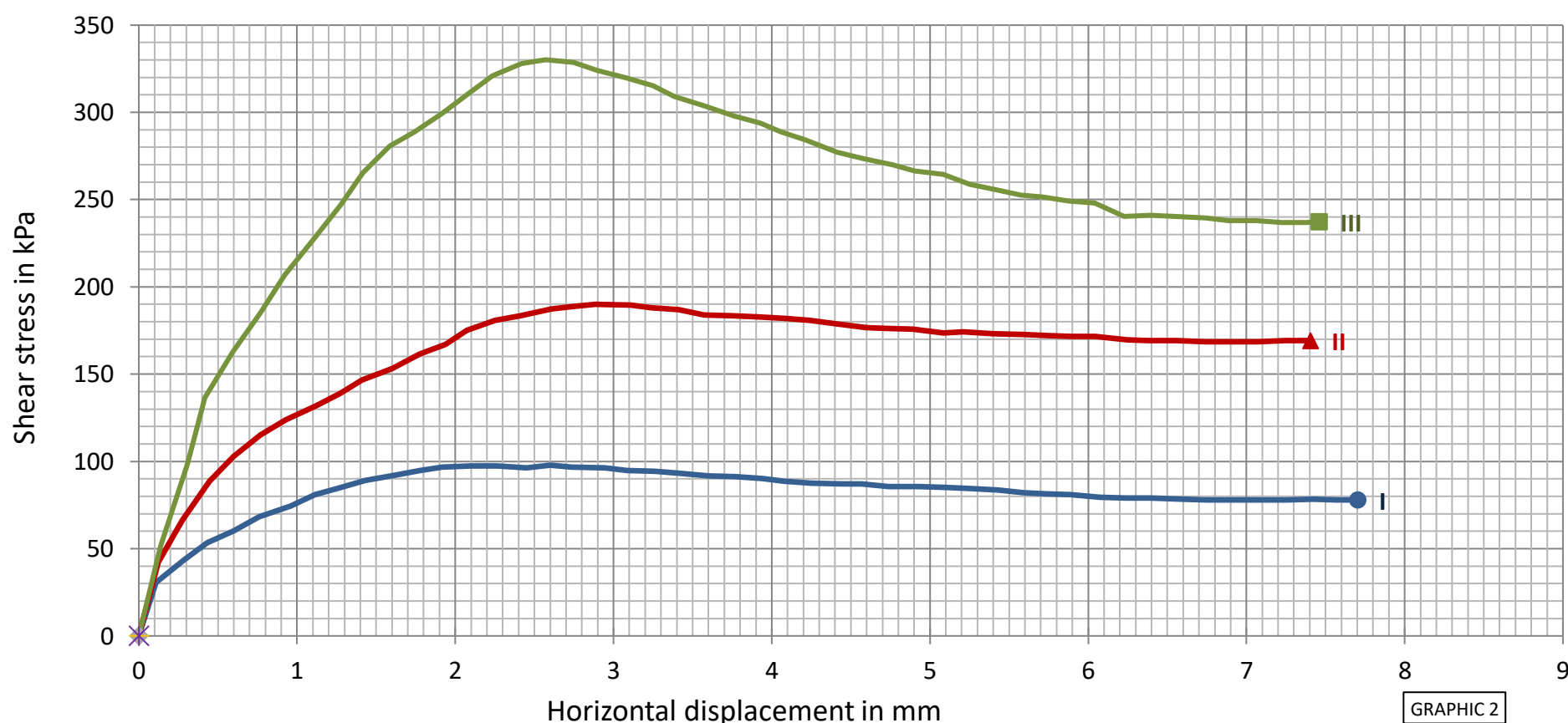
GRAPHIC 1

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)

LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
42.7	49.3	42.7	54.5	
5.6	0.0	5.6	0.0	
0.06	0.00	0.06	0.00	



GRAPHIC 2

REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 04/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#333_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5792

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#333_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

4-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#333_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5792

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

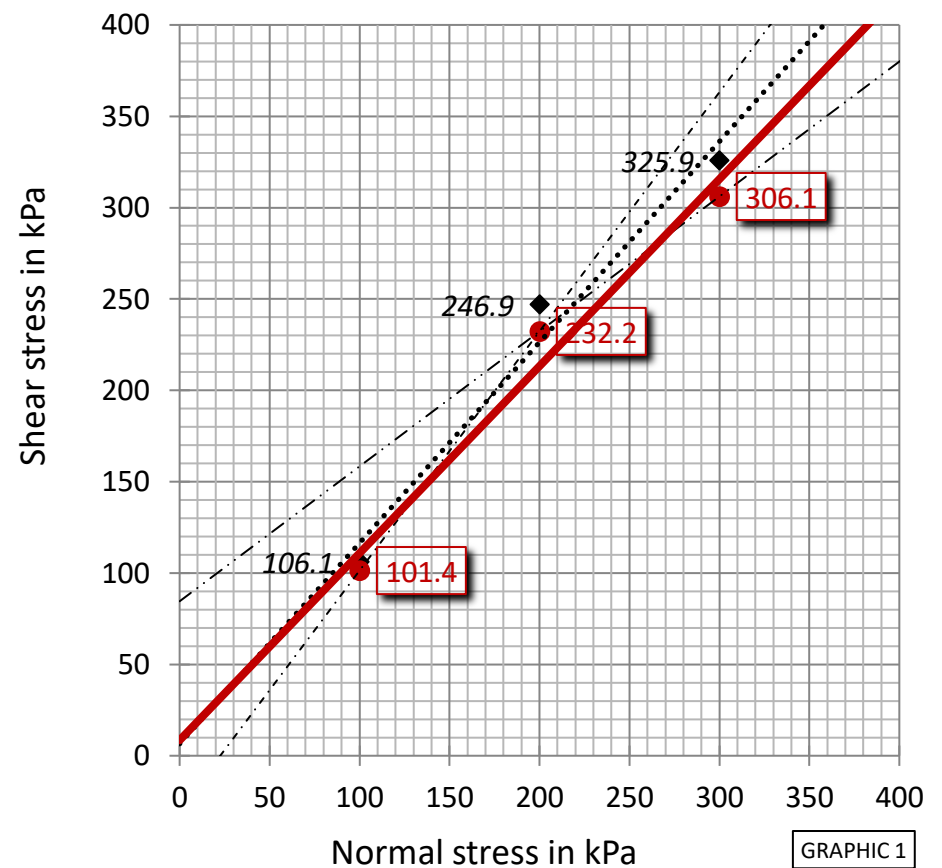
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	16.587	16.356	15.147
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	21.6	21.6	21.6
Final moisture (%)	25.1	26.6	26.3
Initial bulk density (gr/cm ³)	1.953	1.935	1.952
Initial dry density (gr/cm ³)	1.606	1.591	1.605
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	-0.097	0.455	0.809
Initial voids ratio	0.6501	0.6656	0.6511
Voids ratio at end prior consol.	0.6501	0.6656	0.6511
Voids ratio at end of test	0.6568	0.6343	0.5953
Initial saturation degree (%)	88.05	86.00	87.91
Final saturation degree (%)	100.00	100.00	100.00
Max. shear stress (KPa)	106.1	246.9	325.9
Shear stress applied (KPa)	101.4	232.2	306.1
Horizontal speed (mm/min)	0.96010	0.94878	0.95107
Particle density (g/cm ³)	2.650 (assumed)		



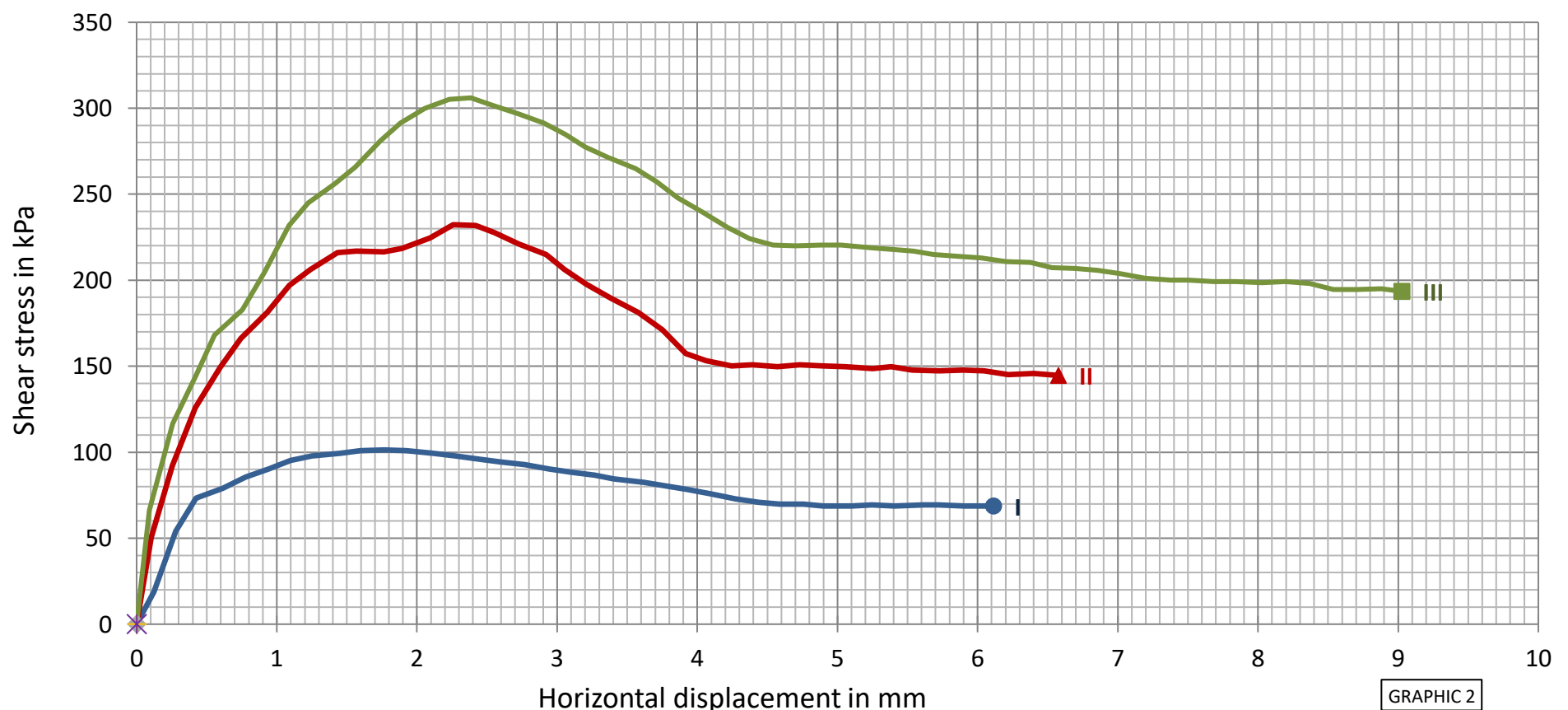
(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)

LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
45.7	47.7	52.6	36.5	
8.5	6.6	0.0	84.6	
0.09	0.07	0.00	0.86	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 04/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#10_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5793

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#10_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE
BIOOCLASTS
20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

13-10-22
MOHAMED YAAKOUBI
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification
AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

THE TRIAXIAL IS CANCELED DUE TO HIGH CONTENT DE BIOOCLASTS
IT IS REPLACED BY A DIRECT SHEARBOX TEST



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#10_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5793

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

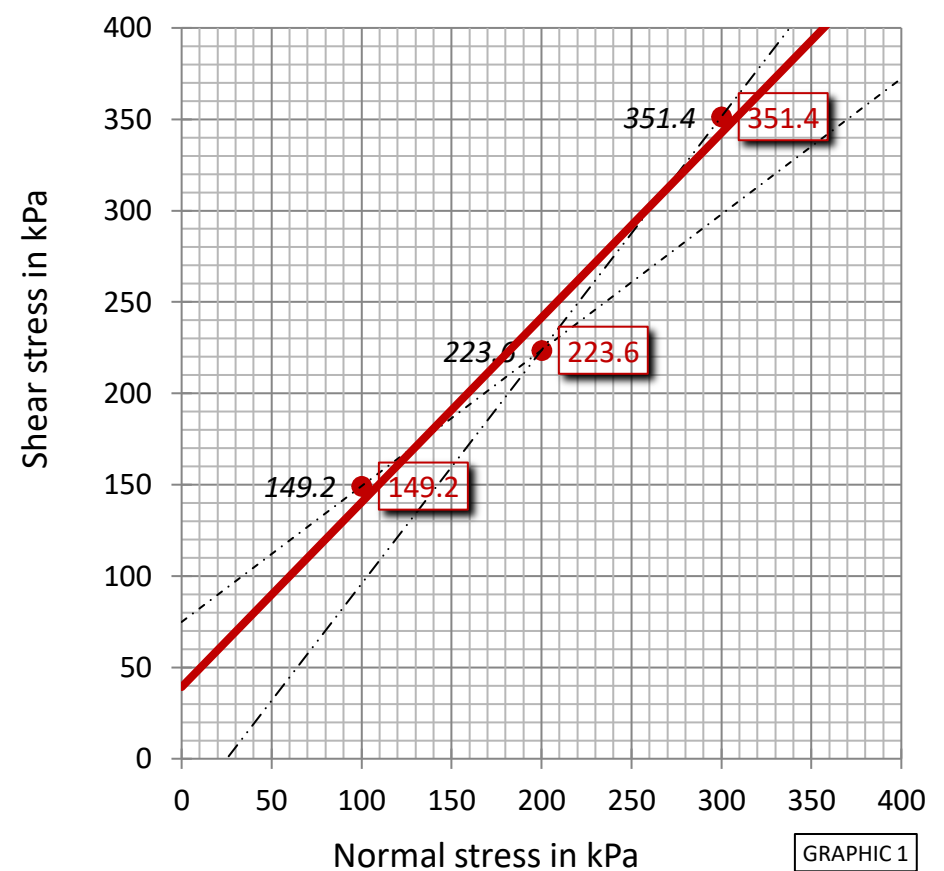
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	15.093	15.287	15.524			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	33.0	33.0	33.0			
Final moisture (%)	33.0	31.2	30.3			
Initial bulk density (gr/cm ³)	1.868	1.848	1.872			
Initial dry density (gr/cm ³)	1.405	1.389	1.408			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	-0.928	0.577	1.350			
Initial voids ratio	0.8861	0.9078	0.8821			
Voids ratio at end prior consol.	0.8861	0.9078	0.8821			
Voids ratio at end of test	0.9592	0.8624	0.7759			
Initial saturation degree (%)	98.69	96.33	99.14			
Final saturation degree (%)	91.17	95.87	100.00			
Max. shear stress (KPa)	149.2	223.6	351.4			
Shear stress applied (KPa)	149.2	223.6	351.4			
Horizontal speed (mm/min)	0.96634	0.96064	0.97339			
Particle density (g/cm ³)	2.650 (assumed)					

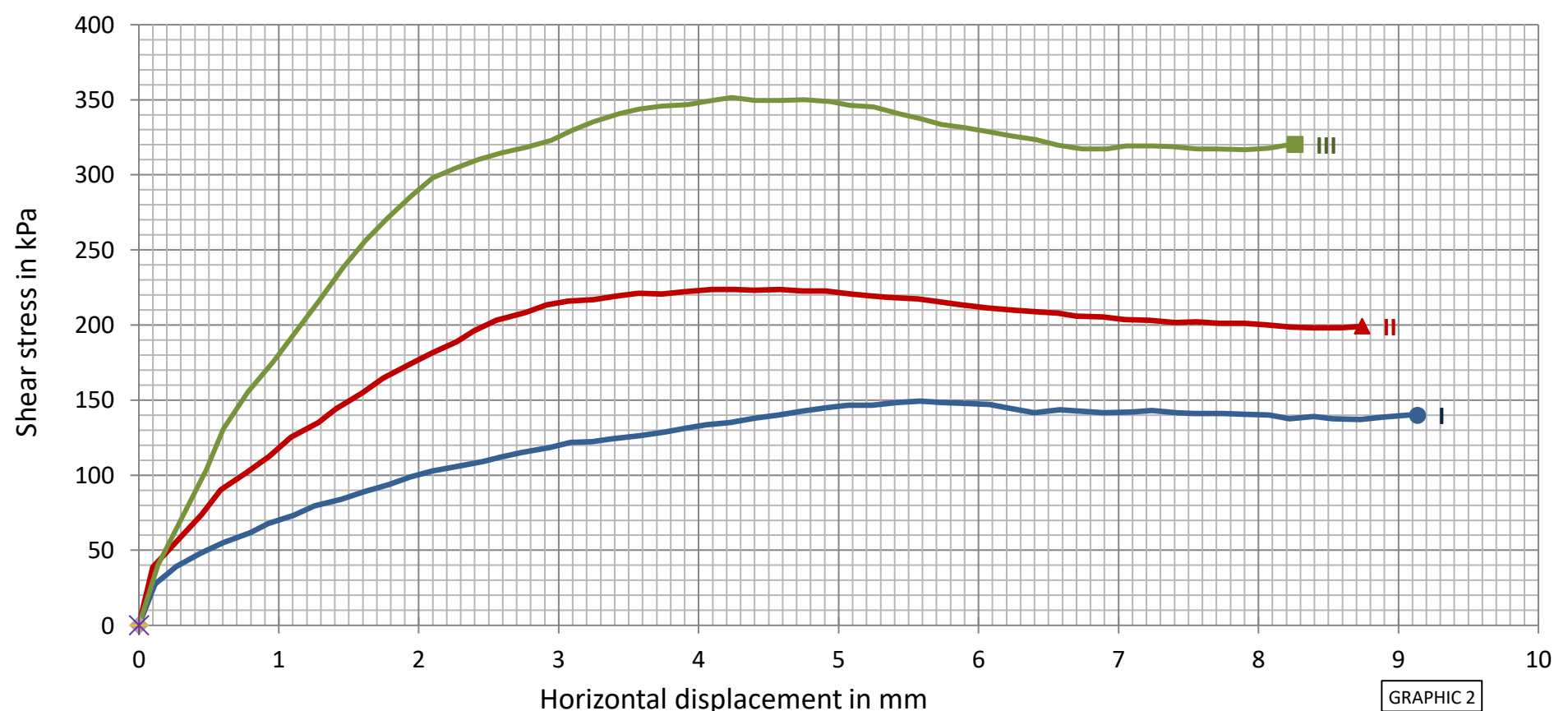


(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	45.3	45.3	36.6	52.0	
Cohesion (kPa)	39.2	39.2	74.9	0.0	
(kp/cm ²)	0.40	0.40	0.76	0.00	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 04/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

1 / 8

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5794

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#251
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

13-10-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to EN ISO criteria	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95
DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SEDIMENTATION BY THE HYDROMETER METHOD) - UNE 103102/95
TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

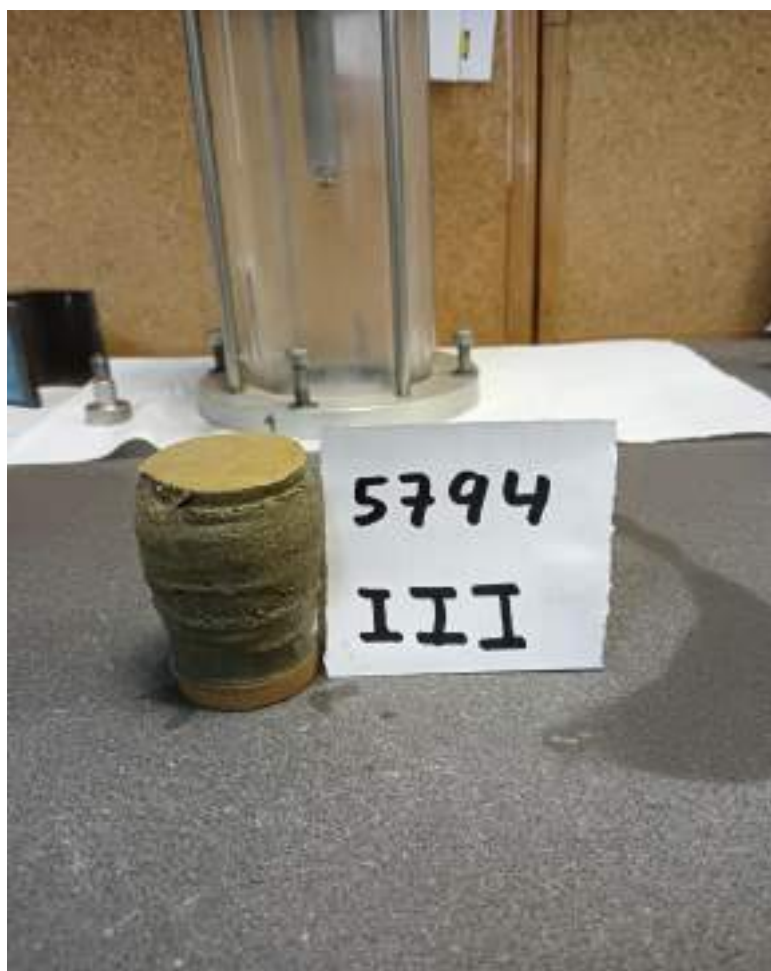
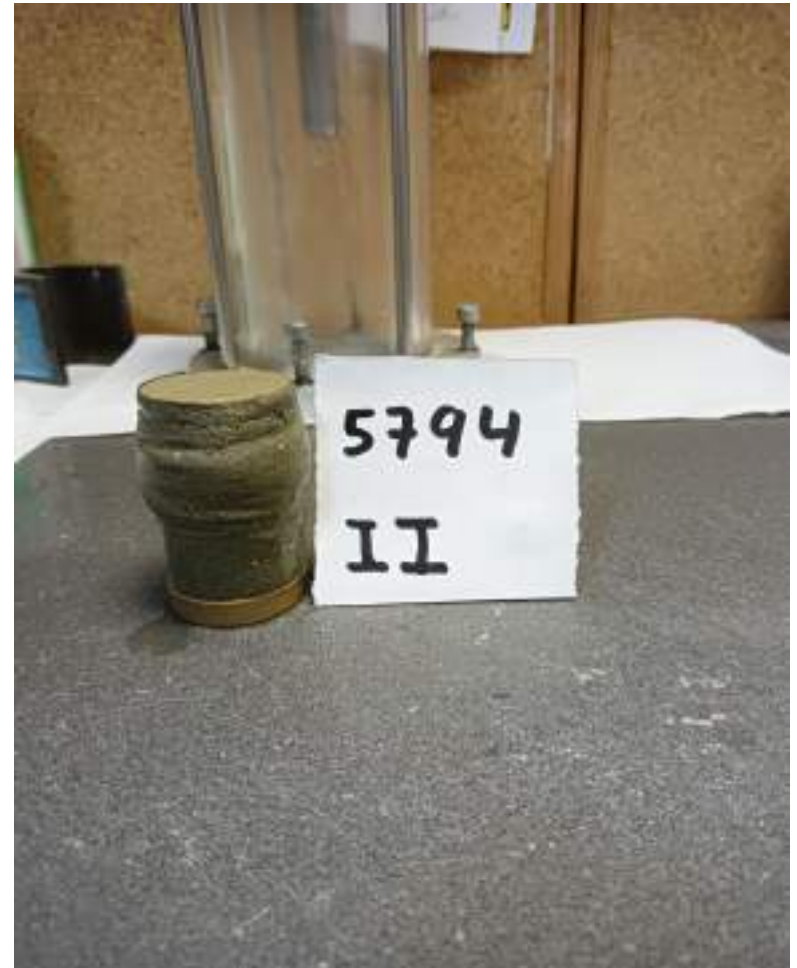
LOCATION: EC GI#251 SAMPLE A TUBE

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PHOTOGRAPHIC ANNEX -

Sample reference

2022GC-5794



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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Sample reference

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95**2022GC-5794****Equipment**

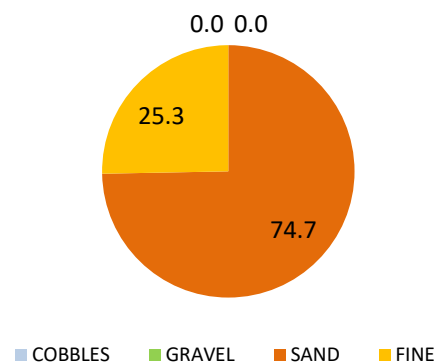
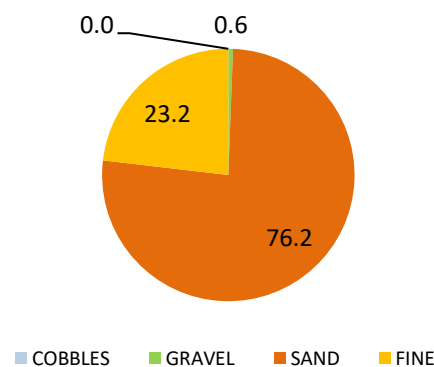
STANDARD SIEVE SERIES PROETI
BALANCE GIBERTINI EU-1700
FORN DE DESSECACIÓ ETI-P0228

Previous calculations

Predrying temperature (°C)	60
Total dried sample (g)	549.50
M. > 20 mm, washed and dried total (g)	0.00
M. < 20 mm, dried tested (g)	549.50
M. 20-2 mm, washed and dried (g)	3.40
M. 20-2 mm, washed and dried total (g)	3.40
M. > 2mm, washed and dried (g)	3.40
M. < 2 mm, dried tested (g)	92.10
M. < 2 mm, dried tested (g)	91.04
M. < 2 mm, dried total (g)	539.83
Total dried sample (g)	543.23
Hygrosc. moisture, % (fraction<2 mm)	1.2
Corr. parameter, f (fraction<2 mm)	0.9885
Corr. parameter, f2 (fraction<2 mm)	5.9294

Soil type according to ASTM-D 2487

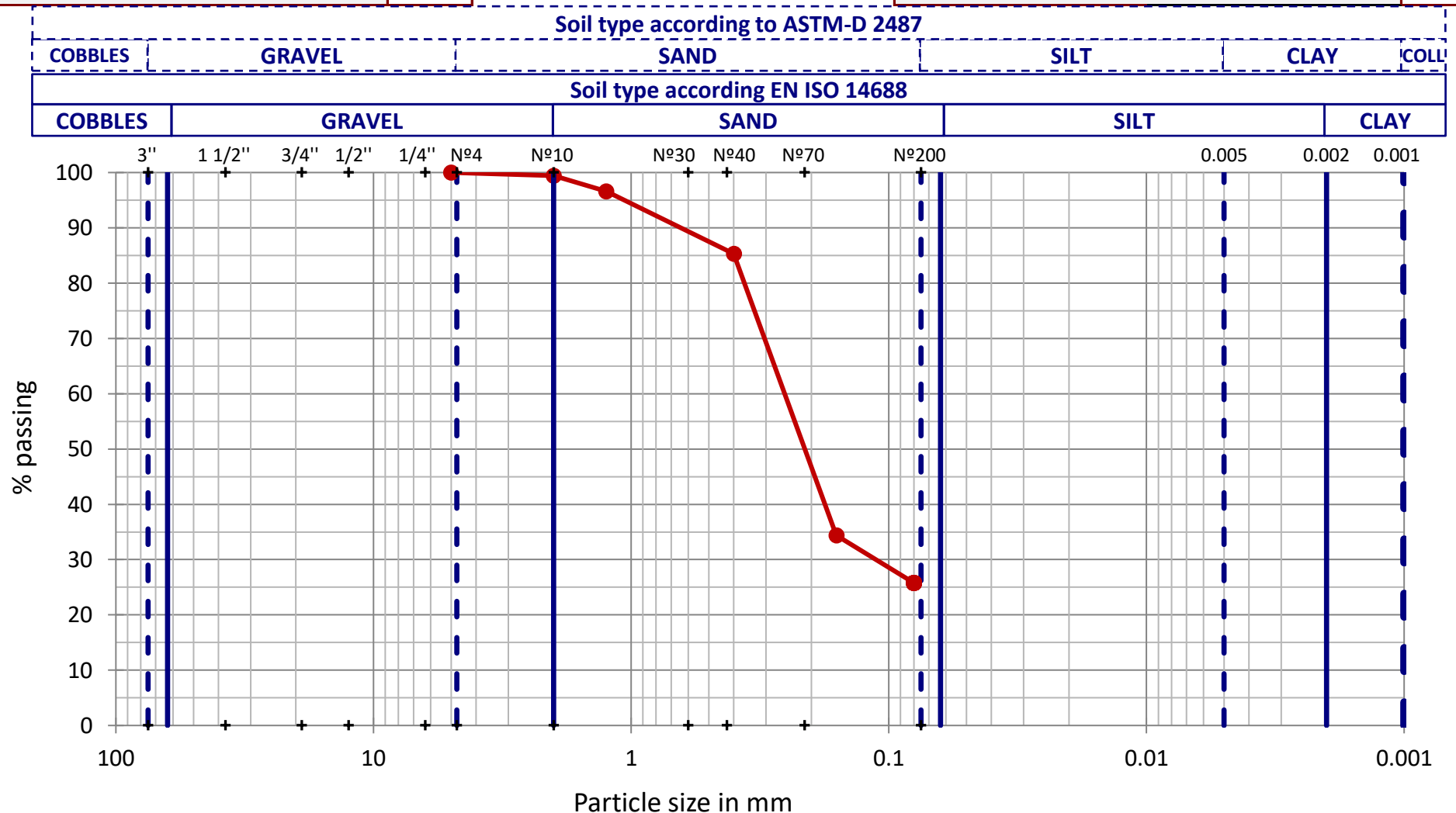
% COBBLES > 75 mm	0.0
% GRAVEL 75-4.75 mm	0.0
0.0	
% SAND 4.75-0.075 mm	0.6
74.7	
% FINE < 0.075 mm	25.3

ASTM-D 2487**EN ISO 14688****Results**

Nº	Opening mm	Retained sieves		Passing total sample		
		Partial g	Total g	Total %	g	%
Nº4	5		0.00	0.0	543.23	100.0
Nº10	2		3.40	0.6	539.83	99.4
Nº16	1.25	2.51		3.4	524.94	96.6
Nº40	0.4	10.38		14.7	463.40	85.3
Nº100	0.16	46.65		65.6	186.79	34.4
Nº200	0.08	7.88		74.2	140.07	25.8

Soil type according EN ISO 14688

% COBBLES > 63 mm	0.0
% GRAVEL 63-2 mm	0.0
0.6	
% SAND 2-0.063 mm	11.0
76.2	
% FINE < 0.063 mm	23.2

**REMARKS**

Analyst: LUÍS MOSCOSO

Code: RG-A-0020 V0

Test final date: 13/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SEDIMENTATION BY THE HYDROMETER METHOD) - UNE 103102/95

Sample reference

2022GC-5794**Equipment**

HYDROMETER BOUYOCOS 151H PROTON ASTM-E100
DRYING OVEN SELECTA 2003721
BALANCE GIBERTINI EU-1700
THERMOSTATIC BATH ETI-C0030 AND THERMOMETER 0.1°C

Hydrometer data

Bulb volume, V (ml) 69.09
Eq. scale calibration $y = -3.213x + 217.23$
Eq. dispersant correc. (Cd) $y = 1E-05x^4 + -2E-03x^3 + 1E-01x^2 + -2.172x + 16.1582$
Meniscus correction (Cm) 0.0005

Test data and results

t min	T °C	R'h g/cm ³	Rh	L mm	R	D mm	P %
5	24	1.0142	14.2	171.6	9.7	0.0245	17.2
15	24	1.0130	13	175.5	8.5	0.0143	15.0
30	24	1.0120	12	178.7	7.5	0.0102	13.3
60	24	1.0110	11	181.9	6.5	0.0073	11.5
157	23.5	1.0096	9.6	186.4	5.3	0.0046	9.3
420	23.5	1.0080	8	191.5	3.7	0.0028	6.5
1440	23	1.0070	7	194.7	2.9	0.0016	5.0

Note: particle density assumed at 2.6 g/cm³**Sample data**

Percentage passing #2 mm (%) 99.4
Tested soil mass, mw (g) 92.10
Hygroscopic moisture, W (%) 0.4
Tested and dried soil mass, m (g) 91.74
Particle density (g/cm³) 2.600
Pretreated by
Dried mass after treatm., m (g)
Treatment loss (g)

Specimen data

Area of the inner section (A), cm² 29.24

Legend test data and results

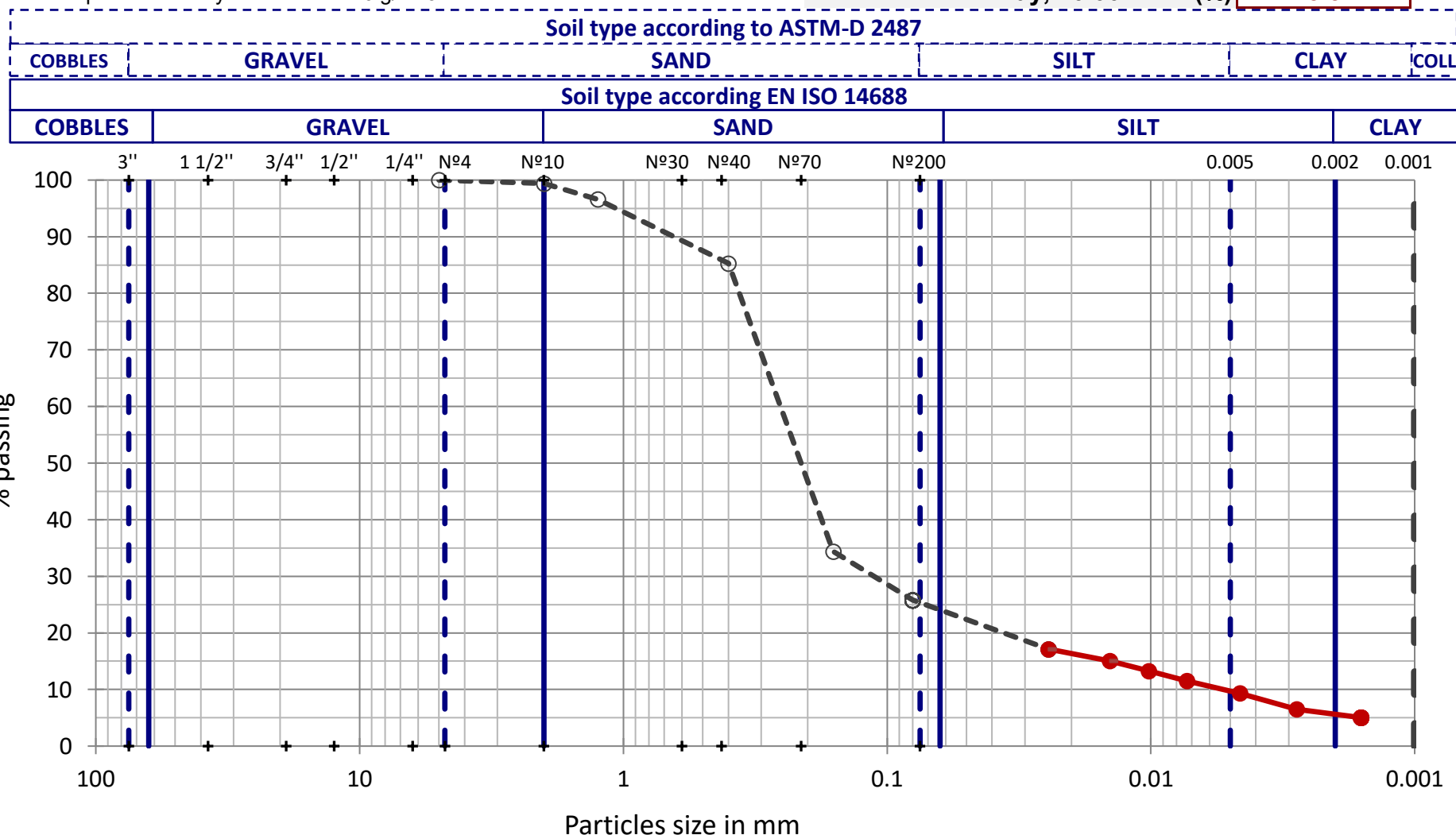
t - Time
T - Temperature
R'h - Reading suspension soil on top of the meniscus
Rh - Corrected reading suspension of soil
 $Rh = (R'h - 1) \cdot 1000$
L - Effective depth
R - Real reading suspension soil
 $R = Rh + Cm + Ct - Cd$
D - Equivalent particle diameter
P - Percentage of particles smaller than d

Soil type according to ASTM-D 2487

Particles <0.075 mm, N.200 (%) 25.3
Particles <0.005 mm (%) 9.7
Silt, between 0.075-0.005 mm (%) 15.6
Clay, between 0.005-0.001 mm (%) 5.4
Colloids, <0.001 mm (%) 4.3

Soil type according EN ISO 14688

Particles <0.063 mm (%) 23.2
Silt, between 0.063-0.002 mm (%) 17.6
Clay, <0.002 mm (%) 5.5



REMARKS

Analyst: BLANCA MONEO

Code: RG-A-0025 V0

Test final date: 18/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5794****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.850	7.650	7.510
Initial diameter (cm)	3.660	3.690	3.650
Initial area (cm ²)	10.521	10.694	10.463
Initial volume (cm ³)	82.590	81.809	78.577
Initial moisture content (%)	30.8	30.8	30.8
Final moisture content (%)	30.4	28.3	31.1
Initial bulk density (gr/cm ³)	2.142	1.952	1.956
Initial dry density (gr/cm ³)	1.638	1.492	1.495

Initial saturation degree (%) 100.0 100.0 100.0

Final saturation degree (%) 100.0 100.0 100.0

Particle density (gr/cm³) 2.650 (assumed)**Test data and results**

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9974	0.9974
Major principal stress (kPa)	26.1	30.4	28.7
Failure stress (kPa)	26.1	30.4	28.7
Failure strain (%)	19.3	19.1	19.3
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

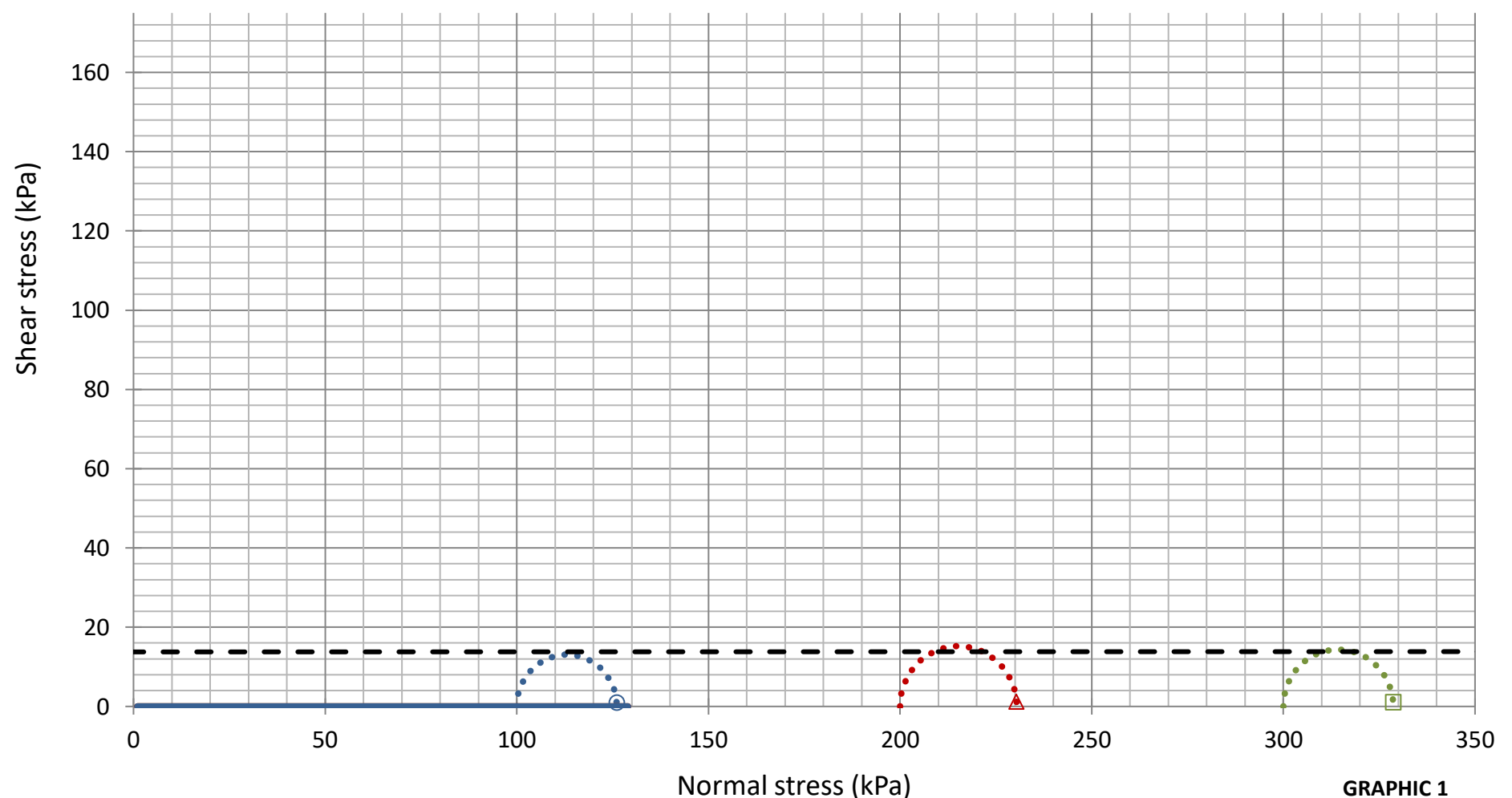
Specimen number	I	II	III
σ_1 (kPa)	126.1	230.4	328.7
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	13.1	15.2	14.4
$(\sigma_1 + \sigma_3)/2$ (kPa)	113.1	215.2	314.4

Estimate total

Φ_u (°)	0.0
C_u (kPa)	14
C_u (kp/cm ²)	0.14

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 13/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

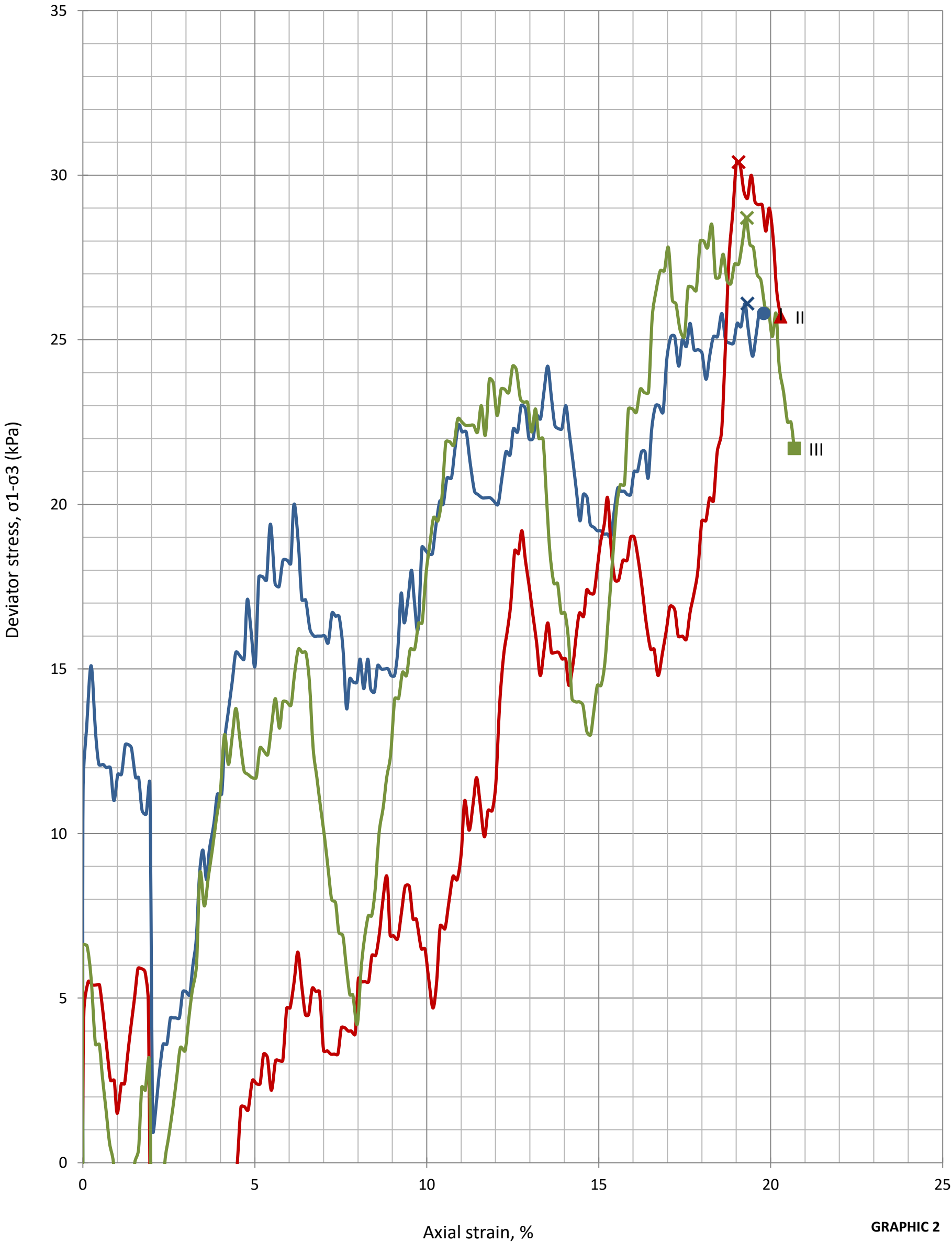
LOCATION: EC GI#251 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5794



