User Manual

CIVILAB 2023

CBR TEST

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How to use CiviLab to perform the CBR test?

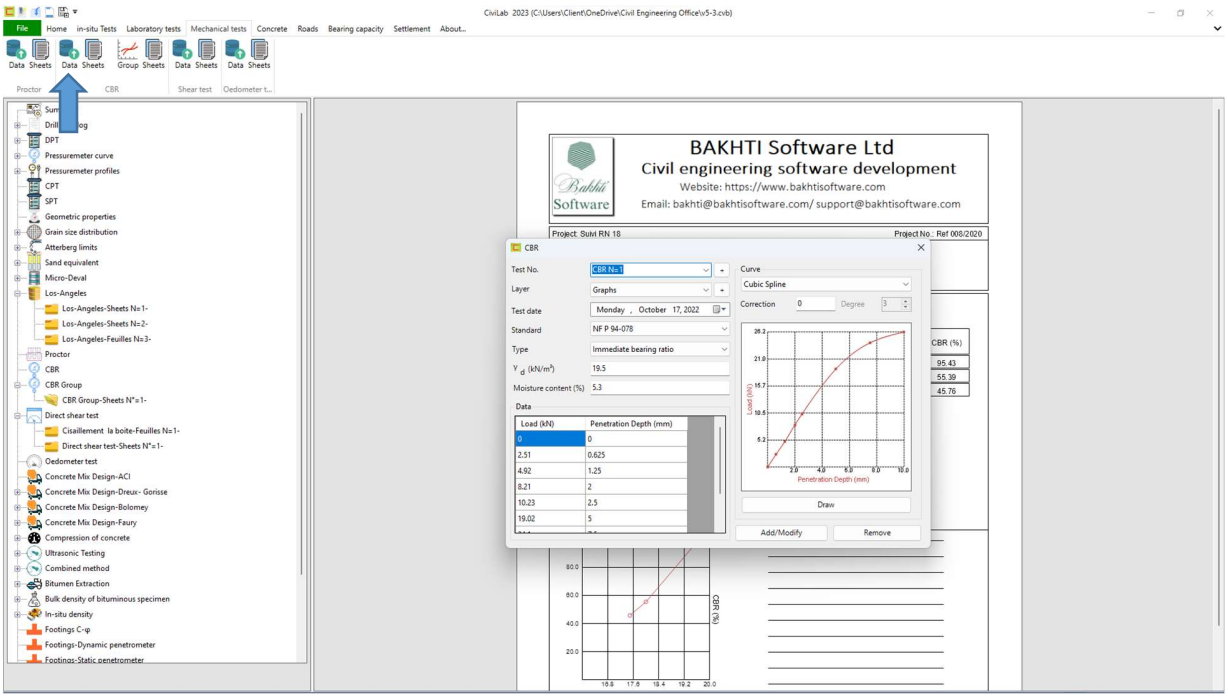
I- Loads-penetration curve

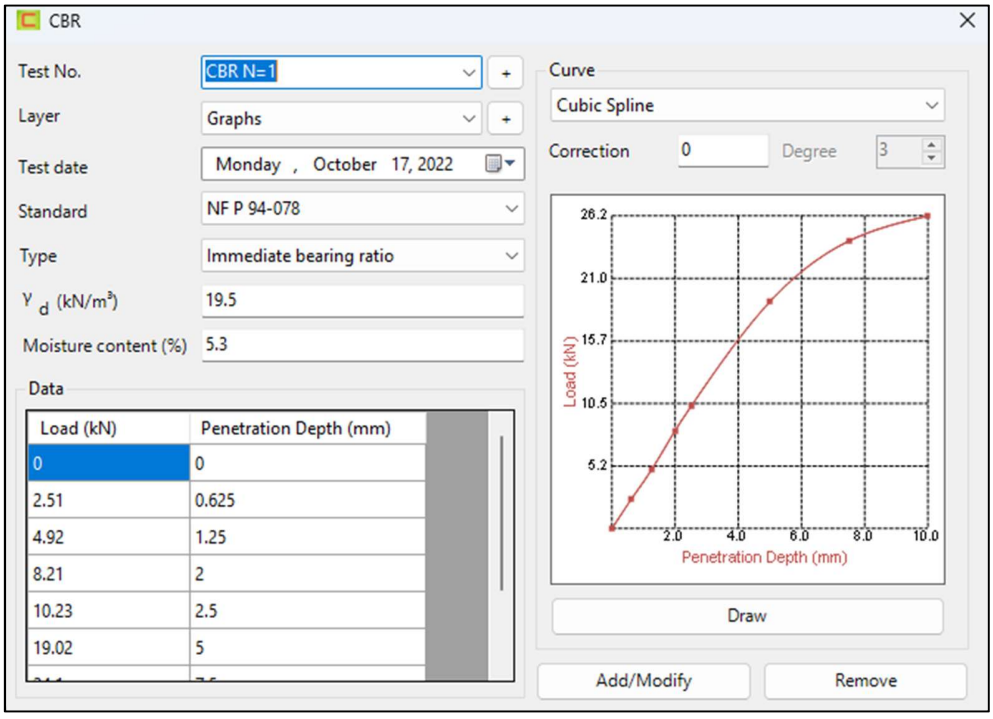
1- Test Data:

Click on the "Mechanical Tests" tab then click on the "Data" button in the "CBR" panel, then input:

- The test name;
- The test date;
- Select the layer which should be used in the drawing process;
- Select the standard;
- Select the type of the test;
- The moisture content;
- The density;
- The values of Force-penetration or pressure penetration (depending on the standard used);
- Choose the type of curve (linear, cubic spline, cubic spline Akima, cubic spline Pchip, b-spline)
- The desired correction value

Click on the button of "Add/Modify";


CivilLab 2023 (C:\Users\Client\OneDrive\Civil Engineering Office\v5-3.cvb)
BAKHTI Software Ltd
Civil engineering software development
Website: https://www.bakhtisoftware.com
Email: bakhti@bakhtisoftware.com/ support@bakhtisoftware.com
CBR
Test No.
CBR N=1
Layer
Graphs
Test date
Monday , October 17, 2022
Standard
NF P 94-078
Type
Immediate bearing ratio
Moisture content (%)
5.3
Curve
Cubic Spline
Correction
Degree
Load (kN)
Penetration Depth (mm)
Draw
Add/Modify
Remove

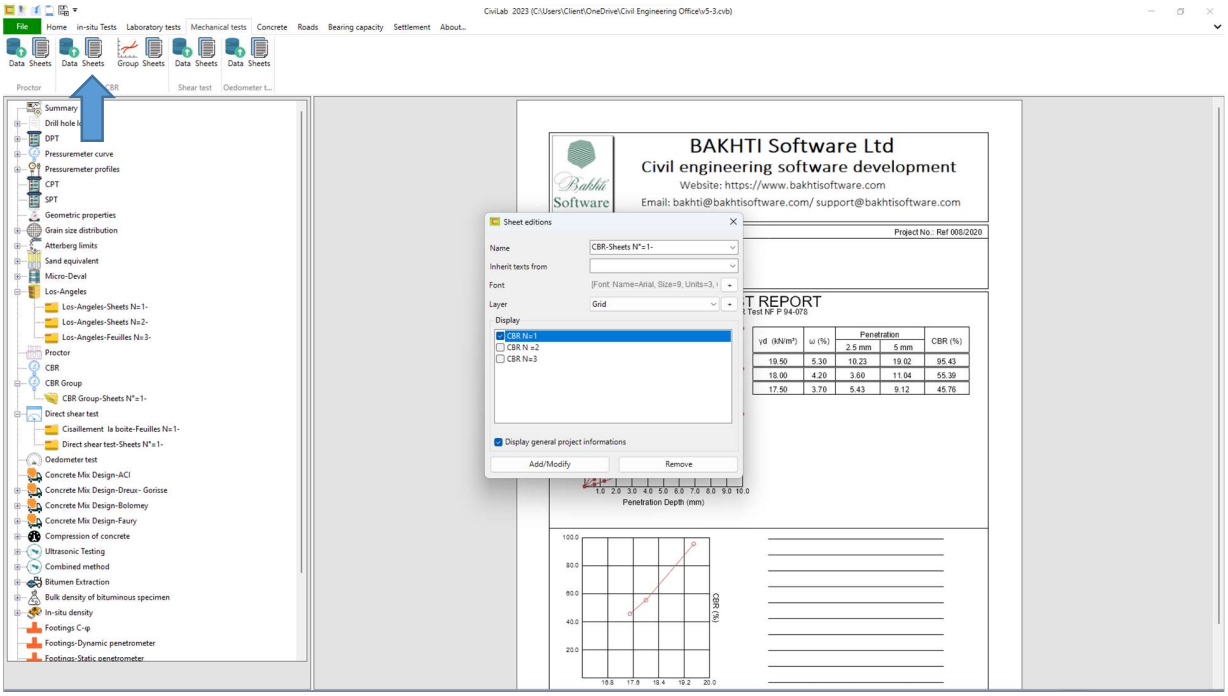

CBR
Test No.
CBR N=1
Layer
Graphs
Test date
Monday , October 17, 2022
Standard
NF P 94-078
Type
Immediate bearing ratio
Moisture content (%)
5.3
Data
Load (kN)
Penetration Depth (mm)
0
0
2.51
0.625
4.92
1.25
8.21
2
10.23
2.5
19.02
5
Curve
Cubic Spline
Correction
0
Degree
3
Load (kN)
Penetration Depth (mm)
Draw
Add/Modify
Remove

2- Add a sheet:

Click on the "Sheets" button in the "CBR" panel and input:

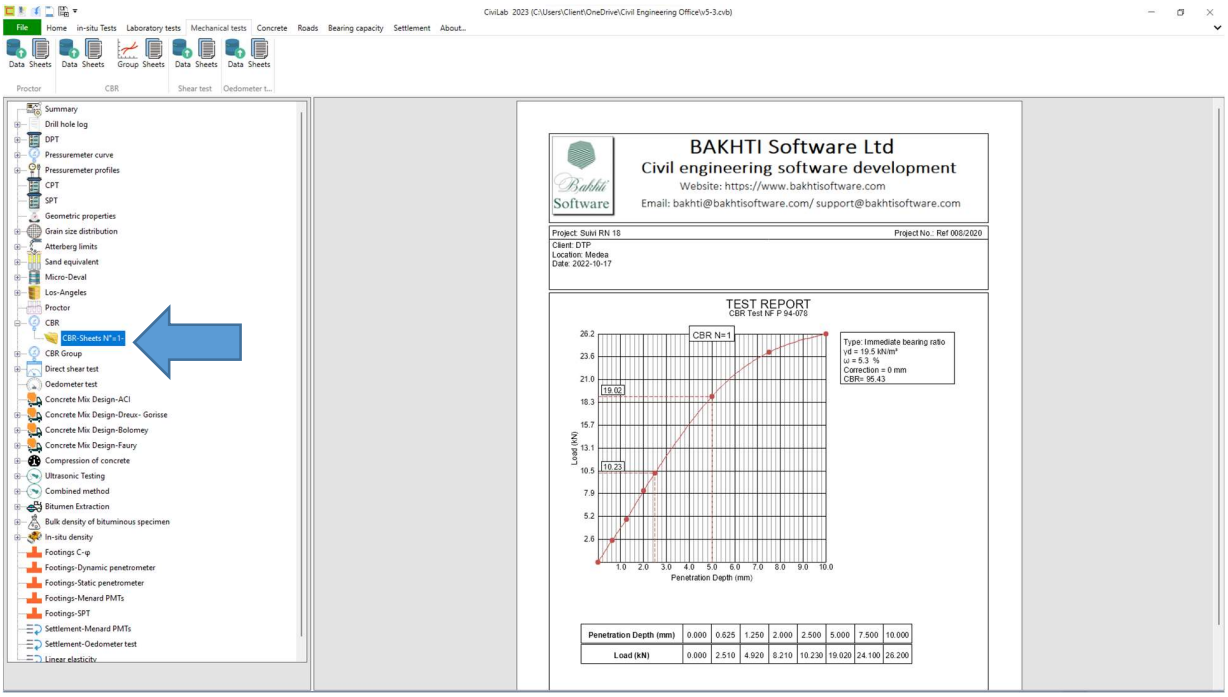
- The sheet name;
- Select the font;
- Select the layer used in the background drawing;
- Select the tests;
- To display general project information's check the corresponding box;

