BS GUIDE - Quality Assurance & Quality Control Application

Project Overview

BS GUIDE is a comprehensive Progressive Web Application (PWA) to simplify and streamline the Quality Assurance and Quality Control (QAQC) workflow for engineers in the field. The app enables QAQC engineers to collect drill hole data using tablets, including Burden, Spacing, Stemming, and Lengths, while providing real-time insights and comprehensive reporting.

Live Application

https://bs-guide.netlify.app/

Key Features

Data Management

- **Excel/CSV Import**: Support for .xlsx, .xls, and .csv files
- **Real-time Data Entry**: Click on drill holes to enter measurements
- **Custom Numeric Keypad**: On-screen keypad prevents device keyboard interference
- **Draggable Input Boxes**: Move data entry boxes anywhere on screen
- **Auto-save Progress**: Save and load project files (.rah format)

Analytics & Reporting

- **Live Compliance Stats**: Instant feedback on measurement compliance.
- **Color-coded Visualization**: Points change color based on data availability
- **Customizable Benchmarks**: Set targets and tolerances for all parameters
- **PDF Audit Reports**: Generate comprehensive blast audit reports in one click.
- **Excel Export**: Easily export collected data for further analysis

User Experience

- **10 Stunning Themes**: Choose from themes like Ocean Depths, Neon, and Night Mode.
- **Responsive Design**: Optimized for use on tablets and phones. Works on desktops
- **Installable PWA**: Add to home screen and use like a native app
- **Touch Optimized**: Built for smooth use on touchscreen devices.
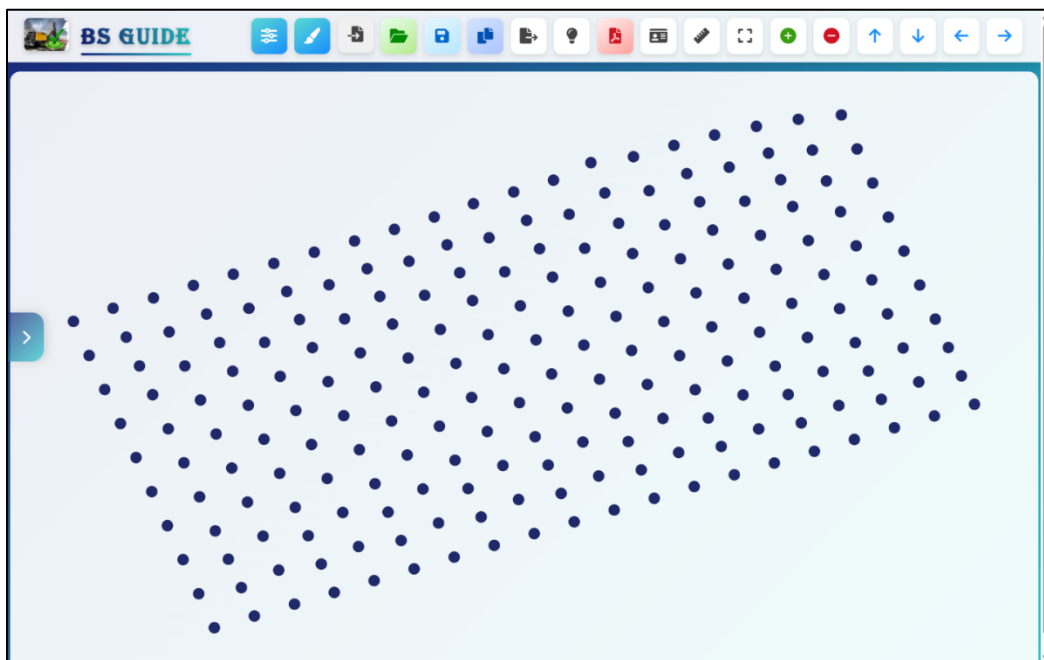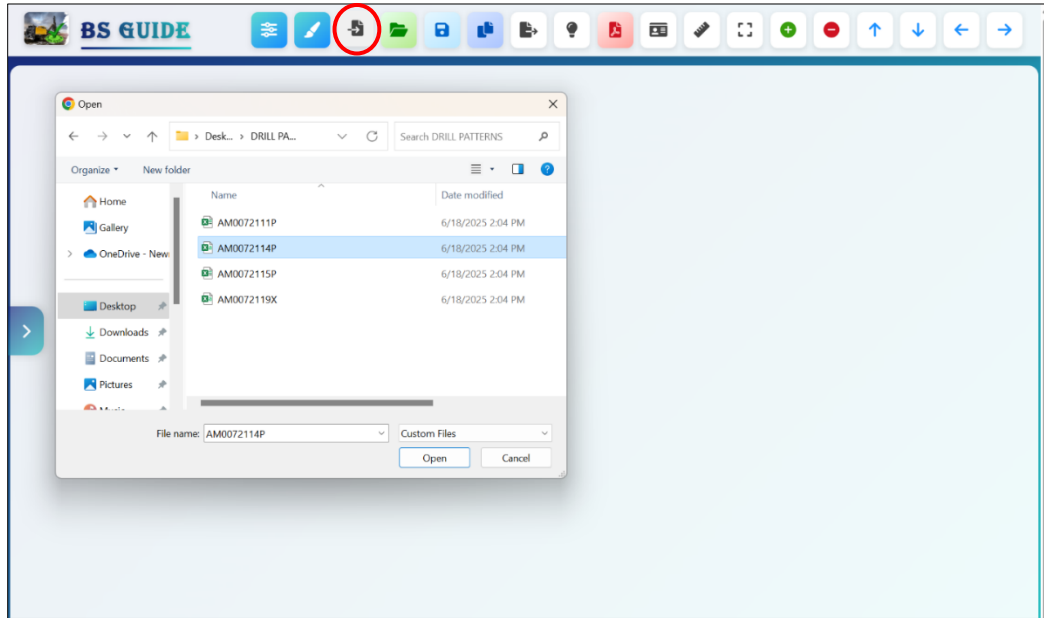- **Offline Capable**: Works without internet connection