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

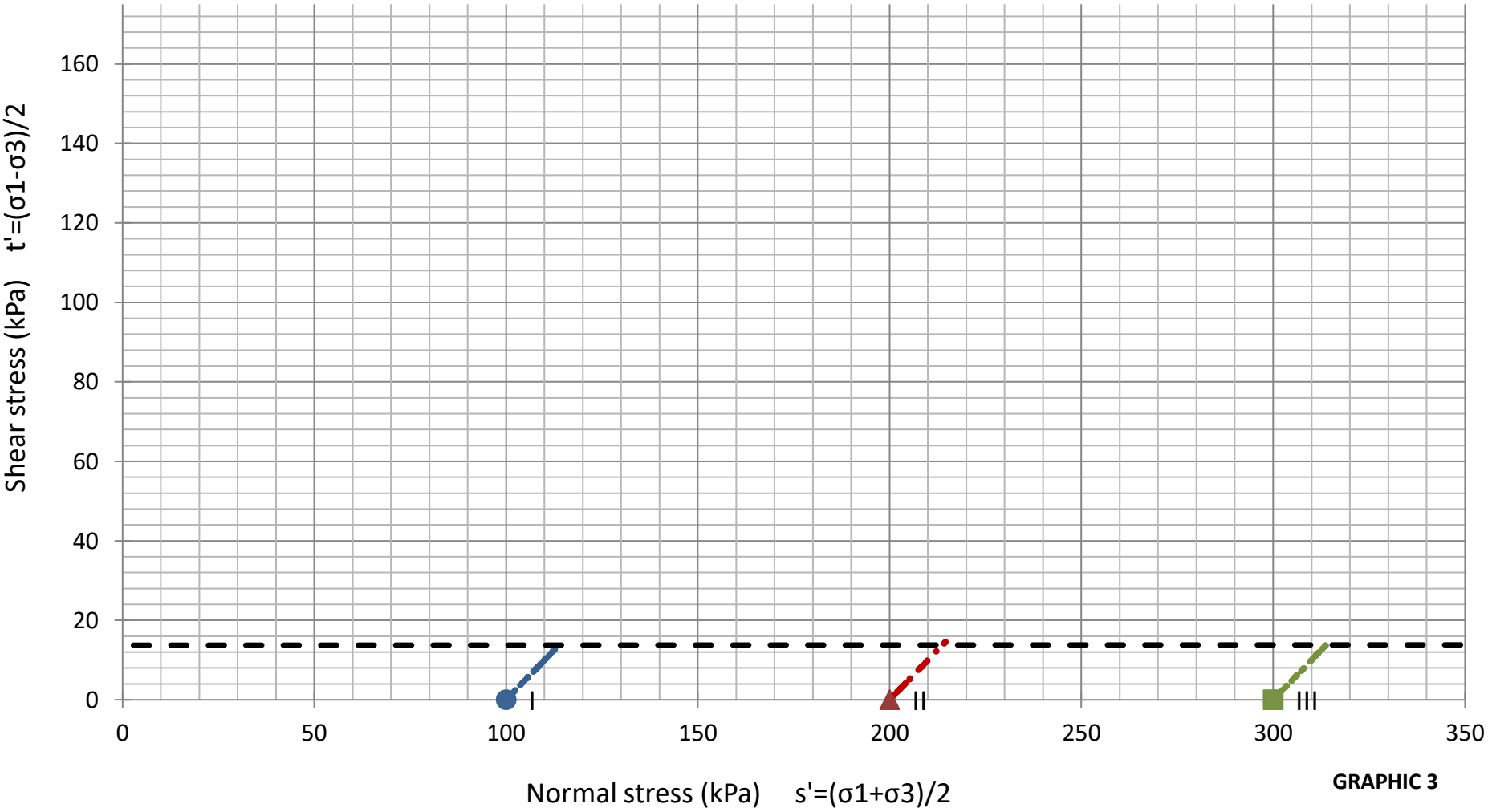
Sample reference

2022GC-5794

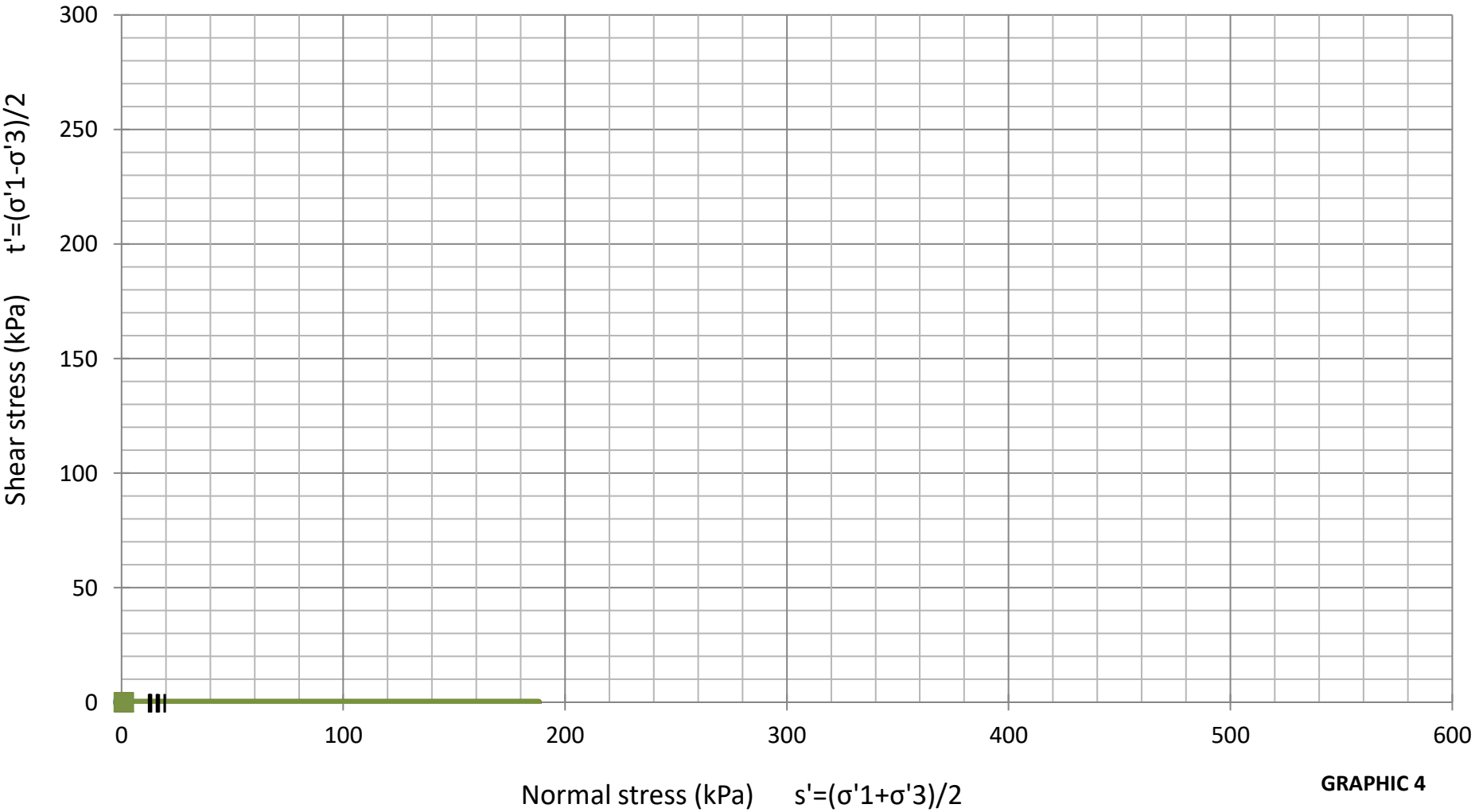
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 14$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5794

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.001	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.903	11.3	0.3	0.0	11.0		0.010	111.0				105.5	5.5		
Cell pressure	95	1.948	12.1	0.6	0.0	11.5		0.020	111.5				105.8	5.8		
σ_3 , kPa	145	2.908	16.6	0.9	10.5	5.2		0.031	105.2				102.6	2.6		
700	195	3.912	22.8	1.1	10.5	11.2		0.041	111.2				105.6	5.6		
Back pressure	245	5.009	27.0	1.4	10.5	15.1		0.052	115.1				107.6	7.6		
u_b , kPa	295	6.139	32.1	1.6	10.5	20.0		0.063	120.0				110.0	10.0		
600	340	7.137	28.2	1.9	10.5	15.8		0.072	115.8				107.9	7.9		
σ'_3 , kPa	390	8.17	27.0	2.1	10.5	14.4		0.083	114.4				107.2	7.2		
100	440	9.16	28.4	2.3	10.5	15.6		0.093	115.6				107.8	7.8		
Rate of axial displ.	490	10.163	31.5	2.5	10.5	18.5		0.104	118.5				109.3	9.3		
mm/min	540	11.258	34.5	2.7	10.5	21.3		0.115	121.3				110.7	10.7		
0.9974	590	12.422	34.9	2.9	10.5	21.5		0.125	121.5				110.8	10.8		
	635	13.406	37.0	3.1	10.5	23.4		0.135	123.4				111.7	11.7		
	685	14.457	33.3	3.3	10.5	19.5		0.145	119.5				109.8	9.8		
	735	15.452	33.7	3.4	10.5	19.8		0.156	119.8				109.9	9.9		
	785	16.439	34.9	3.6	10.5	20.8		0.167	120.8				110.4	10.4		
	835	17.551	39.1	3.8	10.5	24.8		0.177	124.8				112.4	12.4		
	885	18.688	39.4	3.9	10.5	25.0		0.188	125.0				112.5	12.5		
	935	19.801	40.4	4.1	10.5	25.8		0.199	125.8				112.9	12.9		
Specimen	0	-0.013	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.911	2.8	0.3	0.0	2.5		0.010	202.5				201.3	1.3		
Cell pressure	95	1.902	5.5	0.6	0.0	4.9		0.021	204.9				202.5	2.5		
σ_3 , kPa	145	2.972	7.2	0.9	10.4	-4.1		0.032	195.9				198.0	-2.1		
800	195	4.133	10.7	1.1	10.4	-0.8		0.042	199.2				199.6	-0.4		
Back pressure	245	5.256	15.1	1.4	10.4	3.3		0.053	203.3				201.7	1.7		
u_b , kPa	295	6.362	17.5	1.7	10.4	5.4		0.064	205.4				202.7	2.7		
600	340	7.315	15.6	1.9	10.4	3.3		0.074	203.3				201.7	1.7		
σ'_3 , kPa	390	8.31	18.0	2.1	10.4	5.5		0.085	205.5				202.8	2.8		
200	440	9.373	21.1	2.3	10.4	8.4		0.096	208.4				204.2	4.2		
Rate of axial displ.	490	10.527	20.0	2.5	10.4	7.1		0.107	207.1				203.6	3.6		
mm/min	540	11.676	23.1	2.8	10.4	9.9		0.118	209.9				205.0	5.0		
0.9974	590	12.767	32.6	3.0	10.4	19.2		0.129	219.2				209.6	9.6		
	635	13.724	29.0	3.1	10.4	15.5		0.138	215.5				207.8	7.8		
	685	14.746	31.0	3.3	10.4	17.3		0.149	217.3				208.7	8.7		
	735	15.826	32.2	3.5	10.4	18.3		0.160	218.3				209.2	9.2		
	785	16.971	30.2	3.6	10.4	16.2		0.171	216.2				208.1	8.1		
	835	18.115	33.7	3.8	10.4	19.5		0.182	219.5				209.8	9.8		
	885	19.224	43.8	3.9	10.4	29.5		0.193	229.5				214.8	14.8		
	935	20.289	40.2	4.1	10.4	25.7		0.204	225.7				212.9	12.9		
Specimen	0	0.001	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.89	0.0	0.0	0.0	0.0		0.010	300.0				300.0	0.0		
Cell pressure	95	1.93	3.7	0.6	0.0	3.1		0.021	303.1				301.6	1.6		
σ_3 , kPa	145	3.072	15.7	0.9	10.5	4.3		0.032	304.3				302.2	2.2		
900	195	4.234	23.8	1.2	10.5	12.1		0.043	312.1				306.1	6.1		
Back pressure	245	5.378	24.4	1.5	10.5	12.4		0.054	312.4				306.2	6.2		
u_b , kPa	295	6.484	27.7	1.7	10.5	15.5		0.065	315.5				307.8	7.8		
600	340	7.443	19.4	1.9	10.5	7.0		0.075	307.0				303.5	3.5		
σ'_3 , kPa	390	8.5	21.0	2.2	10.5	8.3		0.087	308.3				304.2	4.2		
300	440	9.647	28.5	2.4	10.5	15.6		0.098	315.6				307.8	7.8		
Rate of axial displ.	490	10.787	34.9	2.6	10.5	21.8		0.109	321.8				310.9	10.9		
mm/min	540	11.933	37.0	2.8	10.5	23.7		0.120	323.7				311.9	11.9		
0.9974	590	13.049	35.7	3.0	10.5	22.2		0.131	322.2				311.1	11.1		
	635	14.018	30.4	3.2	10.5	16.7		0.141	316.7				308.4	8.3		
	685	15.069	28.4	3.4	10.5	14.5		0.152	314.5				307.3	7.3		
	735	16.21	37.6	3.6	10.5	23.5		0.163	323.5				311.8	11.8		
	785	17.367	39.5	3.7	10.5	25.3		0.174	325.3				312.7	12.7		
	835	18.507	41.3	3.9	10.5	26.9		0.185	326.9				313.5	13.5		
	885	19.604	41.5	4.0	10.5	27.0		0.196	327.0				313.5	13.5		
	935	20.686	36.4	4.2	10.5	21.7		0.208	321.7				310.9	10.9		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

1 / 6

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5794R

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#251
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

13-10-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

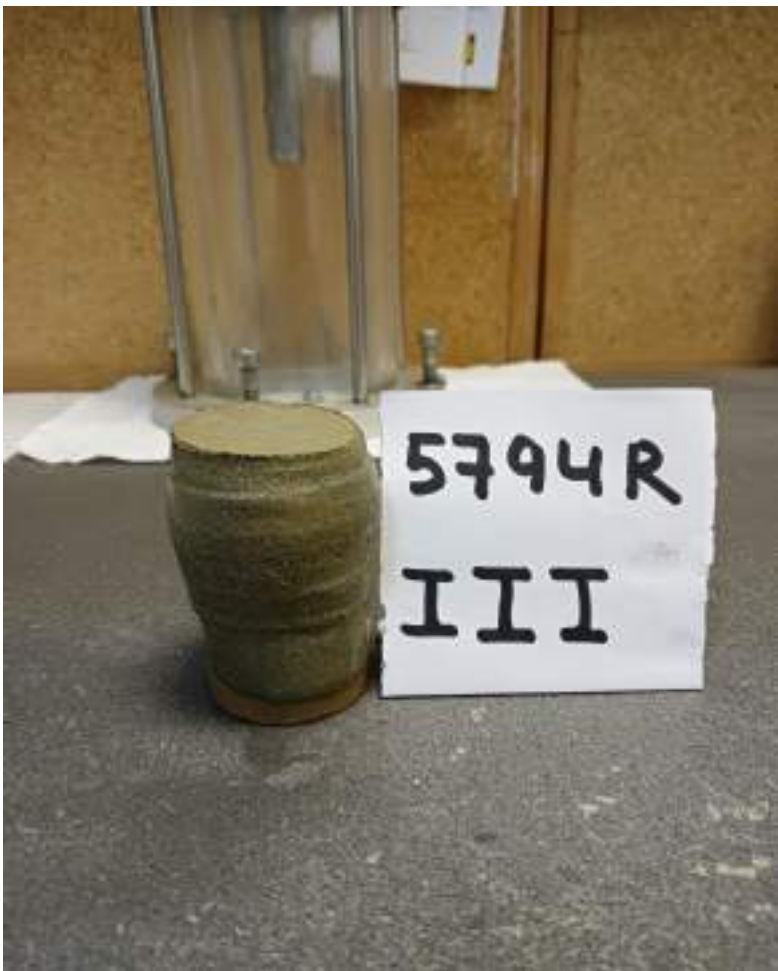
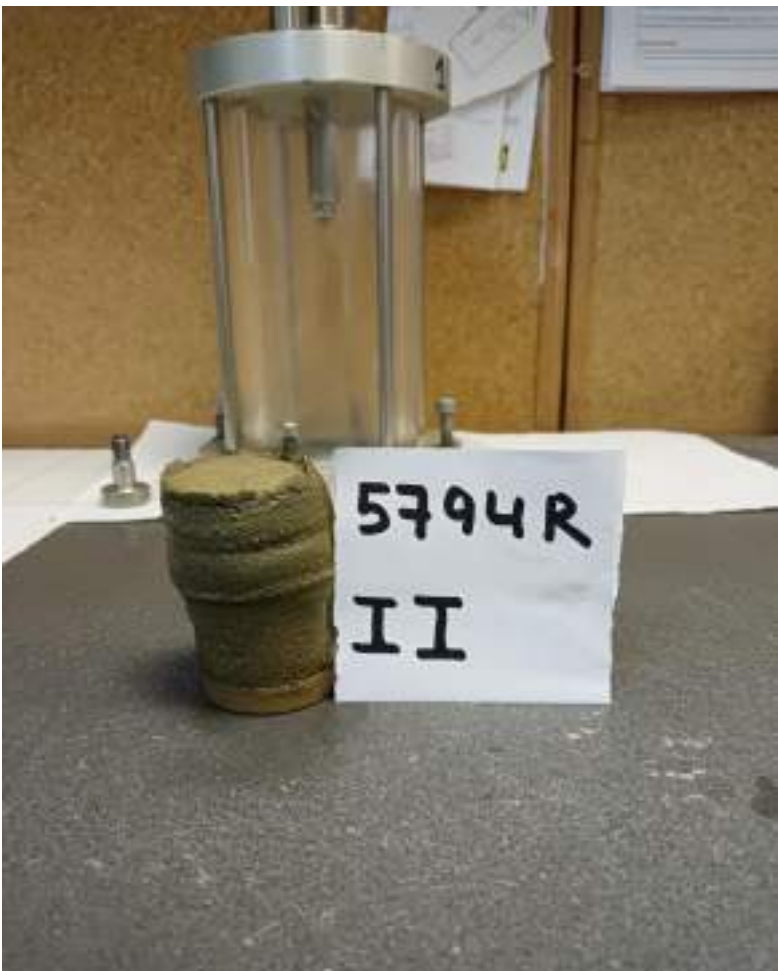
LOCATION: EC GI#251 SAMPLE A TUBE

2 / 6

Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5794R



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5794R****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.657	7.657	7.657
Initial diameter (cm)	3.799	3.799	3.799
Initial area (cm ²)	11.335	11.335	11.335
Initial volume (cm ³)	86.792	86.792	86.792
Initial moisture content (%)	29.3	29.3	29.3
Final moisture content (%)	29.1	26.8	27.6
Initial bulk density (gr/cm ³)	2.038	1.840	1.771
Initial dry density (gr/cm ³)	1.576	1.423	1.370

Initial saturation degree (%)	100.0	90.0	83.1
Final saturation degree (%)	100.0	90.0	83.1
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	1.0001	0.9974
Major principal stress (kPa)	10.9	14.9	17.6
Failure stress (kPa)	10.9	14.9	17.6
Failure strain (%)	17.9	14.2	16.4
Pore pressure, u_f (kPa)			

Test type

Unconsolidated Undrained (UU)

Soil conditions

REMOULDED

Remoulding condicions of the specimen

Max. size coarse part. removed (mm)	---
Remoulding reference data	NOR. PROCTOR
Max. dry density (gr/cm ³)	---
Optimum moisture content (%)	---
Compactness (%)	---

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

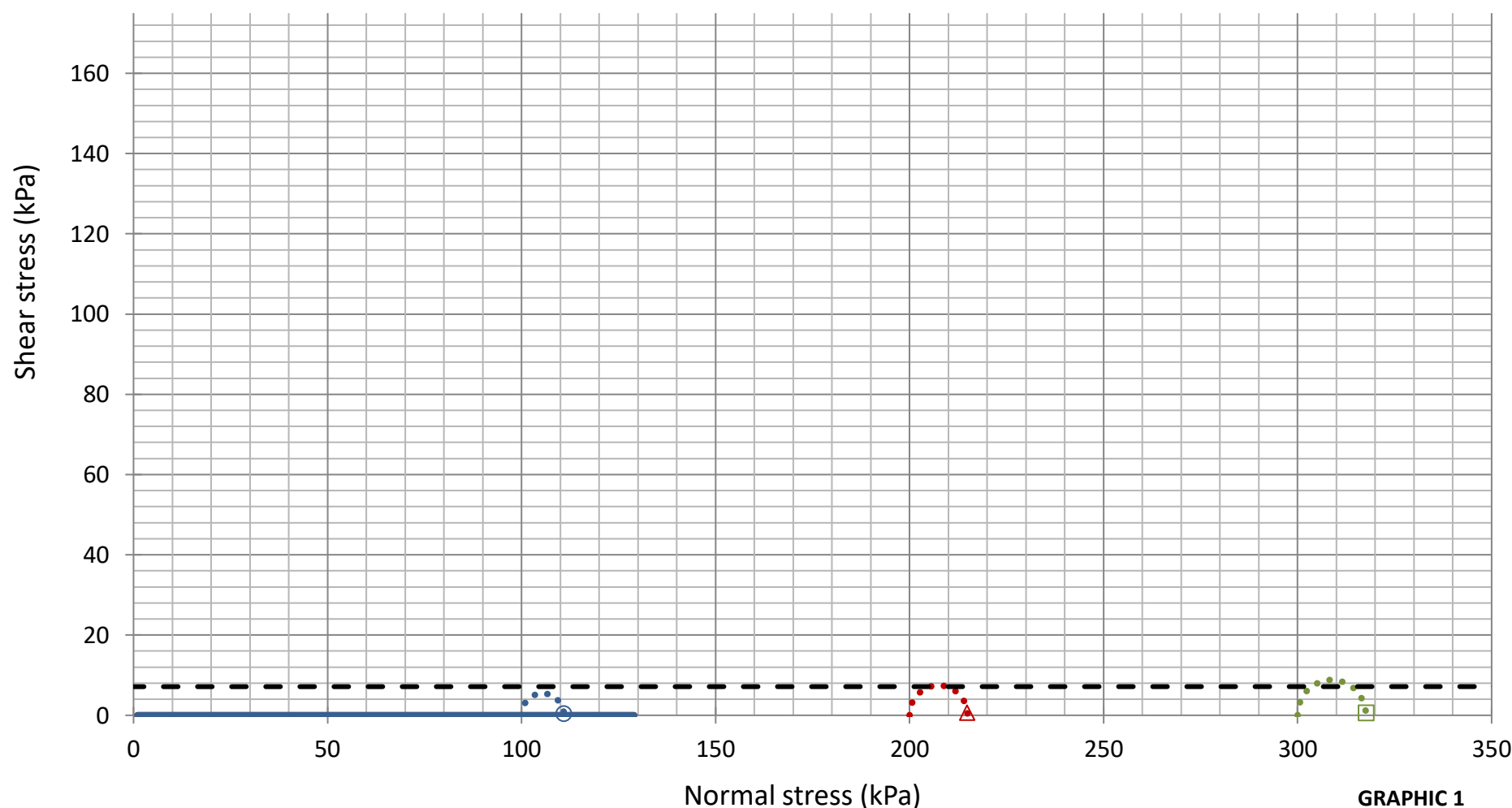
Specimen number	I	II	III
σ_1 (kPa)	110.9	214.9	317.6
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	5.5	7.5	8.8
$(\sigma_1 + \sigma_3)/2$ (kPa)	105.5	207.5	308.8

Estimate total

Φ_u (°)	0.0
C_u (kPa)	7
C_u (kp/cm ²)	0.07

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 13/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

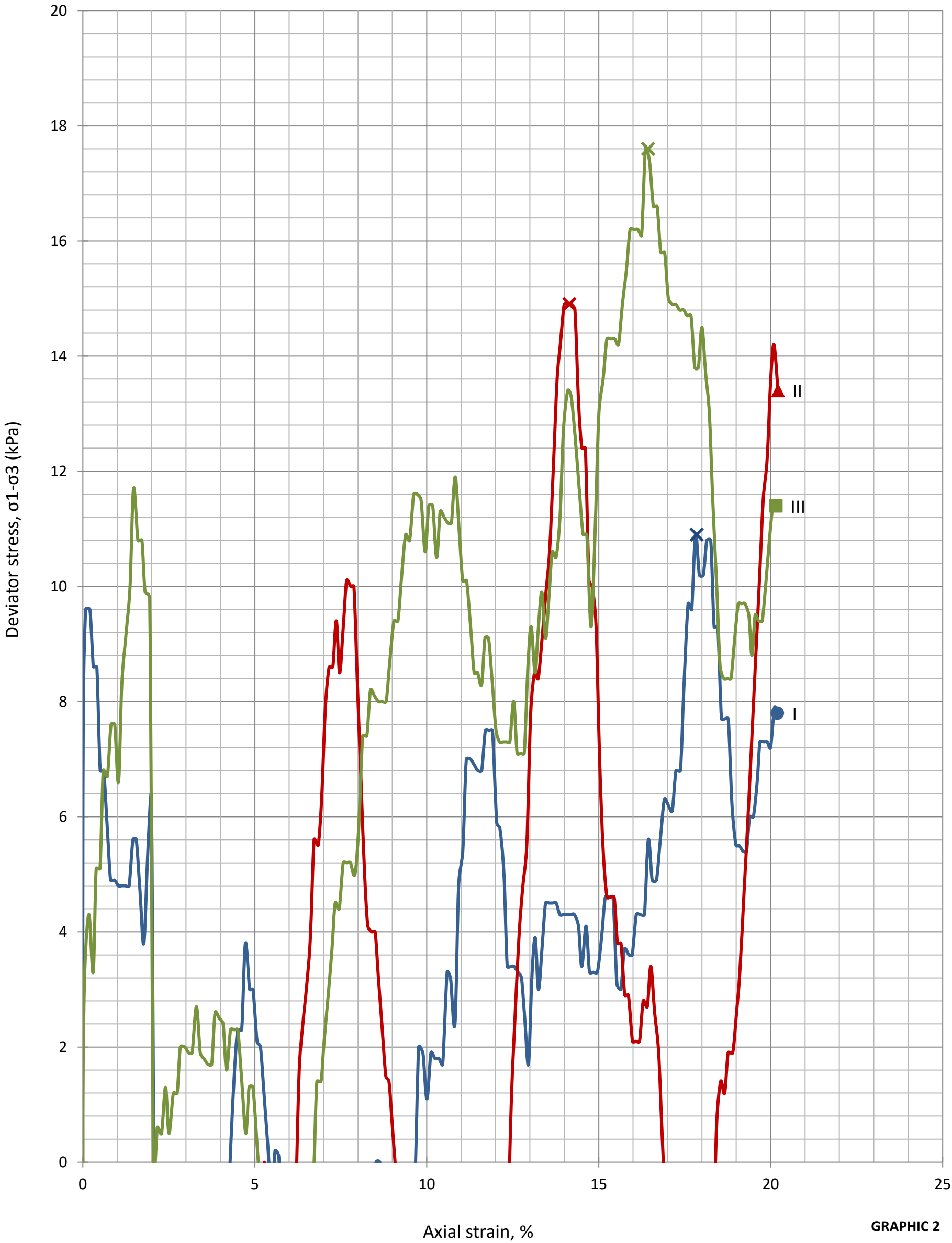
LOCATION: EC GI#251 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5794R



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

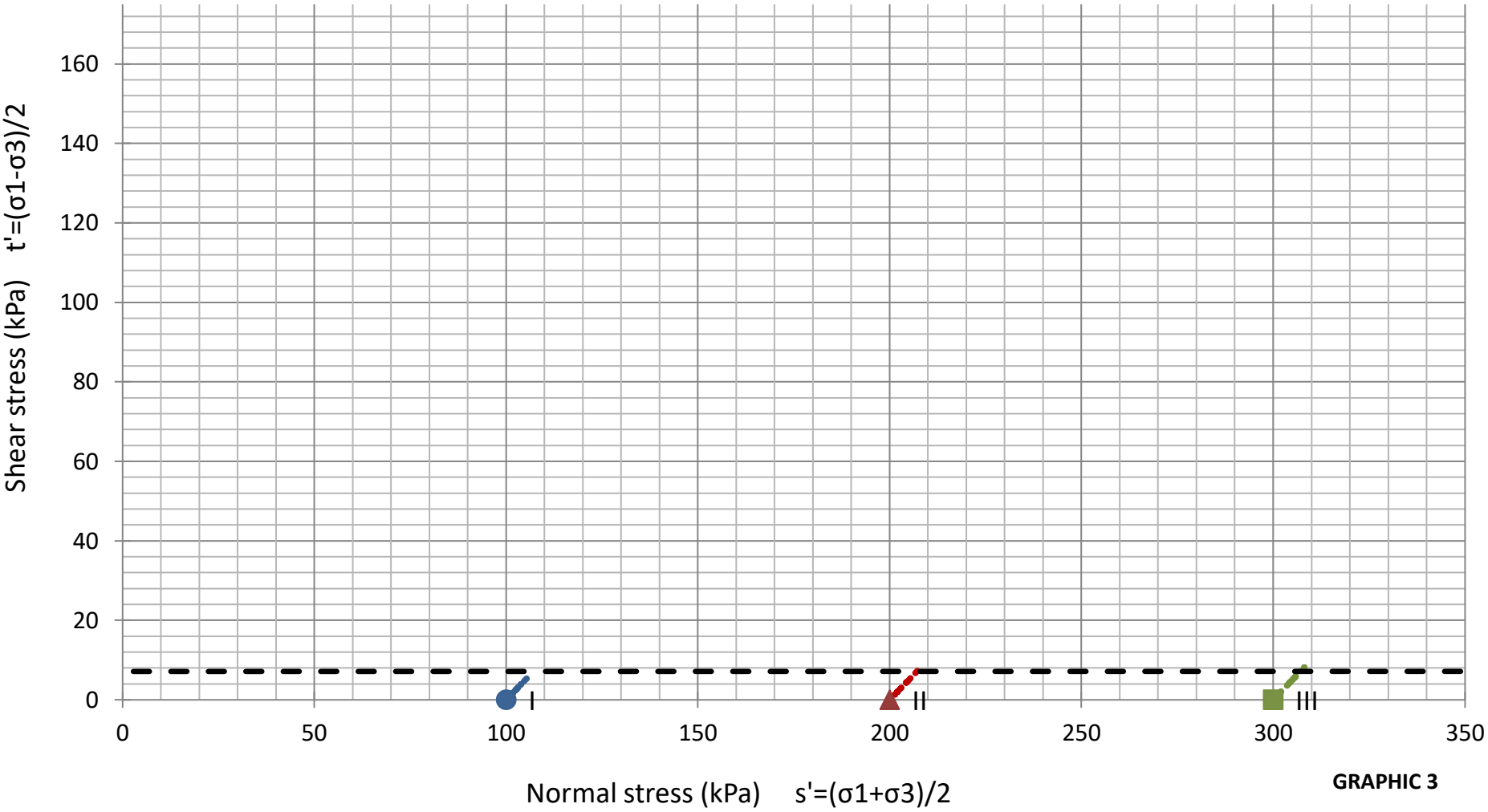
Sample reference

2022GC-5794R

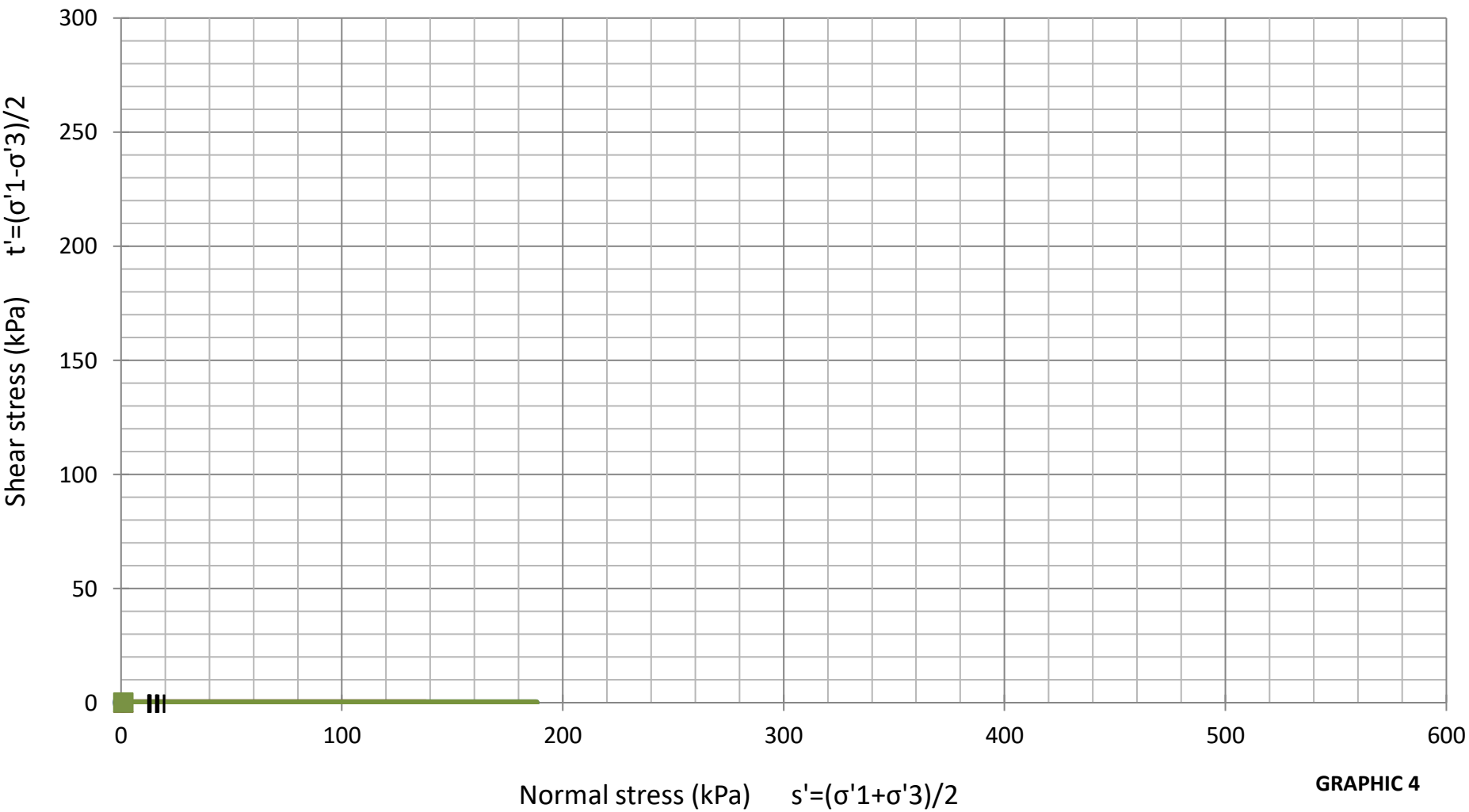
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 7$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#251 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5794R

Failure process data summary																
	Time	Deform.	$(\sigma_1-\sigma_3)_m$	$(\Delta\sigma_1)_m$	$(\Delta\sigma_1)_{fp}$	$(\sigma_1-\sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1+\sigma_3)/2$	$(\sigma_1-\sigma_3)/2$	$(\sigma'_1+\sigma'_3)/2$	$(\sigma'_1-\sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.01	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.808	5.2	0.3	0.0	4.9		0.010	104.9				102.5	2.5		
Cell pressure	95	1.89	6.0	0.6	0.0	5.4		0.021	105.4				102.7	2.7		
σ_3 , kPa	145	3.011	6.8	0.8	10.0	-4.0		0.032	96.0				98.0	-2.0		
700	195	4.166	9.3	1.1	10.0	-1.8		0.042	98.2				99.1	-0.9		
Back pressure	245	5.279	12.5	1.4	10.0	1.1		0.053	101.1				100.6	0.5		
u_b , kPa	295	6.307	8.3	1.6	10.0	-3.3		0.064	96.7				98.4	-1.7		
600	340	7.212	10.6	1.8	10.0	-1.2		0.074	98.8				99.4	-0.6		
σ'_3 , kPa	390	8.306	10.5	2.0	10.0	-1.5		0.085	98.5				99.3	-0.8		
100	440	9.424	11.2	2.3	10.0	-1.1		0.096	98.9				99.5	-0.5		
Rate of axial displ.	490	10.593	15.8	2.5	10.0	3.3		0.107	103.3				101.7	1.7		
mm/min	540	11.706	20.2	2.7	10.0	7.5		0.118	107.5				103.8	3.8		
0.9974	590	12.754	16.1	2.9	10.0	3.2		0.128	103.2				101.6	1.6		
	635	13.659	17.5	3.0	10.0	4.5		0.138	104.5				102.3	2.3		
	685	14.733	16.5	3.2	10.0	3.3		0.149	103.3				101.7	1.7		
	735	15.877	17.0	3.4	10.0	3.6		0.160	103.6				101.8	1.8		
	785	17.023	19.7	3.5	10.0	6.2		0.171	106.2				103.1	3.1		
	835	18.144	24.5	3.7	10.0	10.8		0.182	110.8				105.4	5.4		
	885	19.202	19.2	3.8	10.0	5.4		0.193	105.4				102.7	2.7		
	935	20.199	21.8	4.0	10.0	7.8		0.204	107.8				103.9	3.9		
Specimen	250	5.277	0.0	0.0	0.0	0.0		0.054	200.0				200.0	0.0		
II	285	6.069	9.1	1.6	10.0	-2.5		0.062	197.5				198.8	-1.3		
Cell pressure	320	6.842	17.2	1.7	10.0	5.5		0.070	205.5				202.8	2.8		
σ_3 , kPa	355	7.573	21.2	1.9	10.0	9.3		0.077	209.3				204.7	4.7		
800	390	8.288	16.1	2.0	10.0	4.1		0.085	204.1				202.1	2.1		
Back pressure	430	9.105	12.0	2.2	10.0	-0.2		0.094	199.8				199.9	-0.1		
u_b , kPa	465	9.876	10.3	2.3	10.0	-2.0		0.101	198.0				199.0	-1.0		
600	500	10.647	3.9	2.5	10.0	-8.6		0.109	191.4				195.7	-4.3		
σ'_3 , kPa	535	11.445	3.9	2.6	10.0	-8.7		0.116	191.3				195.7	-4.3		
200	570	12.233	11.6	2.8	10.0	-1.2		0.124	198.8				199.4	-0.6		
Rate of axial displ.	610	13.134	21.4	2.9	10.0	8.5		0.133	208.5				204.3	4.3		
mm/min	645	13.884	27.3	3.1	10.0	14.2		0.140	214.2				207.1	7.1		
1.0001	680	14.611	25.6	3.2	10.0	12.4		0.148	212.4				206.2	6.2		
	715	15.332	17.9	3.3	10.0	4.6		0.156	204.6				202.3	2.3		
	750	16.083	15.5	3.4	10.0	2.1		0.163	202.1				201.1	1.1		
	790	16.977	12.4	3.5	10.0	-1.1		0.172	198.9				199.5	-0.5		
	825	17.761	10.1	3.6	10.0	-3.5		0.180	196.5				198.3	-1.8		
	860	18.546	15.1	3.7	10.0	1.4		0.187	201.4				200.7	0.7		
	895	19.343	19.9	3.9	10.0	6.0		0.195	206.0				203.0	3.0		
	935	20.214	27.4	4.0	10.0	13.4		0.204	213.4				206.7	6.7		
Specimen	0	0.003	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.82	7.9	0.3	0.0	7.6		0.010	307.6				303.8	3.8		
Cell pressure	95	1.944	10.4	0.6	0.0	9.8		0.021	309.8				304.9	4.9		
σ_3 , kPa	145	3.075	12.8	0.9	10.0	1.9		0.032	301.9				301.0	0.9		
900	195	4.179	12.7	1.1	10.0	1.6		0.042	301.6				300.8	0.8		
Back pressure	245	5.267	9.2	1.4	10.0	-2.2		0.053	297.8				298.9	-1.1		
u_b , kPa	295	6.309	10.7	1.6	10.0	-0.9		0.064	299.1				299.6	-0.4		
600	340	7.245	15.5	1.8	10.0	3.7		0.074	303.7				301.9	1.8		
σ'_3 , kPa	390	8.364	20.2	2.0	10.0	8.2		0.085	308.2				304.1	4.1		
300	440	9.502	23.1	2.3	10.0	10.8		0.096	310.8				305.4	5.4		
Rate of axial displ.	490	10.619	23.6	2.5	10.0	11.1		0.107	311.1				305.6	5.6		
mm/min	540	11.692	21.8	2.7	10.0	9.1		0.118	309.1				304.6	4.6		
0.9974	590	12.733	20.0	2.9	10.0	7.1		0.128	307.1				303.6	3.6		
	635	13.648	23.6	3.0	10.0	10.6		0.138	310.6				305.3	5.3		
	685	14.777	22.5	3.2	10.0	9.3		0.149	309.3				304.7	4.7		
	735	15.914	29.6	3.4	10.0	16.2		0.160	316.2				308.1	8.1		
	785	17.027	28.5	3.5	10.0	15.0		0.171	315.0				307.5	7.5		
	835	18.11	27.4	3.7	10.0	13.7		0.182	313.7				306.9	6.8		
	885	19.155	23.5	3.8	10.0	9.7		0.193	309.7				304.9	4.8		
	935	20.154	25.3	3.9	10.0	11.4		0.204	311.4				305.7	5.7		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#510_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5795

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#510_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#510_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5795

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

**DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX****MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS**

Test conditions

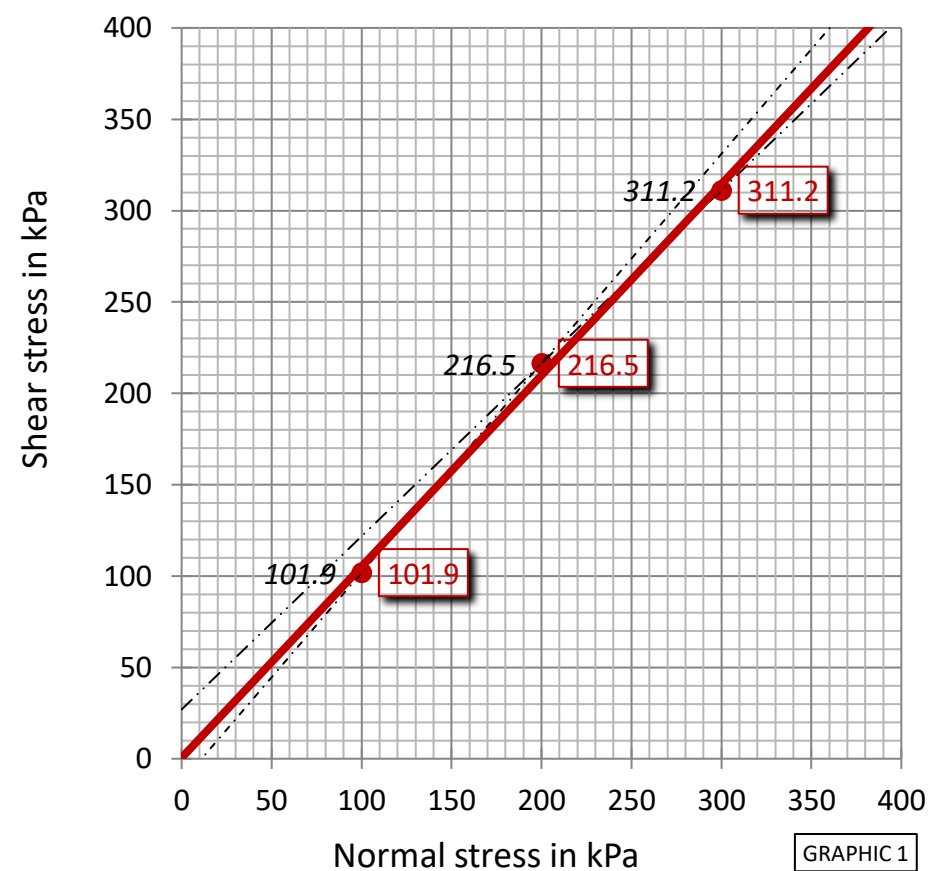
Underwater floor **SI**
Prior saturation **NO**Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

     
100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	15.944	16.068	16.109			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	20.5	20.5	20.5			
Final moisture (%)	23.6	26.5	27.1			
Initial bulk density (gr/cm ³)	1.968	1.958	1.976			
Initial dry density (gr/cm ³)	1.633	1.625	1.640			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.185	-0.006	0.552			
Initial voids ratio	0.6228	0.6308	0.6159			
Voids ratio at end prior consol.	0.6228	0.6308	0.6159			
Voids ratio at end of test	0.6103	0.6312	0.5786			
Initial saturation degree (%)	87.23	86.12	88.20			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	101.9	216.5	311.2			
Shear stress applied (KPa)	101.9	216.5	311.2			
Horizontal speed (mm/min)	0.96863	0.95946	0.94964			
Particle density (g/cm ³)	2.650 (assumed)					