Then click on "Add/Modify" button



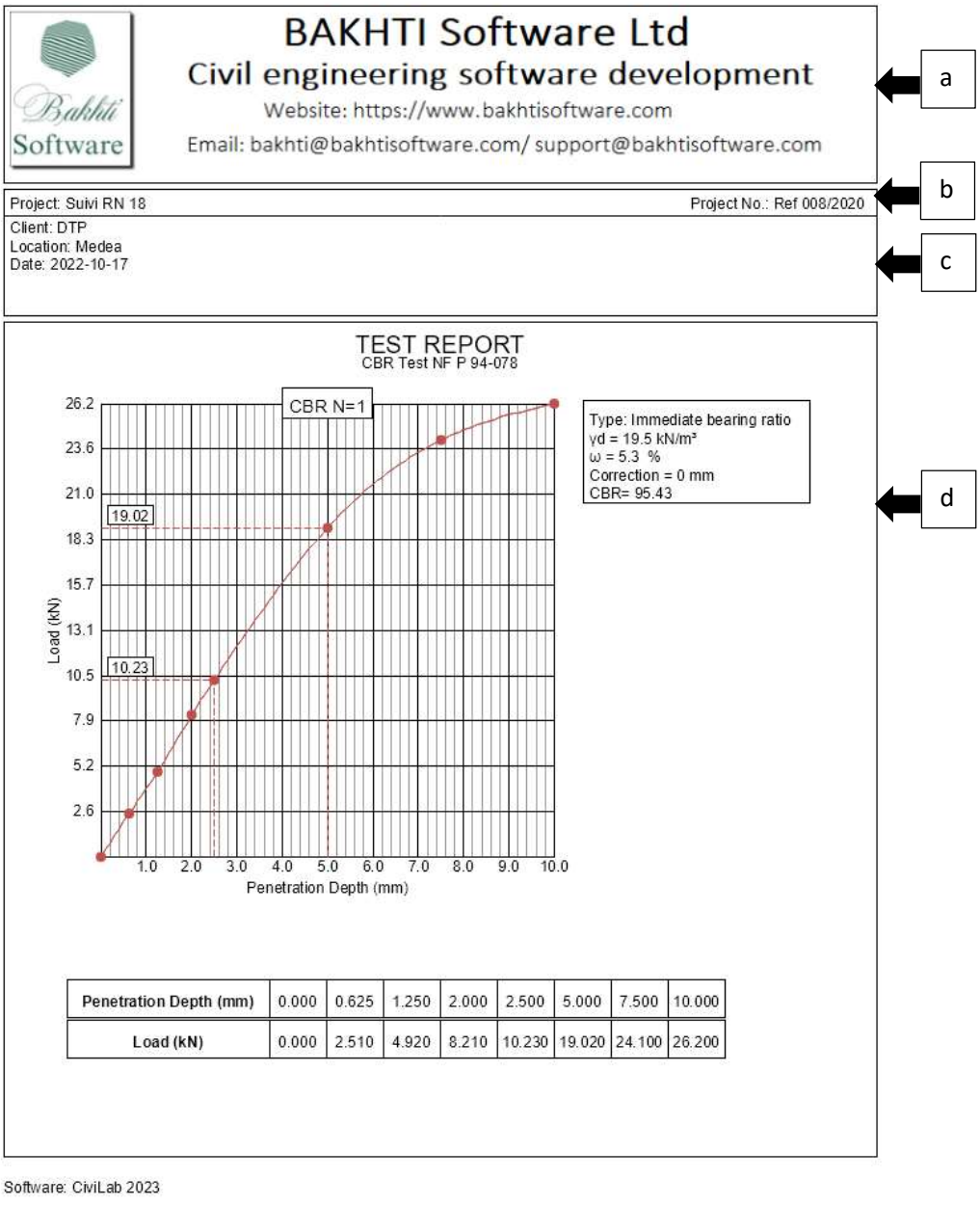
3- Display the report

To display the report, click on the sheet name in the tree view



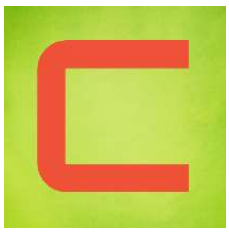
To export or print the report, click on "Home" tab, then click the appropriate button in the outputs panel (Print or Export button)

4- Test report :



a. Sheet Header Presentation: To import or modify the sheet header, go to the "Home" tab and select the "Header" button.

b. Project Name and Reference: These details can be entered from the project's general information found in the File menu.



c. Area for Displaying Test Information: Test information can be input within this area from the Test Information window (to show it click on the “+” button next to the name of the test on Data window) and project's general information window.
d. Area for Plotting Curves: this area is designated to visualize curves and the test results.