How to use

1. **Prepare Drill Hole Data**

   Format drill holes in the format "ID", "X", "Y", "Z" in excel (in column A, B, C, and D respectively).

2. **Import Data**

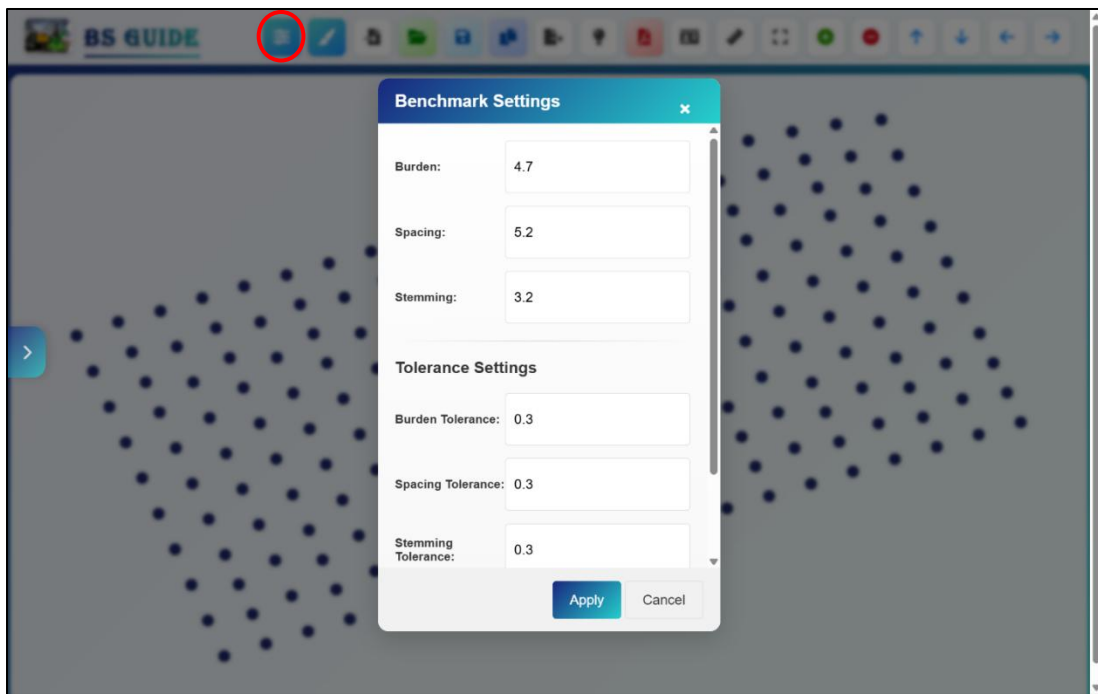   Click the Import button and select your Excel or CSV file. Drill holes will automatically populate on the screen.