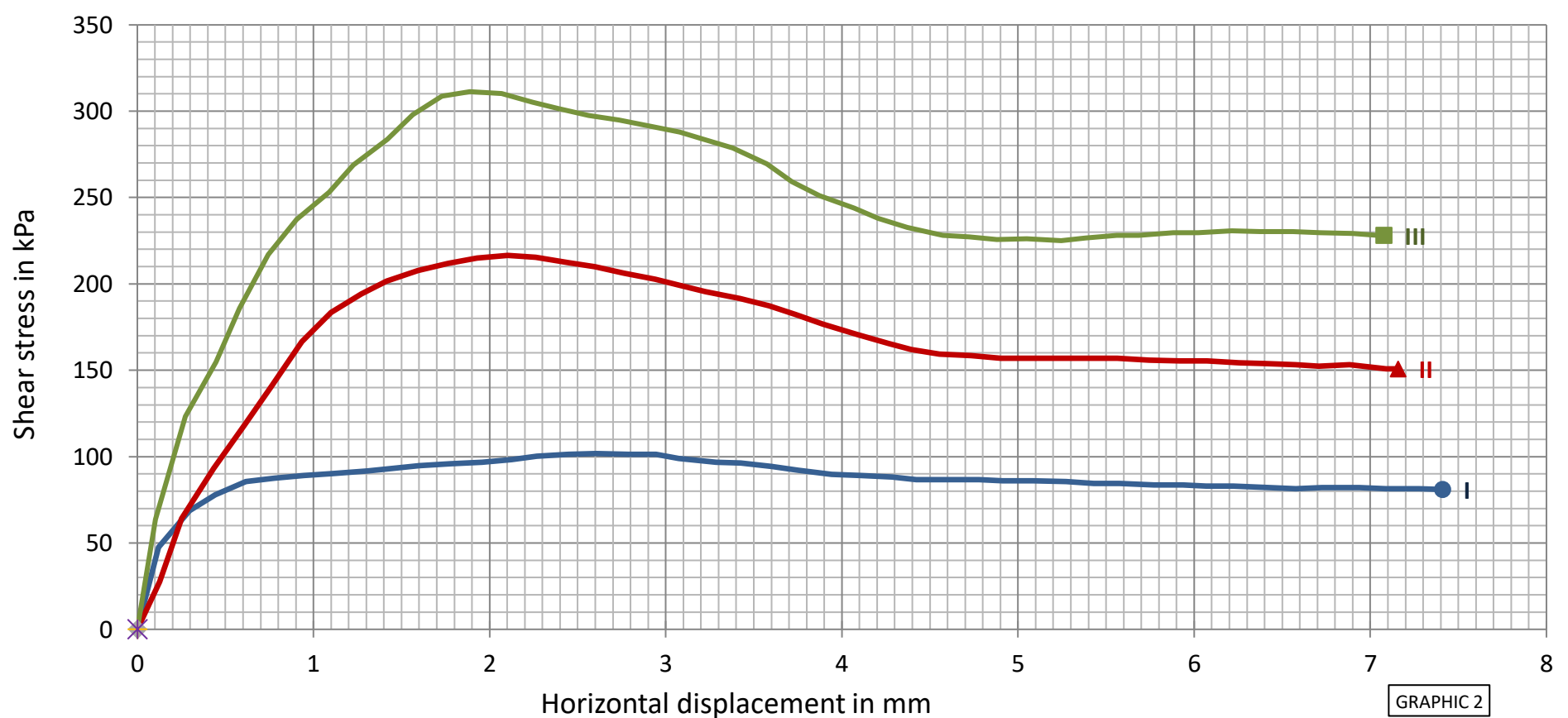
(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)**46.3**
0.5
0.0146.3
0.5
0.0148.9
0.0
0.0043.5
27.0
0.28

RESIDUAL PARAMETERS



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 06/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#516_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5796

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#516_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
BLANCA MONEO
MANUAL
WET CHAMBER
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#516_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5796

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

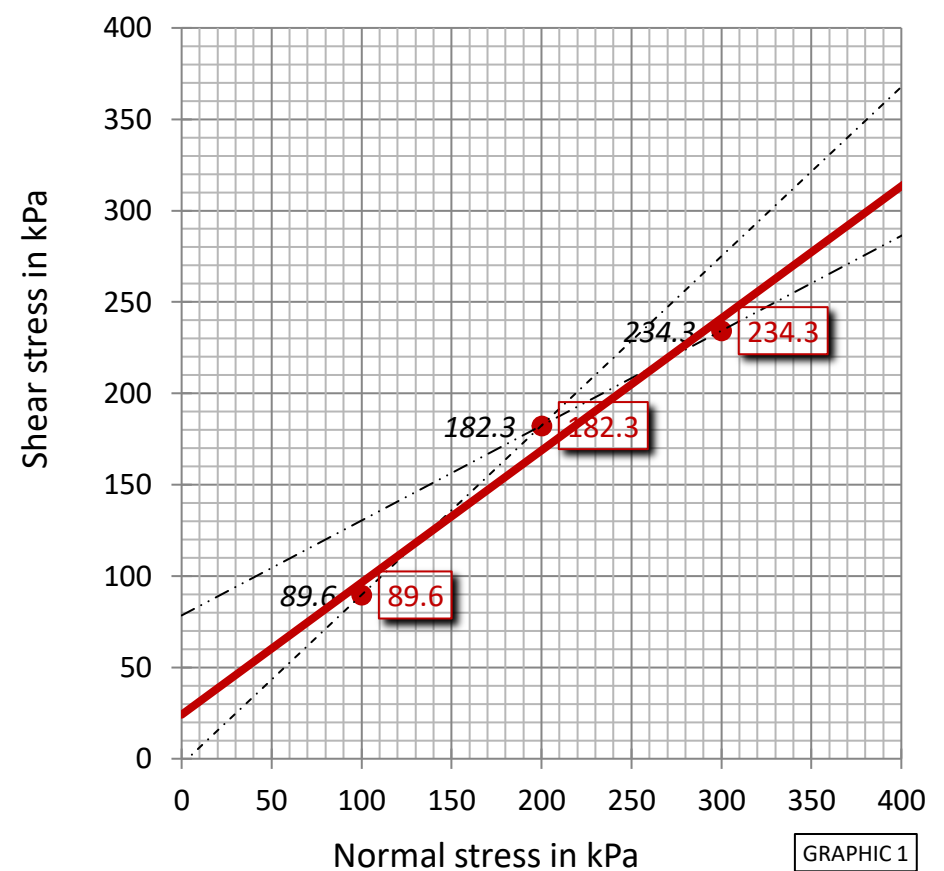
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.482	15.414	15.228			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	25.4	25.4	25.4			
Final moisture (%)	30.0	30.4	29.0			
Initial bulk density (gr/cm ³)	1.929	1.922	1.918			
Initial dry density (gr/cm ³)	1.538	1.533	1.530			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.347	0.418	1.219			
Initial voids ratio	0.7230	0.7286	0.7320			
Voids ratio at end prior consol.	0.7230	0.7286	0.7320			
Voids ratio at end of test	0.6980	0.6988	0.6438			
Initial saturation degree (%)	93.10	92.38	91.95			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	89.6	182.3	234.3			
Shear stress applied (KPa)	89.6	182.3	234.3			
Horizontal speed (mm/min)	0.95018	0.96247	0.95449			
Particle density (g/cm ³)	2.650 (assumed)					



GRAPHIC 1

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

234.284

234.284

Results

LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)

35.9

35.9

42.8

27.5

Cohesion (kPa)

24.1

24.1

0.0

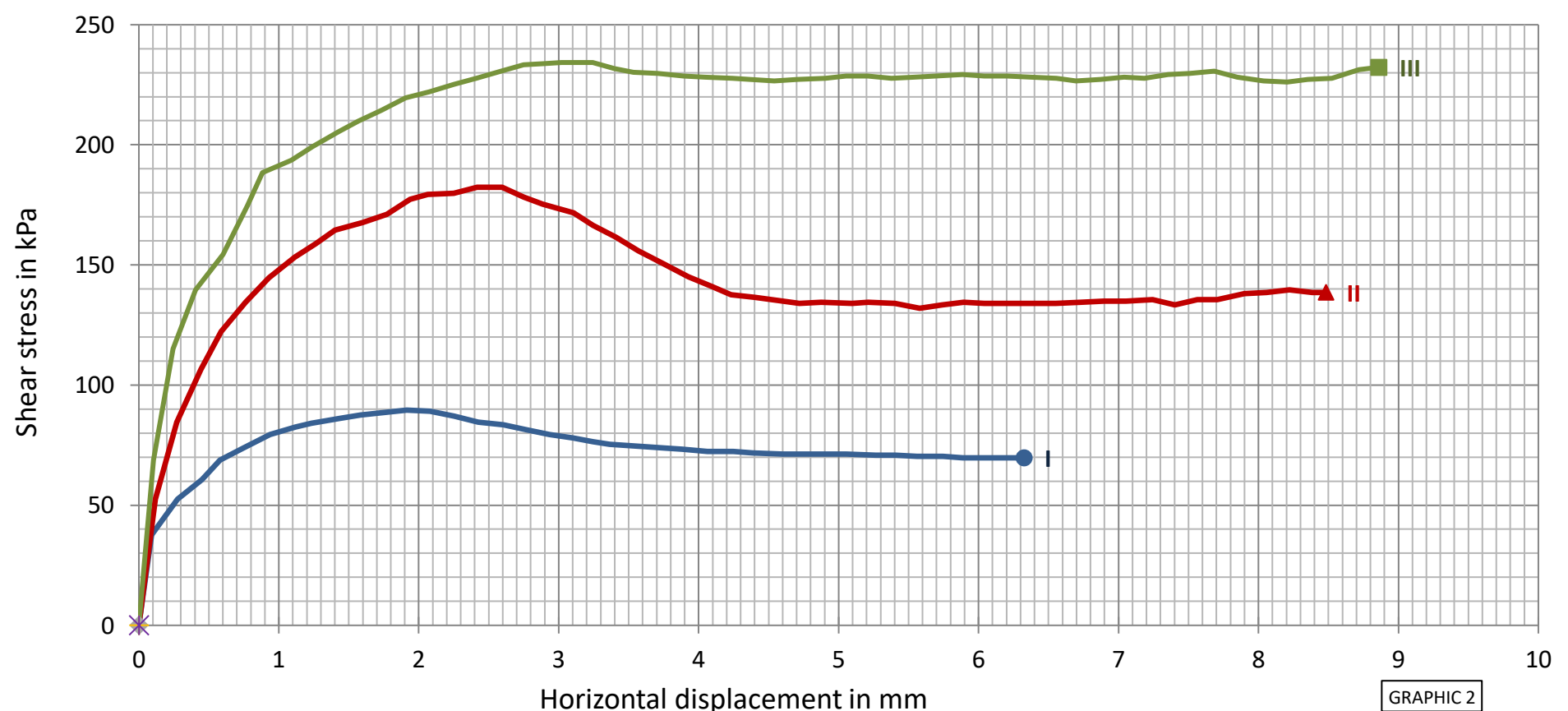
78.4

(kp/cm²)**0.25**

0.25

0.00

0.80



GRAPHIC 2

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#512 SAMPLE B TUBE

1 / 3

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5797

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#512
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

26-9-22
LUÍS MOSCOSO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to EN ISO criteria	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95
DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#512 SAMPLE B TUBE

2 / 3

Sample reference

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95

2022GC-5797

Equipment			Curvature coeff.(Cc)		Results						
STANDARD SIEVE SERIES PROETI BALANCE GIBERTINI EU-1700 FORN DE DESSECACIÓ ETI-P0228			0.961		Sieves		Retained sieves		Passing total sample		
			Uniformity coeff. (Cu) 1.610		Nº	Opening mm	Partial g	Total g	Total %	g	%
Previous calculations Predrying temperature (°C) 60 Total dried sample (g) 788.20 M. > 20 mm, washed and dried total (g) 0.00 M. < 20 mm, dried tested (g) 788.20 M. 20-2 mm, washed and dried (g) 27.63 M. 20-2 mm, washed and dried total (g) 27.63 M. > 2mm, washed and dried (g) 27.63 M. < 2 mm, dried tested (g) 115.42 M. < 2 mm, dried tested (g) 114.98 M. < 2 mm, dried total (g) 757.69 Total dried sample (g) 785.32 Hygrosc. moisture, % (fraction<2 mm) 0.4 Corr. parameter, f (fraction<2 mm) 0.9962 Corr. parameter, f2 (fraction<2 mm) 6.5896			ASTM-D 2487								
			EN ISO 14688								
			Soil type according to ASTM-D 2487		Soil type according EN ISO 14688						
			% COBBLES > 75 mm 0.0		% COBBLES > 63 mm 0.0						
			% GRAVEL 75-4.75 mm 1.8		% GRAVEL 63-2 mm 3.5						
			% SAND 4.75-0.075 mm 98.8		% SAND 2-0.063 mm 96.4						
			% FINE < 0.075 mm -0.6		% FINE < 0.063 mm 0.1						
			Soil type according to ASTM-D 2487 COBBLES GRAVEL SAND SILT CLAY COLL								
Soil type according EN ISO 14688 COBBLES GRAVEL SAND SILT CLAY											
REMARKS											

Analyst: LUÍS MOSCOSO

Code: RG-A-0020 V0

Test final date: 28/09/2022

Report number: 2022-6427-18537
 Edition date: 17-11-22

LOCATION: EC GI#512 SAMPLE B TUBE

3 / 3

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5797

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

 DIRECT SHEAR APPARATUS MECACISA 2 5 KN
 CIRCULAR SHEARBOX
 MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
 10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

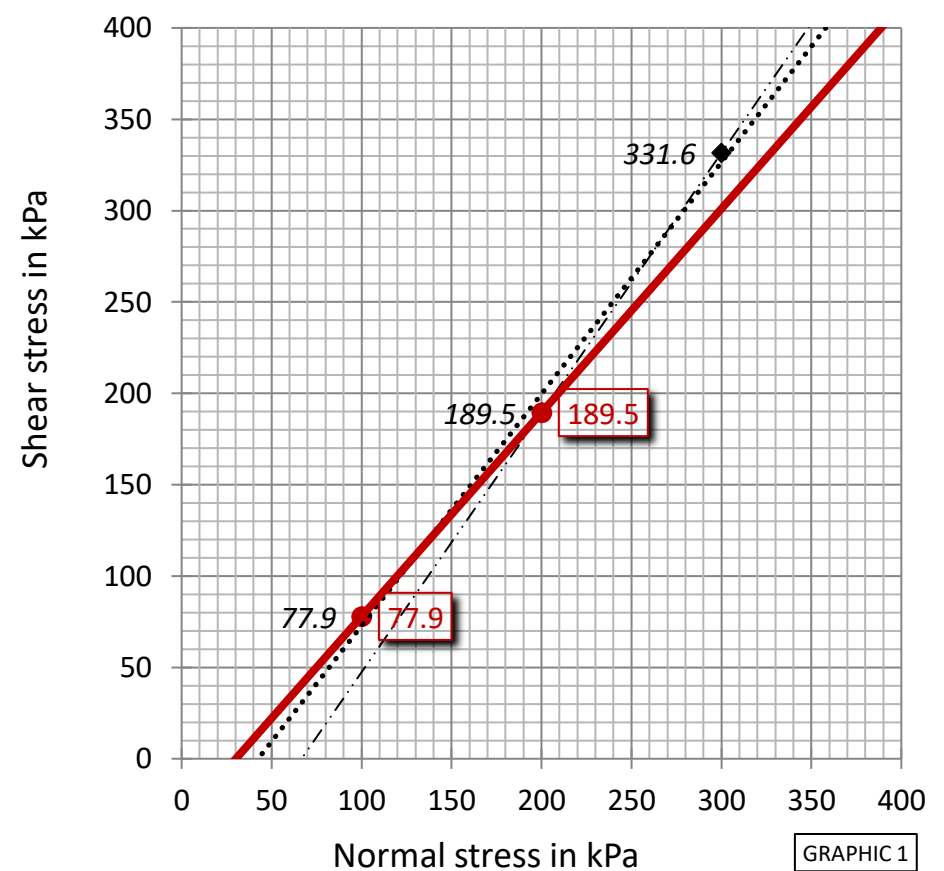
 Underwater floor **SI**
 Prior saturation **NO**
 Prior consolidation **NO**
 Drained failure **NO**
 Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	17.074	16.416	16.742			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	28.0	28.0	28.0			
Final moisture (%)	27.7	28.7	31.0			
Initial bulk density (gr/cm ³)	1.827	1.829	1.831			
Initial dry density (gr/cm ³)	1.427	1.429	1.430			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.163	0.190	0.406			
Initial voids ratio	0.8570	0.8544	0.8531			
Voids ratio at end prior consol.	0.8570	0.8544	0.8531			
Voids ratio at end of test	0.8444	0.8399	0.8217			
Initial saturation degree (%)	86.58	86.84	86.98			
Final saturation degree (%)	86.93	90.55	99.98			
Max. shear stress (KPa)	77.9	189.5	331.6			
Shear stress applied (KPa)	77.9	189.5				
Horizontal speed (mm/min)	0.93705	0.96026	0.95695			
Particle density (g/cm ³)	2.650 (assumed)					

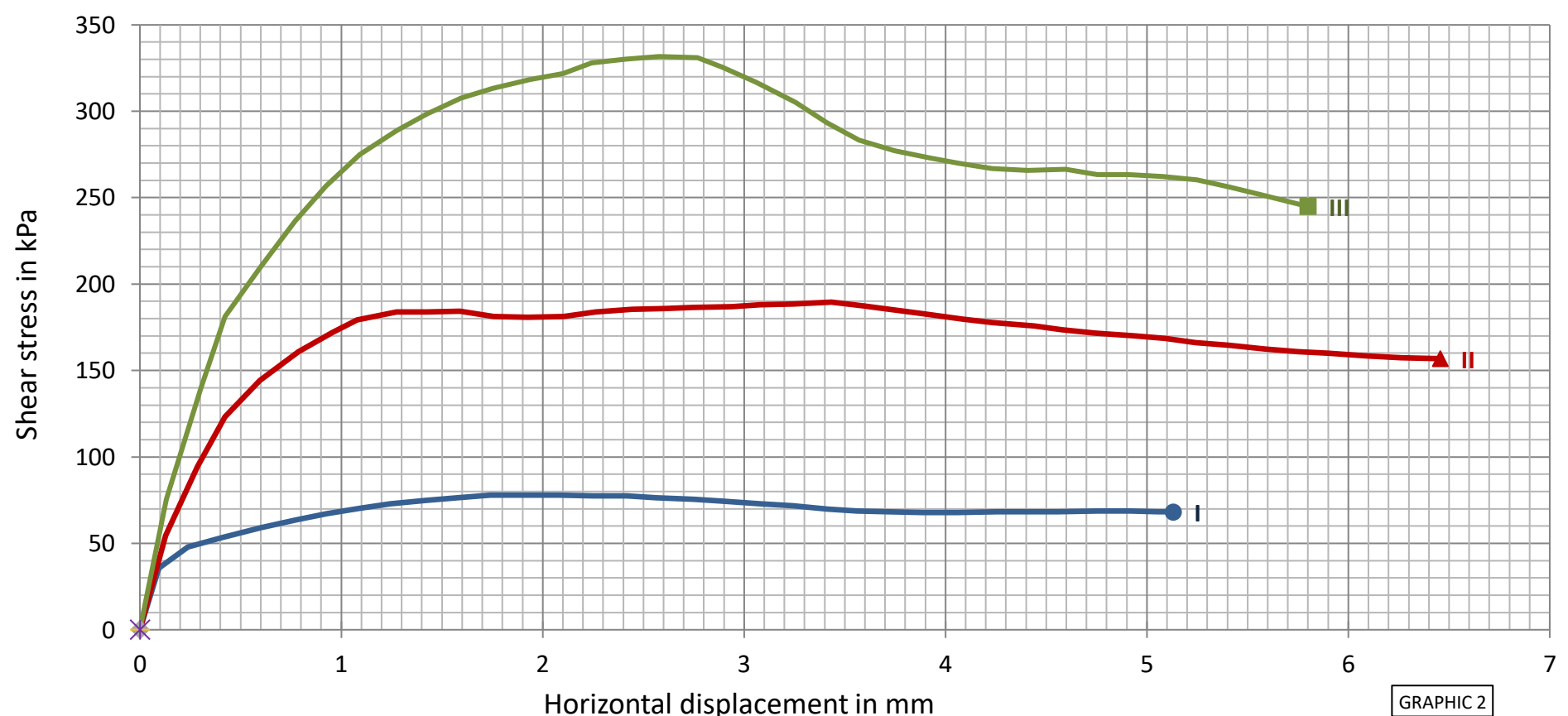


(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	48.1	51.7	48.1	54.9	
Cohesion (kPa)	0.0	0.0	0.0	0.0	
(kPa/cm ²)	0.00	0.00	0.00	0.00	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 28/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#338 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5798

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#338
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

5-10-22
MOHAMED YAAKoubi
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#338 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5798

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor SI
Prior saturation NO
Prior consolidation NO
Drained failure NO
Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	17.340	17.586	17.314
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	19.2	19.2	19.2
Final moisture (%)	21.4	21.1	20.9
Initial bulk density (gr/cm ³)	2.055	2.037	2.059
Initial dry density (gr/cm ³)	1.724	1.709	1.727
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	0.323	0.627	0.797
Initial voids ratio	0.5371	0.5506	0.5345
Voids ratio at end prior consol.	0.5371	0.5506	0.5345
Voids ratio at end of test	0.5164	0.5105	0.4834
Initial saturation degree (%)	94.73	92.41	95.19
Final saturation degree (%)	100.00	100.00	100.00
Max. shear stress (KPa)	85.6	157.4	310.2
Shear stress applied (KPa)	85.6	157.4	

Horizontal speed (mm/min) 0.83837 0.94483 0.94831

Particle density (g/cm³) 2.650 (assumed)

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

157.378

310.171

Results

LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)

35.7

48.3

35.7

56.8

Cohesion (kPa)

13.8

0.0

13.8

0.0

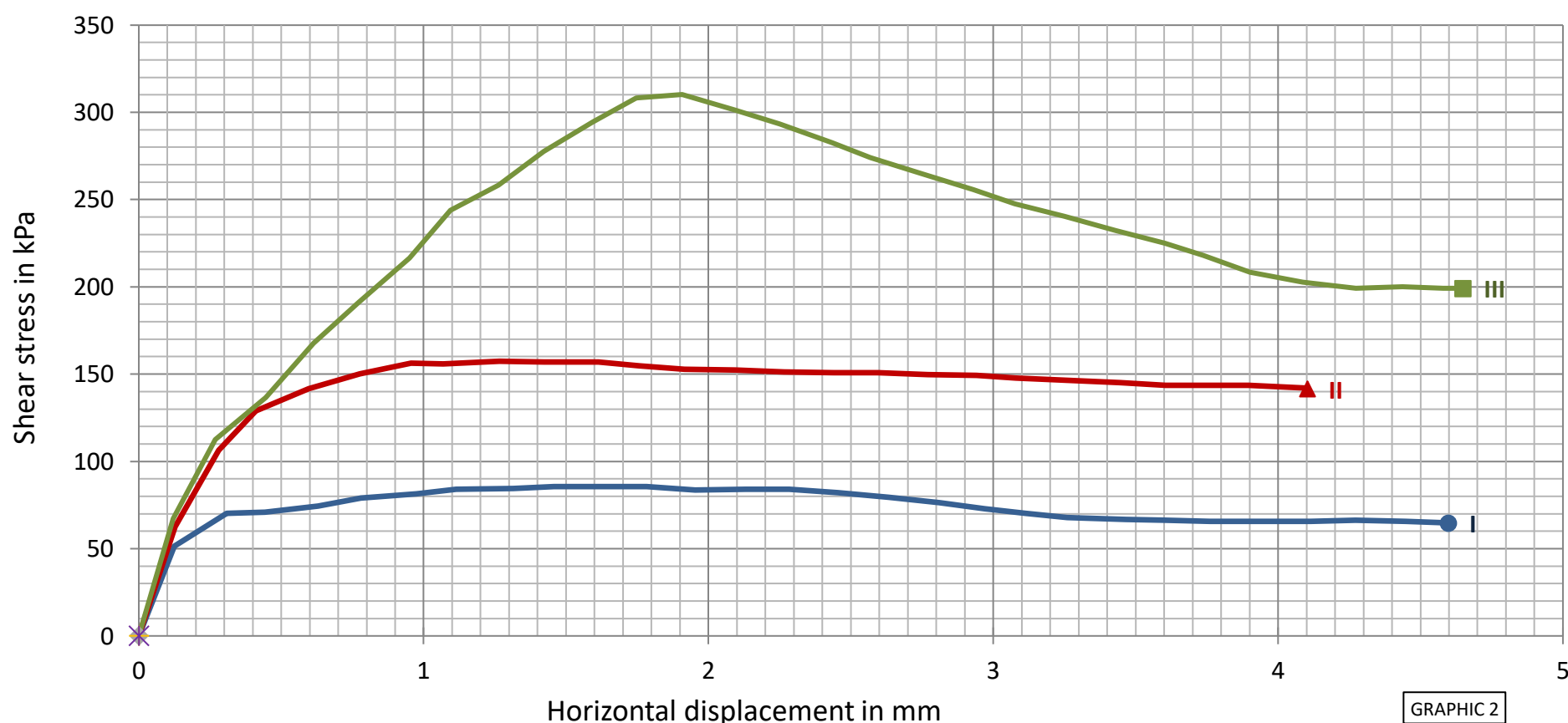
(kp/cm²)

0.14

0.00

0.14

0.00



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 05/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101 SAMPLE A TUBE

1 / 6

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5799

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#101
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

28-9-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

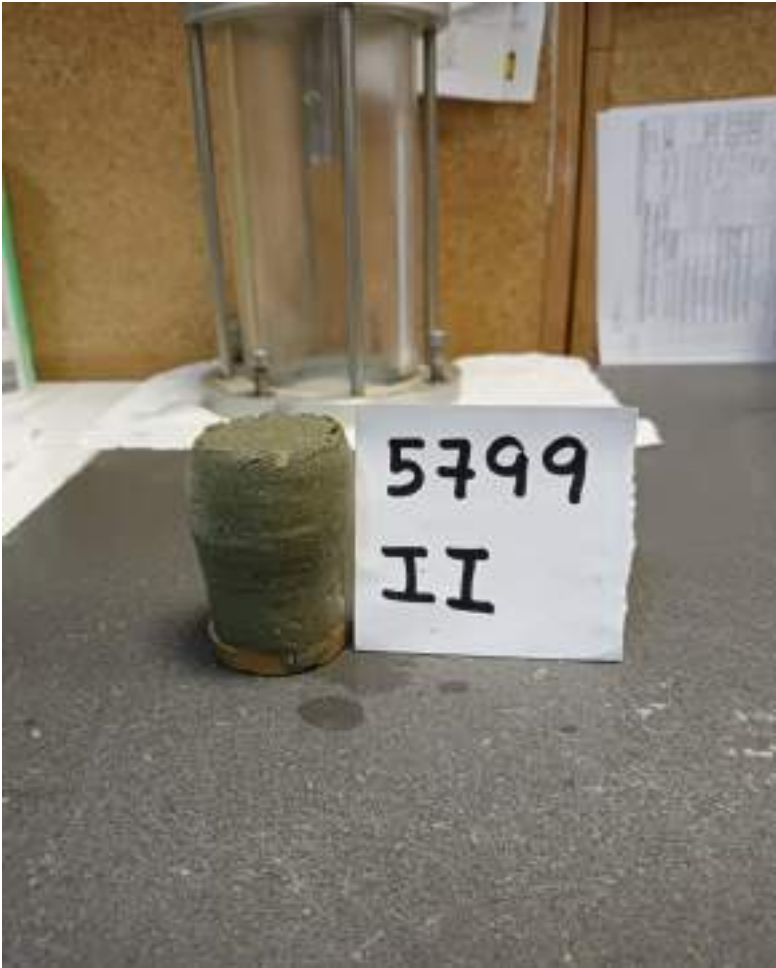
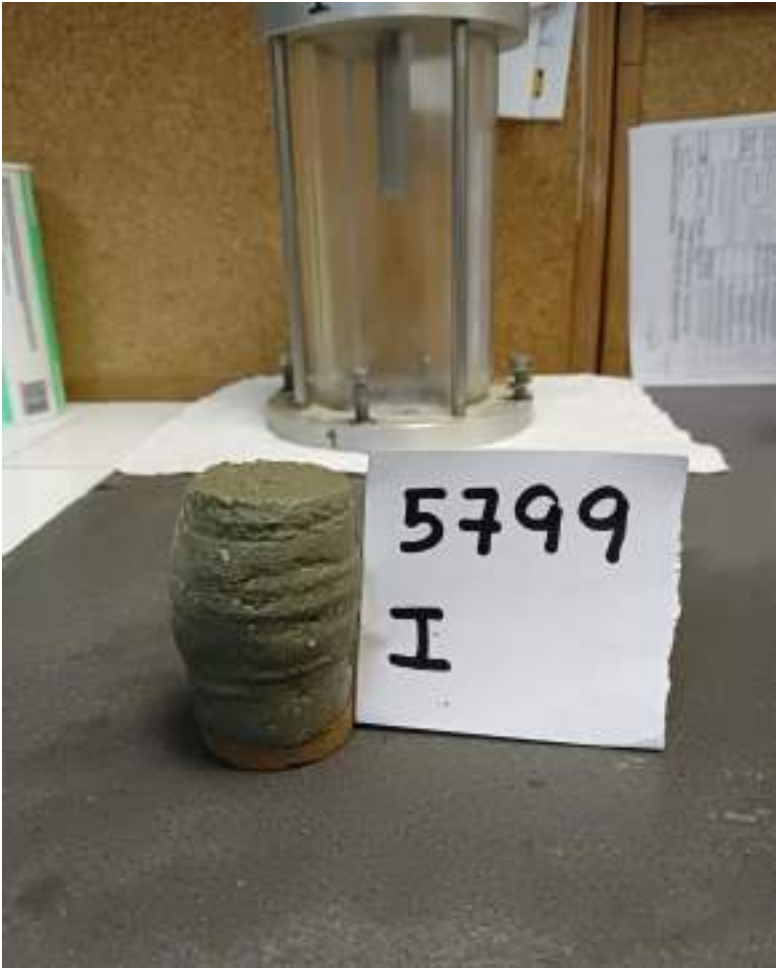
LOCATION: EC GI#101 SAMPLE A TUBE

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Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5799



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5799****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.810	7.840	7.880
Initial diameter (cm)	3.690	3.800	3.810
Initial area (cm ²)	10.694	11.341	11.401
Initial volume (cm ³)	83.520	88.913	89.840
Initial moisture content (%)	38.5	38.5	38.5
Final moisture content (%)	37.9	37.9	37.9
Initial bulk density (gr/cm ³)	1.901	1.874	1.952
Initial dry density (gr/cm ³)	1.373	1.353	1.409
Initial saturation degree (%)	100.0	100.0	100.0
Final saturation degree (%)	100.0	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9976	0.9973
Major principal stress (kPa)	23.4	35.3	59.6
Failure stress (kPa)	23.4	35.3	59.6
Failure strain (%)	19.3	18.3	19.5
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test

NO

NO

NO

Failure test results

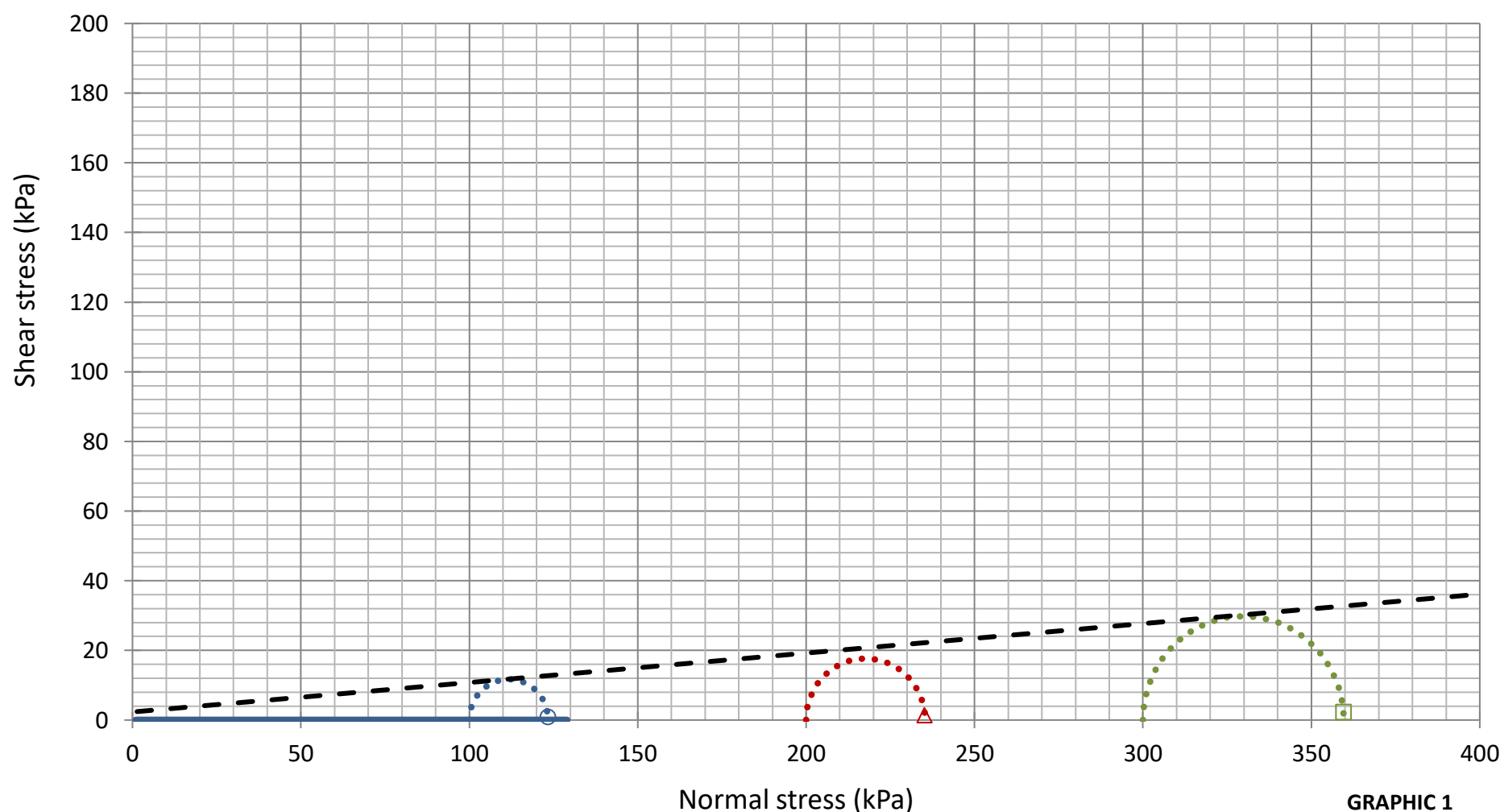
	I	II	III
Specimen number			
σ_1 (kPa)	123.4	235.3	359.6
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	11.7	17.7	29.8
$(\sigma_1 + \sigma_3)/2$ (kPa)	111.7	217.7	329.8

Estimate total

Φ_u (°)	4.8
C_u (kPa)	2
C_u (kp/cm ²)	0.02

Graphic symbols

I total	II total	III total

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

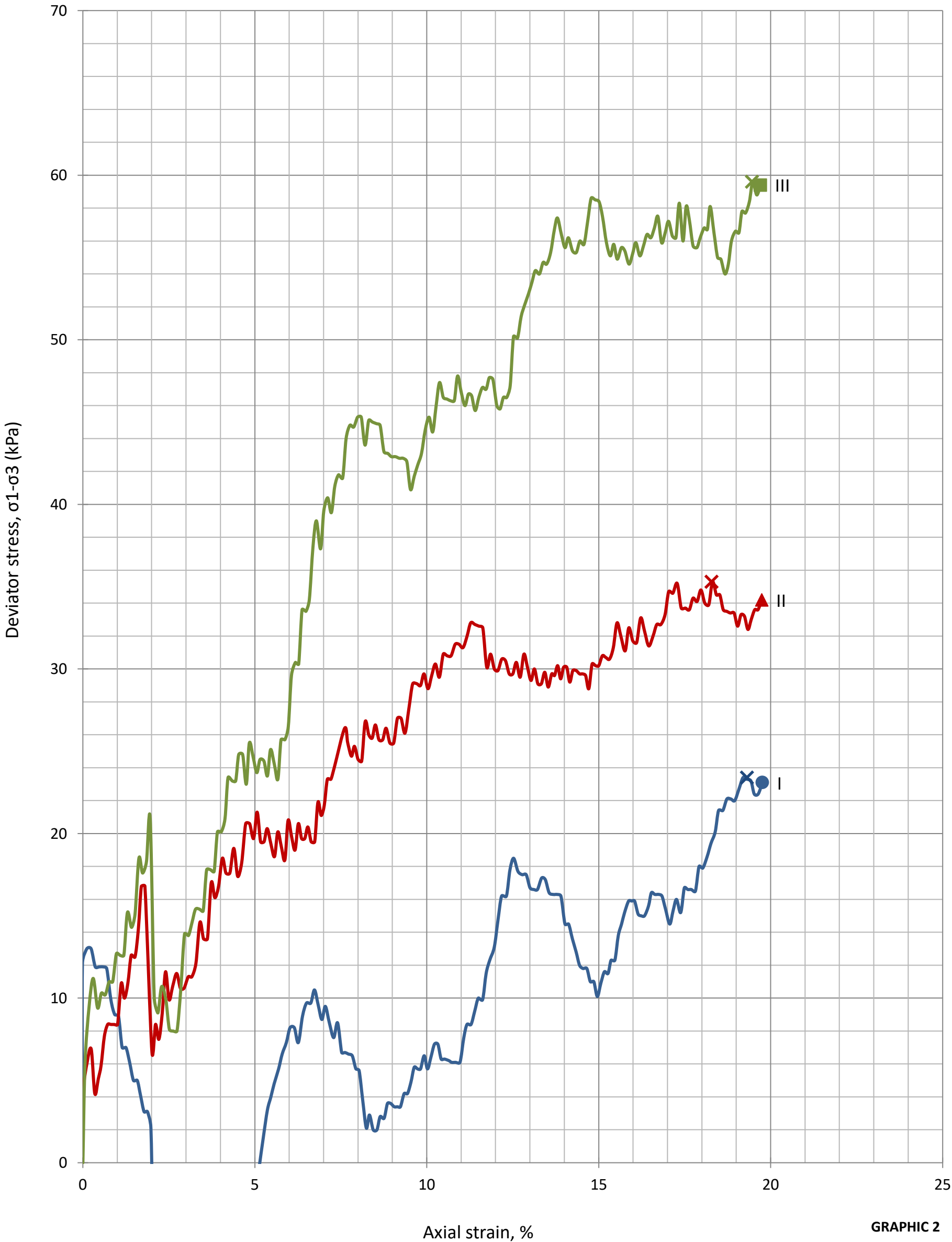
LOCATION: EC GI#101 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5799



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

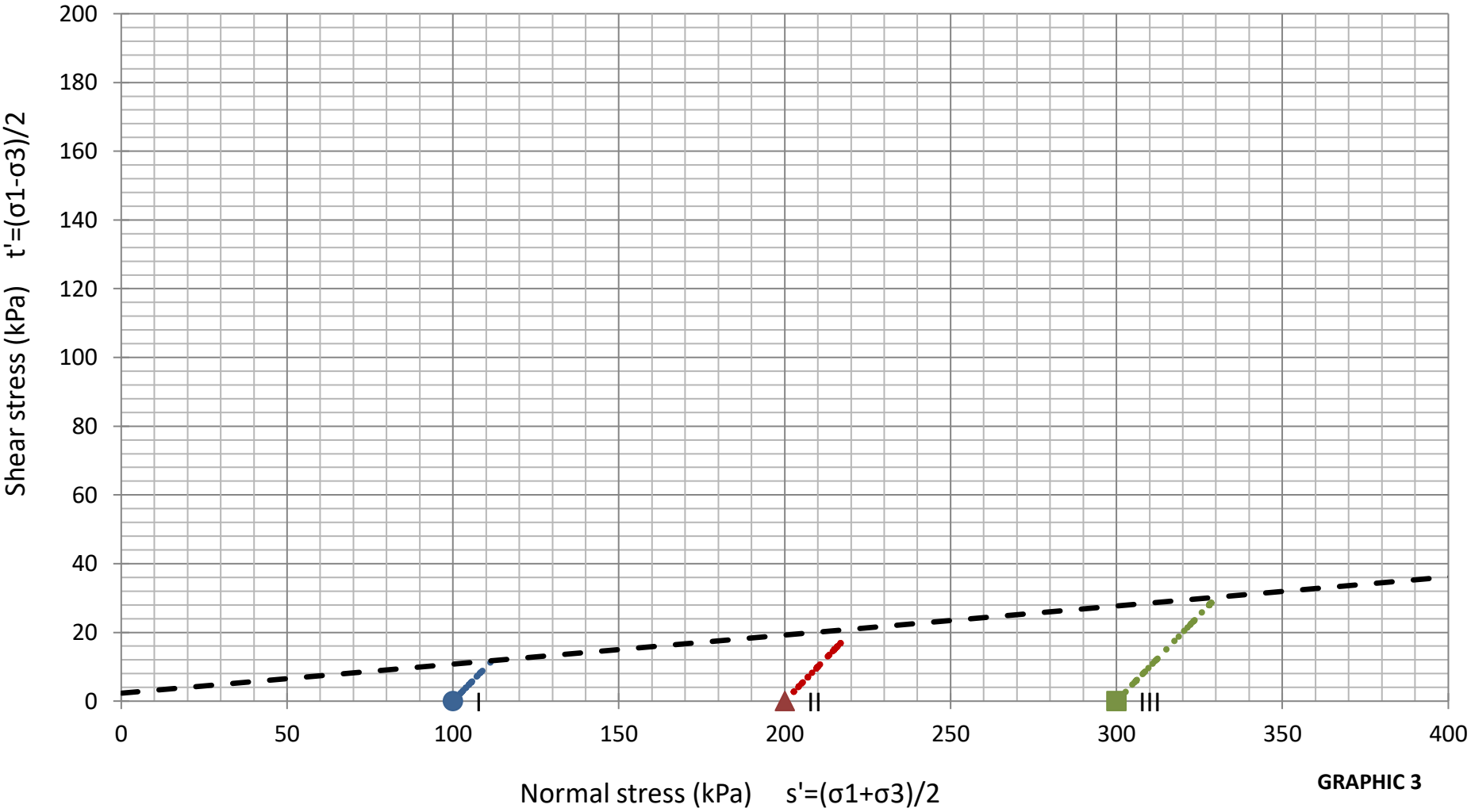
Sample reference

2022GC-5799

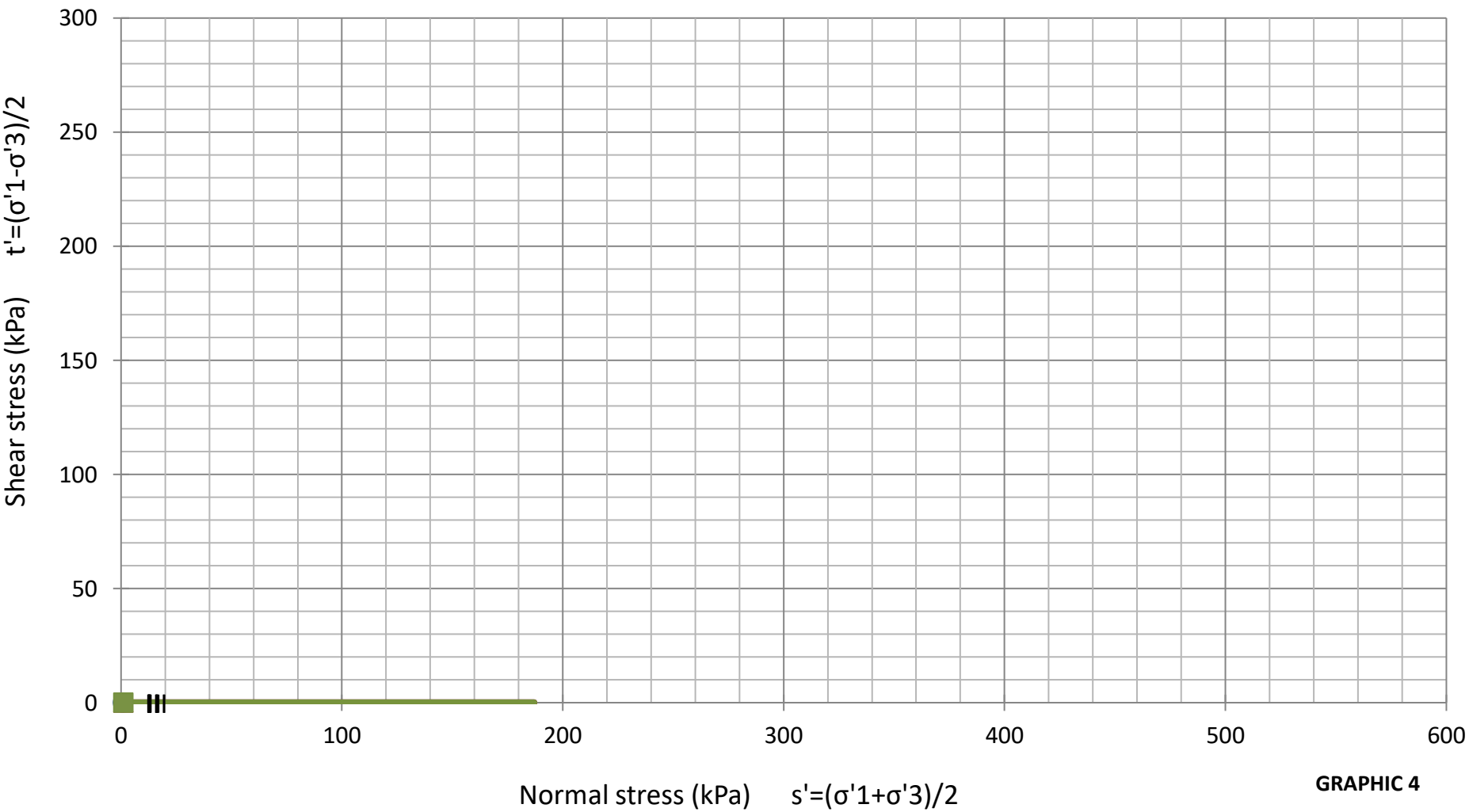
Total stress path parameters

$\Phi_u (^{\circ}) = 4.8$

$C_u \text{ (kPa)} = 2$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#101 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5799