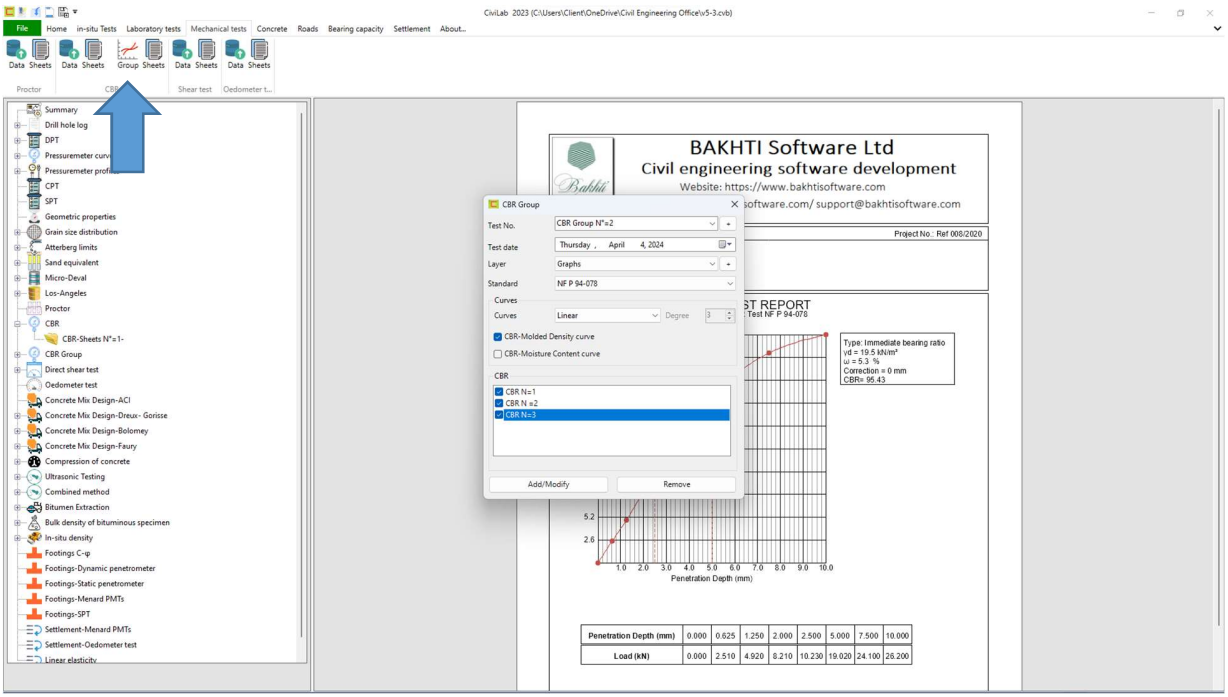
II- CBR-Water content curve / CBR-density curve

1- Test Data:

Click on the "Mechanical Tests" tab then click on the "Data" button in the "CBR" panel, then input:

- The test name;
- The test date;
- Select the layer which should be used in the drawing process;
- Select the standard;
- Choose the type of curve (linear, cubic spline, cubic spline Akima, cubic spline Pchip, b-spline)
- To display the CBR-Moisture content curve, check the corresponding box;
- To display the CBR-Density curve, check the corresponding box;
- Select CBR tests

Click on the button of "Add/Modify";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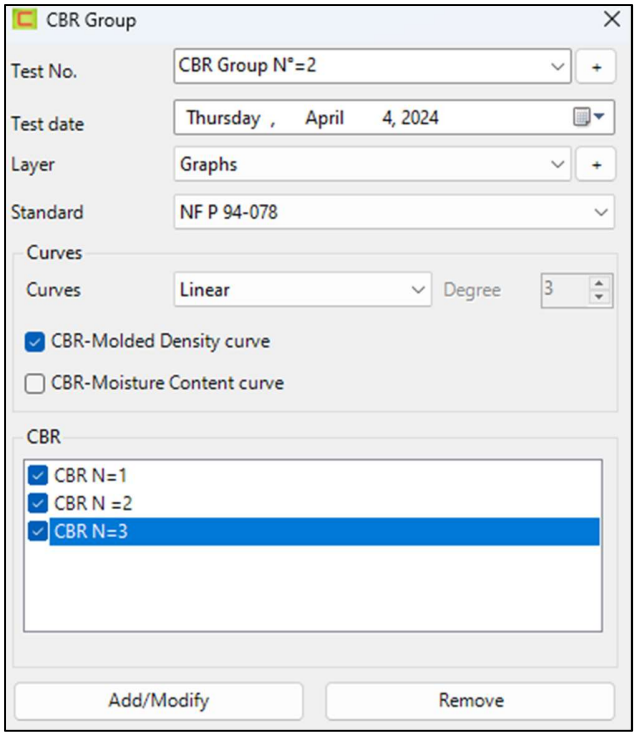
BAKHTI Software Ltd
Civil engineering software development
Website: https://www.bakhtisoftware.com
Project No.: Ref 008/2020
CBR Group
Test No.
CBR Group N°=2
Test date
Thursday , April 4, 2024
Layer
Graphs
Standard
NF P 94-078
Curves
Linear
Degree
CBR-Molded Density curve
CBR-Moisture Content curve
CBR
CBR N=1
CBR N =2
CBR N=3
Add/Modify
Remove
Penetration Depth (mm)
Load (kN)