3. **Set Benchmarks**

   Click on Benchmark button to input your benchmarks and tolerances for burden, spacing, stemming and length.

4. Input Field Data

Click on a drill hole to enter values.

Use the left arrow button to activate the on-screen numeric keypad for easy entry.
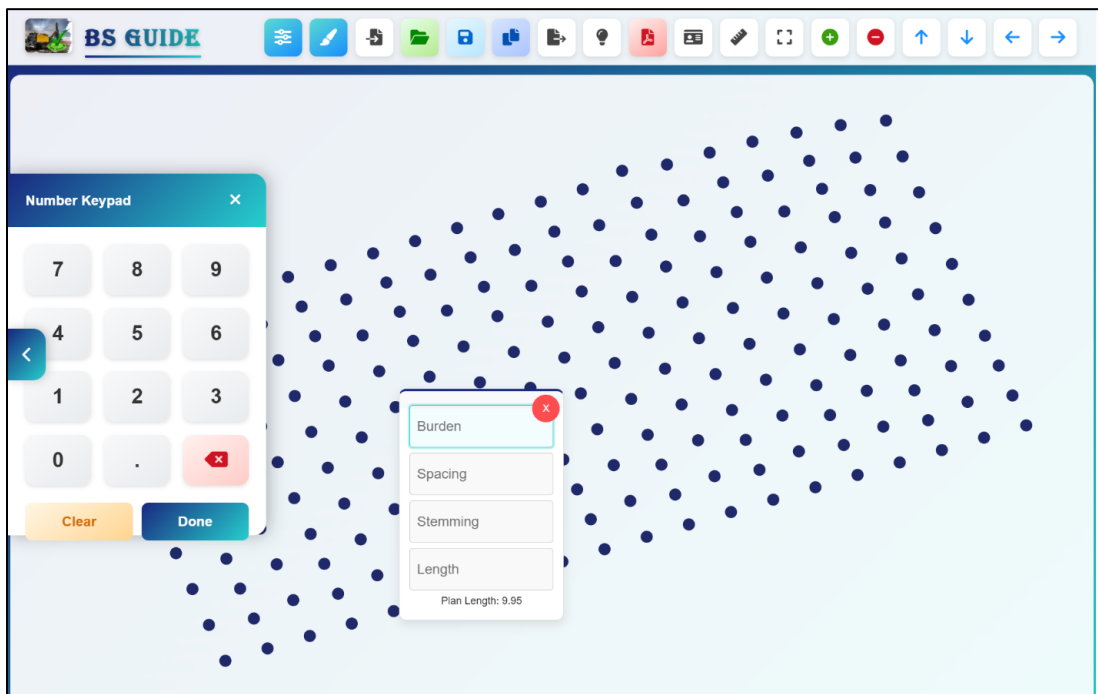
5. View Insights

Click the **Insights** button to view compliance statistics and summaries.

6. Export Data

Use Export button to save raw data to Excel. Use Generate PDF to create a blast audit report

BS GUIDE

Download started. To see it, press and hold Esc .