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.006	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.927	9.3	0.3	0.0	9.0		0.010	109.0				104.5	4.5		
Cell pressure	95	1.979	2.7	0.6	0.0	2.1		0.020	102.1				101.1	1.1		
σ_3 , kPa	145	2.971	4.5	0.9	10.4	-6.8		0.031	93.2				96.6	-3.4		
700	195	3.946	6.3	1.1	10.4	-5.2		0.042	94.8				97.4	-2.6		
Back pressure	240	4.906	8.9	1.3	10.4	-2.8		0.051	97.2				98.6	-1.4		
u_b , kPa	290	6.025	20.2	1.6	10.4	8.2		0.062	108.2				104.1	4.1		
600	340	7.168	20.8	1.9	10.4	8.5		0.073	108.5				104.3	4.3		
σ'_3 , kPa	390	8.244	14.6	2.1	10.4	2.1		0.083	102.1				101.1	1.1		
100	440	9.235	16.1	2.3	10.4	3.4		0.094	103.4				101.7	1.7		
Rate of axial displ.	485	10.12	19.3	2.5	10.4	6.4		0.104	106.4				103.2	3.2		
mm/min	535	11.17	21.5	2.7	10.4	8.4		0.114	108.4				104.2	4.2		
0.9974	585	12.316	29.5	2.9	10.4	16.2		0.125	116.2				108.1	8.1		
	635	13.448	30.7	3.1	10.4	17.2		0.136	117.2				108.6	8.6		
	685	14.544	25.5	3.3	10.4	11.8		0.146	111.8				105.9	5.9		
	730	15.47	26.1	3.4	10.4	12.3		0.156	112.3				106.2	6.2		
	780	16.449	29.6	3.6	10.4	15.6		0.166	115.6				107.8	7.8		
	830	17.491	30.8	3.7	10.4	16.7		0.177	116.7				108.4	8.4		
	880	18.61	35.7	3.9	10.4	21.4		0.188	121.4				110.7	10.7		
	930	19.759	37.5	4.0	10.4	23.1		0.198	123.1				111.6	11.6		
Specimen	0	-0.008	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.817	8.7	0.3	0.0	8.4		0.010	208.4				204.2	4.2		
Cell pressure	95	1.804	17.3	0.5	0.0	16.8		0.020	216.8				208.4	8.4		
σ_3 , kPa	145	2.941	21.4	0.8	10.0	10.6		0.031	210.6				205.3	5.3		
800	195	4.057	29.6	1.1	10.0	18.5		0.041	218.5				209.3	9.3		
Back pressure	240	5.068	32.6	1.3	10.0	21.3		0.051	221.3				210.7	10.7		
u_b , kPa	290	6.071	31.4	1.6	10.0	19.8		0.062	219.8				209.9	9.9		
600	340	7.019	33.5	1.8	10.0	21.7		0.072	221.7				210.9	10.9		
σ'_3 , kPa	390	8.21	38.8	2.0	10.0	26.8		0.083	226.8				213.4	13.4		
200	440	9.254	39.2	2.2	10.0	27.0		0.094	227.0				213.5	13.5		
Rate of axial displ.	485	10.253	42.7	2.4	10.0	30.3		0.103	230.3				215.2	15.2		
mm/min	535	11.403	45.3	2.6	10.0	32.7		0.114	232.7				216.4	16.4		
0.9976	585	12.503	42.5	2.8	10.0	29.7		0.124	229.7				214.9	14.9		
	635	13.532	41.9	3.0	10.0	28.9		0.135	228.9				214.5	14.5		
	685	14.446	42.9	3.2	10.0	29.7		0.146	229.7				214.9	14.9		
	730	15.315	43.9	3.3	10.0	30.6		0.155	230.6				215.3	15.3		
	780	16.455	44.9	3.5	10.0	31.4		0.166	231.4				215.7	15.7		
	830	17.636	47.2	3.6	10.0	33.6		0.176	233.6				216.8	16.8		
	880	18.726	47.3	3.8	10.0	33.5		0.187	233.5				216.8	16.8		
	930	19.74	48.1	3.9	10.0	34.2		0.198	234.2				217.1	17.1		
Specimen	0	0.001	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.975	13.0	0.3	0.0	12.7		0.010	312.7				306.4	6.3		
Cell pressure	95	2.076	20.6	0.6	10.0	10.0		0.020	310.0				305.0	5.0		
σ_3 , kPa	145	3.175	25.5	0.9	10.0	14.6		0.031	314.6				307.3	7.3		
900	195	4.222	34.5	1.1	10.0	23.4		0.041	323.4				311.7	11.7		
Back pressure	240	5.151	35.8	1.3	10.0	24.5		0.051	324.5				312.3	12.3		
u_b , kPa	290	6.181	42.0	1.6	10.0	30.4		0.061	330.4				315.2	15.2		
600	340	7.227	51.3	1.8	10.0	39.5		0.072	339.5				319.8	19.8		
σ'_3 , kPa	390	8.312	57.1	2.0	10.0	45.1		0.082	345.1				322.6	22.6		
300	440	9.421	54.9	2.3	10.0	42.6		0.093	342.6				321.3	21.3		
Rate of axial displ.	485	10.371	59.8	2.4	10.0	47.4		0.103	347.4				323.7	23.7		
mm/min	535	11.409	58.3	2.6	10.0	45.7		0.113	345.7				322.9	22.9		
0.9973	585	12.426	60.0	2.8	10.0	47.2		0.124	347.2				323.6	23.6		
	635	13.487	67.6	3.0	10.0	54.6		0.134	354.6				327.3	27.3		
	685	14.572	69.0	3.2	10.0	55.8		0.145	355.8				327.9	27.9		
	730	15.54	68.2	3.3	10.0	54.9		0.154	354.9				327.5	27.5		
	780	16.621	70.3	3.5	10.0	56.8		0.165	356.8				328.4	28.4		
	830	17.635	70.9	3.6	10.0	57.3		0.176	357.3				328.7	28.7		
	880	18.673	67.8	3.8	10.0	54.0		0.186	354.0				327.0	27.0		
	930	19.701	73.3	3.9	10.0	59.4		0.197	359.4				329.7	29.7		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#517 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5800

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#517
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

3-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537

Edition date: 17-11-22

LOCATION: EC GI#517 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5800

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOXMECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor SI
Prior saturation NO

Prior consolidation NO

Drained failure NO

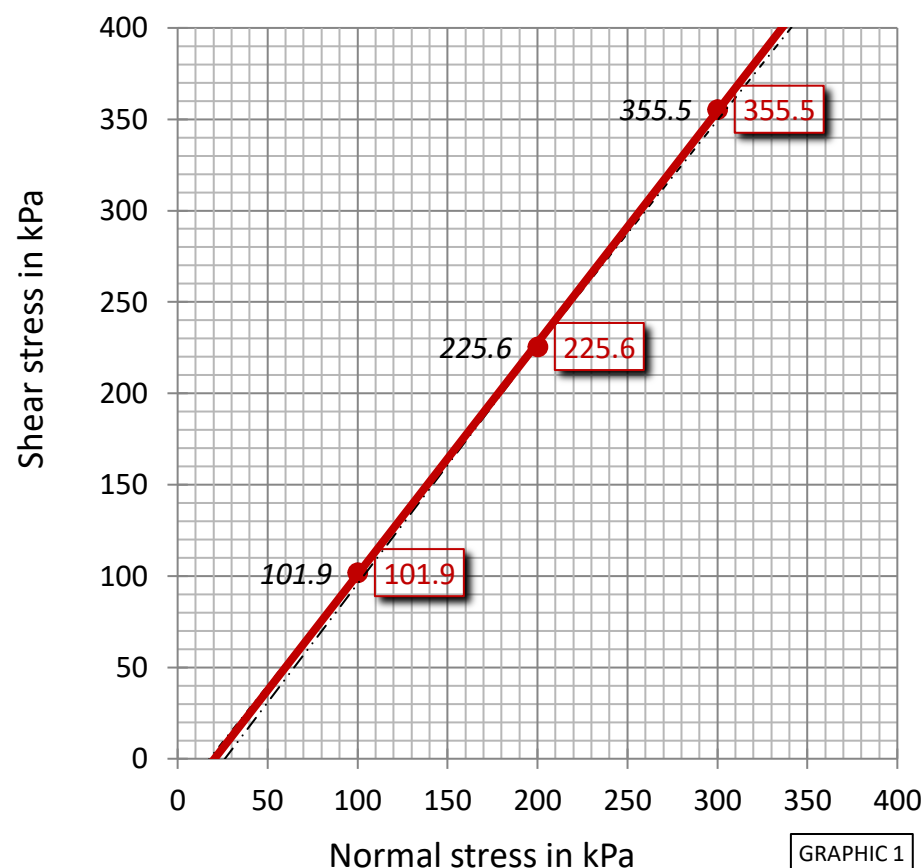
Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

● 100 ▲ 200 ■ 300 ◆ 400 ✖ 500 ✖ 600

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.268	15.950	16.314			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	24.6	24.6	24.6			
Final moisture (%)	26.6	26.6	28.0			
Initial bulk density (gr/cm ³)	1.984	1.971	1.985			
Initial dry density (gr/cm ³)	1.592	1.582	1.593			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	-0.110	0.140	0.563			
Initial voids ratio	0.6646	0.6751	0.6635			
Voids ratio at end prior consol.	0.6646	0.6751	0.6635			
Voids ratio at end of test	0.6723	0.6654	0.6244			
Initial saturation degree (%)	98.09	96.56	98.25			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	101.9	225.6	355.5			
Shear stress applied (KPa)	101.9	225.6	355.5			
Horizontal speed (mm/min)	0.93967	0.96200	0.95189			
Particle density (g/cm ³)	2.650 (assumed)					



(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

—●— 355.500

- - - - -◆- - - - - 355.500

- - - - -

- - - - -

- - - - -○- - - - -

Results

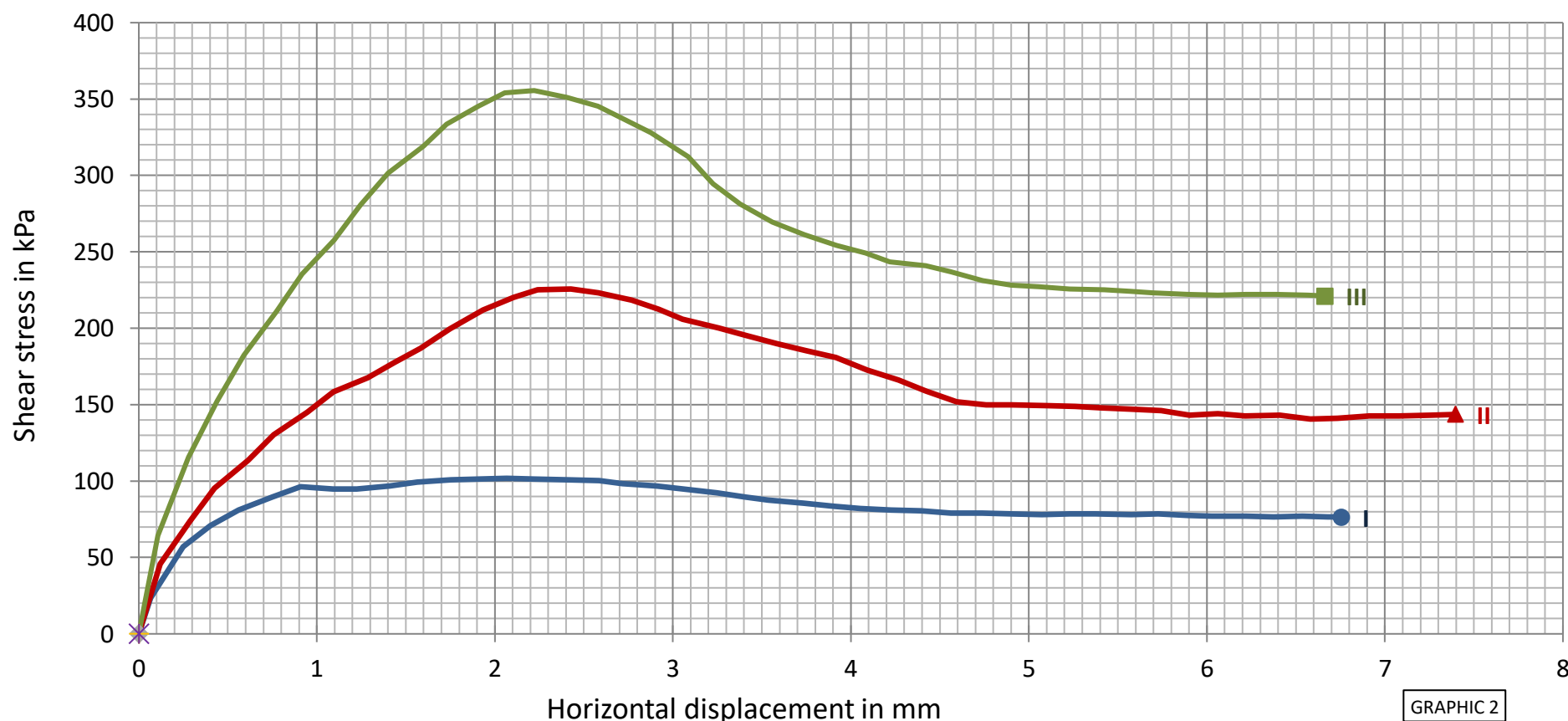
LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)
Cohesion (kPa)
(kp/cm²)51.7
0.0
0.0051.7
0.0
0.0051.1
0.0
0.0052.4
0.0
0.00

REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 03/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#250 SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5801

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#250
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
MOHAMED YAAKOUBI
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#250 SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5801

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

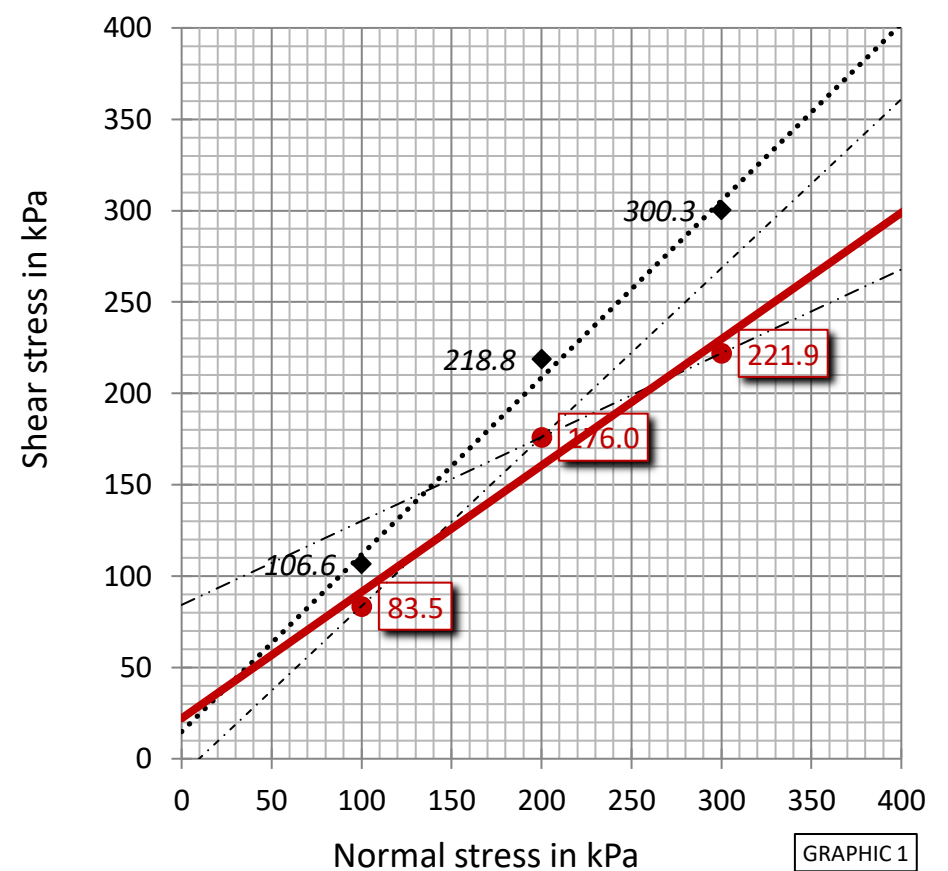
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

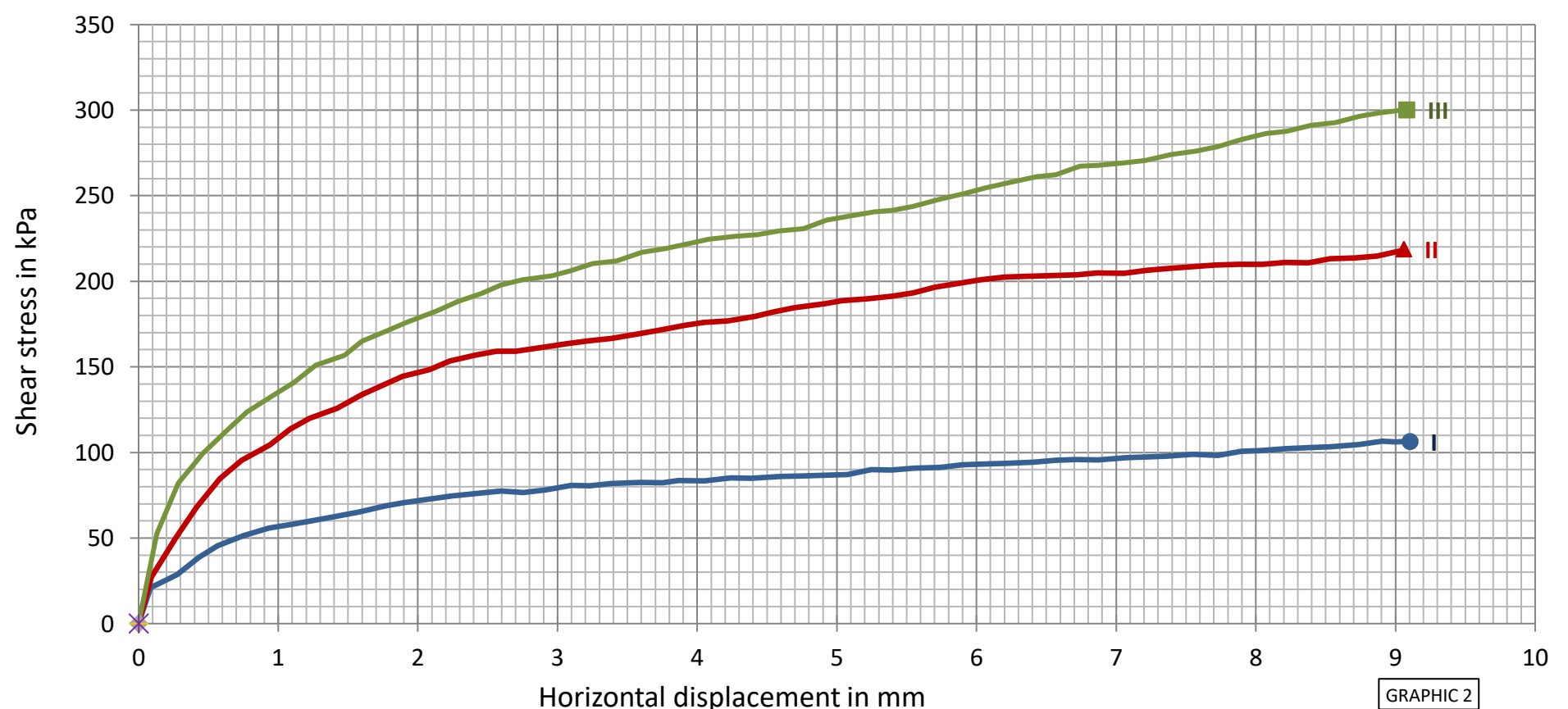
Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	15.109	15.129	15.120			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	24.6	24.6	24.6			
Final moisture (%)	26.6	26.6	28.0			
Initial bulk density (gr/cm ³)	1.984	1.971	1.985			
Initial dry density (gr/cm ³)	1.592	1.582	1.593			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	2.719	2.633	2.060			
Initial voids ratio	0.6646	0.6751	0.6635			
Voids ratio at end prior consol.	0.6646	0.6751	0.6635			
Voids ratio at end of test	0.4755	0.4931	0.5203			
Initial saturation degree (%)	98.09	96.56	98.25			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	106.6	218.8	300.3			
Shear stress applied (KPa)	83.5	176.0	221.9			
Horizontal speed (mm/min)	0.95846	0.95583	0.97292			
Particle density (g/cm ³)	2.650 (assumed)					



Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	34.7	44.1	42.8	24.7	
Cohesion (kPa)	22.1	14.8	0.0	84.2	
(kp/cm ²)	0.23	0.15	0.00	0.86	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 03/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE B TUBE

1 / 8

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5802

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#255
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

26-9-22
LUÍS MOSCOSO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to EN ISO criteria

Depth
m

Observations

P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF MOISTURE CONTENT - UNE 103300/93
DETERMINATION OF DENSITY - UNE 103301/94
DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95
TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

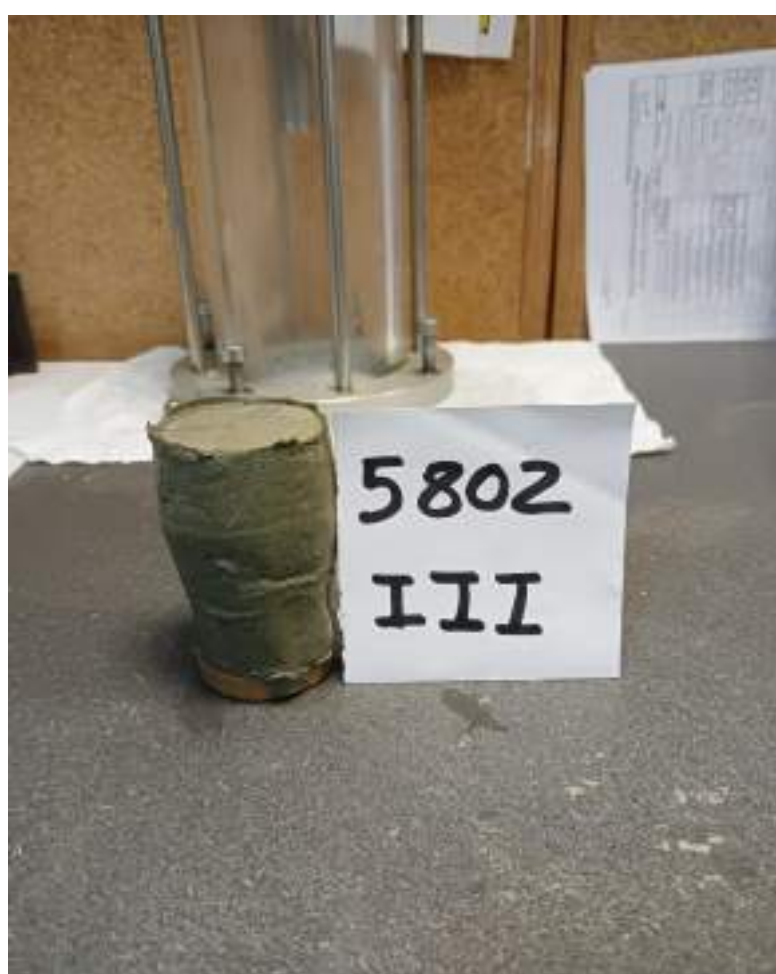
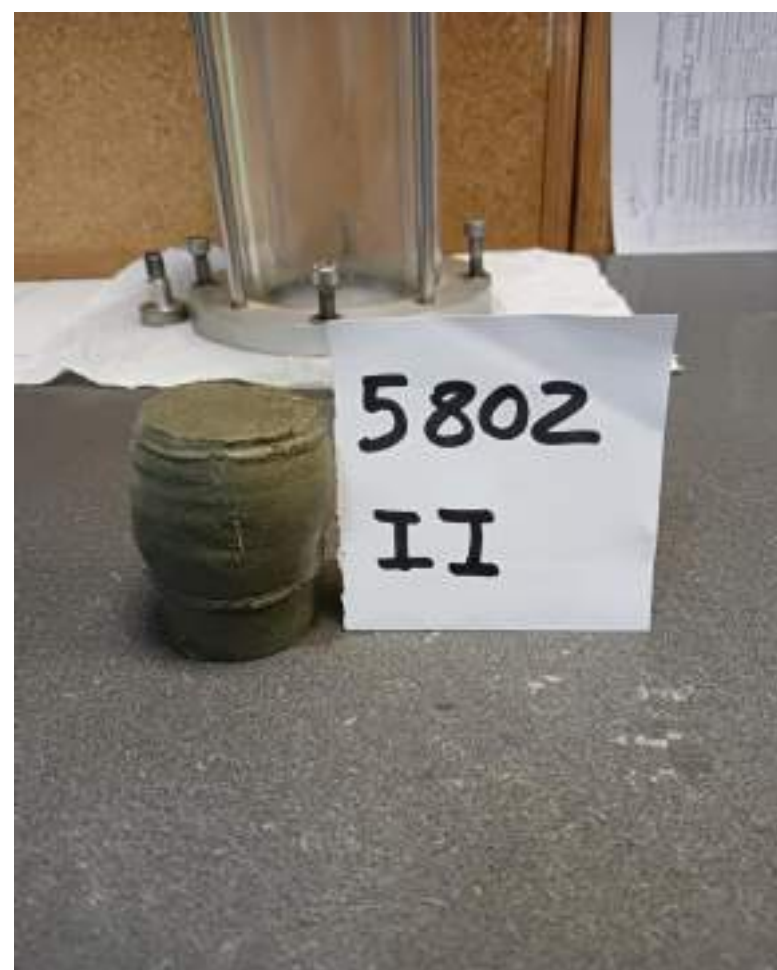
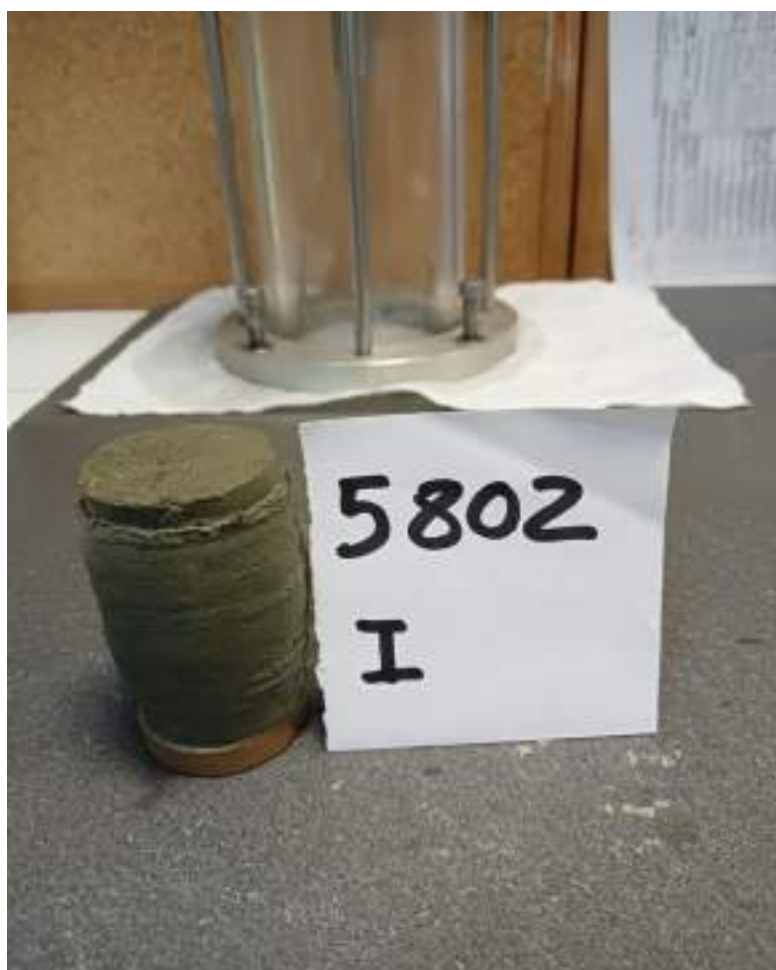
LOCATION: EC GI#255 SAMPLE B TUBE

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PHOTOGRAPHIC ANNEX -

Sample reference

2022GC-5802



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE B TUBE

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DETERMINATION OF MOISTURE CONTENT - UNE 103300/93 DETERMINATION OF DENSITY - UNE 103301/94

Sample reference

2022GC-5802**Equipment**

BALANCE GIBERTINI EU-1700
DRYING OVEN SELECTA 2003721

Drying temperature (°C) 105

Data of soil moisture content test

Tare (g)	35.50
Tare + soil + water (g)	120.81
Tare + soil (g)	109.10
Water (g)	11.71
Soil (g)	73.60
Moisture, w (%)	15.9

Analyst: LUÍS MOSCOSO

Test final date: 29/09/2022

Results

Moisture content, w (%) **15.9**

Equipment

BALANCE GIBERTINI EU-6000

(*) Paraffin wax density =0.9 Tn/m3

Bulk density test data

Soil weight (g)	106.72
Soil + paraffin wax weight (g)	109.87
Paraffin wax weight (g)	3.15
Weight in water (g)	57.40
Paraffin wax volume (cm3)	3.50
Soil + paraffin wax volume (cm3)	52.47

Analyst: LUÍS MOSCOSO

Test final date: 29/09/2022

Soil volume (cm3)	48.97
Bulk density (g/cm3)	2.179
Dry density (g/cm3)	1.880

Results

Bulk density (g/cm3)	2.179
Dry density (g/cm3)	1.880
Bulk density (kN/m3)	21.37
Dry density (kN/m3)	18.44

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE B TUBE

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Sample reference

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95

2022GC-5802

Equipment		
STANDARD SIEVE SERIES PROETI BALANCE GIBERTINI EU-1700 FORN DE DESSECACIÓ ETI-P0228		

Previous calculations	
Predrying temperature (°C)	60
Total dried sample (g)	764.80
M. > 20 mm, washed and dried total (g)	0.00
M. < 20 mm, dried tested (g)	764.80
M. 20-2 mm, washed and dried (g)	103.46
M. 20-2 mm, washed and dried total (g)	103.46
M. > 2mm, washed and dried (g)	103.46
M. < 2 mm, dried tested (g)	44.25
M. < 2 mm, dried tested (g)	44.09
M. < 2 mm, dried total (g)	658.98
Total dried sample (g)	762.44
Hygrosc. moisture, % (fraction<2 mm)	0.4
Corr. parameter, f (fraction<2 mm)	0.9964
Corr. parameter, f2 (fraction<2 mm)	14.9455

Soil type according to ASTM-D 2487		
% COBBLES > 75 mm	0.0	
% GRAVEL	Coarse 75-19 mm	0.0
75-4.75 mm	Fine 19-4.75 mm	6.3
6.3		
% SAND	Coarse 4.75-2 mm	7.3
4.75-0.075 mm	Medium 2-0.425 mm	20.9
79.5	Fine 0.425-0.075 mm	51.3
% FINE < 0.075 mm	14.2	

ASTM-D 2487

EN ISO 14688

Results						
Sieves		Retained sieves		Passing total sample		
Nº	Opening mm	Partial g	Total g	Total %	g	%
1/2"	12.5		0.00	0.0	762.44	100.0
3/8"	10		0.25	0.0	762.19	100.0
1/4"	6.3		28.94	3.8	733.25	96.2
Nº4	5		13.39	5.6	719.86	94.4
Nº10	2		60.88	13.6	658.98	86.4
Nº16	1.25	4.81		23.0	587.09	77.0
Nº40	0.4	6.05		34.9	496.67	65.1
Nº100	0.16	20.04		74.1	197.16	25.9
Nº200	0.08	5.58		85.1	113.77	14.9

Soil type according EN ISO 14688		
% COBBLES > 63 mm	0.0	
% GRAVEL	Coarse 63-20 mm	0.0
63-2 mm	Medium 20-6.3 mm	3.8
13.6	Fine 6.3-2 mm	9.8
% SAND	Coarse 2-0.63 mm	18.1
2-0.063 mm	Medium 0.63-0.2 mm	35.9
73.8	Fine 0.2-0.063 mm	19.8
% FINE < 0.063 mm	12.6	

Soil type according to ASTM-D 2487

COBBLES	GRAVEL	SAND	SILT	CLAY	COLL

Soil type according EN ISO 14688

COBBLES	GRAVEL	SAND	SILT	CLAY

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE B TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5802****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.930	7.870	8.050
Initial diameter (cm)	3.760	3.810	3.800
Initial area (cm ²)	11.104	11.401	11.341
Initial volume (cm ³)	88.055	89.726	91.295
Initial moisture content (%)	32.6	32.6	32.6
Final moisture content (%)	33.0	34.5	32.7
Initial bulk density (gr/cm ³)	1.908	1.876	1.965
Initial dry density (gr/cm ³)	1.439	1.415	1.482
Initial saturation degree (%)	100.0	99.0	100.0
Final saturation degree (%)	100.0	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9973	0.9973
Major principal stress (kPa)	25.9	23.0	21.5
Failure stress (kPa)	25.9	23.0	21.5
Failure strain (%)	9.6	14.2	14.4
Pore pressure, u_f (kPa)			

Test type

Unconsolidated Undrained (UU)

Soil conditions

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

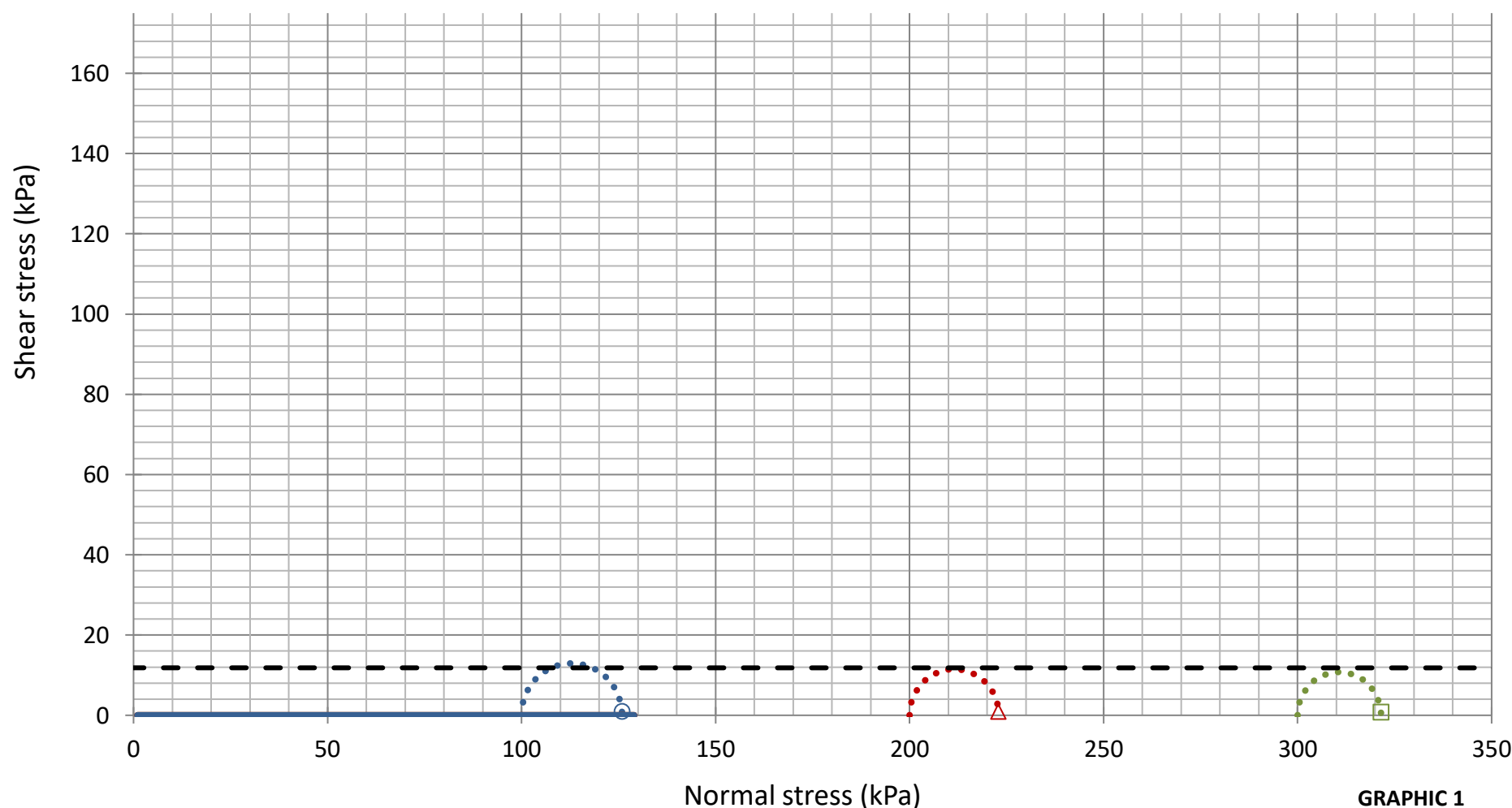
Specimen number	I	II	III
σ_1 (kPa)	125.9	223.0	321.5
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	13.0	11.5	10.8
$(\sigma_1 + \sigma_3)/2$ (kPa)	113.0	211.5	310.8

Estimate total

Φ_u (°)	0.0
C_u (kPa)	12
C_u (kp/cm ²)	0.12

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

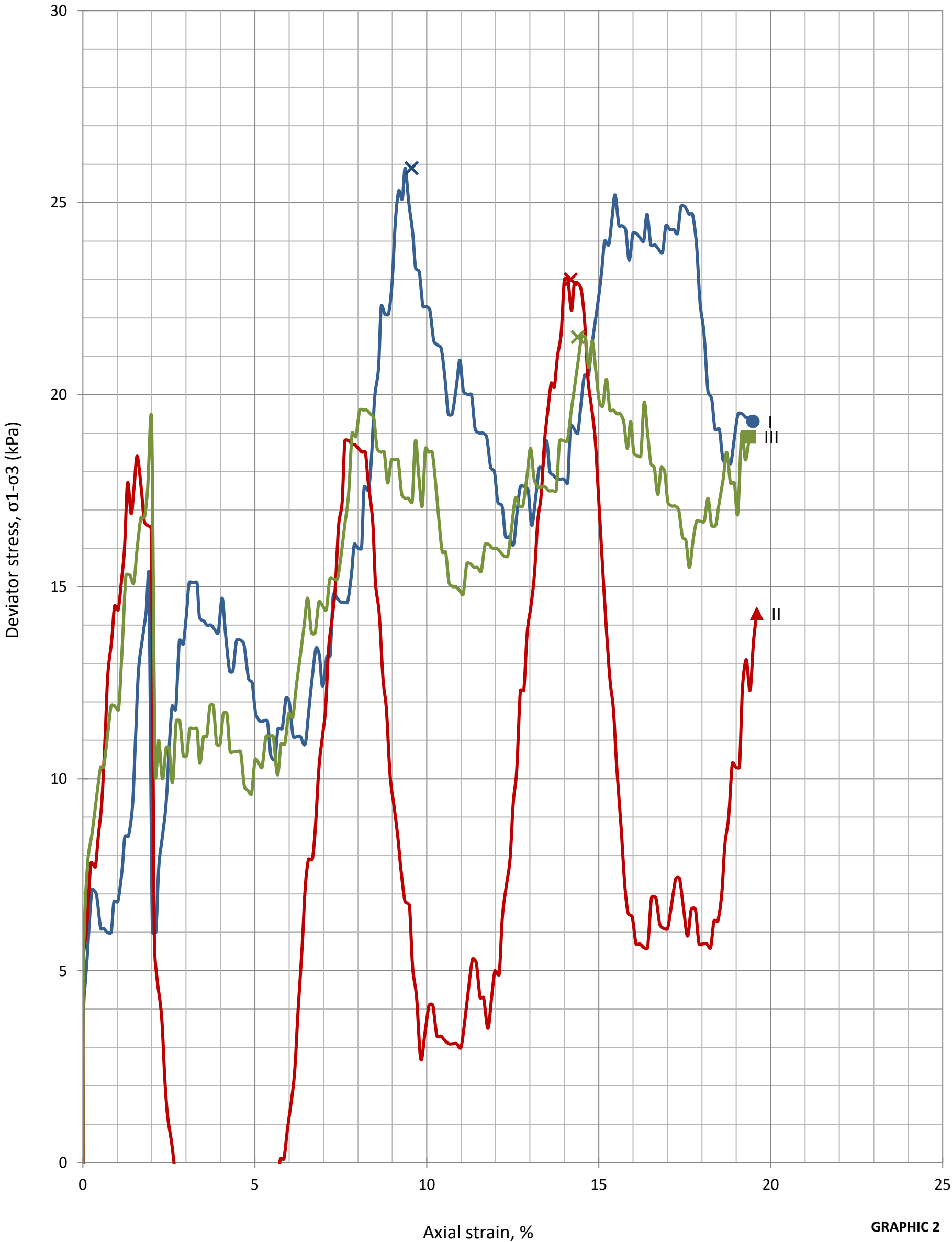
LOCATION: EC GI#255 SAMPLE B TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5802



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE B TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

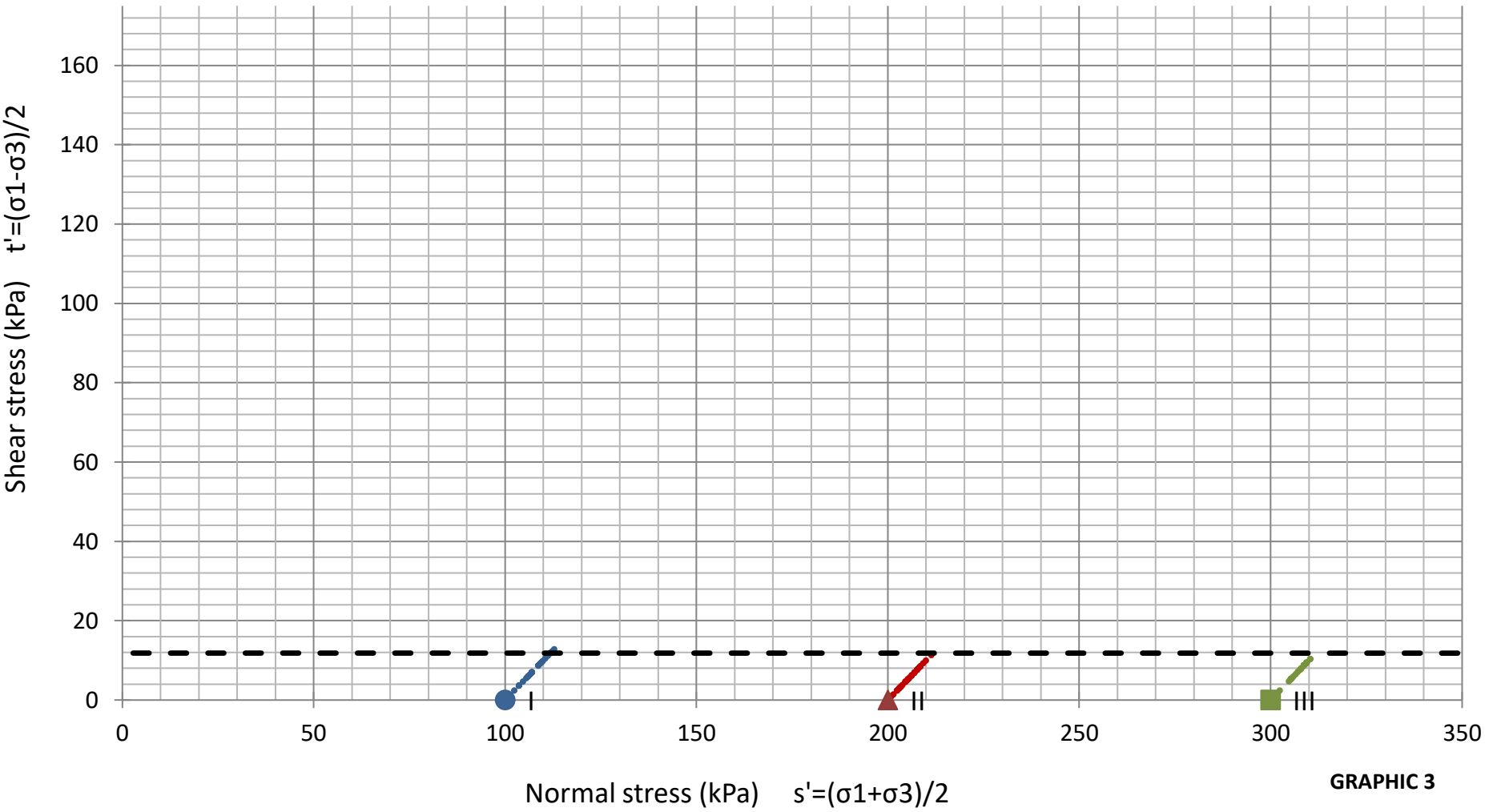
Sample reference

2022GC-5802

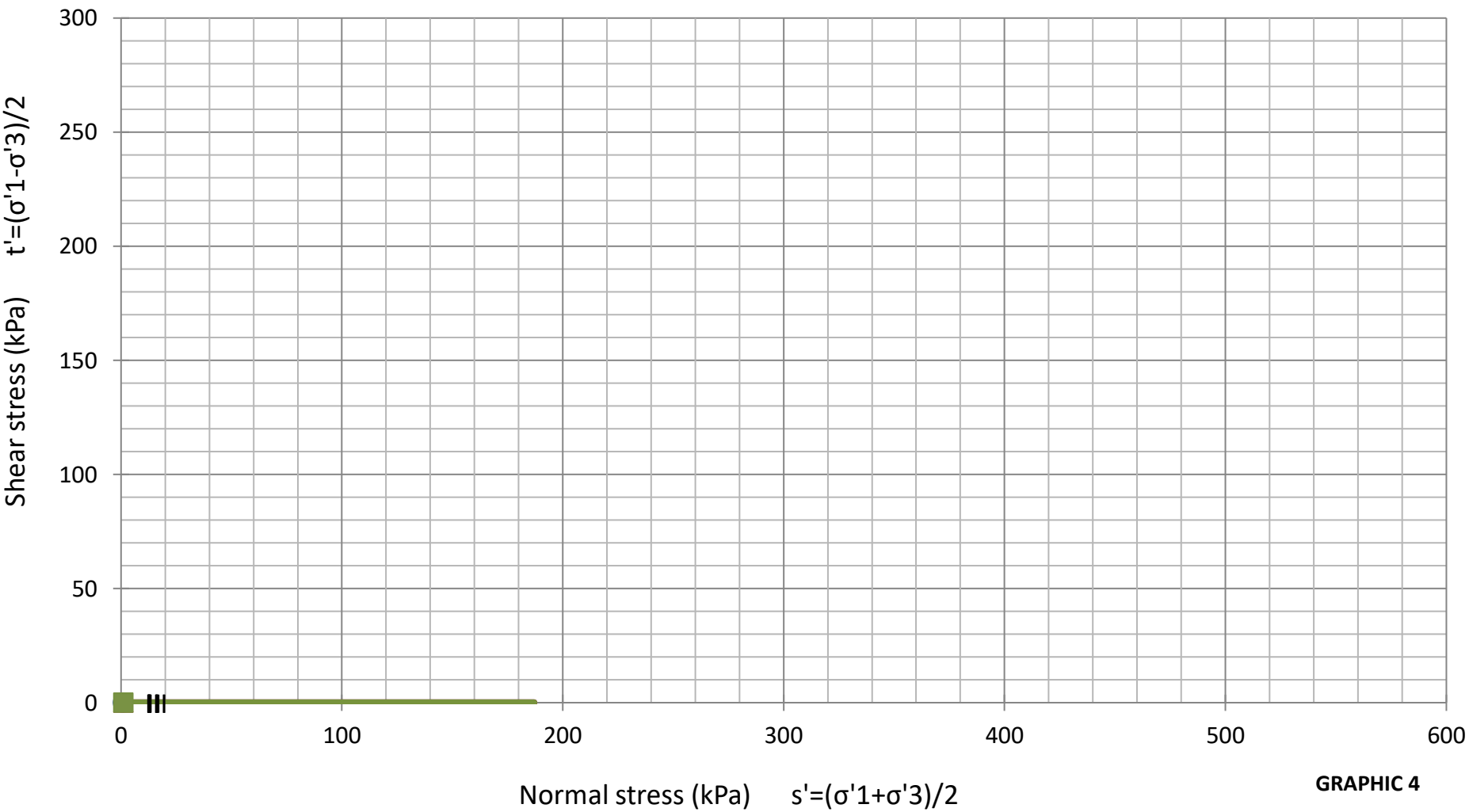
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 12$