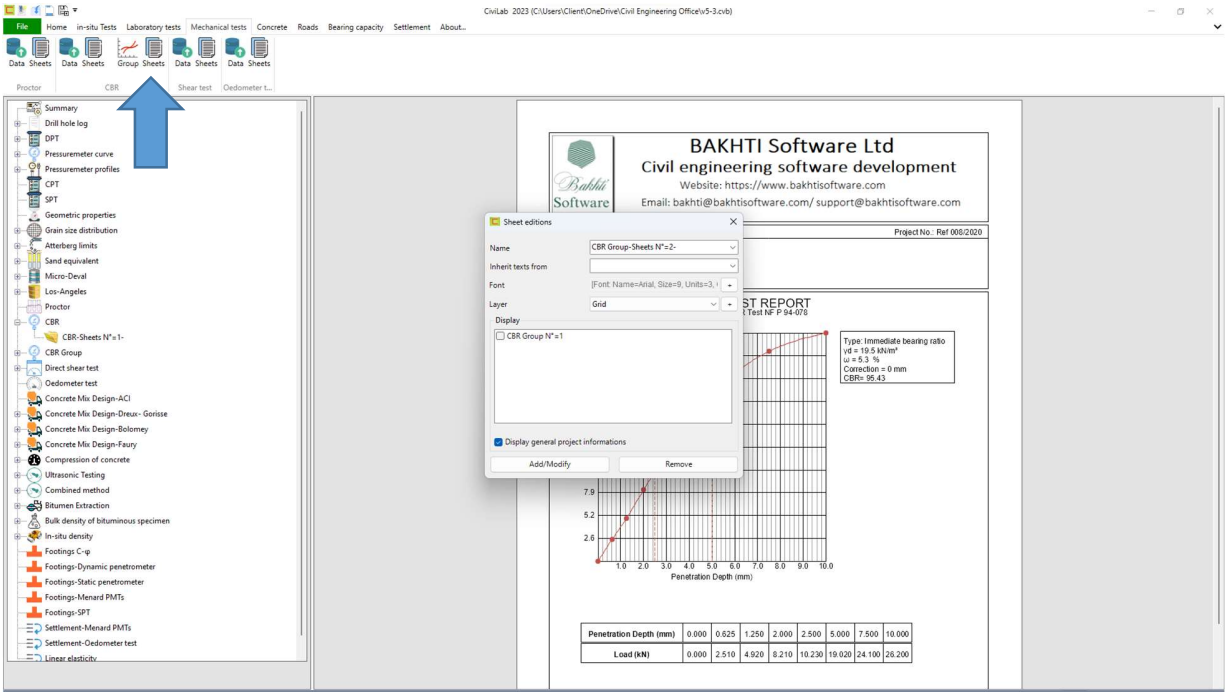

CBR Group
Test No.
CBR Group N°=2
Test date
Thursday , April 4, 2024
Layer
Graphs
Standard
NF P 94-078
Curves
Curves
Linear
Degree
3
CBR-Molded Density curve
CBR-Moisture Content curve
CBR
CBR N=1
CBR N =2
CBR N=3
Add/Modify
Remove

2- Add a sheet:

Click on the "Sheets" button in the "CBR" panel and input:

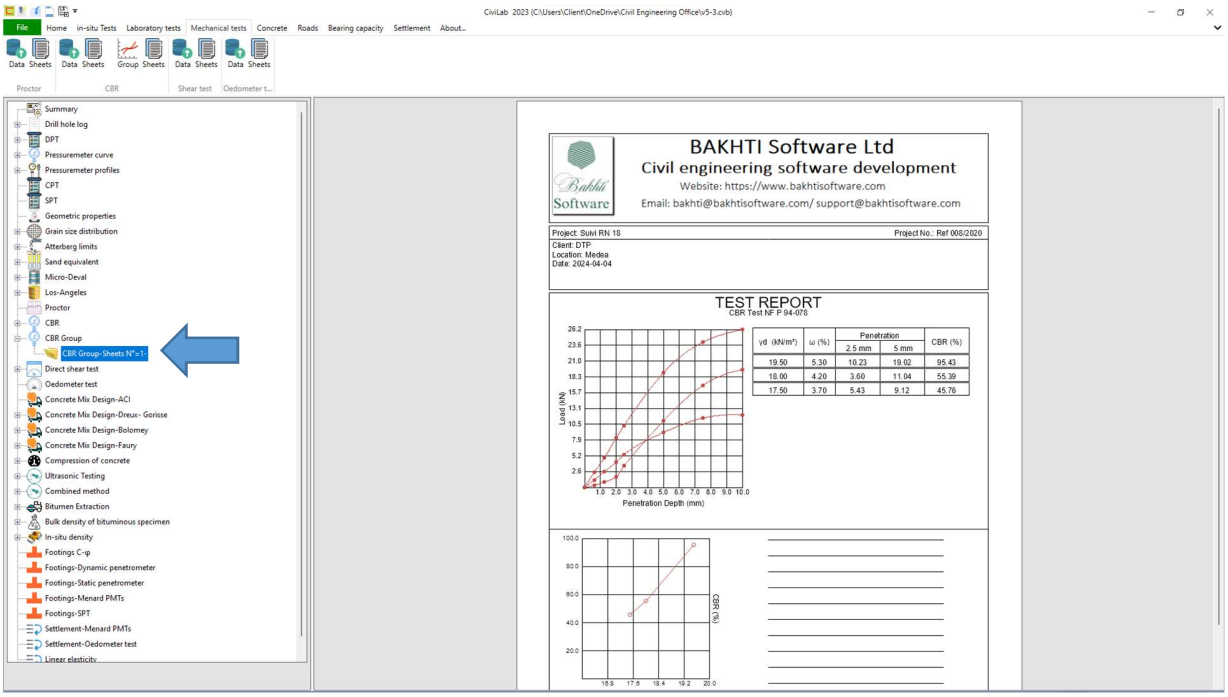
- The sheet name;
- Select the font;
- Select the layer used in the background drawing;
- Select the tests;
- To display general project information's check the corresponding box;

Then click on "Add/Modify" button



3- Display the report

To display the report, click on the sheet name in the tree view



To export or print the report, click on "Home" tab, then click the appropriate button in the outputs panel (Print or Export button)

4- Test report :

BAKHTI Software Ltd

Civil engineering software development

Website: https://www.bakhtisoftware.com

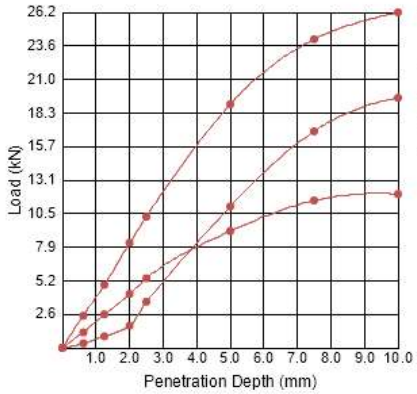
Email: bakhti@bakhtisoftware.com/ support@bakhtisoftware.com

Project: Suivi RN 18 — Project No.: Ref 008/2020

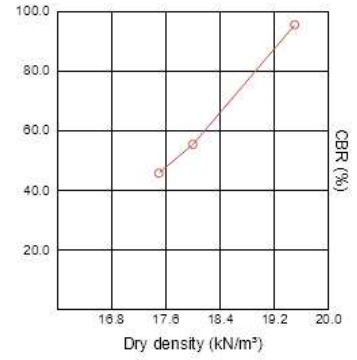
Client: DTP
Location: Medea
Date: 2024-04-04

TEST REPORT

CBR Test NF P 94-078



γd (kN/m³)	ω (%)	Penetration		CBR (%)
		2.5 mm	5 mm	
19.50	5.30	10.23	19.02	95.43
18.00	4.20	3.60	11.04	55.39
17.50	3.70	5.43	9.12	45.76



Software: CiviLab 2023