Number Keypad ✕

7	8	9
4	5	6
1	2	3
0	.	⌫

Clear   Done

BURDEN
Compliance: 80.0%
Measurements: 10
Average: 4.7
Max: 5.0
Min: 4.0
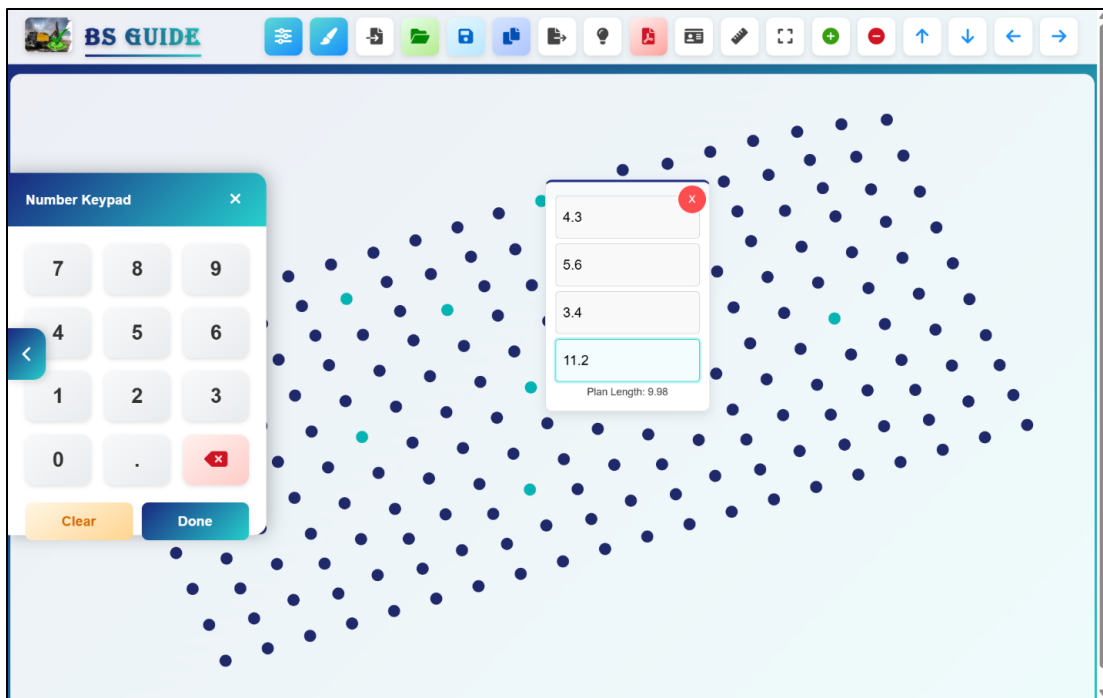