Effective stress path parameters





Report number: 2022-6427-18537
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LOCATION: EC GI#255 SAMPLE B TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5802

Failure process data summary

	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0.023	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.904	7.1	0.3	0.0	6.8		0.009	106.8				103.4	3.4		
Cell pressure	95	1.92	15.9	0.6	0.0	15.3		0.020	115.3				107.7	7.7		
σ_3 , kPa	145	2.916	24.4	0.8	10.1	13.5		0.030	113.5				106.8	6.8		
700	195	3.934	25.0	1.1	10.1	13.8		0.041	113.8				106.9	6.9		
Back pressure	240	4.922	23.9	1.3	10.1	12.5		0.050	112.5				106.3	6.3		
u_b , kPa	290	6.002	23.7	1.6	10.1	12.0		0.061	112.0				106.0	6.0		
600	340	7.099	25.1	1.8	10.1	13.2		0.071	113.2				106.6	6.6		
σ'_3 , kPa	390	8.102	28.1	2.0	10.1	16.0		0.082	116.0				108.0	8.0		
100	440	9.087	36.8	2.2	10.1	24.5		0.092	124.5				112.3	12.3		
Rate of axial displ.	485	9.992	34.8	2.4	10.1	22.3		0.102	122.3				111.2	11.2		
mm/min	535	11.066	32.8	2.6	10.1	20.1		0.112	120.1				110.1	10.1		
0.9974	585	12.191	30.0	2.8	10.1	17.1		0.123	117.1				108.6	8.6		
	635	13.272	31.2	3.0	10.1	18.1		0.133	118.1				109.1	9.1		
	685	14.291	32.4	3.2	10.1	19.1		0.144	119.1				109.6	9.6		
	730	15.176	37.4	3.3	10.1	24.0		0.153	124.0				112.0	12.0		
	780	16.193	37.7	3.5	10.1	24.1		0.164	124.1				112.1	12.1		
	830	17.292	37.9	3.6	10.1	24.2		0.174	124.2				112.1	12.1		
	880	18.384	33.0	3.8	10.1	19.1		0.185	119.1				109.6	9.6		
	930	19.49	33.3	3.9	10.1	19.3		0.195	119.3				109.7	9.7		
Specimen	0	0.01	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.838	13.9	0.3	0.0	13.6		0.010	213.6				206.8	6.8		
Cell pressure	95	1.788	17.2	0.5	0.0	16.7		0.020	216.7				208.4	8.3		
σ_3 , kPa	145	2.787	9.4	0.8	10.0	-1.4		0.031	198.6				199.3	-0.7		
800	195	3.95	5.0	1.1	10.0	-6.1		0.041	193.9				197.0	-3.1		
Back pressure	240	4.973	8.3	1.3	10.0	-3.0		0.051	197.0				198.5	-1.5		
u_b , kPa	290	6.062	13.2	1.6	10.0	1.6		0.061	201.6				200.8	0.8		
600	340	7.056	23.6	1.8	10.0	11.8		0.072	211.8				205.9	5.9		
σ'_3 , kPa	390	8.011	30.6	2.0	10.0	18.6		0.083	218.6				209.3	9.3		
200	440	9.046	21.5	2.2	10.0	9.3		0.093	209.3				204.7	4.7		
Rate of axial displ.	485	10.068	16.5	2.4	10.0	4.1		0.103	204.1				202.1	2.1		
mm/min	535	11.211	17.1	2.6	10.0	4.5		0.113	204.5				202.3	2.3		
0.9973	585	12.312	20.0	2.8	10.0	7.2		0.124	207.2				203.6	3.6		
	635	13.329	30.4	3.0	10.0	17.4		0.134	217.4				208.7	8.7		
	685	14.293	36.0	3.1	10.0	22.9		0.145	222.9				211.5	11.5		
	730	15.209	27.4	3.3	10.0	14.1		0.155	214.1				207.1	7.1		
	780	16.315	19.0	3.4	10.0	5.6		0.165	205.6				202.8	2.8		
	830	17.47	20.2	3.6	10.0	6.6		0.176	206.6				203.3	3.3		
	880	18.578	20.7	3.7	10.0	7.0		0.186	207.0				203.5	3.5		
	930	19.598	28.2	3.9	10.0	14.3		0.197	214.3				207.2	7.2		
Specimen	0	0.004	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.92	12.2	0.3	0.0	11.9		0.009	311.9				306.0	5.9		
Cell pressure	95	1.999	19.9	0.6	0.0	19.3		0.020	319.3				309.7	9.7		
σ_3 , kPa	145	3.02	21.4	0.8	10.0	10.6		0.030	310.6				305.3	5.3		
900	195	3.989	22.0	1.1	10.0	10.9		0.040	310.9				305.5	5.4		
Back pressure	240	4.902	20.9	1.3	10.0	9.6		0.050	309.6				304.8	4.8		
u_b , kPa	290	5.988	23.2	1.5	10.0	11.7		0.060	311.7				305.9	5.8		
600	340	7.078	26.2	1.8	10.0	14.4		0.070	314.4				307.2	7.2		
σ'_3 , kPa	390	8.151	31.6	2.0	10.0	19.6		0.081	319.6				309.8	9.8		
300	440	9.167	30.5	2.2	10.0	18.3		0.091	318.3				309.2	9.2		
Rate of axial displ.	485	10.058	30.9	2.4	10.0	18.5		0.100	318.5				309.3	9.3		
mm/min	535	11.059	27.4	2.6	10.0	14.8		0.111	314.8				307.4	7.4		
0.9973	585	12.142	28.7	2.8	10.0	15.9		0.121	315.9				308.0	7.9		
	635	13.232	30.6	3.0	10.0	17.6		0.131	317.6				308.8	8.8		
	685	14.299	33.3	3.1	10.0	20.2		0.142	320.2				310.1	10.1		
	730	15.225	33.7	3.3	10.0	20.4		0.151	320.4				310.2	10.2		
	780	16.225	31.8	3.4	10.0	18.4		0.161	318.4				309.2	9.2		
	830	17.223	30.7	3.6	10.0	17.1		0.172	317.1				308.6	8.6		
	880	18.282	30.3	3.7	10.0	16.6		0.182	316.6				308.3	8.3		
	930	19.382	32.8	3.9	10.0	18.9		0.193	318.9				309.5	9.4		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE A TUBE

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5803

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#255
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

17-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

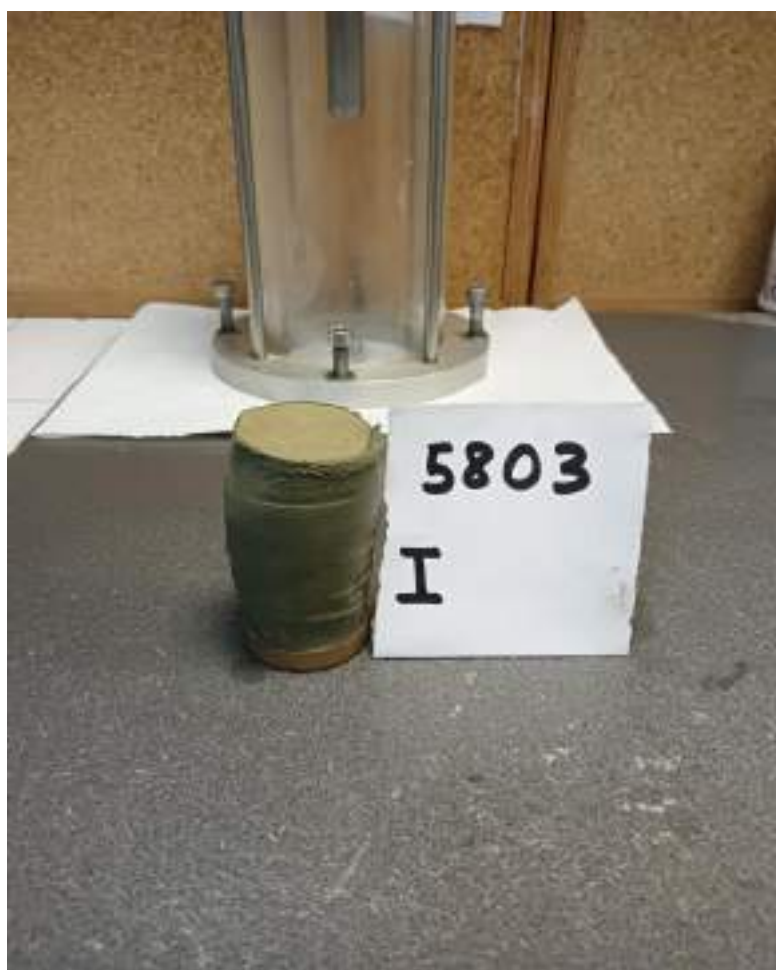
LOCATION: EC GI#255 SAMPLE A TUBE

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Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5803



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5803****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.960	8.050	7.995
Initial diameter (cm)	3.710	3.820	3.740
Initial area (cm ²)	10.810	11.461	10.986
Initial volume (cm ³)	86.048	92.261	87.833
Initial moisture content (%)	41.6	41.6	41.6
Final moisture content (%)	41.6	40.8	40.3
Initial bulk density (gr/cm ³)	1.933	1.899	1.999
Initial dry density (gr/cm ³)	1.365	1.341	1.412

Initial saturation degree (%) 100.0 100.0 100.0

Final saturation degree (%) 100.0 100.0 100.0

Particle density (gr/cm³) 2.650 (assumed)**Test data and results**

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9973	0.9973	0.9973
Major principal stress (kPa)	11.3	22.8	21.1
Failure stress (kPa)	11.3	22.8	21.1
Failure strain (%)	1.6	1.4	1.5
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test

NO

NO

NO

Failure test results

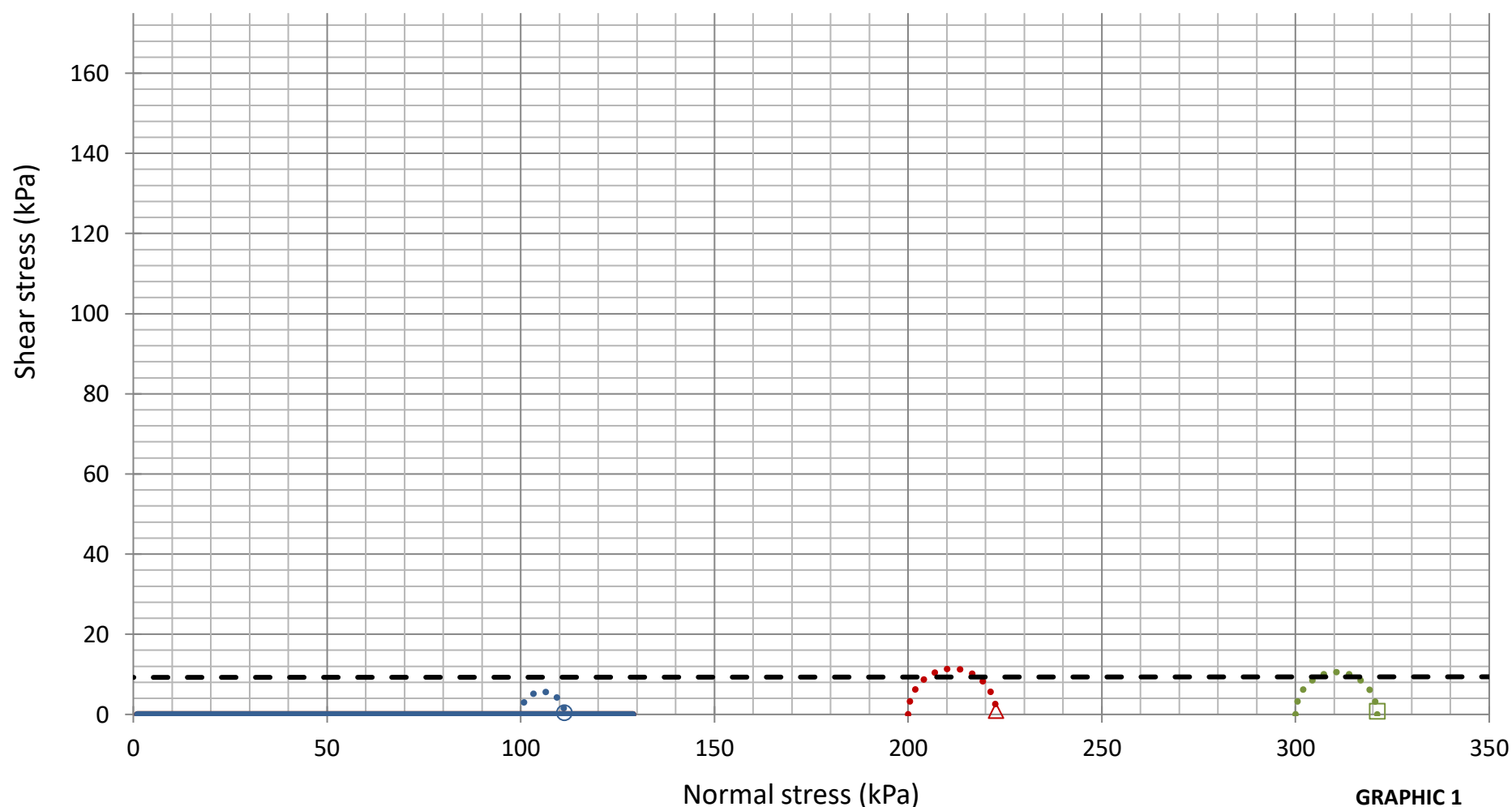
	I	II	III
Specimen number			
σ_1 (kPa)	111.3	222.8	321.1
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	5.7	11.4	10.6
$(\sigma_1 + \sigma_3)/2$ (kPa)	105.7	211.4	310.6

Estimate total

Φ_u (°)	0.0
C_u (kPa)	9
C_u (kp/cm ²)	0.09

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

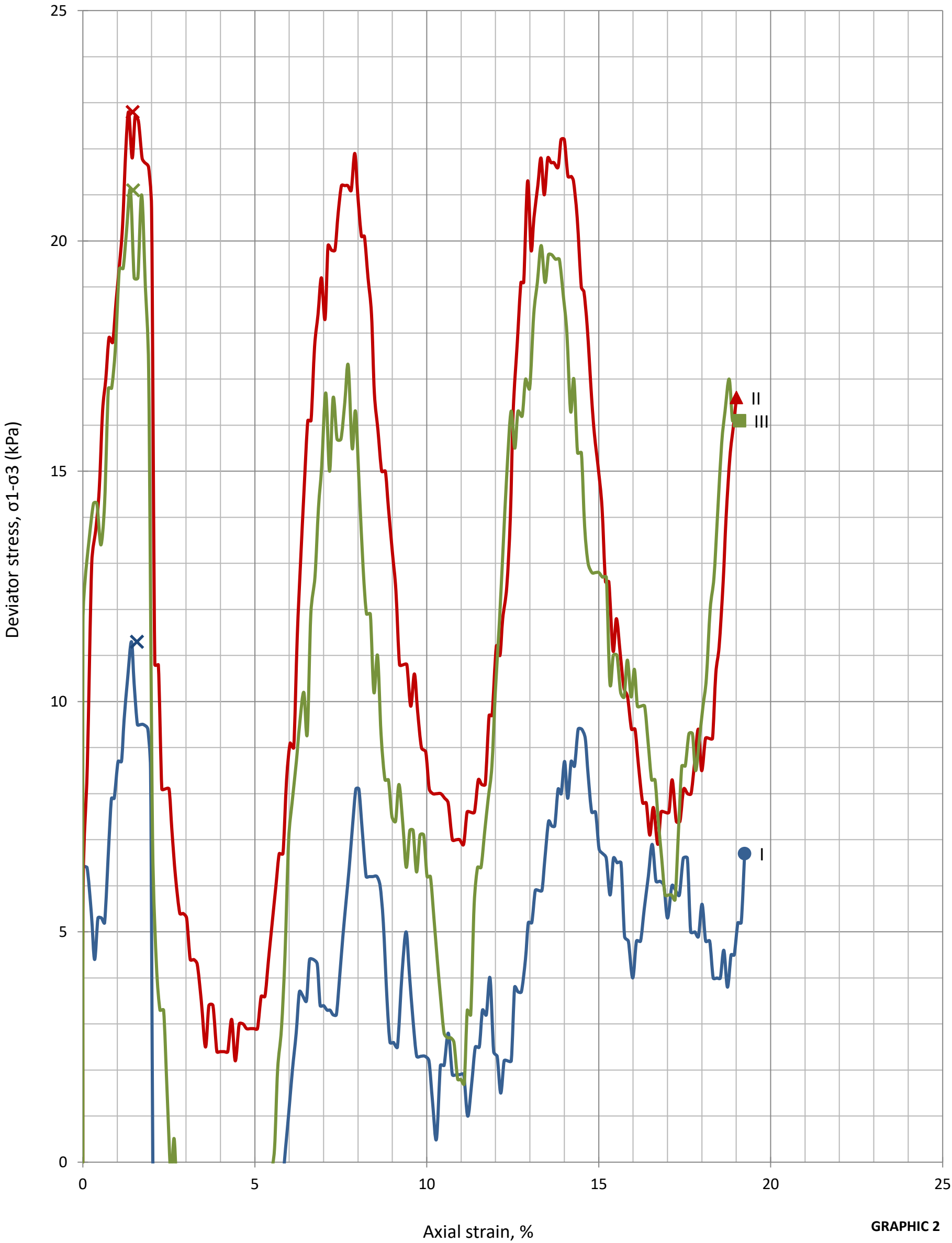
LOCATION: EC GI#255 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5803



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#255 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

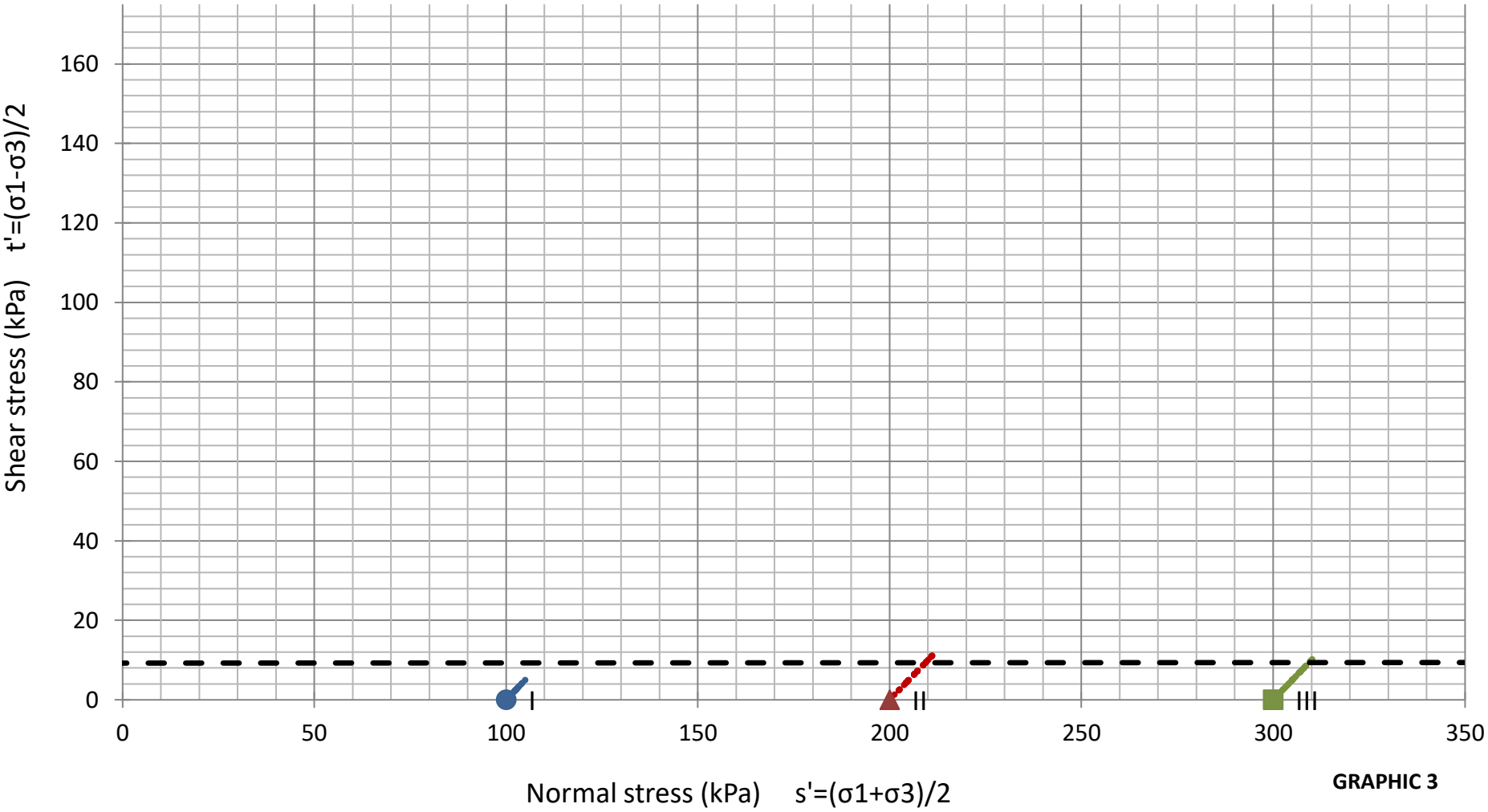
Sample reference

2022GC-5803

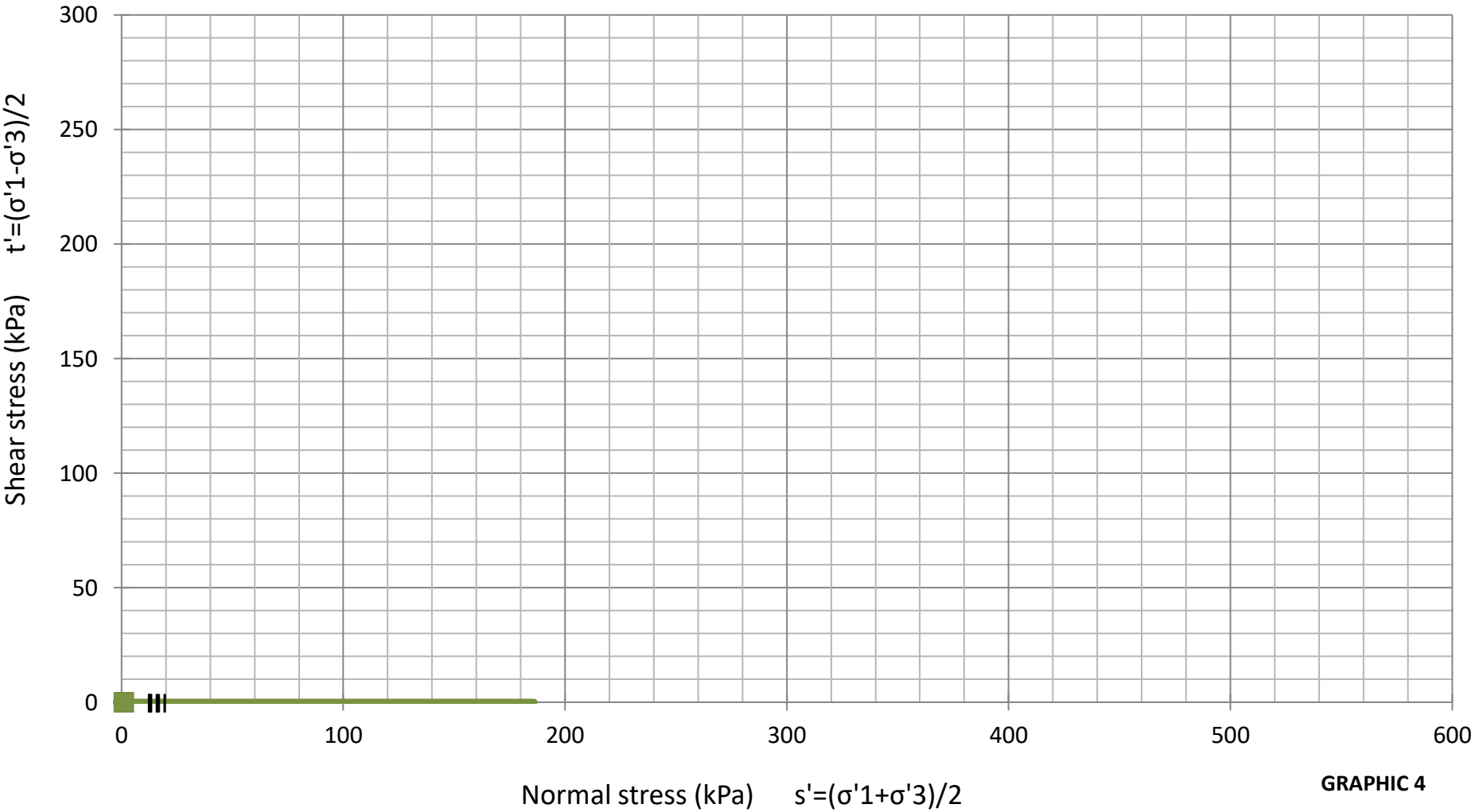
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 9$



Effective stress path parameters





Report number: 2022-6427-18537
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LOCATION: EC GI#255 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5803

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.017	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.833	8.2	0.3	0.0	7.9		0.009	107.9				104.0	4.0		
Cell pressure	95	1.762	10.0	0.5	0.0	9.5		0.020	109.5				104.8	4.8		
σ_3 , kPa	145	2.791	7.2	0.8	10.3	-3.9		0.030	96.1				98.1	-2.0		
700	190	3.804	8.9	1.1	10.3	-2.5		0.040	97.5				98.8	-1.3		
Back pressure	240	4.925	7.9	1.3	10.3	-3.7		0.050	96.3				98.2	-1.9		
u_b , kPa	290	5.991	13.0	1.6	10.3	1.1		0.061	101.1				100.6	0.5		
600	340	6.999	15.5	1.8	10.3	3.4		0.071	103.4				101.7	1.7		
σ'_3 , kPa	385	7.842	19.6	2.0	10.3	7.3		0.081	107.3				103.7	3.7		
100	435	8.847	16.0	2.2	10.3	3.5		0.091	103.5				101.8	1.8		
Rate of axial displ.	485	9.947	15.0	2.4	10.3	2.3		0.102	102.3				101.2	1.2		
mm/min	535	11.076	14.8	2.6	10.3	1.9		0.112	101.9				101.0	1.0		
0.9973	580	12.048	15.4	2.8	10.3	2.3		0.121	102.3				101.2	1.2		
	630	13.054	18.5	3.0	10.3	5.2		0.132	105.2				102.6	2.6		
	680	14.009	22.2	3.2	10.3	8.7		0.142	108.7				104.4	4.4		
	730	15.012	20.4	3.3	10.3	6.8		0.153	106.8				103.4	3.4		
	775	15.989	17.8	3.5	10.3	4.0		0.162	104.0				102.0	2.0		
	825	17.129	19.9	3.6	10.3	6.0		0.173	106.0				103.0	3.0		
	875	18.228	18.9	3.8	10.3	4.8		0.183	104.8				102.4	2.4		
	925	19.244	20.9	3.9	10.3	6.7		0.194	106.7				103.4	3.4		
Specimen	0	-0.001	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.867	18.1	0.3	0.0	17.8		0.009	217.8				208.9	8.9		
Cell pressure	95	1.8	22.2	0.5	0.0	21.7		0.020	221.7				210.9	10.9		
σ_3 , kPa	145	2.819	16.1	0.8	9.9	5.4		0.030	205.4				202.7	2.7		
800	190	3.783	14.3	1.0	9.9	3.4		0.039	203.4				201.7	1.7		
Back pressure	240	4.875	14.1	1.3	9.9	2.9		0.050	202.9				201.5	1.5		
u_b , kPa	290	5.924	19.7	1.5	9.9	8.3		0.060	208.3				204.2	4.2		
600	340	6.937	30.8	1.7	9.9	19.2		0.070	219.2				209.6	9.6		
σ'_3 , kPa	385	7.804	32.9	1.9	9.9	21.1		0.080	221.1				210.6	10.6		
200	435	8.796	27.0	2.1	9.9	15.0		0.090	215.0				207.5	7.5		
Rate of axial displ.	485	9.847	21.2	2.3	9.9	9.0		0.100	209.0				204.5	4.5		
mm/min	535	10.96	19.4	2.5	9.9	7.0		0.111	207.0				203.5	3.5		
0.9973	580	11.899	22.3	2.7	9.9	9.7		0.120	209.7				204.9	4.8		
	630	12.934	34.1	2.9	9.9	21.3		0.130	221.3				210.7	10.7		
	680	13.905	35.2	3.1	9.9	22.2		0.141	222.2				211.1	11.1		
	730	14.877	28.9	3.2	9.9	15.8		0.151	215.8				207.9	7.9		
	775	15.84	23.4	3.4	9.9	10.1		0.160	210.1				205.1	5.1		
	825	16.918	21.0	3.5	9.9	7.6		0.171	207.6				203.8	3.8		
	875	17.994	22.1	3.7	9.9	8.5		0.181	208.5				204.3	4.3		
	925	19.007	30.3	3.8	9.9	16.6		0.192	216.6				208.3	8.3		
Specimen	0	0.001	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.835	17.1	0.3	0.0	16.8		0.009	316.8				308.4	8.4		
Cell pressure	95	1.913	17.8	0.6	0.0	17.2		0.020	317.2				308.6	8.6		
σ_3 , kPa	145	2.959	10.6	0.8	10.2	-0.4		0.030	299.6				299.8	-0.2		
900	190	3.868	8.7	1.1	10.2	-2.6		0.040	297.4				298.7	-1.3		
Back pressure	240	4.867	5.2	1.3	10.2	-6.3		0.050	293.7				296.9	-3.2		
u_b , kPa	290	5.878	16.2	1.5	10.2	4.5		0.060	304.5				302.3	2.3		
600	340	6.945	27.1	1.8	10.2	15.1		0.071	315.1				307.6	7.6		
σ'_3 , kPa	385	7.929	28.5	2.0	10.2	16.3		0.080	316.3				308.2	8.2		
300	435	8.989	19.9	2.2	10.2	7.5		0.091	307.5				303.8	3.8		
Rate of axial displ.	485	10.01	18.8	2.4	10.2	6.2		0.101	306.2				303.1	3.1		
mm/min	535	10.991	14.6	2.6	10.2	1.8		0.112	301.8				300.9	0.9		
0.9973	580	11.895	21.6	2.8	10.2	8.6		0.121	308.6				304.3	4.3		
	630	12.993	30.0	3.0	10.2	16.8		0.131	316.8				308.4	8.4		
	680	14.075	31.3	3.1	10.2	18.0		0.142	318.0				309.0	9.0		
	730	15.113	26.2	3.3	10.2	12.7		0.152	312.7				306.4	6.3		
	775	16.037	24.4	3.5	10.2	10.7		0.162	310.7				305.4	5.3		
	825	17.03	19.6	3.6	10.2	5.8		0.172	305.8				302.9	2.9		
	875	18.033	23.8	3.7	10.2	9.9		0.182	309.9				305.0	4.9		
	925	19.093	30.2	3.9	10.2	16.1		0.192	316.1				308.1	8.1		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE A TUBE

1 / 6

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5804

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#103
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

17-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

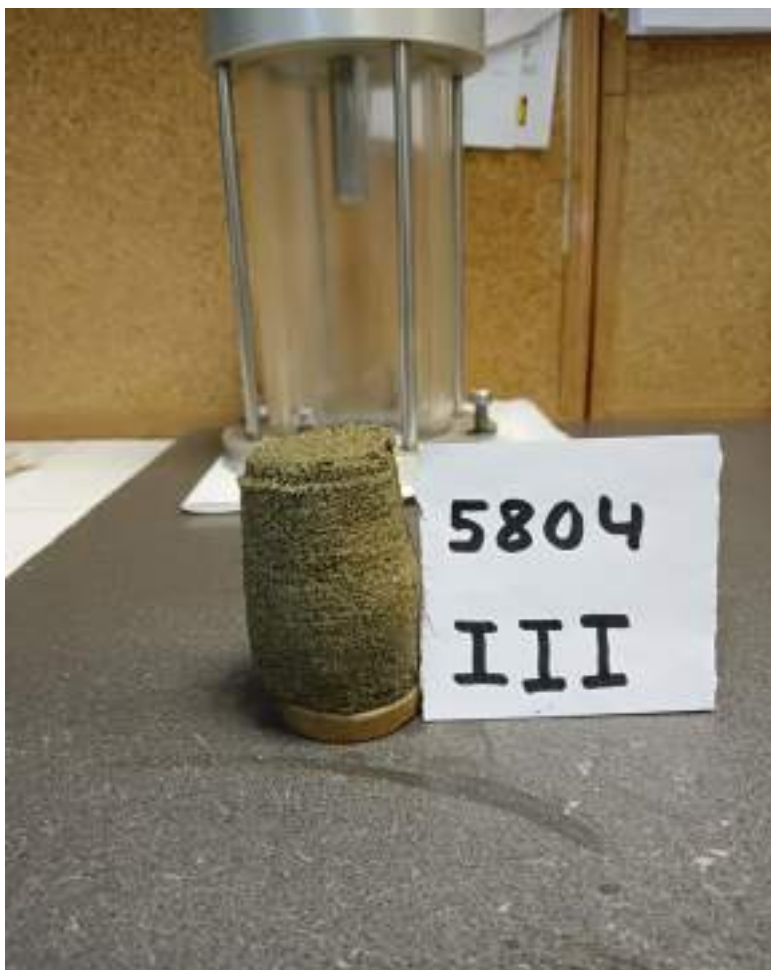
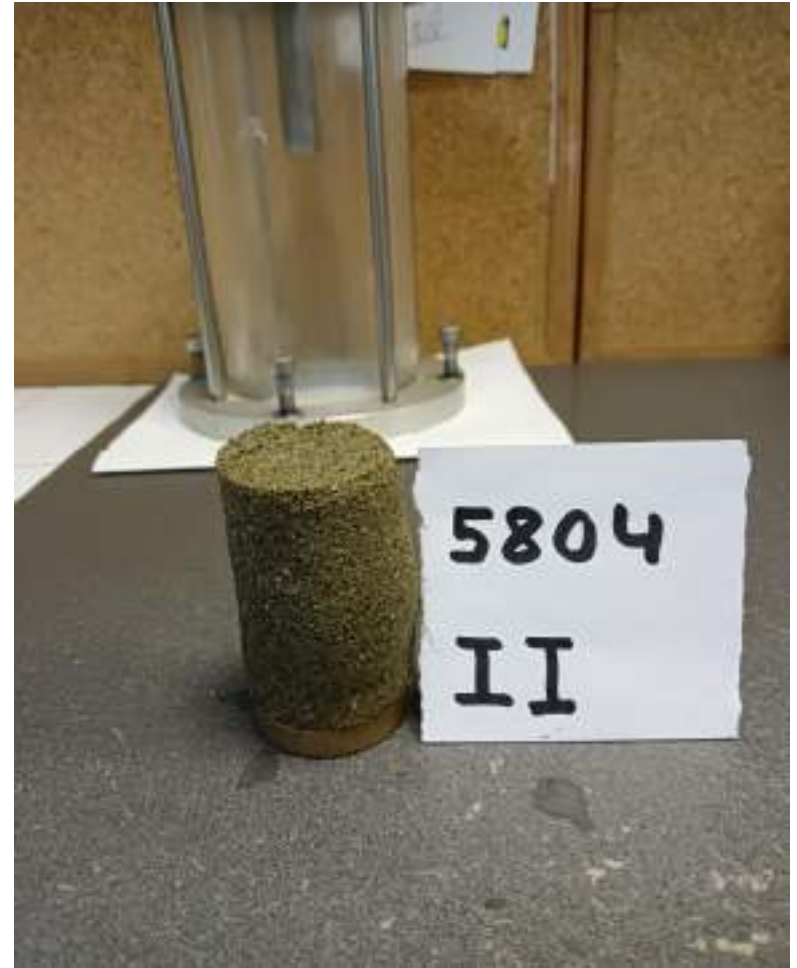
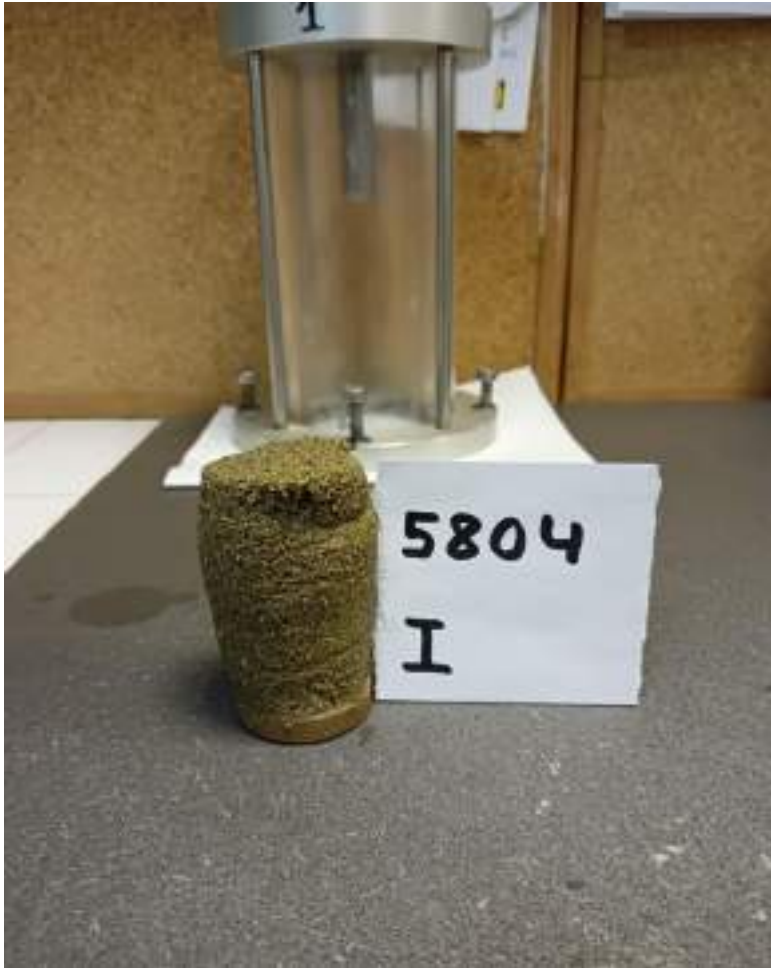
LOCATION: EC GI#103 SAMPLE A TUBE

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PHOTOGRAPHIC ANNEX -

Sample reference

2022GC-5804



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5804****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	8.010	7.990	7.870
Initial diameter (cm)	3.910	3.810	3.920
Initial area (cm ²)	12.007	11.401	12.069
Initial volume (cm ³)	96.176	91.094	94.983
Initial moisture content (%)	15.0	15.0	15.0
Final moisture content (%)	18.1	17.2	19.1
Initial bulk density (gr/cm ³)	2.165	2.203	2.105
Initial dry density (gr/cm ³)	1.883	1.916	1.830

Initial saturation degree (%)	97.6	100.0	88.7
Final saturation degree (%)	100.0	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9974	0.9974
Major principal stress (kPa)	2404.3	2424.2	3135.9
Failure stress (kPa)	2404.3	2424.2	3135.9
Failure strain (%)	9.6	10.5	11.5
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

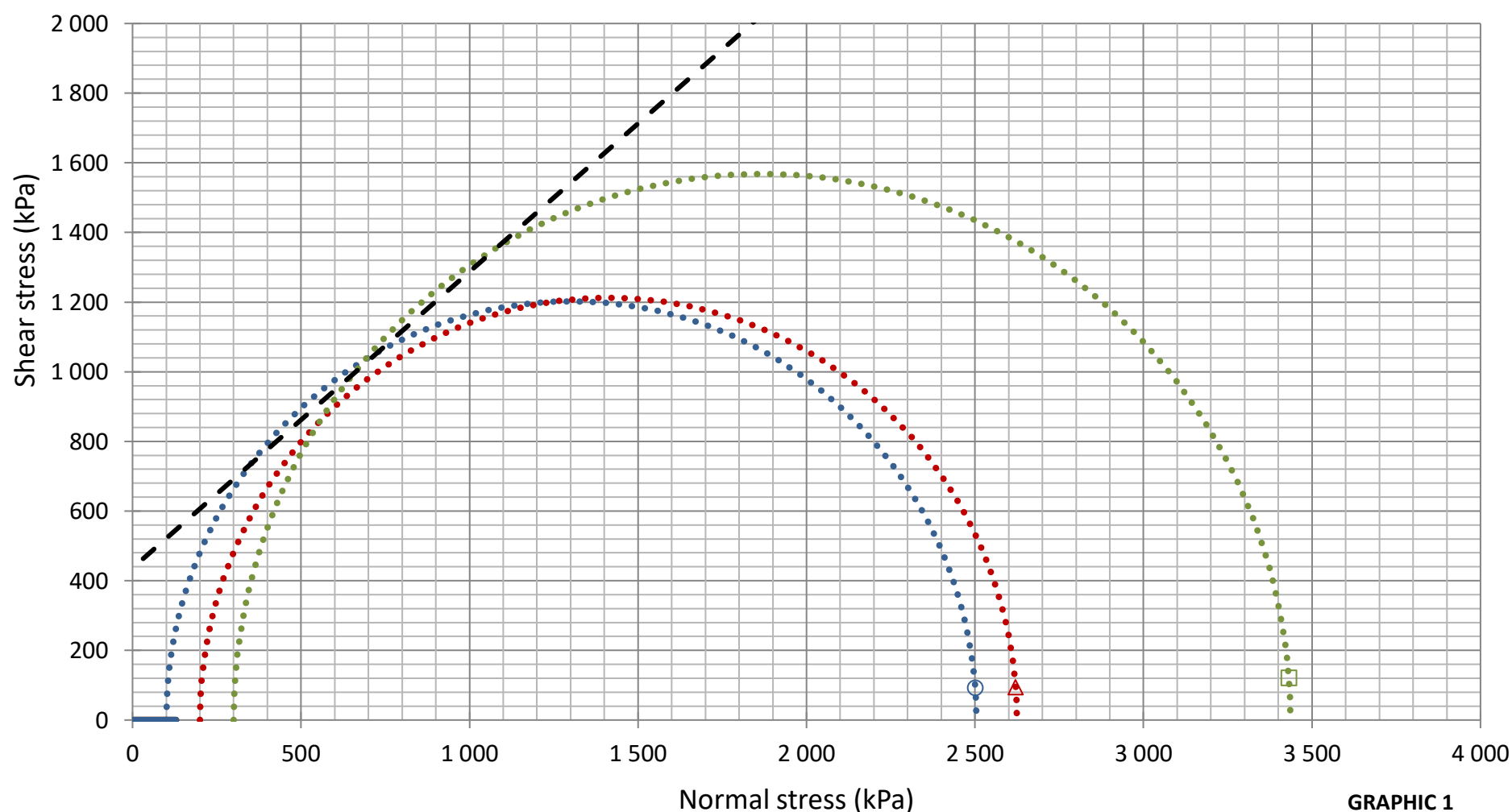
Specimen number	I	II	III
σ_1 (kPa)	2504.3	2624.2	3435.9
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	1202.2	1212.1	1568.0
$(\sigma_1 + \sigma_3)/2$ (kPa)	1302.2	1412.1	1868.0

Estimate total

Φ_u (°)	40.4
C_u (kPa)	436
C_u (kp/cm ²)	4.45

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

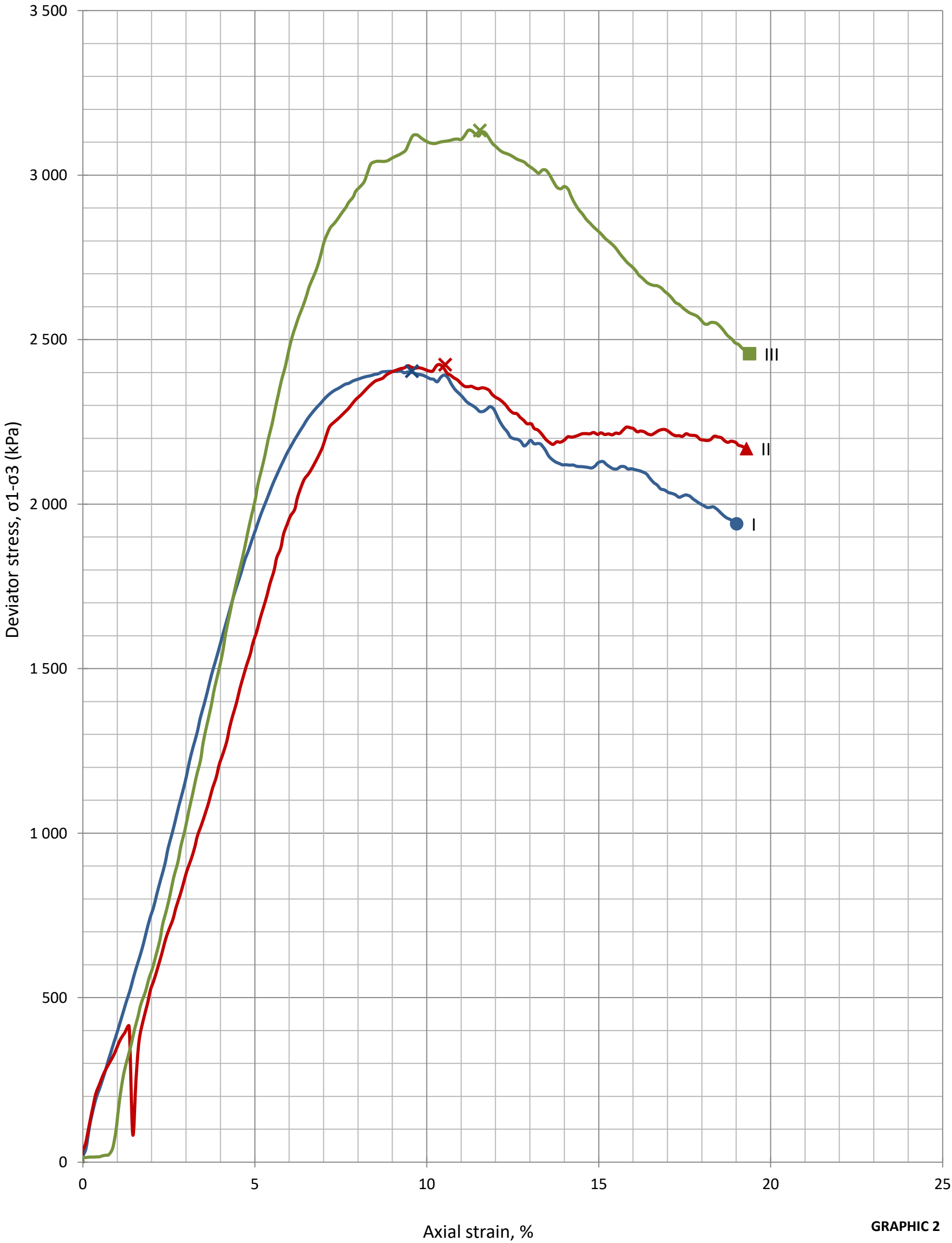
LOCATION: EC GI#103 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5804



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

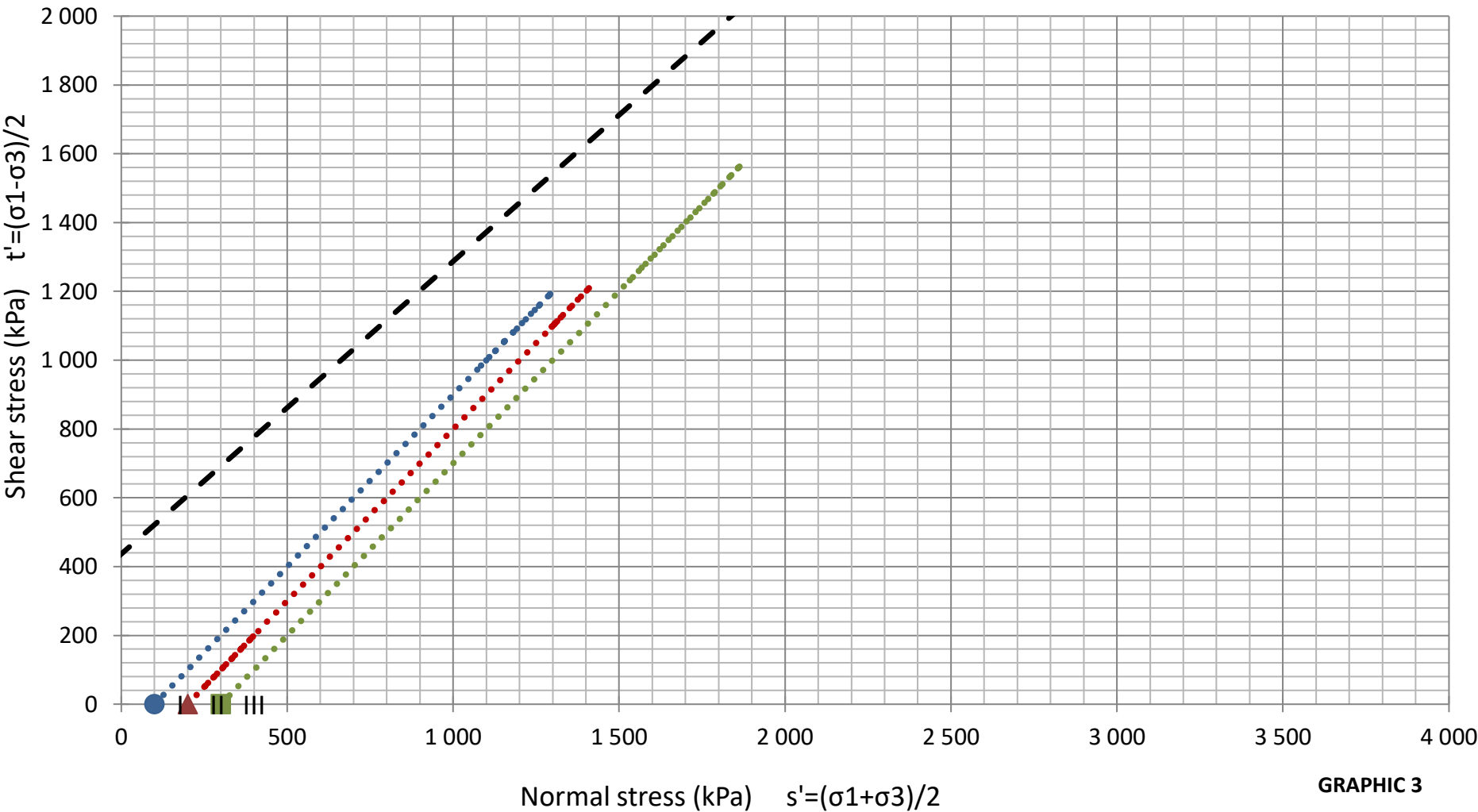
Sample reference

2022GC-5804

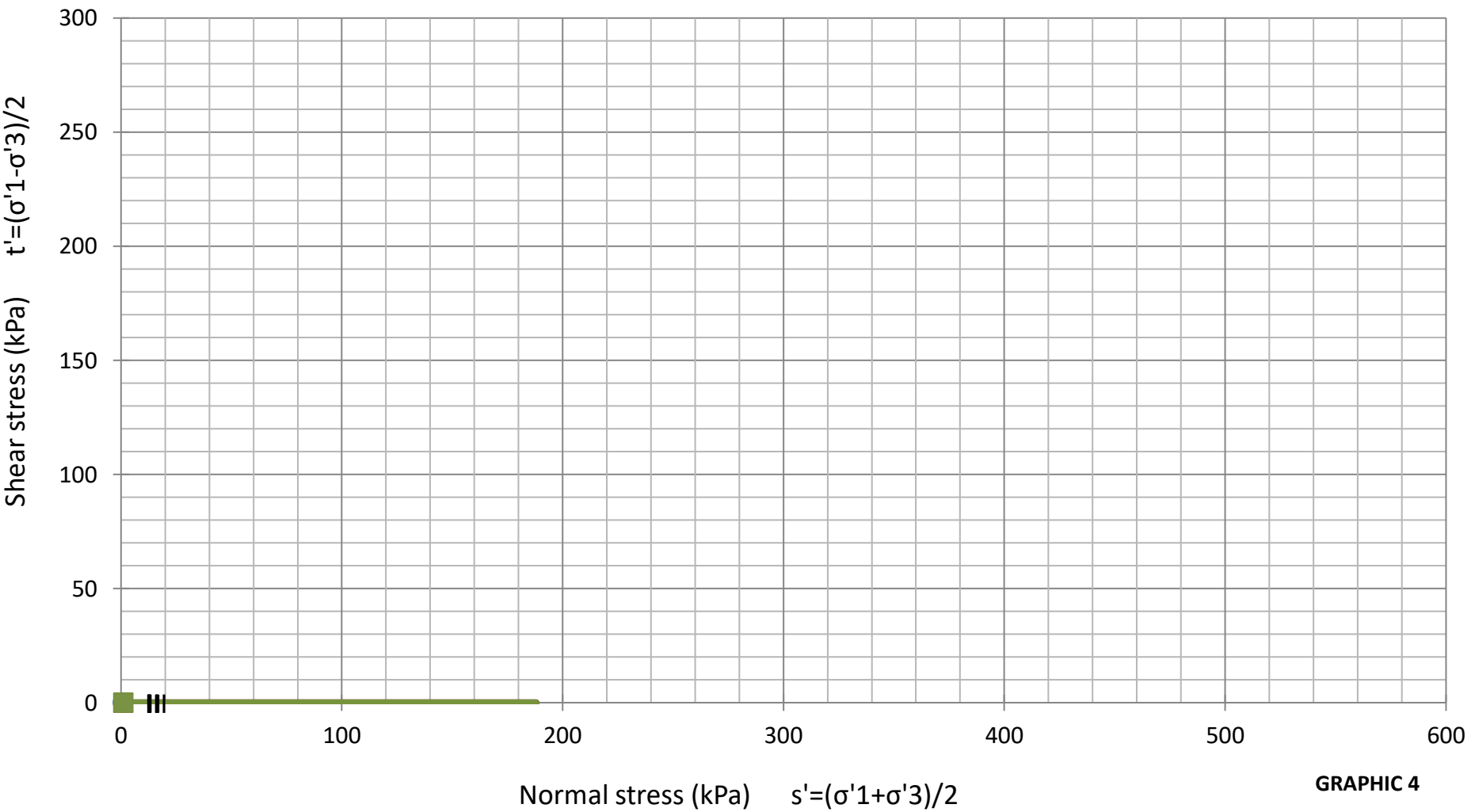
Total stress path parameters

$\Phi_u (^{\circ}) = 40.4$

$C_u \text{ (kPa)} = 436$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5804

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.735	307.8	0.3	0.0	307.5		0.009	407.5				253.8	153.8		
Cell pressure	95	1.66	627.0	0.5	0.0	626.5		0.020	726.5				413.3	313.3		
σ_3 , kPa	145	2.691	1049.3	0.7	9.6	1039.0		0.030	1139.0				619.5	519.5		
700	195	3.739	1491.1	1.0	9.6	1480.5		0.041	1580.5				840.3	740.3		
Back pressure	245	4.816	1870.1	1.2	9.6	1859.3		0.051	1959.3				1029.7	929.7		
u_b , kPa	295	5.834	2143.6	1.5	9.6	2132.5		0.061	2232.5				1166.3	1066.3		
600	340	6.713	2294.8	1.7	9.6	2283.5		0.071	2383.5				1241.8	1141.8		
σ'_3 , kPa	390	7.742	2379.3	1.9	9.6	2367.8		0.081	2467.8				1283.9	1183.9		
100	440	8.8	2414.4	2.1	9.6	2402.7		0.092	2502.7				1301.4	1201.4		
Rate of axial displ.	490	9.884	2403.9	2.3	9.6	2392.0		0.102	2492.0				1296.0	1196.0		
mm/min	540	10.923	2350.2	2.5	9.6	2338.1		0.112	2438.1				1269.1	1169.1		
0.9974	590	11.946	2301.5	2.7	9.6	2289.2		0.123	2389.2				1244.6	1144.6		
	635	12.831	2189.4	2.8	9.6	2177.0		0.132	2277.0				1188.5	1088.5		
	685	13.856	2136.1	3.0	9.6	2123.5		0.143	2223.5				1161.8	1061.8		
	735	14.894	2128.5	3.1	9.6	2115.8		0.153	2215.8				1157.9	1057.9		
	785	15.953	2120.5	3.3	9.6	2107.6		0.163	2207.6				1153.8	1053.8		
	835	17.024	2048.7	3.4	9.6	2035.7		0.174	2135.7				1117.9	1017.9		
	885	18.033	2010.0	3.6	9.6	1996.8		0.184	2096.8				1098.4	998.4		
	935	19.015	1953.5	3.7	9.6	1940.2		0.195	2040.2				1070.1	970.1		
Specimen	0	-0.004	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.802	307.6	0.3	0.0	307.3		0.009	507.3				353.7	153.7		
Cell pressure	95	1.879	482.3	0.6	0.0	481.7		0.020	681.7				440.9	240.9		
σ_3 , kPa	145	2.933	861.7	0.8	10.0	850.9		0.030	1050.9				625.5	425.5		
800	195	3.964	1219.3	1.1	10.0	1208.2		0.041	1408.2				804.1	604.1		
Back pressure	245	4.946	1589.7	1.3	10.0	1578.4		0.051	1778.4				989.2	789.2		
u_b , kPa	295	5.947	1951.7	1.5	10.0	1940.2		0.062	2140.2				1170.1	970.1		
600	340	6.877	2163.7	1.7	10.0	2152.0		0.071	2352.0				1276.0	1076.0		
σ'_3 , kPa	390	7.955	2332.0	2.0	10.0	2320.0		0.081	2520.0				1360.0	1160.0		
200	440	9.031	2416.2	2.2	10.0	2404.0		0.092	2604.0				1402.0	1202.0		
Rate of axial displ.	490	10.081	2416.8	2.4	10.0	2404.4		0.102	2604.4				1402.2	1202.2		
mm/min	540	11.101	2370.8	2.6	10.0	2358.2		0.113	2558.2				1379.1	1179.1		
0.9974	590	12.1	2332.2	2.8	10.0	2319.4		0.123	2519.4				1359.7	1159.7		
	635	13.041	2257.0	2.9	10.0	2244.1		0.132	2444.1				1322.1	1122.1		
	685	14.104	2217.8	3.1	10.0	2204.7		0.143	2404.7				1302.4	1102.4		
	735	15.176	2225.0	3.3	10.0	2211.7		0.153	2411.7				1305.9	1105.9		
	785	16.222	2235.7	3.4	10.0	2222.3		0.164	2422.3				1311.2	1111.2		
	835	17.239	2221.6	3.6	10.0	2208.0		0.174	2408.0				1304.0	1104.0		
	885	18.253	2210.0	3.7	10.0	2196.3		0.185	2396.3				1298.2	1098.2		
	935	19.296	2182.4	3.8	10.0	2168.6		0.195	2368.6				1284.3	1084.3		
Specimen	0	-0.014	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.752	23.0	0.3	0.0	22.7		0.010	322.7				311.4	11.4		
Cell pressure	95	1.685	479.8	0.5	0.0	479.3		0.020	779.3				539.7	239.7		
σ_3 , kPa	145	2.764	922.8	0.8	9.6	912.4		0.031	1212.4				756.2	456.2		
900	195	3.822	1448.2	1.0	9.6	1437.6		0.041	1737.6				1018.8	718.8		
Back pressure	245	4.905	1976.6	1.3	9.6	1965.7		0.052	2265.7				1282.9	982.9		
u_b , kPa	295	5.895	2433.0	1.5	9.6	2421.9		0.062	2721.9				1511.0	1211.0		
600	340	6.818	2732.8	1.7	9.6	2721.5		0.072	3021.5				1660.8	1360.8		
σ'_3 , kPa	390	7.86	2944.9	1.9	9.6	2933.4		0.083	3233.4				1766.7	1466.7		
300	440	8.943	3060.4	2.1	9.6	3048.7		0.093	3348.7				1824.4	1524.4		
Rate of axial displ.	490	10.05	3111.5	2.3	9.6	3099.6		0.104	3399.6				1849.8	1549.8		
mm/min	540	11.095	3131.3	2.5	9.6	3119.2		0.114	3419.2				1859.6	1559.6		
0.9974	590	12.115	3088.8	2.7	9.6	3076.5		0.125	3376.5				1838.3	1538.3		
	635	13.055	3034.3	2.8	9.6	3021.9		0.134	3321.9				1811.0	1511.0		
	685	14.113	2969.6	3.0	9.6	2957.0		0.145	3257.0				1778.5	1478.5		
	735	15.184	2820.8	3.2	9.6	2808.0		0.156	3108.0				1704.0	1404.0		
	785	16.271	2699.8	3.3	9.6	2686.9		0.166	2986.9				1643.5	1343.5		
	835	17.343	2619.8	3.5	9.6	2606.7		0.177	2906.7				1603.4	1303.4		
	885	18.358	2565.2	3.6	9.6	2552.0		0.187	2852.0				1576.0	1276.0		
	935	19.389	2470.7	3.7	9.6	2457.4		0.198	2757.4				1528.7	1228.7		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE B TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5805

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#103
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

6-10-22
MOHAMED YAAKOUBI
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#103 SAMPLE B TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5805

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

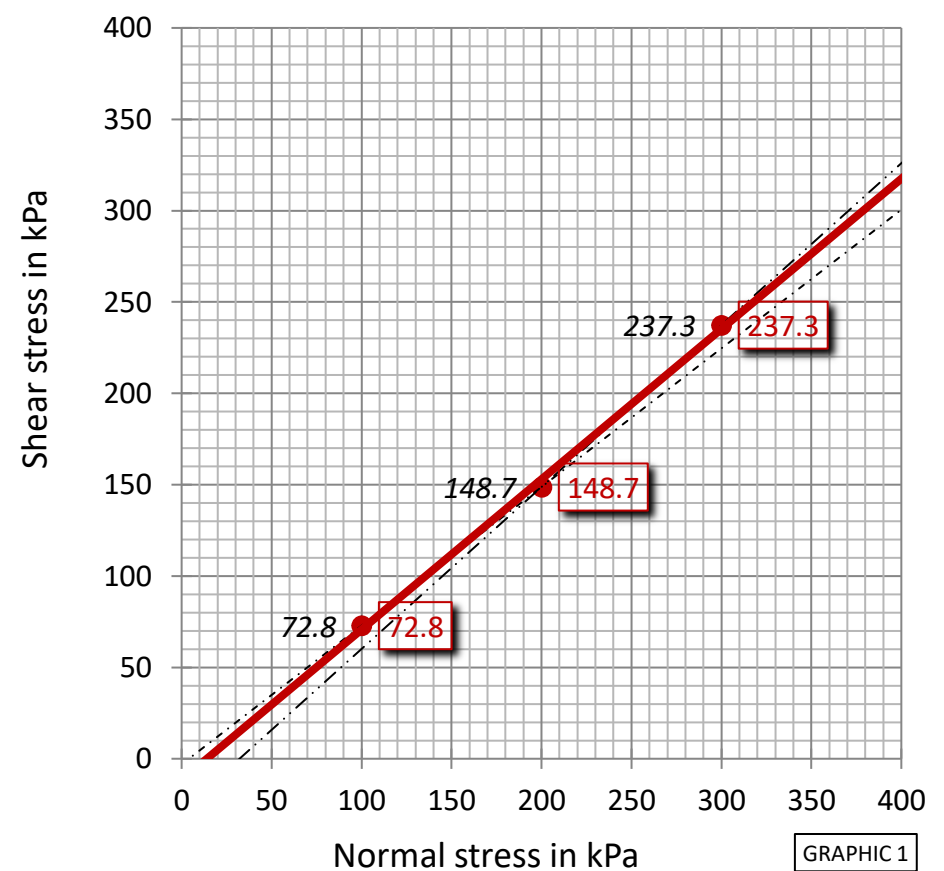
Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300			
Initial area (cm ²)	19.635	19.635	19.635			
Corr. final area (cm ²)(*)	16.412	15.604	15.580			
Initial volume (cm ³)	46.99	47.58	46.99			
Initial moisture (%)	20.6	20.6	20.6			
Final moisture (%)	22.2	21.7	21.6			
Initial bulk density (gr/cm ³)	2.082	2.078	2.084			
Initial dry density (gr/cm ³)	1.726	1.723	1.728			
Prior consolidation (mm)	0.000	0.000	0.000			
Final consolidation (mm)	0.891	1.763	2.030			
Initial voids ratio	0.5353	0.5380	0.5336			
Voids ratio at end prior consol.	0.5353	0.5380	0.5336			
Voids ratio at end of test	0.4781	0.4261	0.4035			
Initial saturation degree (%)	100.00	100.00	100.00			
Final saturation degree (%)	100.00	100.00	100.00			
Max. shear stress (KPa)	72.8	148.7	237.3			
Shear stress applied (KPa)	72.8	148.7	237.3			
Horizontal speed (mm/min)	0.95319	0.97110	0.95193			
Particle density (g/cm ³)	2.650 (assumed)					

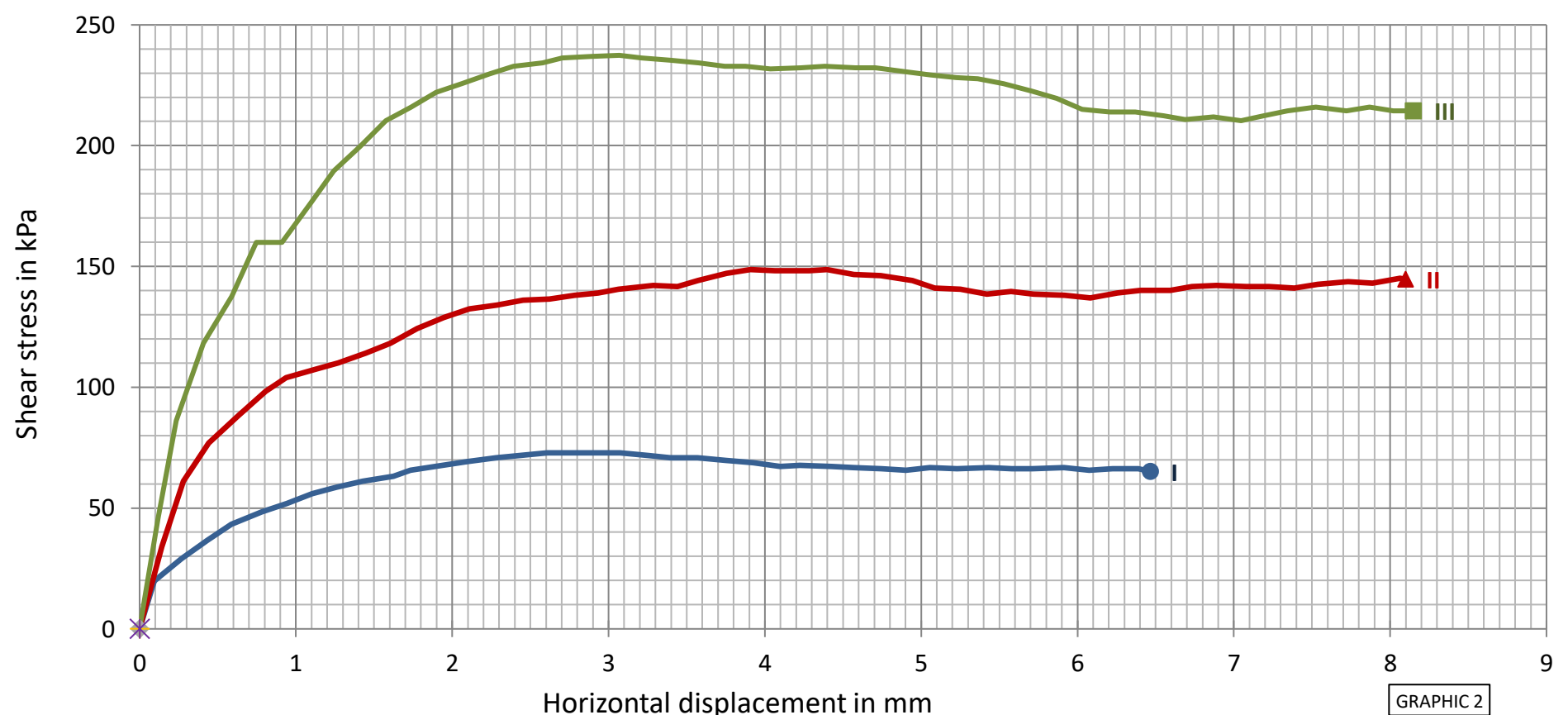


(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

	LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
Shear angle (°)	39.4	39.4	37.2	41.6	
Cohesion (kPa)	0.0	0.0	0.0	0.0	
(kp/cm ²)	0.00	0.00	0.00	0.00	



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 03/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#179A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5806

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#179A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

26-9-22
LUÍS MOSCOSO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to EN ISO criteria

Depth
m

Observations

P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#179A SAMPLE A TUBE

2 / 2

Sample reference

DETERMINATION OF PARTICLE SIZE DISTRIBUTION (SIEVING METHOD) - UNE 103101/95**2022GC-5806**

Equipment			Curvature coeff.(Cc)		Results						
STANDARD SIEVE SERIES PROETI BALANCE GIBERTINI EU-1700 FORN DE DESSECACIÓ ETI-P0228			0.895		Sieves		Retained sieves			Passing total sample	
					Nº	Opening mm	Partial g	Total g	Total %	g	%
					Nº4	5		0.00	0.0	461.90	100.0
					Nº10	2		0.03	0.0	461.87	100.0
					Nº16	1.25	0.07		0.1	461.40	99.9
					Nº40	0.4	0.18		0.4	460.17	99.6
					Nº100	0.16	37.52		55.6	205.28	44.4
					Nº200	0.08	22.53		88.7	52.23	11.3
Previous calculations			Uniformity coeff. (Cu) 2.964								
Predrying temperature (°C)					ASTM-D 2487						
Total dried sample (g)											
M. > 20 mm, washed and dried total (g)					EN ISO 14688						
M. < 20 mm, dried tested (g)											
M. 20-2 mm, washed and dried (g)											
M. 20-2 mm, washed and dried total (g)											
M. > 2mm, washed and dried (g)											
M. < 2 mm, dried tested (g)											
M. < 2 mm, dried tested (g)											
M. < 2 mm, dried total (g)											
Total dried sample (g)											
Hygrosc. moisture, % (fraction<2 mm)											
Corr. parameter, f (fraction<2 mm)											
Corr. parameter, f2 (fraction<2 mm)											
Soil type according to ASTM-D 2487					Soil type according EN ISO 14688						
% COBBLES > 75 mm			0.0		% COBBLES > 63 mm						
% GRAVEL					% GRAVEL						
Coarse 75-19 mm			0.0		Coarse 63-20 mm						
Fine 19-4.75 mm			0.0		Medium 20-6.3 mm						
0.0					Fine 6.3-2 mm						
% SAND					% SAND						
Coarse 4.75-2 mm			0.0		Coarse 2-0.63 mm						
4.75-0.075 mm			0.4		Medium 0.63-0.2 mm						
90.8					Fine 0.2-0.063 mm						
% FINE < 0.075 mm			9.2		% FINE < 0.063 mm						
					4.3						
Soil type according to ASTM-D 2487											
COBBLES GRAVEL SAND SILT CLAY COLL											
Soil type according EN ISO 14688											
COBBLES GRAVEL SAND SILT CLAY											
REMARKS											

Analyst: LUÍS MOSCOSO

Code: RG-A-0020 V0

Test final date: 29/09/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5807

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#253
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

1
1.2
TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-9-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG	1	
	1.2	

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

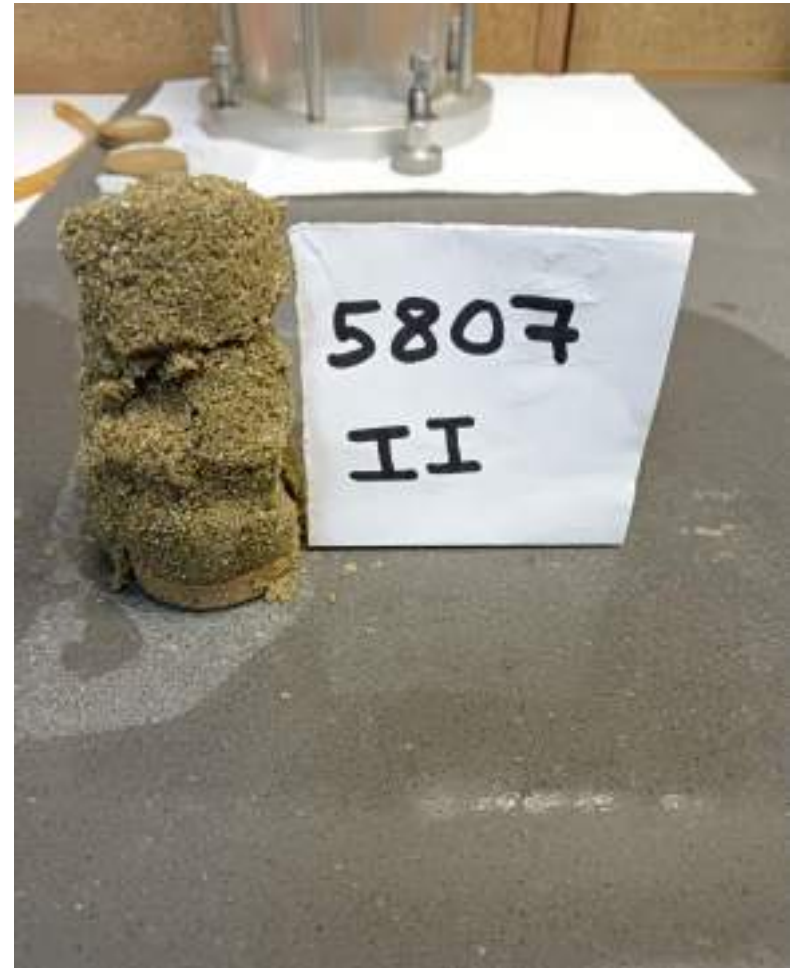
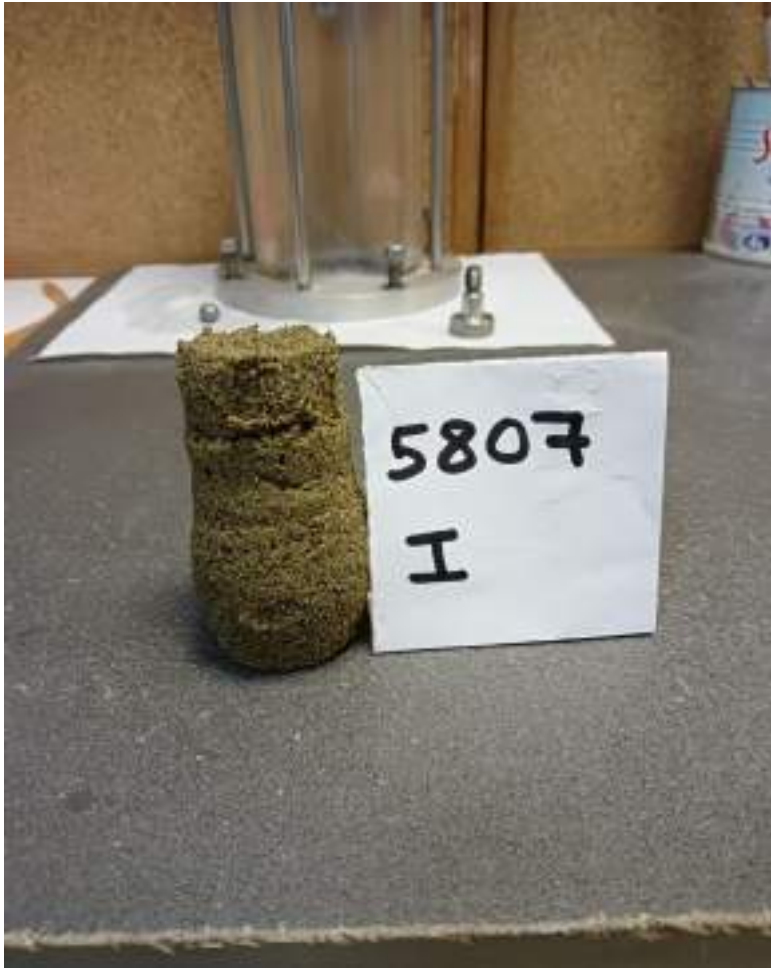
LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

2 / 6

Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5807



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

3 / 6

Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5807****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Test type

Unconsolidated Undrained (UU)

Soil conditions

UNDISTURBED

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.640	7.655	7.645
Initial diameter (cm)	3.760	3.760	3.760
Initial area (cm ²)	11.104	11.104	11.104
Initial volume (cm ³)	84.835	85.001	84.890
Initial moisture content (%)	10.9	10.9	10.9
Final moisture content (%)	19.2	17.8	18.7
Initial bulk density (gr/cm ³)	2.071	2.082	2.109
Initial dry density (gr/cm ³)	1.867	1.877	1.902

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

Specimen number	I	II	III
σ_1 (kPa)	635.4	1165.2	1210.2
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	267.7	482.6	455.1
$(\sigma_1 + \sigma_3)/2$ (kPa)	367.7	682.6	755.1

Initial saturation degree (%)	68.9	70.1	73.4
Final saturation degree (%)	100.0	100.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

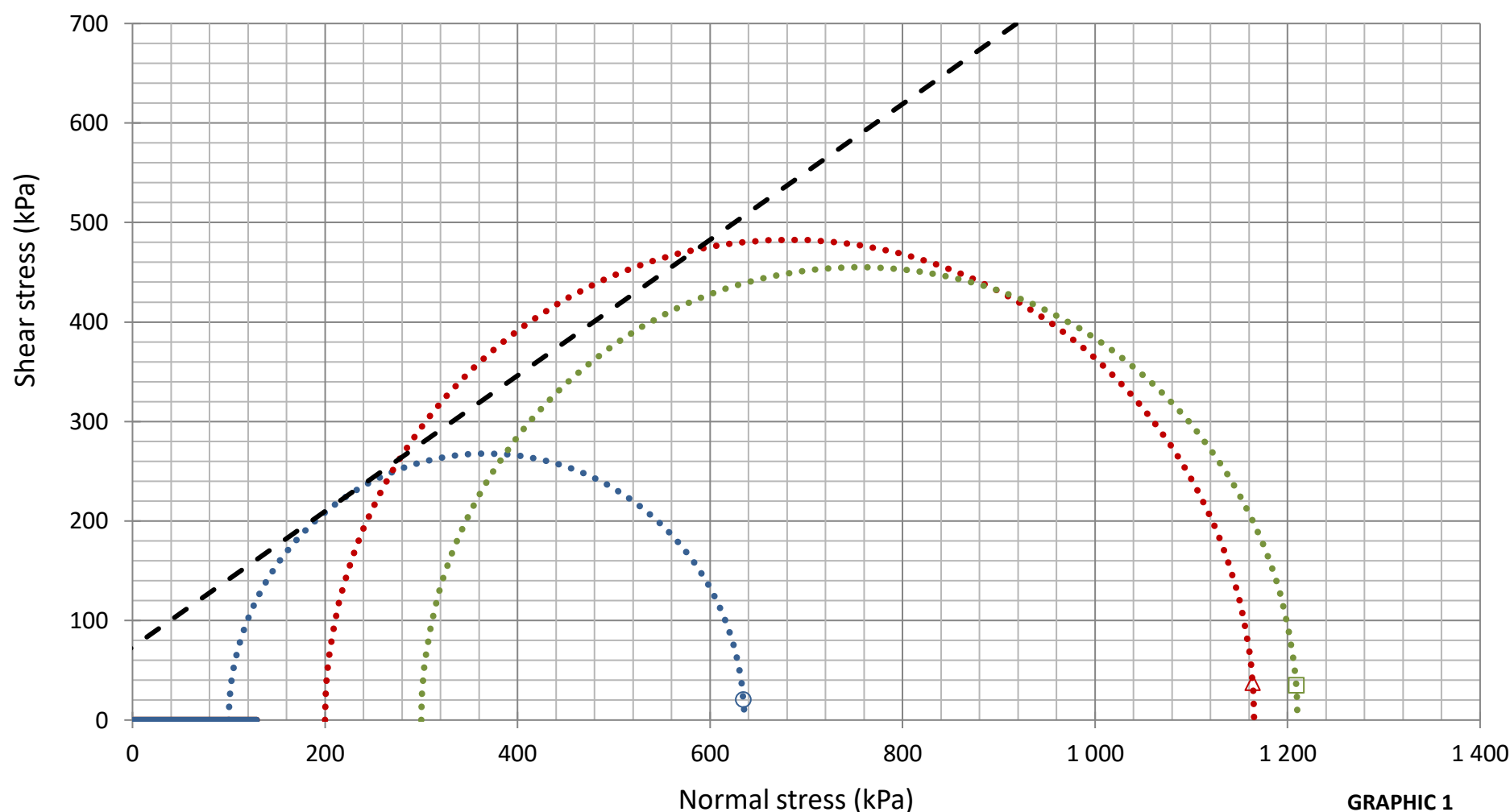
Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9974	0.9974
Major principal stress (kPa)	535.4	965.2	910.2
Failure stress (kPa)	535.4	965.2	910.2
Failure strain (%)	19.3	17.5	19.1
Pore pressure, u_f (kPa)			

Estimate total

Φ_u (°)	34.3
C_u (kPa)	74
C_u (kp/cm ²)	0.75

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

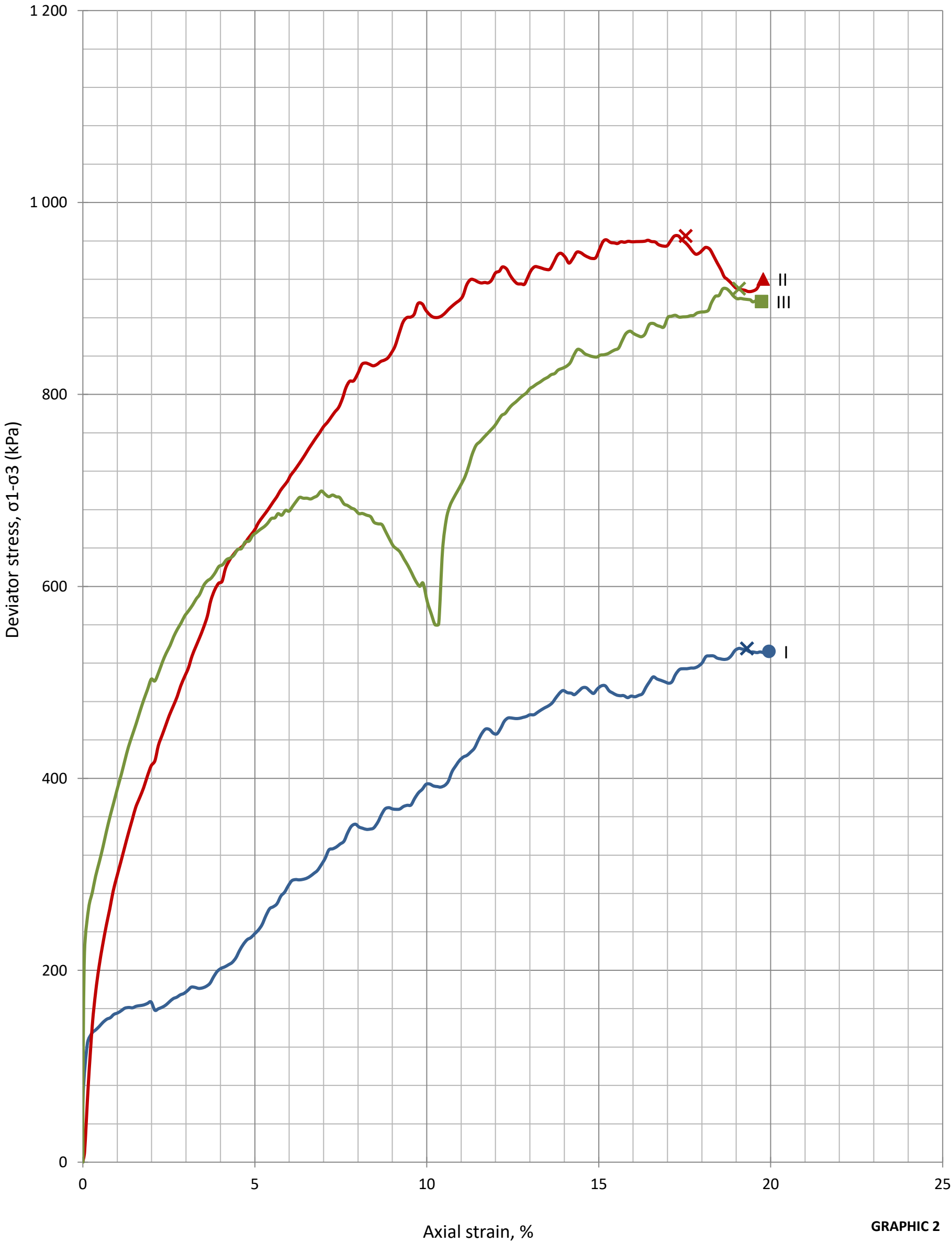
LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5807



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

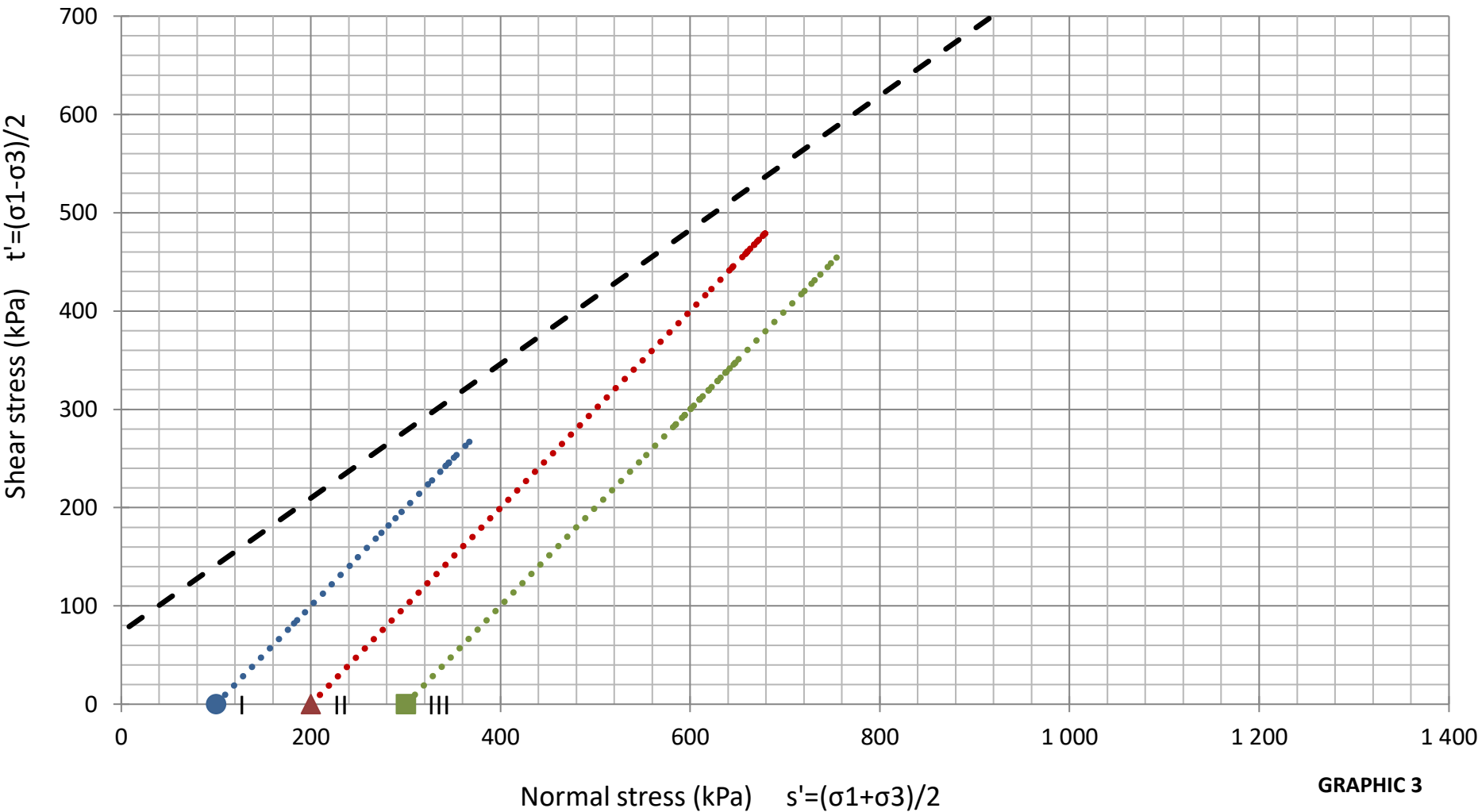
Sample reference

2022GC-5807

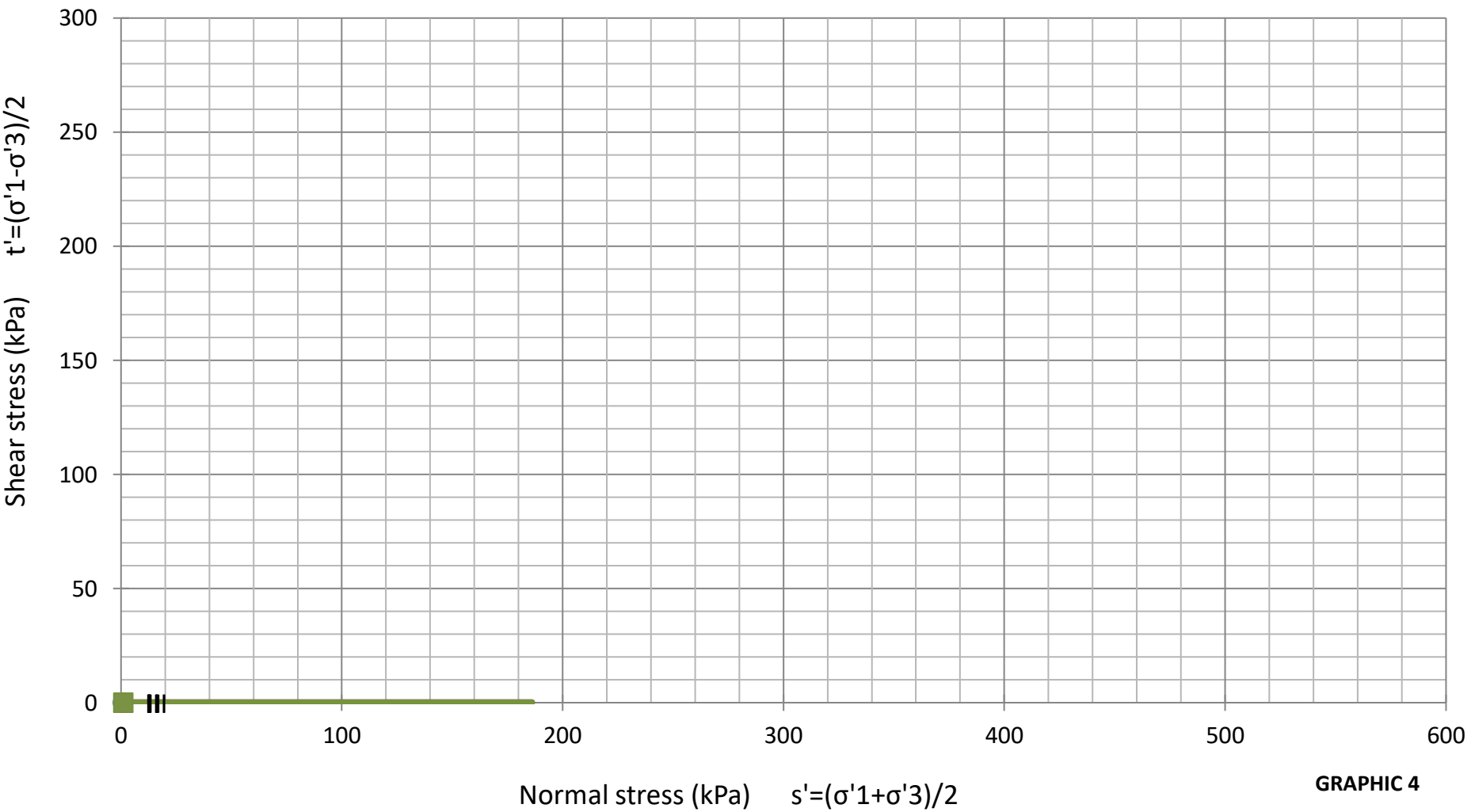
Total stress path parameters

$\Phi_u (^{\circ}) = 34.3$

$C_u \text{ (kPa)} = 74$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#253 SAMPLE B TUBE / DEPTH: 1-1.2 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5807