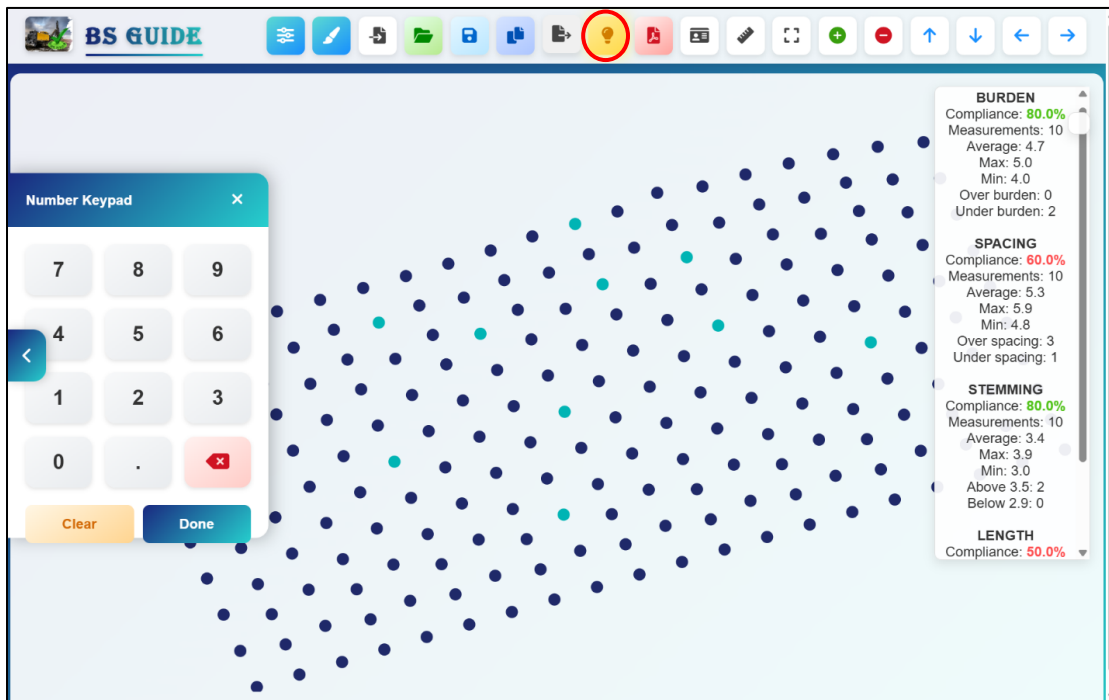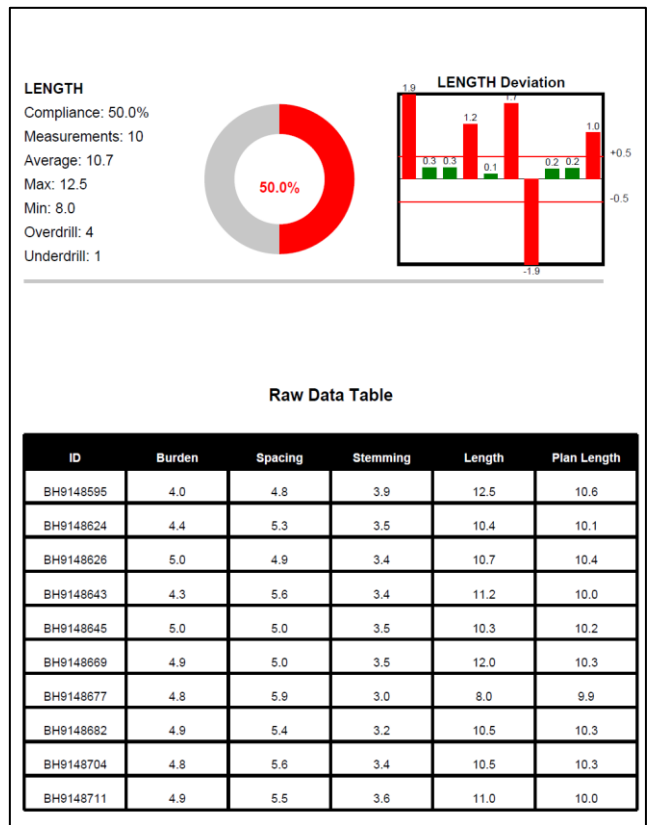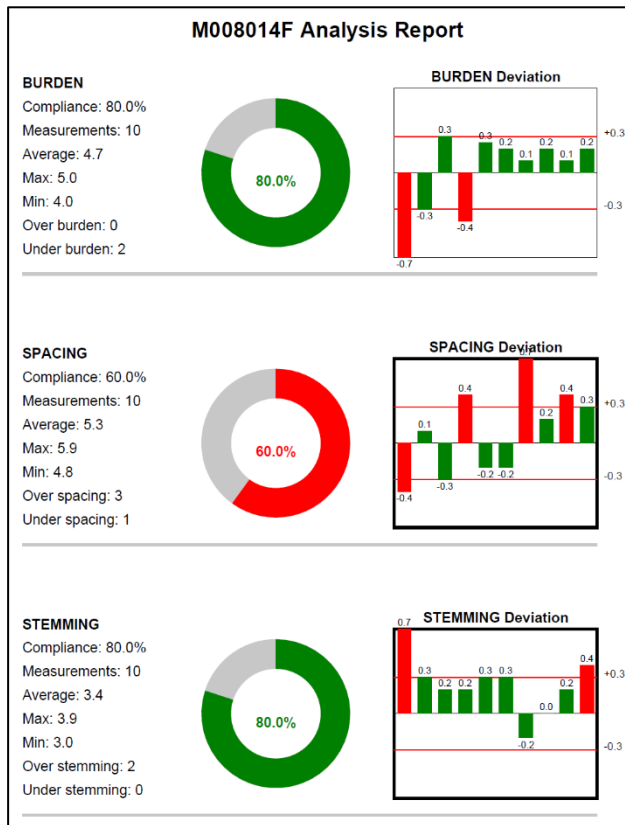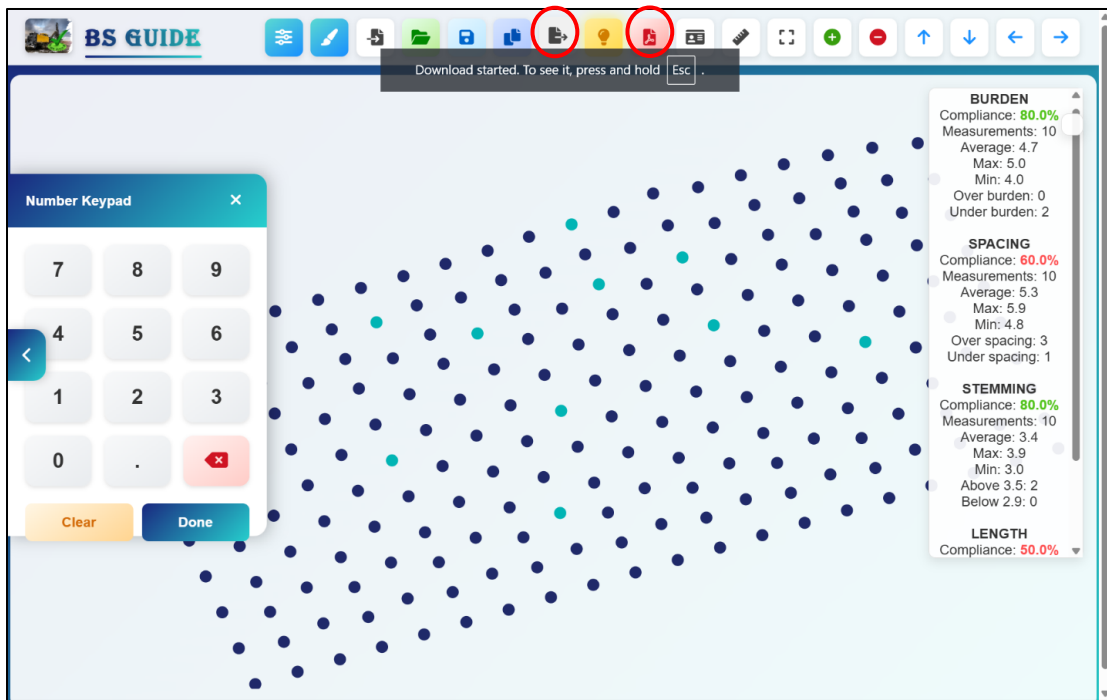Over burden: 0
Under burden: 2