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0.003	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.902	154.3	0.3	0.0	154.0		0.010	254.0				177.0	77.0		
Cell pressure	95	1.984	167.6	0.6	0.0	167.0		0.021	267.0				183.5	83.5		
σ_3 , kPa	145	3.053	190.1	0.9	10.1	179.1		0.032	279.1				189.6	89.6		
700	190	4.02	213.2	1.1	10.1	202.0		0.041	302.0				201.0	101.0		
Back pressure	240	5.105	253.5	1.4	10.1	242.0		0.052	342.0				221.0	121.0		
u_b , kPa	290	6.183	306.2	1.6	10.1	294.5		0.063	394.5				247.3	147.3		
600	340	7.27	338.5	1.8	10.1	326.6		0.074	426.6				263.3	163.3		
σ'_3 , kPa	385	8.249	358.9	2.0	10.1	346.8		0.084	446.8				273.4	173.4		
100	435	9.326	383.1	2.3	10.1	370.7		0.095	470.7				285.4	185.4		
Rate of axial displ.	485	10.407	403.5	2.5	10.1	390.9		0.106	490.9				295.5	195.5		
mm/min	535	11.51	453.4	2.7	10.1	440.6		0.117	540.6				320.3	220.3		
0.9974	580	12.462	475.9	2.9	10.1	462.9		0.127	562.9				331.5	231.5		
	630	13.538	488.6	3.0	10.1	475.5		0.137	575.5				337.8	237.8		
	680	14.638	507.7	3.2	10.1	494.4		0.148	594.4				347.2	247.2		
	730	15.727	499.7	3.4	10.1	486.2		0.159	586.2				343.1	243.1		
	775	16.698	517.1	3.5	10.1	503.5		0.169	603.5				351.8	251.8		
	825	17.778	528.8	3.7	10.1	515.0		0.180	615.0				357.5	257.5		
	875	18.849	541.4	3.8	10.1	527.5		0.191	627.5				363.8	263.8		
	925	19.953	546.3	4.0	10.1	532.2		0.202	632.2				366.1	266.1		
Specimen	0	-0.005	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.881	282.7	0.3	0.0	282.4		0.010	482.4				341.2	141.2		
Cell pressure	95	1.987	413.7	0.6	0.0	413.1		0.021	613.1				406.6	206.6		
σ_3 , kPa	145	3.068	525.9	0.9	10.1	514.9		0.032	714.9				457.5	257.5		
800	190	4.048	616.4	1.1	10.1	605.2		0.041	805.2				502.6	302.6		
Back pressure	240	5.103	677.7	1.4	10.1	666.2		0.052	866.2				533.1	333.1		
u_b , kPa	290	6.149	732.4	1.6	10.1	720.7		0.063	920.7				560.4	360.4		
600	340	7.232	788.9	1.8	10.1	777.0		0.074	977.0				588.5	388.5		
σ'_3 , kPa	385	8.219	844.9	2.0	10.1	832.8		0.084	1032.8				616.4	416.4		
200	435	9.312	887.9	2.3	10.1	875.5		0.095	1075.5				637.8	437.8		
Rate of axial displ.	485	10.415	894.1	2.5	10.1	881.5		0.106	1081.5				640.8	440.8		
mm/min	535	11.483	930.2	2.7	10.1	917.4		0.116	1117.4				658.7	458.7		
0.9974	580	12.424	937.2	2.8	10.1	924.3		0.126	1124.3				662.2	462.2		
	630	13.471	943.4	3.0	10.1	930.3		0.137	1130.3				665.2	465.2		
	680	14.589	958.3	3.2	10.1	945.0		0.148	1145.0				672.5	472.5		
	730	15.648	972.6	3.4	10.1	959.1		0.159	1159.1				679.6	479.6		
	775	16.644	972.5	3.5	10.1	958.9		0.169	1158.9				679.5	479.5		
	825	17.738	962.7	3.7	10.1	948.9		0.180	1148.9				674.5	474.5		
	875	18.738	933.9	3.8	10.1	920.0		0.191	1120.0				660.0	460.0		
	925	19.784	934.3	3.9	10.1	920.3		0.201	1120.3				660.2	460.2		
Specimen	0	0.003	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.795	361.2	0.3	0.0	360.9		0.010	660.9				480.5	180.5		
Cell pressure	95	1.879	493.0	0.6	0.0	492.4		0.021	792.4				546.2	246.2		
σ_3 , kPa	145	2.959	580.0	0.8	10.1	569.1		0.032	869.1				584.6	284.6		
900	190	3.954	631.9	1.1	10.1	620.7		0.041	920.7				610.4	310.4		
Back pressure	240	5.042	667.4	1.3	10.1	656.0		0.052	956.0				628.0	328.0		
u_b , kPa	290	6.101	695.2	1.6	10.1	683.5		0.063	983.5				641.8	341.8		
600	340	7.15	705.4	1.8	10.1	693.5		0.074	993.5				646.8	346.8		
σ'_3 , kPa	385	8.129	688.1	2.0	10.1	676.0		0.084	976.0				638.0	338.0		
300	435	9.224	648.1	2.2	10.1	635.8		0.095	935.8				617.9	317.9		
Rate of axial displ.	485	10.347	573.4	2.5	10.1	560.8		0.106	860.8				580.4	280.4		
mm/min	535	11.434	759.8	2.7	10.1	747.0		0.117	1047.0				673.5	373.5		
0.9974	580	12.395	798.5	2.8	10.1	785.6		0.126	1085.6				692.8	392.8		
	630	13.41	829.0	3.0	10.1	815.9		0.137	1115.9				708.0	408.0		
	680	14.492	859.1	3.2	10.1	845.8		0.148	1145.8				722.9	422.9		
	730	15.578	861.8	3.4	10.1	848.3		0.159	1148.3				724.2	424.2		
	775	16.586	887.6	3.5	10.1	874.0		0.169	1174.0				737.0	437.0		
	825	17.668	895.9	3.7	10.1	882.1		0.180	1182.1				741.1	441.1		
	875	18.716	924.1	3.8	10.1	910.2		0.191	1210.2				755.1	455.1		
	925	19.738	910.9	3.9	10.1	896.9		0.202	1196.9				748.5	448.5		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5808

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#254_A
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

1.15
1.3
TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

21-9-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG	1.15	
	1.3	

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537

Edition date: 17-11-22

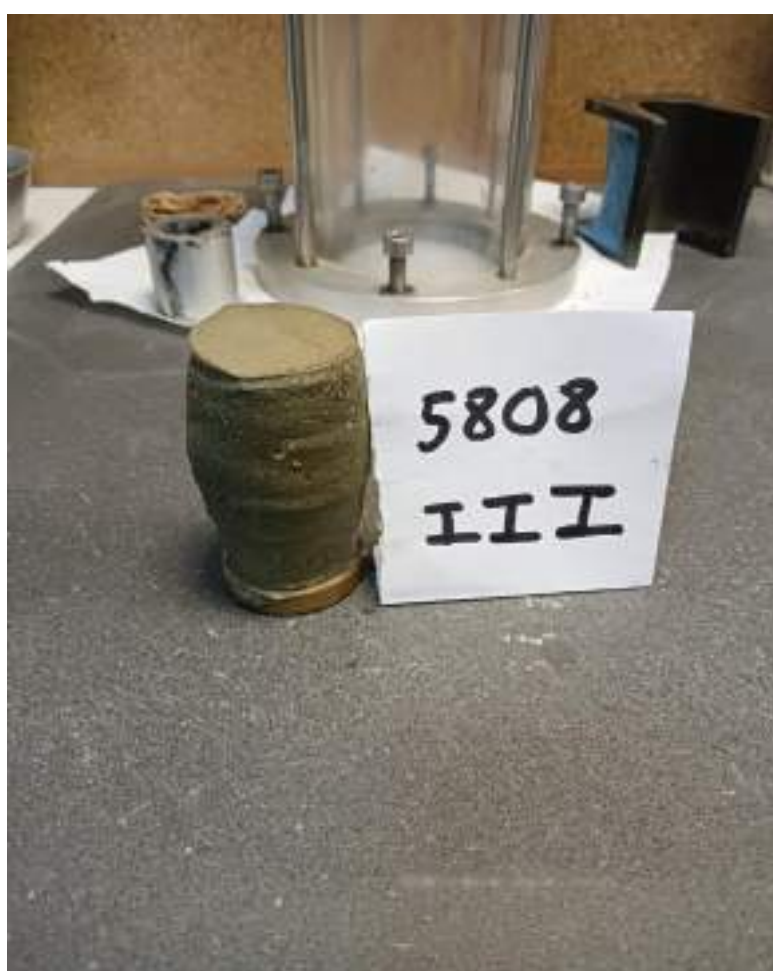
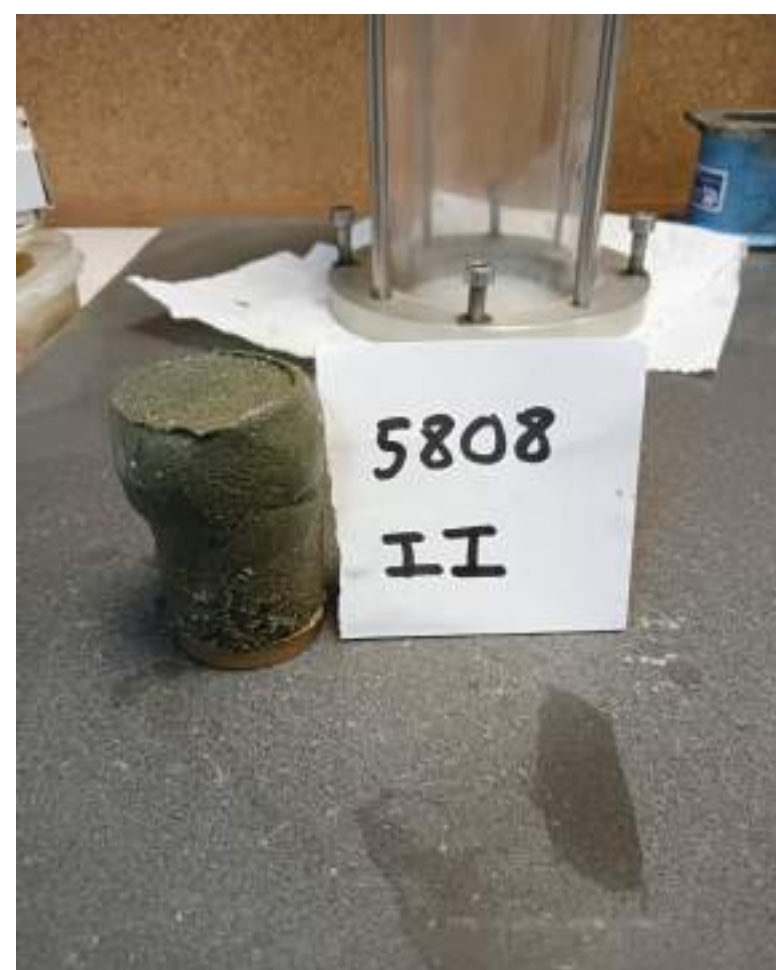
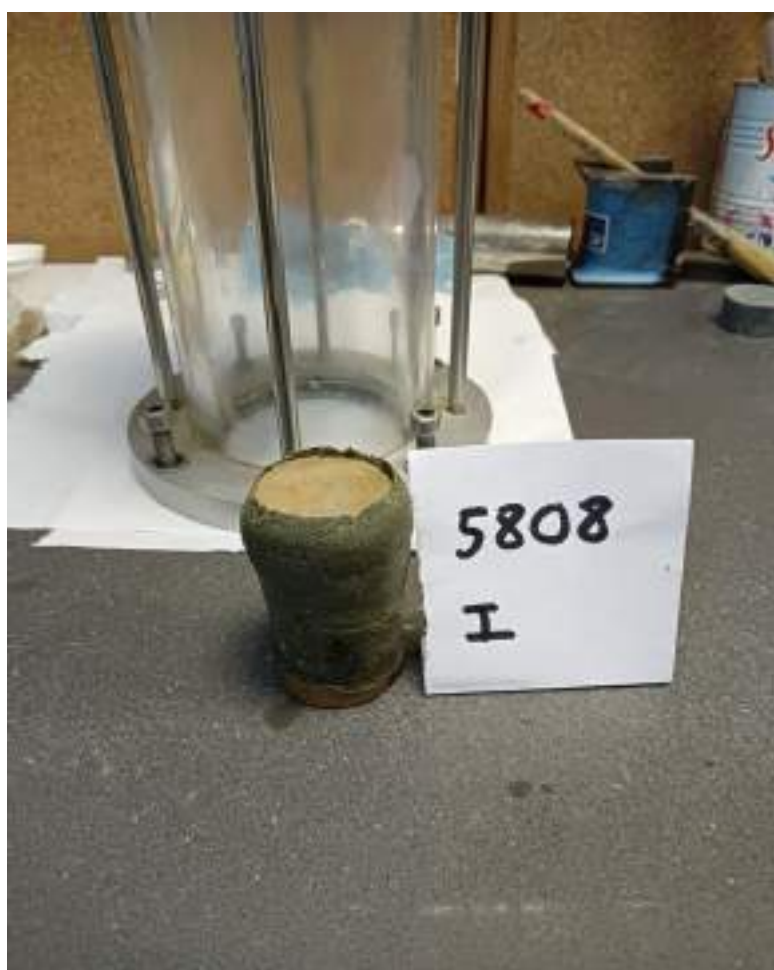
LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5808



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5808

Equipment

MECACISA 1.5' TRIAXIAL CELL
MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.650	7.610	7.640
Initial diameter (cm)	3.810	3.820	3.900
Initial area (cm ²)	11.401	11.461	11.946
Initial volume (cm ³)	87.218	87.218	91.267
Initial moisture content (%)	26.1	26.1	26.1
Final moisture content (%)	25.7	23.1	23.8
Initial bulk density (gr/cm ³)	2.234	2.116	2.065
Initial dry density (gr/cm ³)	1.772	1.678	1.638

Initial saturation degree (%) 100.0 100.0 100.0

Final saturation degree (%) 100.0 100.0 100.0

Particle density (gr/cm³) 2.650 (assumed)

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9976	0.9973	0.9973
Major principal stress (kPa)	128.5	72.5	106.8
Failure stress (kPa)	128.5	72.5	106.8
Failure strain (%)	19.3	20.3	20.2
Pore pressure, u_f (kPa)			

Test type

Soil conditions

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

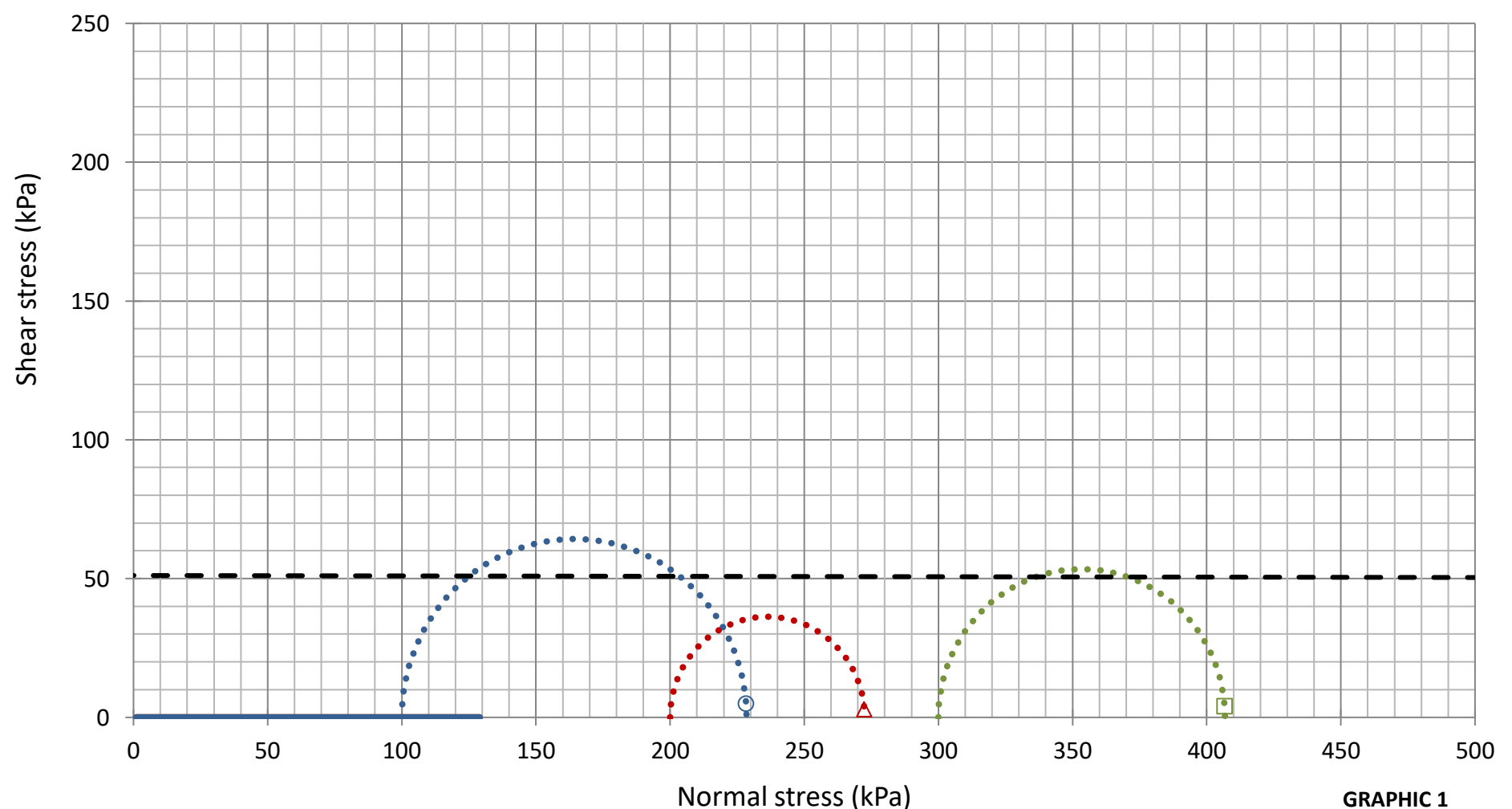
Specimen number	I	II	III
σ_1 (kPa)	228.5	272.5	406.8
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	64.3	36.3	53.4
$(\sigma_1 + \sigma_3)/2$ (kPa)	164.3	236.3	353.4

Estimate total

Φ_u (°)	0.0
C_u (kPa)	51
C_u (kp/cm ²)	0.52

Graphic symbols

I total	II total	III total			



GRAPHIC 1

REMARKS

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

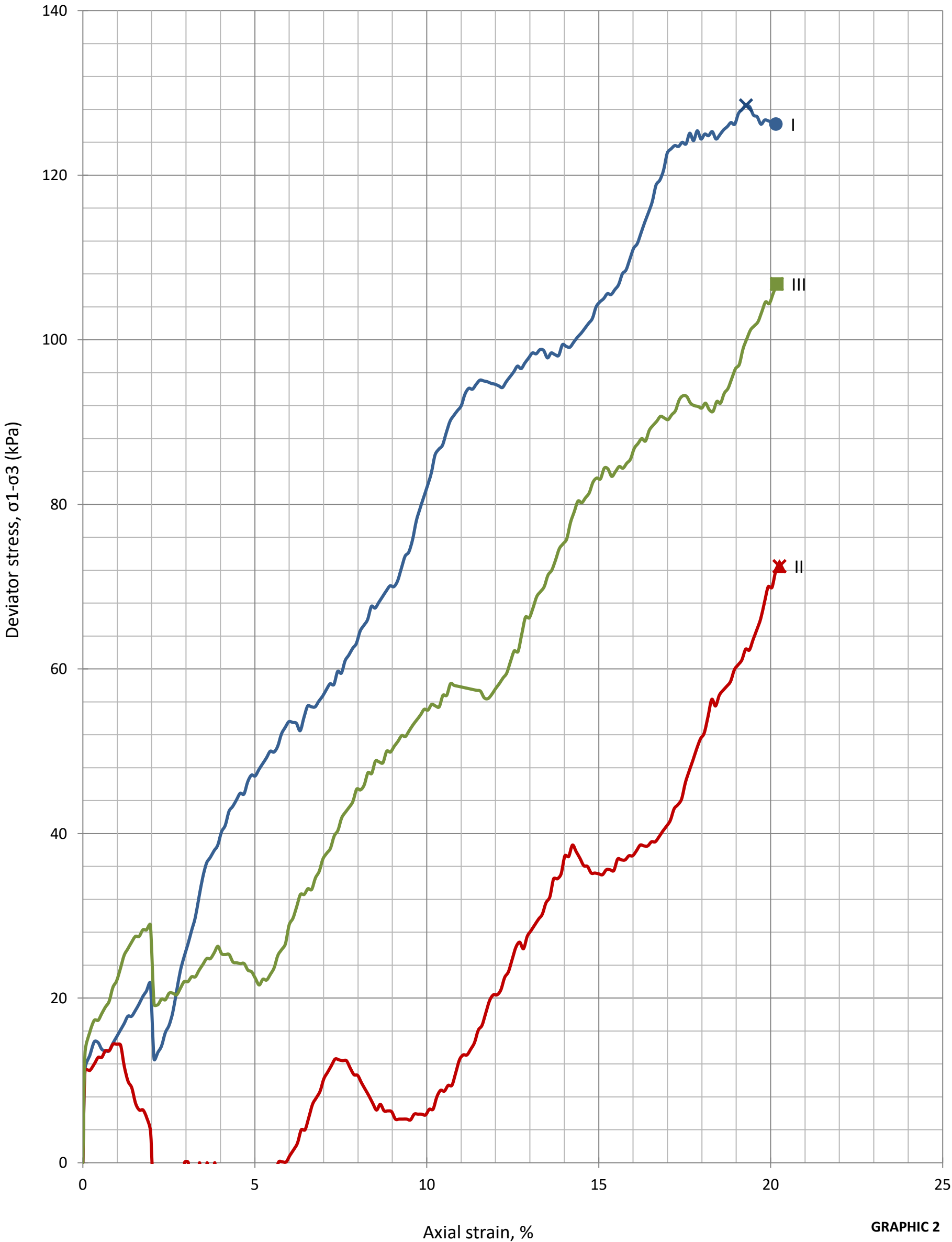
LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5808



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

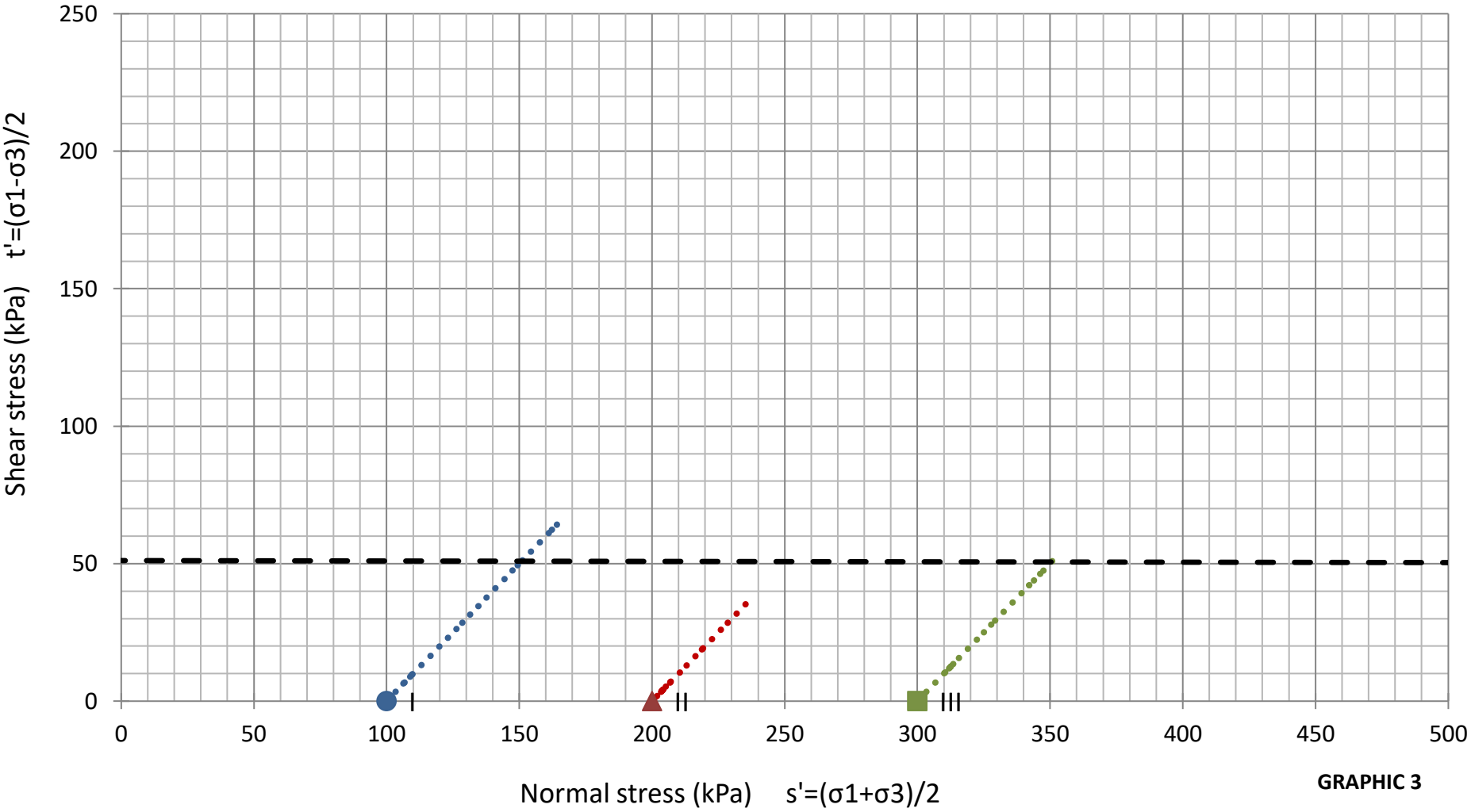
Sample reference

2022GC-5808

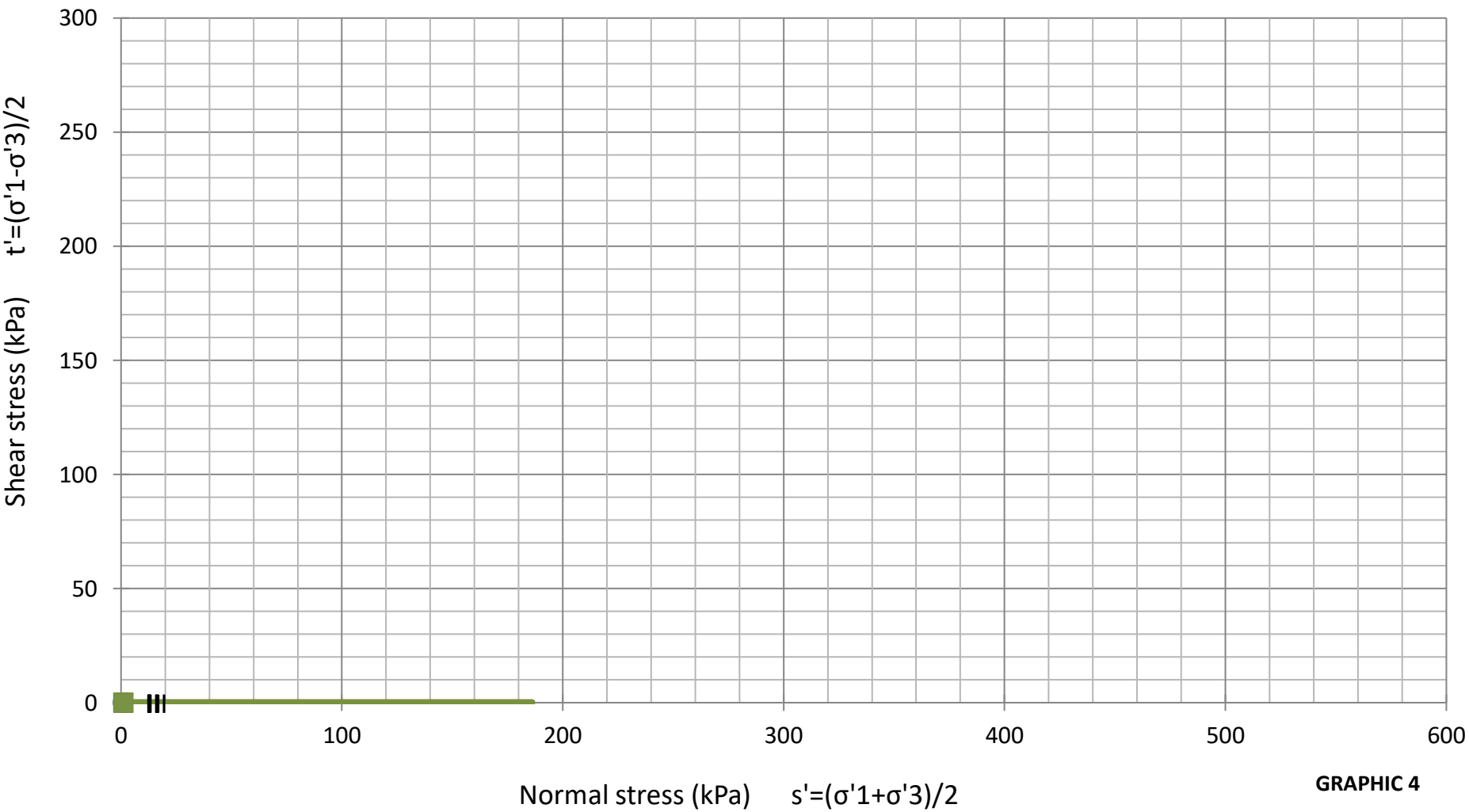
Total stress path parameters

$\Phi_u (^{\circ}) = 0.0$

$C_u \text{ (kPa)} = 51$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#254_A SAMPLE B TUBE / DEPTH: 1.15-1.3 m

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5808

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.982	15.6	0.3	0.0	15.3		0.010	115.3				107.7	7.7		
Cell pressure	95	2.071	23.2	0.6	10.0	12.6		0.021	112.6				106.3	6.3		
σ_3 , kPa	145	3.161	39.1	0.9	10.0	28.2		0.032	128.2				114.1	14.1		
700	190	4.141	52.1	1.1	10.0	41.0		0.041	141.0				120.5	20.5		
Back pressure	240	5.23	59.9	1.4	10.0	48.5		0.052	148.5				124.3	24.3		
u_b , kPa	290	6.319	64.1	1.6	10.0	52.5		0.063	152.5				126.3	26.3		
600	340	7.409	71.5	1.8	10.0	59.7		0.074	159.7				129.9	29.9		
σ'_3 , kPa	385	8.39	79.6	2.0	10.0	67.6		0.084	167.6				133.8	33.8		
100	435	9.478	86.5	2.3	10.0	74.2		0.095	174.2				137.1	37.1		
Rate of axial displ.	485	10.567	101.2	2.5	10.0	88.7		0.106	188.7				144.4	44.4		
mm/min	535	11.658	107.7	2.7	10.0	95.0		0.117	195.0				147.5	47.5		
0.9976	580	12.638	109.6	2.8	10.0	96.8		0.126	196.8				148.4	48.4		
	630	13.727	111.2	3.0	10.0	98.2		0.137	198.2				149.1	49.1		
	680	14.817	115.8	3.2	10.0	102.6		0.148	202.6				151.3	51.3		
	730	15.906	123.2	3.4	10.0	109.8		0.159	209.8				154.9	54.9		
	775	16.886	134.1	3.5	10.0	120.6		0.169	220.6				160.3	60.3		
	825	17.975	138.1	3.7	10.0	124.4		0.180	224.4				162.2	62.2		
	875	19.065	141.3	3.8	10.0	127.5		0.191	227.5				163.8	63.8		
	925	20.154	140.1	3.9	10.0	126.2		0.202	226.2				163.1	63.1		
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.986	14.7	0.3	0.0	14.4		0.010	214.4				207.2	7.2		
Cell pressure	95	2.08	3.4	0.6	9.9	-7.1		0.021	192.9				196.5	-3.6		
σ_3 , kPa	145	3.176	-0.8	0.9	9.9	-11.6		0.032	188.4				194.2	-5.8		
800	190	4.162	0.8	1.1	9.9	-10.2		0.042	189.8				194.9	-5.1		
Back pressure	240	5.256	8.3	1.4	9.9	-3.0		0.053	197.0				198.5	-1.5		
u_b , kPa	290	6.351	15.5	1.6	9.9	4.0		0.064	204.0				202.0	2.0		
600	340	7.447	24.2	1.8	9.9	12.5		0.074	212.5				206.3	6.3		
σ'_3 , kPa	385	8.432	19.2	2.1	9.9	7.2		0.084	207.2				203.6	3.6		
200	435	9.527	17.4	2.3	9.9	5.2		0.095	205.2				202.6	2.6		
Rate of axial displ.	485	10.623	21.8	2.5	9.9	9.4		0.106	209.4				204.7	4.7		
mm/min	535	11.717	30.8	2.7	9.9	18.2		0.117	218.2				209.1	9.1		
0.9973	580	12.703	39.6	2.9	9.9	26.8		0.127	226.8				213.4	13.4		
	630	13.798	47.4	3.0	9.9	34.5		0.138	234.5				217.3	17.3		
	680	14.894	48.3	3.2	9.9	35.2		0.149	235.2				217.6	17.6		
	730	15.988	50.6	3.4	9.9	37.3		0.160	237.3				218.7	18.7		
	775	16.974	54.3	3.5	9.9	40.9		0.170	240.9				220.5	20.5		
	825	18.068	65.8	3.7	9.9	52.2		0.181	252.2				226.1	26.1		
	875	19.164	74.8	3.8	9.9	61.1		0.192	261.1				230.6	30.6		
	925	20.259	86.3	3.9	9.9	72.5		0.203	272.5				236.3	36.3		
Specimen	0	0	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.982	22.4	0.3	0.0	22.1		0.010	322.1				311.1	11.1		
Cell pressure	95	2.072	29.5	0.6	9.7	19.2		0.021	319.2				309.6	9.6		
σ_3 , kPa	145	3.164	33.2	0.9	9.7	22.6		0.032	322.6				311.3	11.3		
900	190	4.145	36.1	1.1	9.7	25.3		0.041	325.3				312.7	12.7		
Back pressure	240	5.236	33.3	1.3	9.7	22.3		0.052	322.3				311.2	11.2		
u_b , kPa	290	6.326	43.9	1.6	9.7	32.6		0.063	332.6				316.3	16.3		
600	340	7.418	51.9	1.8	9.7	40.4		0.074	340.4				320.2	20.2		
σ'_3 , kPa	385	8.399	59.0	2.0	9.7	47.3		0.084	347.3				323.7	23.7		
300	435	9.49	64.4	2.2	9.7	52.5		0.095	352.5				326.3	26.3		
Rate of axial displ.	485	10.581	68.9	2.4	9.7	56.8		0.106	356.8				328.4	28.4		
mm/min	535	11.671	68.8	2.6	9.7	56.5		0.117	356.5				328.3	28.3		
0.9973	580	12.653	74.6	2.8	9.7	62.1		0.127	362.1				331.1	31.1		
	630	13.743	85.9	3.0	9.7	73.2		0.137	373.2				336.6	36.6		
	680	14.835	95.5	3.1	9.7	82.7		0.148	382.7				341.4	41.4		
	730	15.925	98.5	3.3	9.7	85.5		0.159	385.5				342.8	42.8		
	775	16.907	103.6	3.4	9.7	90.5		0.169	390.5				345.3	45.3		
	825	17.997	105.0	3.6	9.7	91.7		0.180	391.7				345.9	45.9		
	875	19.089	110.4	3.7	9.7	97.0		0.191	397.0				348.5	48.5		
	925	20.179	120.3	3.8	9.7	106.8		0.202	406.8				353.4	53.4		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#10_A SAMPLE B TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5809

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#10_A
SAMPLE B

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

3-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
 Edition date: 17-11-22

LOCATION: EC GI#10_A SAMPLE B TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5809

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

 DIRECT SHEAR APPARATUS MECACISA 2 5 KN
 CIRCULAR SHEARBOX
 MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
 10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

 Underwater floor SI
 Prior saturation NO
 Prior consolidation NO
 Drained failure NO
 Residual parameters NO

Symbols in graphs 2 to 4 (normal stress, kPa)

100 200 300

Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	15.114	15.593	15.127
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	21.1	21.1	21.1
Final moisture (%)	23.4	24.2	27.3
Initial bulk density (gr/cm ³)	1.991	1.980	1.998
Initial dry density (gr/cm ³)	1.644	1.635	1.650
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	-0.901	0.020	0.831
Initial voids ratio	0.6119	0.6208	0.6061
Voids ratio at end prior consol.	0.6119	0.6208	0.6061
Voids ratio at end of test	0.6726	0.6195	0.5503
Initial saturation degree (%)	91.38	90.07	92.25
Final saturation degree (%)	92.19	100.00	100.00
Max. shear stress (KPa)	142.1	222.1	330.5
Shear stress applied (KPa)	142.1	222.1	

Horizontal speed (mm/min) 0.96940 0.97141 0.96500

Particle density (g/cm³) 2.650 (assumed)

(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

222.060

330.544

Results

LABORATORY INTERPRETATION

ESTIMATION WITH MAXIMUM STRESS

ESTIMATION BETWEEN POINTS 1 AND 2

ESTIMATION BETWEEN POINTS 2 AND 3

RESIDUAL PARAMETERS

Shear angle (°)

38.7

43.3

38.7

47.3

Cohesion (kPa)

62.1

43.1

62.1

5.1

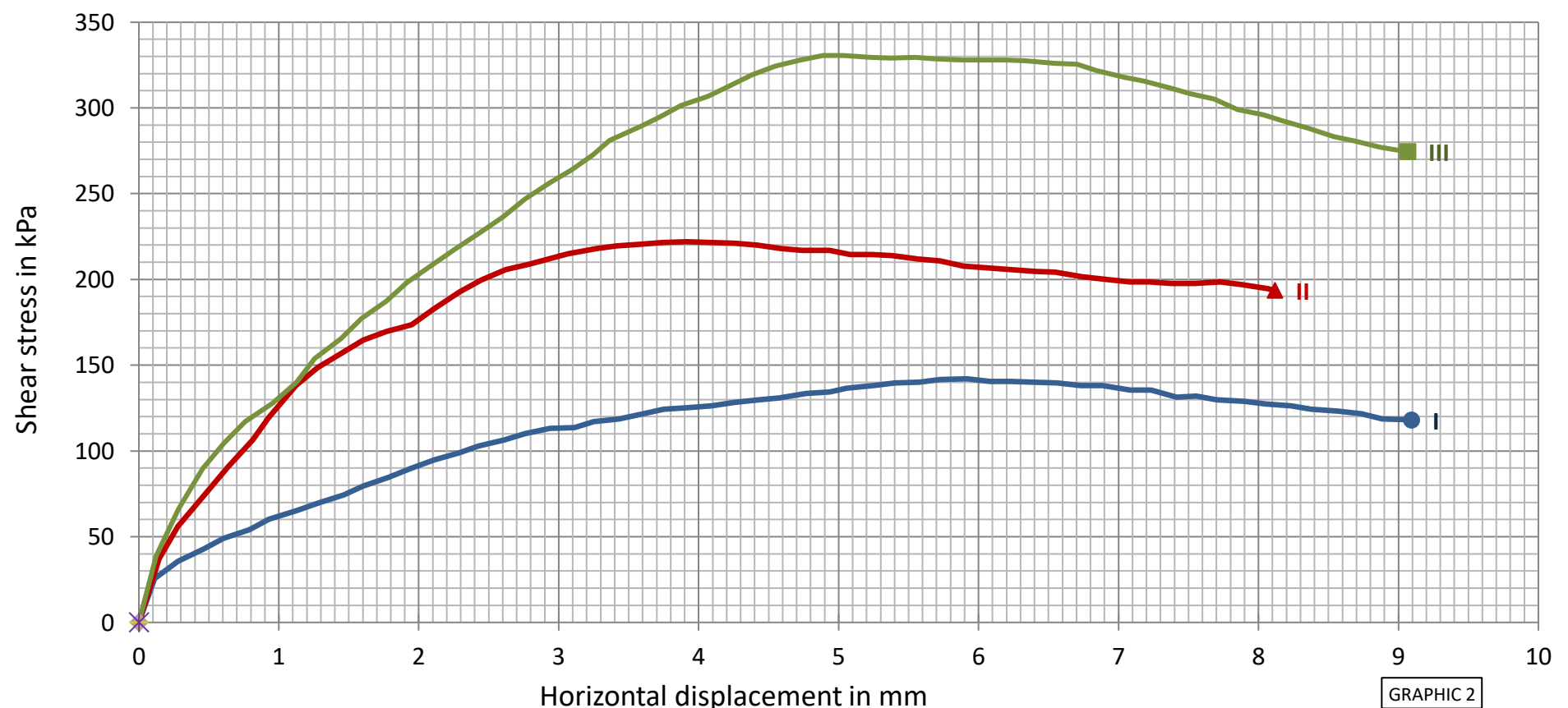
(kp/cm²)

0.63

0.44

0.63

0.05



REMARKS

Analyst: MOHAMED YAAKOUBI

Code: RG-A-0110 V0

Final test date: 03/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#104_A SAMPLE A TUBE

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5810

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#104_A
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

4-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST, UU - UNE 103401/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#104_A SAMPLE A TUBE

2 / 2

DETERMINATION OF SHEAR STRENGTH OF SOILS BY DIRECT SHEARBOX TEST - UNE 103401/98

Sample reference

2022GC-5810

Type of test

UU

Soil conditions

UNDISTURBED

Equipment

DIRECT SHEAR APPARATUS MECACISA 2 5 KN
CIRCULAR SHEARBOX
MECATEST-16 51.0325 DATA REGISTRATION PROGRAM
10 AND 25 MM ELECTRONIC TRANSDUCERS

Test conditions

Underwater floor **SI**
Prior saturation **NO**

Prior consolidation **NO**
Drained failure **NO**
Residual parameters **NO**

Symbols in graphs 2 to 4 (normal stress, kPa)

● 100 ▲ 200 ■ 300 ◆ 400 ✱ 500 ✱ 600

Test data

Normal stress (kPa)	100	200	300
Initial area (cm ²)	19.635	19.635	19.635
Corr. final area (cm ²)(*)	17.544	17.087	16.524
Initial volume (cm ³)	46.99	47.58	46.99
Initial moisture (%)	9.3	9.3	9.3
Final moisture (%)	20.6	21.7	21.5
Initial bulk density (gr/cm ³)	1.779	1.751	1.787
Initial dry density (gr/cm ³)	1.628	1.602	1.635
Prior consolidation (mm)	0.000	0.000	0.000
Final consolidation (mm)	-0.107	0.538	0.703
Initial voids ratio	0.6278	0.6542	0.6208
Voids ratio at end prior consol.	0.6278	0.6542	0.6208
Voids ratio at end of test	0.6351	0.6175	0.5732
Initial saturation degree (%)	39.26	37.67	39.70
Final saturation degree (%)	85.95	93.13	99.40
Max. shear stress (KPa)	96.3	177.2	302.5
Shear stress applied (KPa)	96.3	177.2	302.5

Horizontal speed (mm/min) 0.94432 0.95952 0.94668

Particle density (g/cm³) 2.650 (assumed)

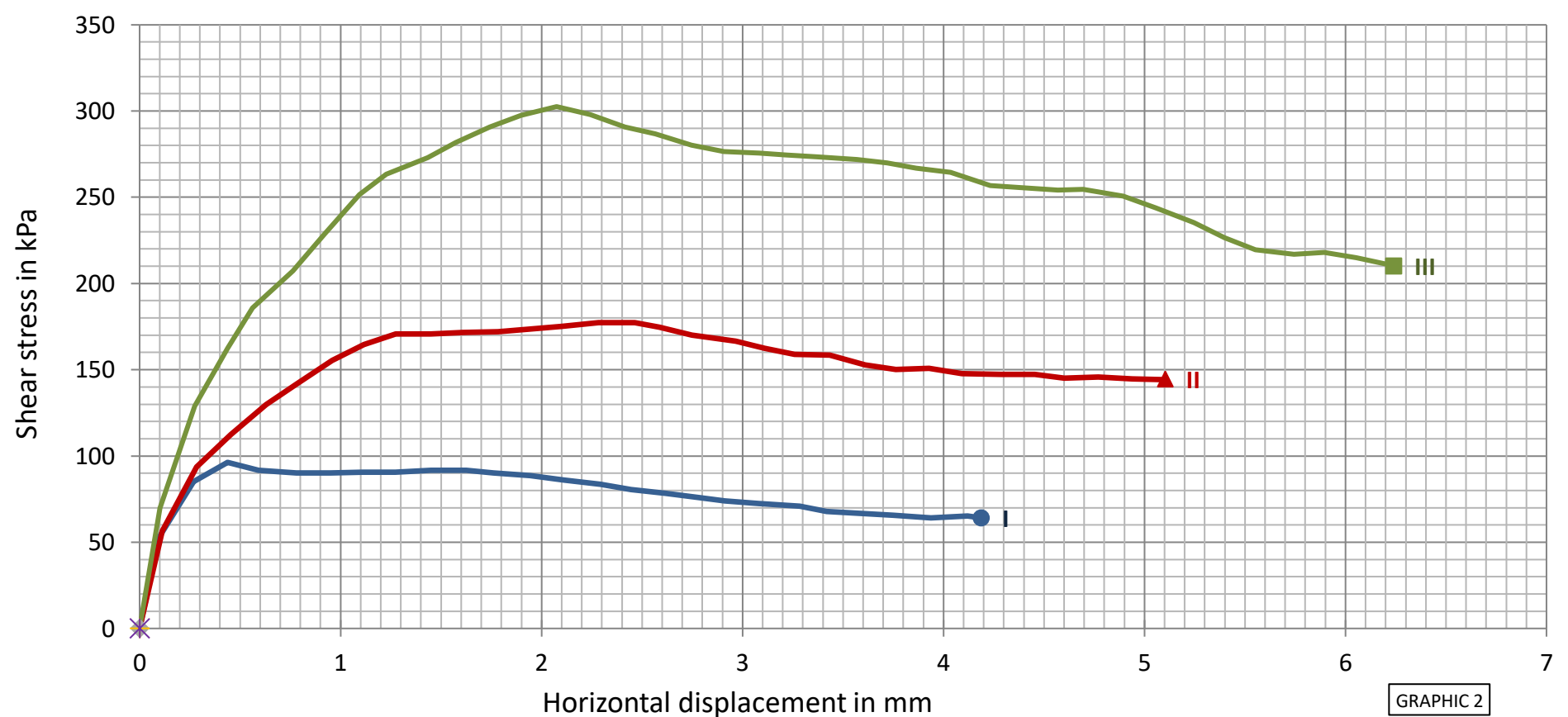
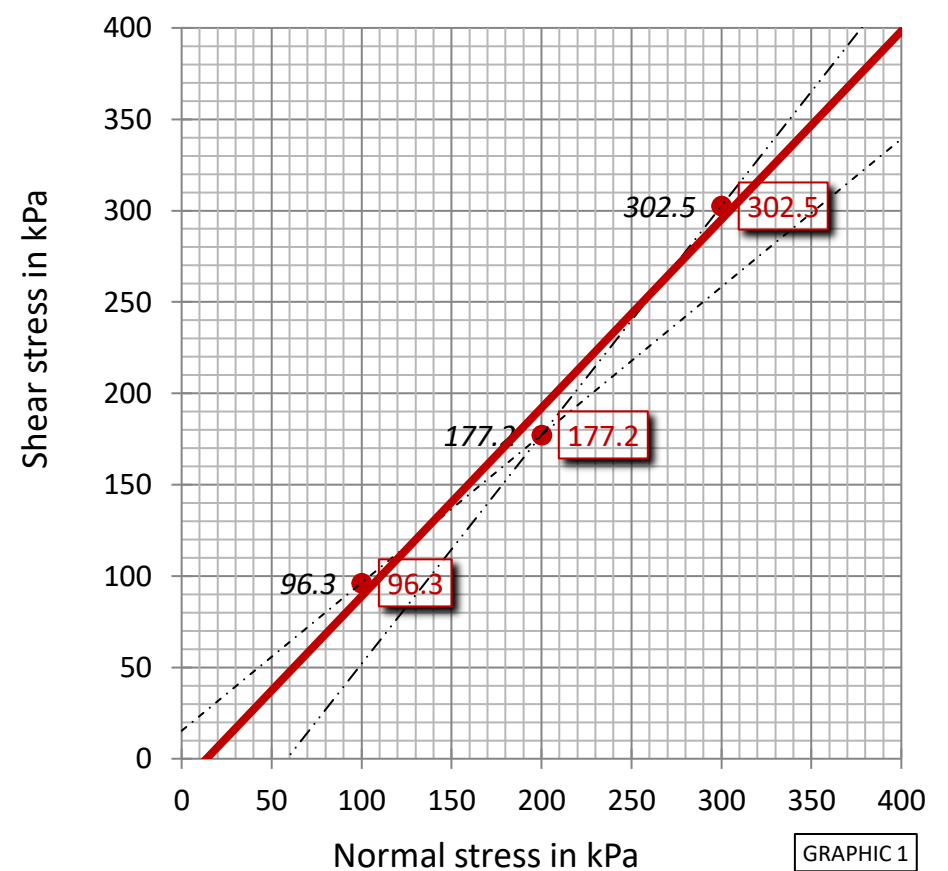
(*) No se aplica la corrección por el cambio de sección que experimenta la probeta a lo largo del proceso de corte

Symbols in graphic 1

Results

Shear angle (°)
Cohesion (kPa)
(kp/cm²)

LABORATORY INTERPRETATION	ESTIMATION WITH MAXIMUM STRESS	ESTIMATION BETWEEN POINTS 1 AND 2	ESTIMATION BETWEEN POINTS 2 AND 3	RESIDUAL PARAMETERS
45.9	45.9	39.0	51.4	
0.0	0.0	15.3	0.0	
0.00	0.00	0.16	0.00	



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#102 SAMPLE A TUBE

1 / 6

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5811

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#102
SAMPLE A

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

TUBE

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

17-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES, UU 1.5' - UNE 103402/98

REMARKS

Report number: 2022-6427-18537
Edition date: 17-11-22

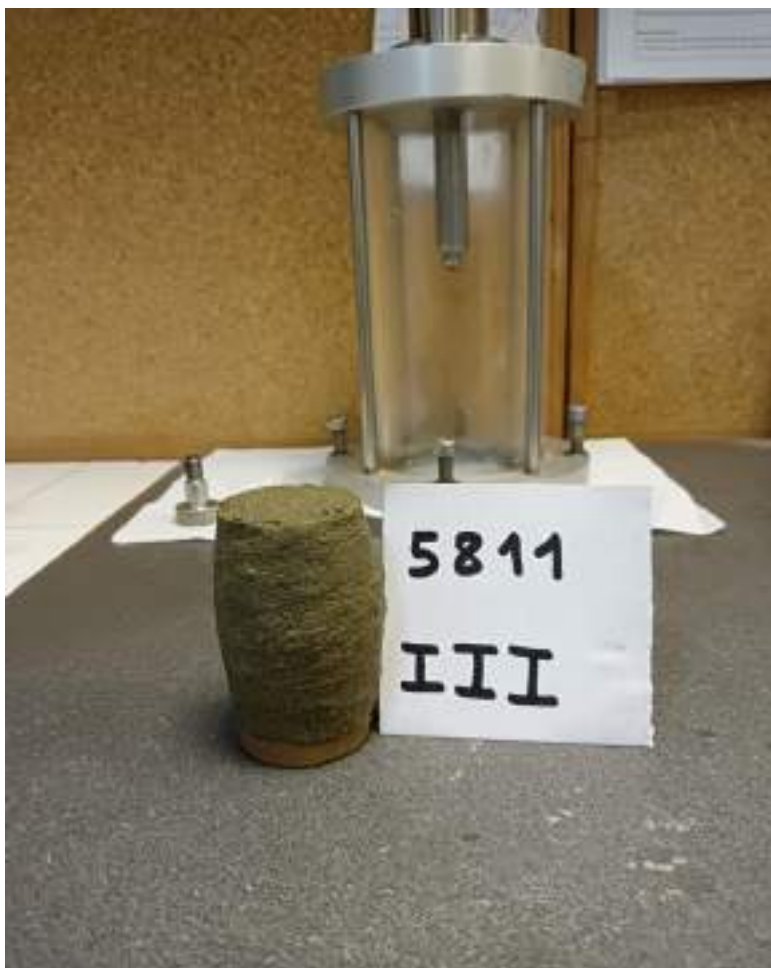
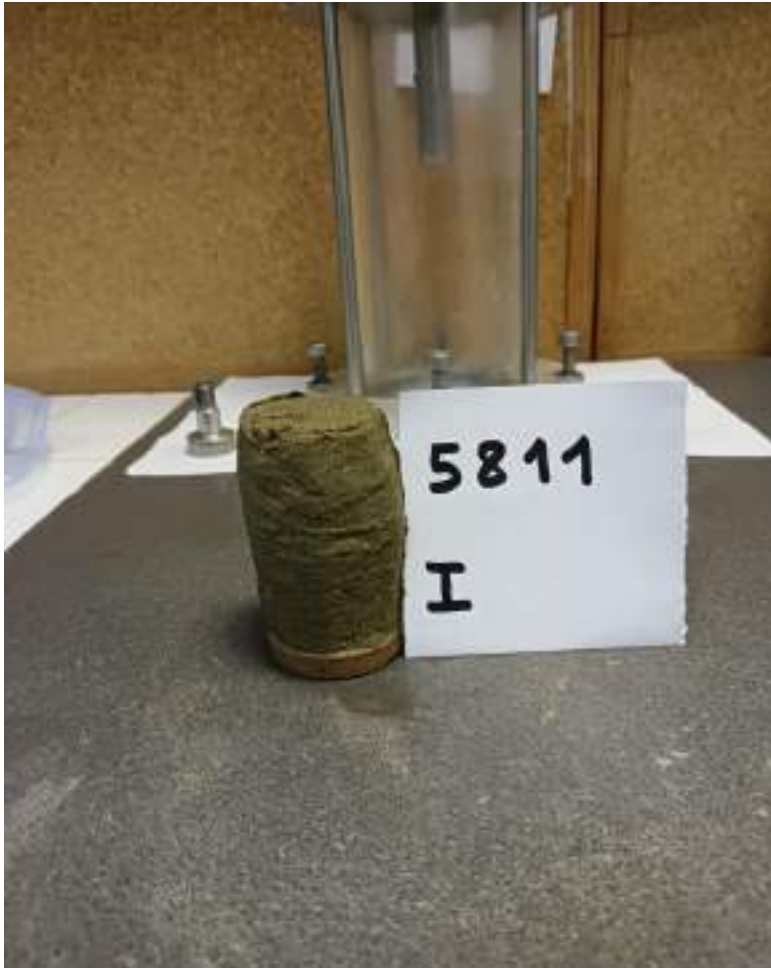
LOCATION: EC GI#102 SAMPLE A TUBE

2 / 6

Sample reference

PHOTOGRAPHIC ANNEX -

2022GC-5811



REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#102 SAMPLE A TUBE

3 / 6

Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98**2022GC-5811****Equipment****MECACISA 1.5' TRIAXIAL CELL**

MECACISA PRESSURE SYSTEM 3500 MPa VOL. CHANGE 240 ml
MECACISA TRIAXIAL COMPRESSION MACHINE 50 Kn
ELECTRONIC TRANSDUCER LVDT 50 mm
MECACISA MODULE REGISTER DATA MECATEST
PORE PRESSURE SENSOR 10 bar MECACISA

Soil sample data

	I	II	III
Specimen number			
Initial length (cm)	7.670	7.990	8.030
Initial diameter (cm)	3.770	3.860	3.880
Initial area (cm ²)	11.163	11.702	11.824
Initial volume (cm ³)	85.620	93.499	94.947
Initial moisture content (%)	19.1	19.1	19.1
Final moisture content (%)	20.4	20.2	19.7
Initial bulk density (gr/cm ³)	2.116	2.054	2.115
Initial dry density (gr/cm ³)	1.777	1.725	1.776
Initial saturation degree (%)	100.0	94.4	100.0
Final saturation degree (%)	100.0	99.0	100.0
Particle density (gr/cm ³)	2.650 (assumed)		

Test data and results

Cell pressure (kPa)	700	800	900
Back pressure, u_b (kPa)	600	600	600
Rate of axial displ. (mm/min)	0.9974	0.9973	0.9973
Major principal stress (kPa)	995.2	1474.1	1935.6
Failure stress (kPa)	995.2	1474.1	1935.6
Failure strain (%)	20.2	19.3	18.9
Pore pressure, u_f (kPa)			

Test type**Soil conditions**

Unconsolidated Undrained (UU)

UNDISTURBED

Prior saturation process

Saturation prior to test	NO	NO	NO

Failure test results

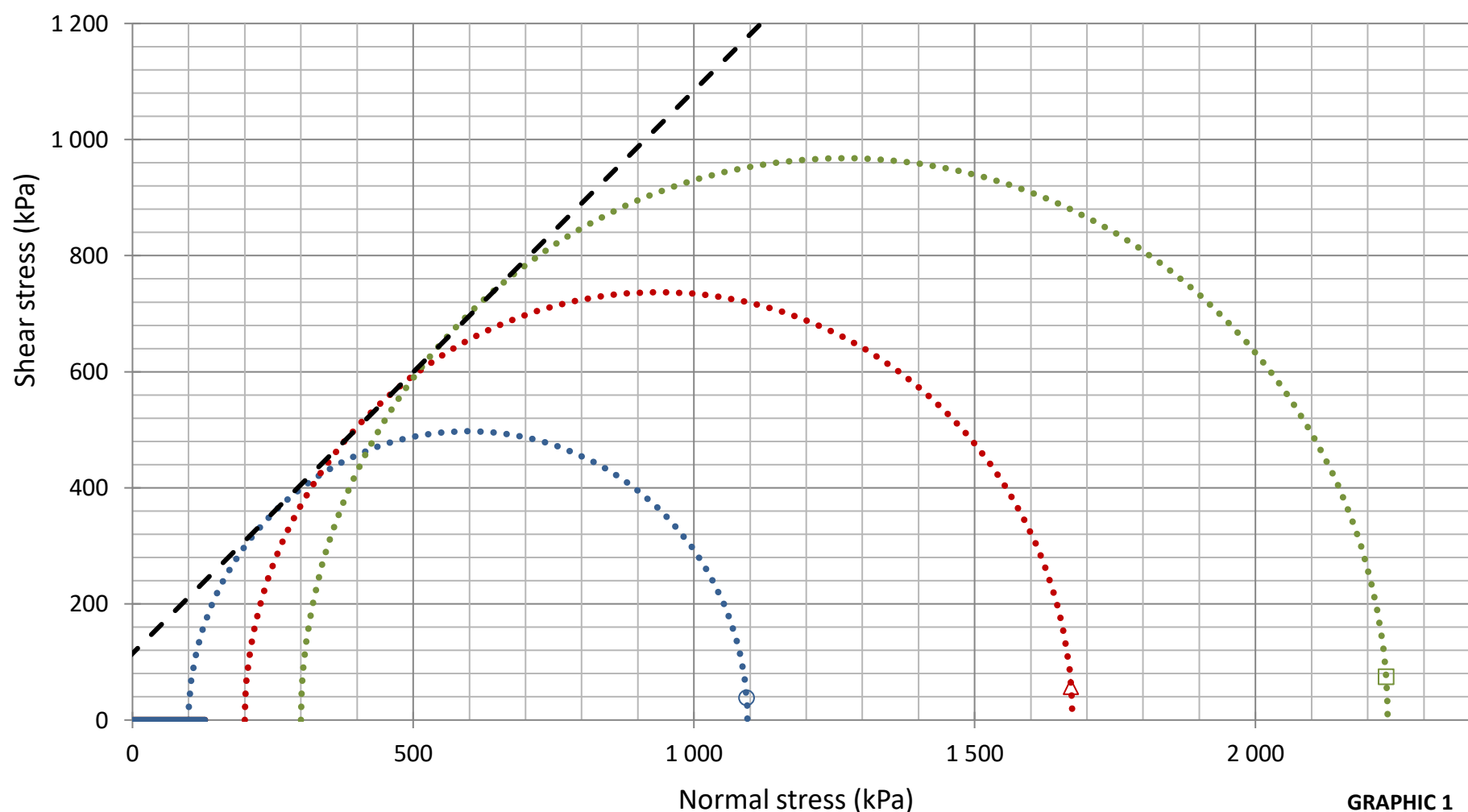
Specimen number	I	II	III
σ_1 (kPa)	1095.2	1674.1	2235.6
σ_3 (kPa)	100.0	200.0	300.0
$(\sigma_1 - \sigma_3)/2$ (kPa)	497.6	737.1	967.8
$(\sigma_1 + \sigma_3)/2$ (kPa)	597.6	937.1	1267.8

Estimate total

Φ_u (°)	44.1
C_u (kPa)	115
C_u (kp/cm ²)	1.17

Graphic symbols

I total	II total	III total			

**REMARKS**

Operator: BLANCA MONEO

Code: RG-A-0120 V0

Test final date: 10/10/2022



Report number: 2022-6427-18537
Edition date: 17-11-22

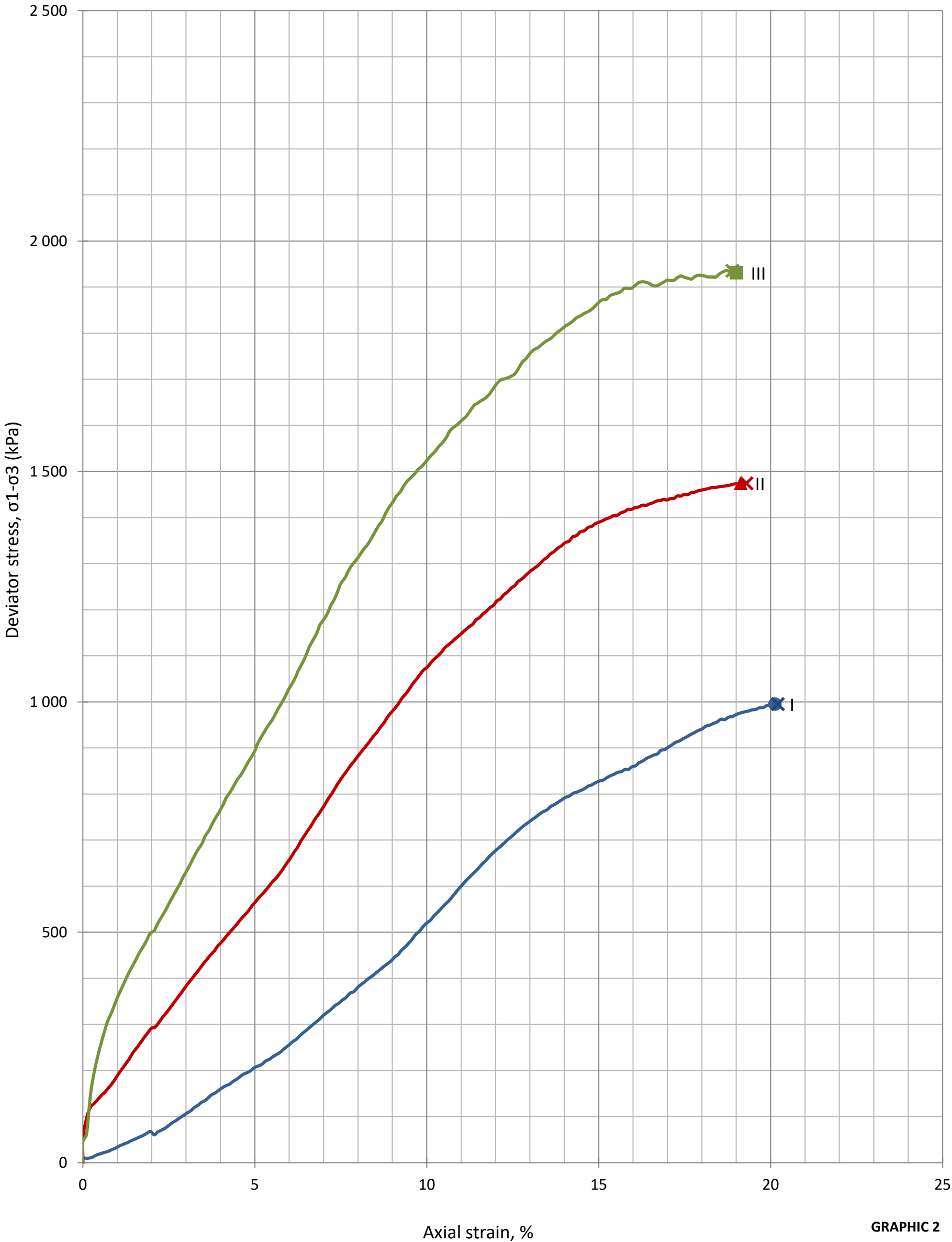
LOCATION: EC GI#102 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

Sample reference

2022GC-5811



GRAPHIC 2



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#102 SAMPLE A TUBE

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TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

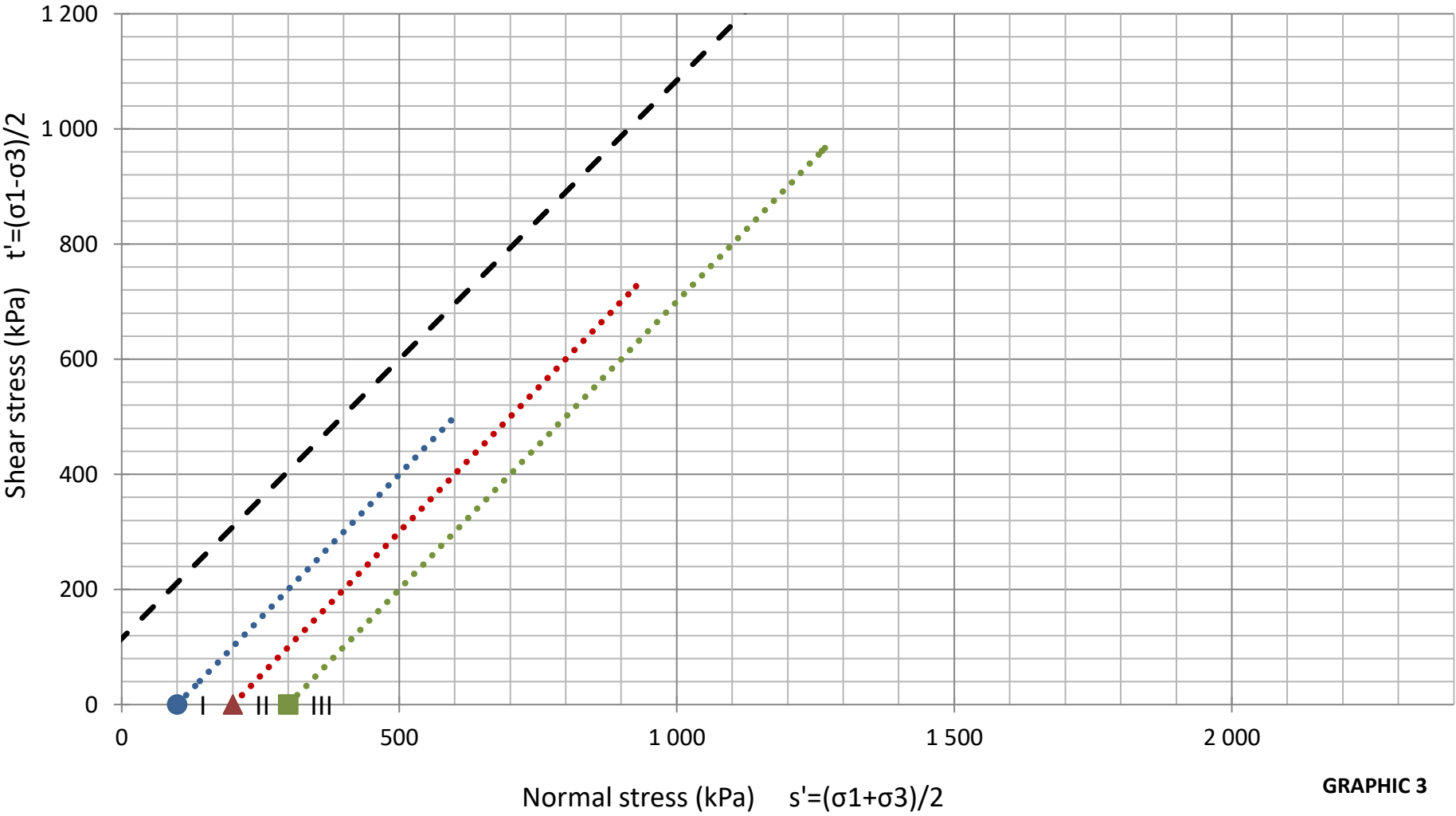
Sample reference

2022GC-5811

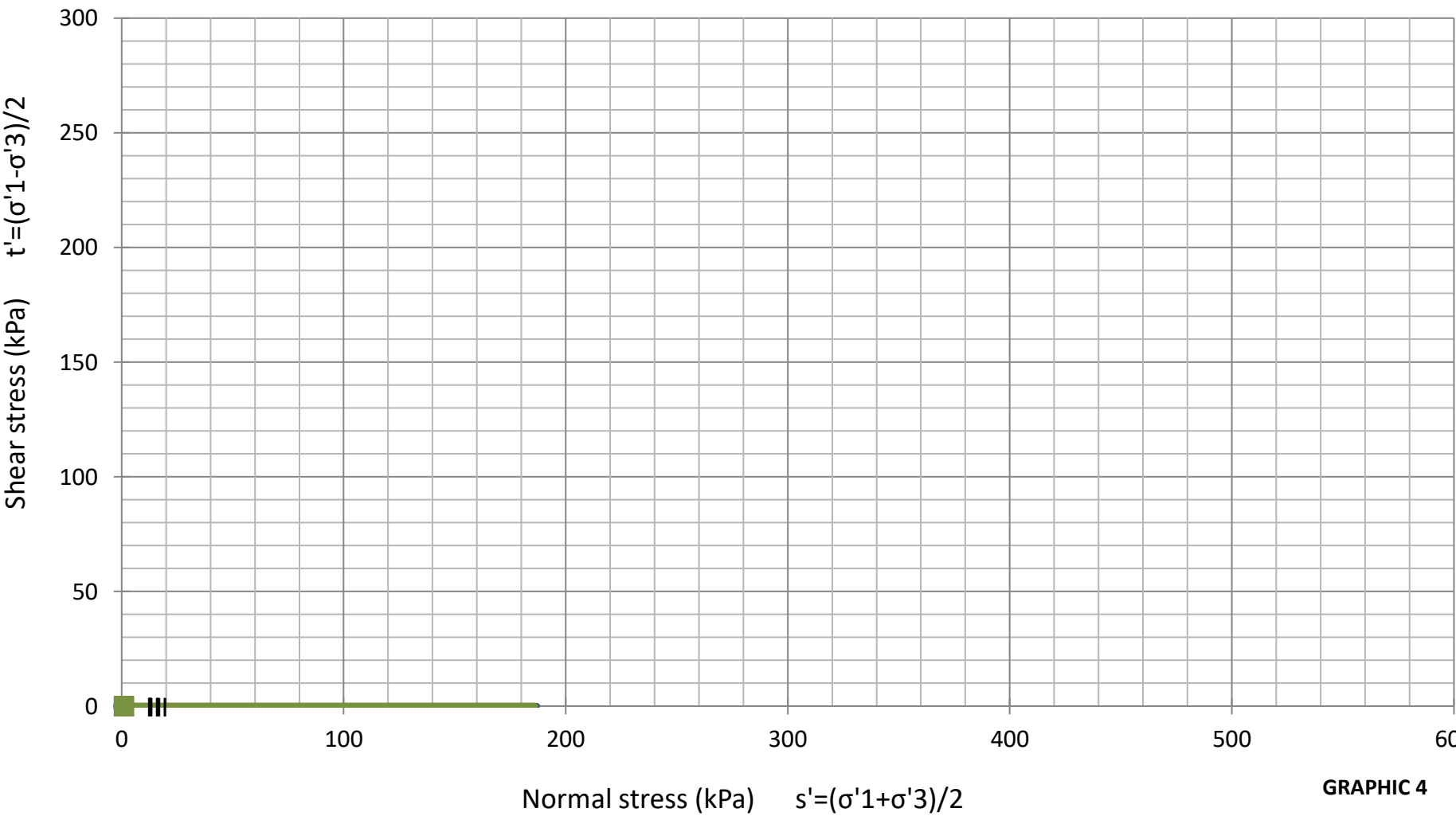
Total stress path parameters

$\Phi_u (^{\circ}) = 44.1$

$C_u \text{ (kPa)} = 115$



Effective stress path parameters





Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#102 SAMPLE A TUBE

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Sample reference

TRIAXIAL COMPRESSION TEST IN SOIL SAMPLES - UNE 103402/98

2022GC-5811

Failure process data summary																
	Time	Deform.	$(\sigma_1 - \sigma_3)_m$	$(\Delta \sigma_1)_m$	$(\Delta \sigma_1)_{fp}$	$(\sigma_1 - \sigma_3)$	u-ub	ϵ_1	σ_1	σ'_1	σ'_3	Coeff. A	$(\sigma_1 + \sigma_3)/2$	$(\sigma_1 - \sigma_3)/2$	$(\sigma'_1 + \sigma'_3)/2$	$(\sigma'_1 - \sigma'_3)/2$
	sg	%	kPa	kPa	kPa	kPa	kPa		kPa	kPa	kPa		kPa	kPa	kPa	kPa
Specimen	0	-0.006	0.0	0.0	0.0	0.0		0.000	100.0				100.0	0.0		
I	45	0.969	32.8	0.3	0.0	32.5		0.010	132.5				116.3	16.3		
Cell pressure	95	2.078	71.1	0.6	10.1	60.4		0.021	160.4				130.2	30.2		
σ_3 , kPa	145	3.129	123.2	0.9	10.1	112.2		0.032	212.2				156.1	56.1		
700	195	4.16	178.4	1.1	10.1	167.2		0.042	267.2				183.6	83.6		
Back pressure	240	5.105	221.6	1.4	10.1	210.1		0.052	310.1				205.1	105.1		
u_b , kPa	290	6.221	280.4	1.6	10.1	268.7		0.063	368.7				234.4	134.4		
600	340	7.328	352.6	1.8	10.1	340.7		0.074	440.7				270.4	170.4		
σ'_3 , kPa	390	8.414	417.3	2.1	10.1	405.1		0.085	505.1				302.6	202.6		
100	440	9.471	488.5	2.3	10.1	476.1		0.096	576.1				338.1	238.1		
Rate of axial displ.	485	10.42	564.2	2.5	10.1	551.6		0.105	651.6				375.8	275.8		
mm/min	535	11.483	650.0	2.7	10.1	637.2		0.116	737.2				418.6	318.6		
0.9974	585	12.594	729.6	2.9	10.1	716.6		0.127	816.6				458.3	358.3		
	635	13.725	790.8	3.1	10.1	777.6		0.138	877.6				488.8	388.8		
	685	14.805	833.4	3.2	10.1	820.1		0.149	920.1				510.1	410.1		
	730	15.761	866.8	3.4	10.1	853.3		0.159	953.3				526.7	426.7		
	780	16.807	908.4	3.5	10.1	894.8		0.170	994.8				547.4	447.4		
	830	17.892	951.6	3.7	10.1	937.8		0.180	1037.8				568.9	468.9		
	880	19.007	986.8	3.8	10.1	972.9		0.191	1072.9				586.5	486.5		
	930	20.126	1009.3	4.0	10.1	995.2		0.202	1095.2				597.6	497.6		
Specimen	0	0.003	0.0	0.0	0.0	0.0		0.000	200.0				200.0	0.0		
II	45	0.84	171.0	0.3	0.0	170.7		0.009	370.7				285.4	85.4		
Cell pressure	95	1.875	281.4	0.6	0.0	280.8		0.020	480.8				340.4	140.4		
σ_3 , kPa	145	2.968	390.3	0.8	9.8	379.7		0.030	579.7				389.9	189.9		
800	190	3.913	480.1	1.0	9.8	469.3		0.040	669.3				434.7	234.7		
Back pressure	240	4.924	569.1	1.3	9.8	558.0		0.050	758.0				479.0	279.0		
u_b , kPa	290	5.925	660.8	1.5	9.8	649.5		0.061	849.5				524.8	324.8		
600	340	6.961	779.7	1.7	9.8	768.2		0.071	968.2				584.1	384.1		
σ'_3 , kPa	385	7.892	883.4	1.9	9.8	871.7		0.080	1071.7				635.9	435.9		
200	435	8.971	989.2	2.1	9.8	977.3		0.091	1177.3				688.7	488.7		
Rate of axial displ.	485	10.02	1087.7	2.3	9.8	1075.6		0.101	1275.6				737.8	537.8		
mm/min	535	11.032	1162.4	2.5	9.8	1150.1		0.112	1350.1				775.1	575.1		
0.9973	580	11.944	1222.2	2.7	9.8	1209.7		0.121	1409.7				804.9	604.9		
	630	12.976	1293.8	2.9	9.8	1281.1		0.131	1481.1				840.6	640.6		
	680	14.022	1358.2	3.0	9.8	1345.4		0.142	1545.4				872.7	672.7		
	730	15.118	1406.2	3.2	9.8	1393.2		0.152	1593.2				896.6	696.6		
	775	16.064	1435.0	3.4	9.8	1421.8		0.162	1621.8				910.9	710.9		
	825	17.088	1454.6	3.5	9.8	1441.3		0.172	1641.3				920.7	720.7		
	875	18.095	1474.7	3.6	9.8	1461.3		0.183	1661.3				930.7	730.7		
	925	19.127	1487.7	3.8	9.8	1474.1		0.193	1674.1				937.1	737.1		
Specimen	0	-0.012	0.0	0.0	0.0	0.0		0.000	300.0				300.0	0.0		
III	45	0.833	325.9	0.3	0.0	325.6		0.009	625.6				462.8	162.8		
Cell pressure	95	1.862	484.2	0.6	0.0	483.6		0.020	783.6				541.8	241.8		
σ_3 , kPa	145	2.917	630.8	0.8	9.7	620.3		0.030	920.3				610.2	310.2		
900	190	3.871	760.4	1.0	9.7	749.7		0.039	1049.7				674.9	374.9		
Back pressure	240	4.902	892.0	1.3	9.7	881.0		0.050	1181.0				740.5	440.5		
u_b , kPa	290	5.895	1024.6	1.5	9.7	1013.4		0.060	1313.4				806.7	506.7		
600	340	6.893	1178.3	1.7	9.7	1166.9		0.071	1466.9				883.5	583.5		
σ'_3 , kPa	385	7.813	1307.3	1.9	9.7	1295.7		0.080	1595.7				947.9	647.9		
300	435	8.913	1434.9	2.1	9.7	1423.1		0.090	1723.1				1011.6	711.6		
Rate of axial displ.	485	9.958	1531.9	2.3	9.7	1519.9		0.101	1819.9				1060.0	760.0		
mm/min	535	10.977	1620.2	2.5	9.7	1608.0		0.111	1908.0				1104.0	804.0		
0.9973	580	11.869	1685.0	2.7	9.7	1672.6		0.120	1972.6				1136.3	836.3		
	630	12.885	1757.1	2.8	9.7	1744.6		0.131	2044.6				1172.3	872.3		
	680	13.929	1821.8	3.0	9.7	1809.1		0.141	2109.1				1204.6	904.6		
	730	15.005	1880.2	3.2	9.7	1867.3		0.152	2167.3				1233.7	933.7		
	775	15.958	1910.6	3.3	9.7	1897.6		0.161	2197.6				1248.8	948.8		
	825	16.999	1928.3	3.5	9.7	1915.1		0.171	2215.1				1257.6	957.6		
	875	17.998	1938.7	3.6	9.7	1925.4		0.182	2225.4				1262.7	962.7		
	925	19.003	1944.9	3.7	9.7	1931.5		0.192	2231.5				1265.8	965.8		



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#470 SAMPLE TOE BAG

1 / 1

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5812

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#470
SAMPLE TOE

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

BAG

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

REMARKS

THE POINT LOAD TEST HAS NOT BEEN PERFORMED BECAUSE IT IS A DISGREGATED SAND



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#478Aa SAMPLE TOE BAG

1 / 1

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5813

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#478Aa
SAMPLE TOE

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

BAG

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG		

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

REMARKS

THE POINT LOAD TEST HAS NOT BEEN PERFORMED BECAUSE IT IS A DISGREGATED SAND



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#468 SAMPLE TOE BAG

1 / 1

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5814

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#468
SAMPLE TOE

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

BAG

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

REMARKS

THE POINT LOAD TEST HAS NOT BEEN PERFORMED BECAUSE IT IS A DISGREGATED SAND



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#475Aa SAMPLE TOE BAG

1 / 1

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5815

Code: CC-OL-RA-0001 Rv.00

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#475Aa
SAMPLE TOE

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

BAG

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens

Depth m	Observations P-Penetrometer V-Vane-Test (kPa)

SEE VC LOG

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

REMARKS

THE POINT LOAD TEST HAS NOT BEEN PERFORMED BECAUSE IT IS A DISGREGATED SAND



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#465_Aa SAMPLE C BAG / DEPTH: 3.1-3.55 m

1 / 2

OPENING AND DESCRIPTION OF THE SAMPLE IN LABORATORY - IT-300

Sample reference

2022GC-5816

Code: **CC-OL-RA-0001 Rv.00**

General data

Petitioner
Client
Project

LABOCAT CALIDAD, S. L. (B63638167)
OFFSHORE A05

Sample data

Client reference
Situation

EC GI#465_Aa
SAMPLE C

Top depth, m
Bottom depth, m
Sample type
Diameter, cm
Length, cm
Acquisition date
Reception date

3.1
3.55
BAG

20-9-22

Opening and preparation data

Opening date
Analyst
Type of opening
Storage
Environment test

20-10-22
BLANCA MONEO
MANUAL
LABORATORY
GEOTECHNICAL LAB.

Soil type

USCS classification

AASHTO classification

Sample description

Lithological description according to the subjective criterion of the analyst who opens	Depth	Observations
	m	P-Penetrometer V-Vane-Test (kPa)
SEE VC LOG	3.1	
	3.55	

NOTE: The soil is described primarily by its main majority fraction. For secondary fractions the following terms are used: Less than 5% is not indicated. From 5% to 10%, SIGNS. From 10% to 20%, SOME. From 20% to 35%, ENOUGH. More than 35%, Y/EY termination.

TESTS CARRIED OUT

POINT LOAD TEST OF ROCKS - UNE 22950-5/96

REMARKS



Report number: 2022-6427-18537
Edition date: 17-11-22

LOCATION: EC GI#465_Aa SAMPLE C BAG / DEPTH: 3.1-3.55 m

2 / 2

Sample reference

POINT LOAD TEST OF ROCKS - UNE 22950-5/96

2022GC-5816

Equipment

POINT LOAD HYDRAULIC MACHINE MEF

Sample data

Previous preparation
Type of sample

NO
BLOCK

L Distance from the load point to the nearest edge
P Load
D Distance between load points
De Equivalent diameter
Is Point load strength
W Width
D' Distance after failure
F Size correction factor
Is(50) Is for a De = 50 mm

Results

Mean value Is(50), Mpa **6.59**
Mean value Is(50) T, Mpa
Mean value Is(50) II, Mpa
Index of anisotropy, Ia(50)

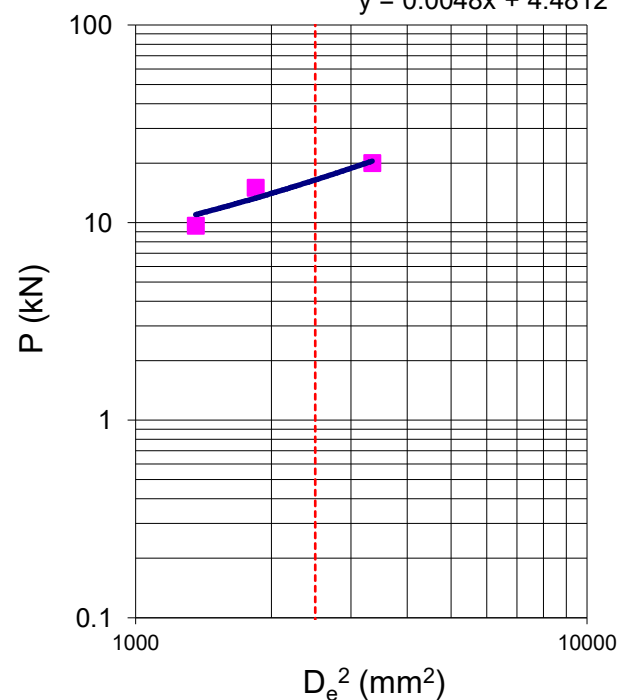
Test data and partially results

	N ^o specimen	Moisture c. %	Test		P kN	L mm	W mm	D mm	D' mm	De ² mm ²	De mm	Is MPa	F	Is(50) MPa
			Type	Direction										
Type of test legend	1	0.1	a		20.06		86.00	35.3	30.53	3343	57.82	6.00	1.07	6.41
d diametric	2	0.1	f		15.02	48.40	46.05	35.4	31.47	1845	42.95	8.14	0.93	7.60
a axial	3	0.1	f		9.69	45.20	40.40	27.9	26.4	1358	36.85	7.14	0.87	6.22
b block														
f fragment irreg.														
Direction of the load legend (only anisotropic rocks)														
T perpendicular to the failure plane														
II parallel to the failure plane														

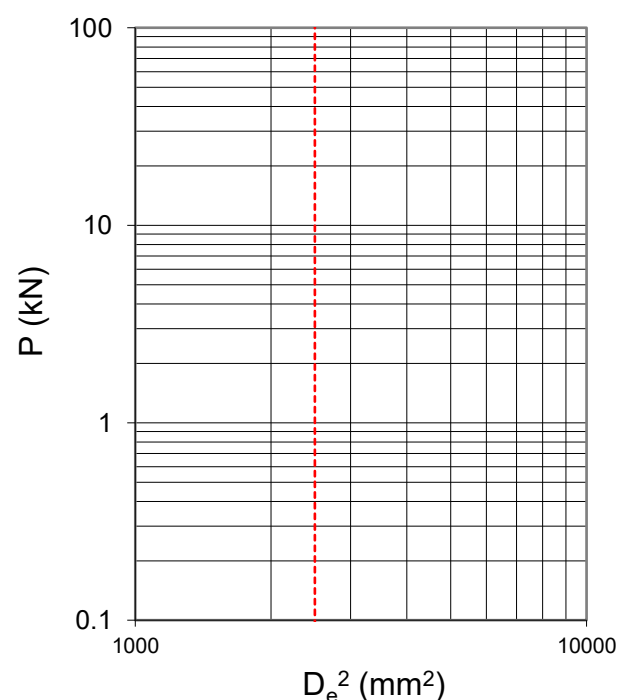
Log of tests carried out

Isotropic rocks

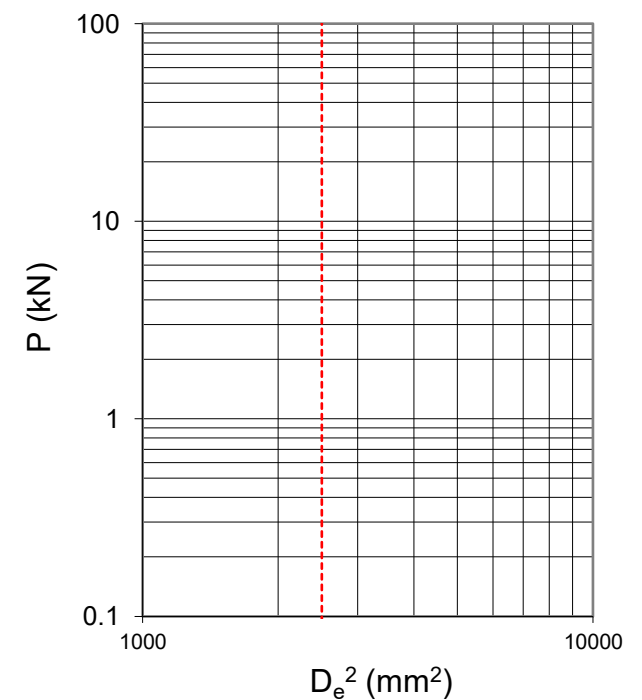
$$y = 0.0048x + 4.4812$$



Isotropic rocks: tests type T



Isotropic rocks: tests type II



REMARKS