SPACING
Compliance: 60.0%
Measurements: 10
Average: 5.3
Max: 5.9
Min: 4.8
Over spacing: 3
Under spacing: 1

STEMMING
Compliance: 80.0%
Measurements: 10
Average: 3.4
Max: 3.9
Min: 3.0
Above 3.5: 2
Below 2.9: 0

LENGTH
Compliance: 50.0%

M008014F Analysis Report

BURDEN
Compliance: 80.0%
Measurements: 10
Average: 4.7
Max: 5.0
Min: 4.0
Over burden: 0
Under burden: 2

BURDEN Deviation — 80.0%
0.3, 0.3, 0.2, 0.2, 0.2, 0.1, 0.1, -0.3, -0.4, -0.7 (+0.3 / -0.3)

SPACING
Compliance: 60.0%
Measurements: 10
Average: 5.3
Max: 5.9
Min: 4.8
Over spacing: 3
Under spacing: 1

SPACING Deviation — 60.0%
0.4, 0.4, 0.3, 0.2, 0.1, -0.2, -0.2, -0.3, -0.4 (+0.3 / -0.3)

STEMMING
Compliance: 80.0%
Measurements: 10
Average: 3.4
Max: 3.9
Min: 3.0
Over stemming: 2
Under stemming: 0

STEMMING Deviation — 80.0%
0.7, 0.4, 0.3, 0.3, 0.3, 0.2, 0.2, 0.0, -0.2 (+0.3 / -0.3)

LENGTH
Compliance: 50.0%
Measurements: 10
Average: 10.7
Max: 12.5
Min: 8.0
Overdrill: 4
Underdrill: 1

LENGTH Deviation — 50.0%
1.9, 1.7, 1.2, 1.0, 0.3, 0.3, 0.1, 0.2, 0.2, -1.9 (+0.5 / -0.5)

Raw Data Table

ID	Burden	Spacing	Stemming	Length	Plan Length
BH9148595	4.0	4.8	3.9	12.5	10.6
BH9148624	4.4	5.3	3.5	10.4	10.1
BH9148626	5.0	4.9	3.4	10.7	10.4
BH9148643	4.3	5.6	3.4	11.2	10.0
BH9148645	5.0	5.0	3.5	10.3	10.2
BH9148669	4.9	5.0	3.5	12.0	10.3
BH9148677	4.8	5.9	3.0	8.0	9.9
BH9148682	4.9	5.4	3.2	10.5	10.3
BH9148704	4.8	5.6	3.4	10.5	10.3
BH9148711	4.9	5.5	3.6	11.0	10.0

7. Display & Visual Adjustments

- Click **Display Borehole ID** to show IDs
- Click Display Length to show hole lengths.
- Use the Fit button to center and scale the pattern.
- Use Arrow Buttons to reposition ID and Length labels.
- Use Increase/Decrease Point to change borehole point sizes.
- Change app appearance via the Theme button.