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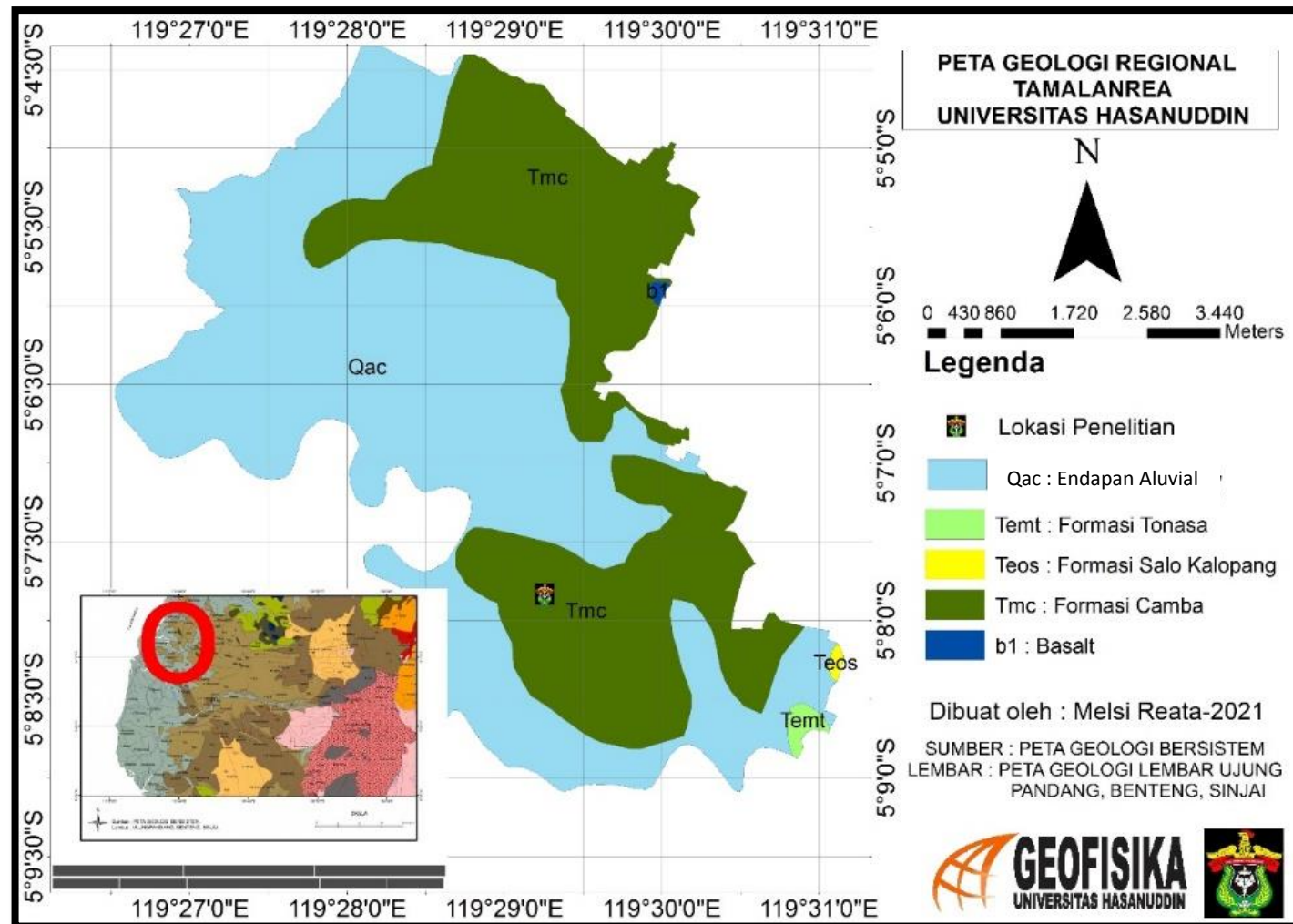
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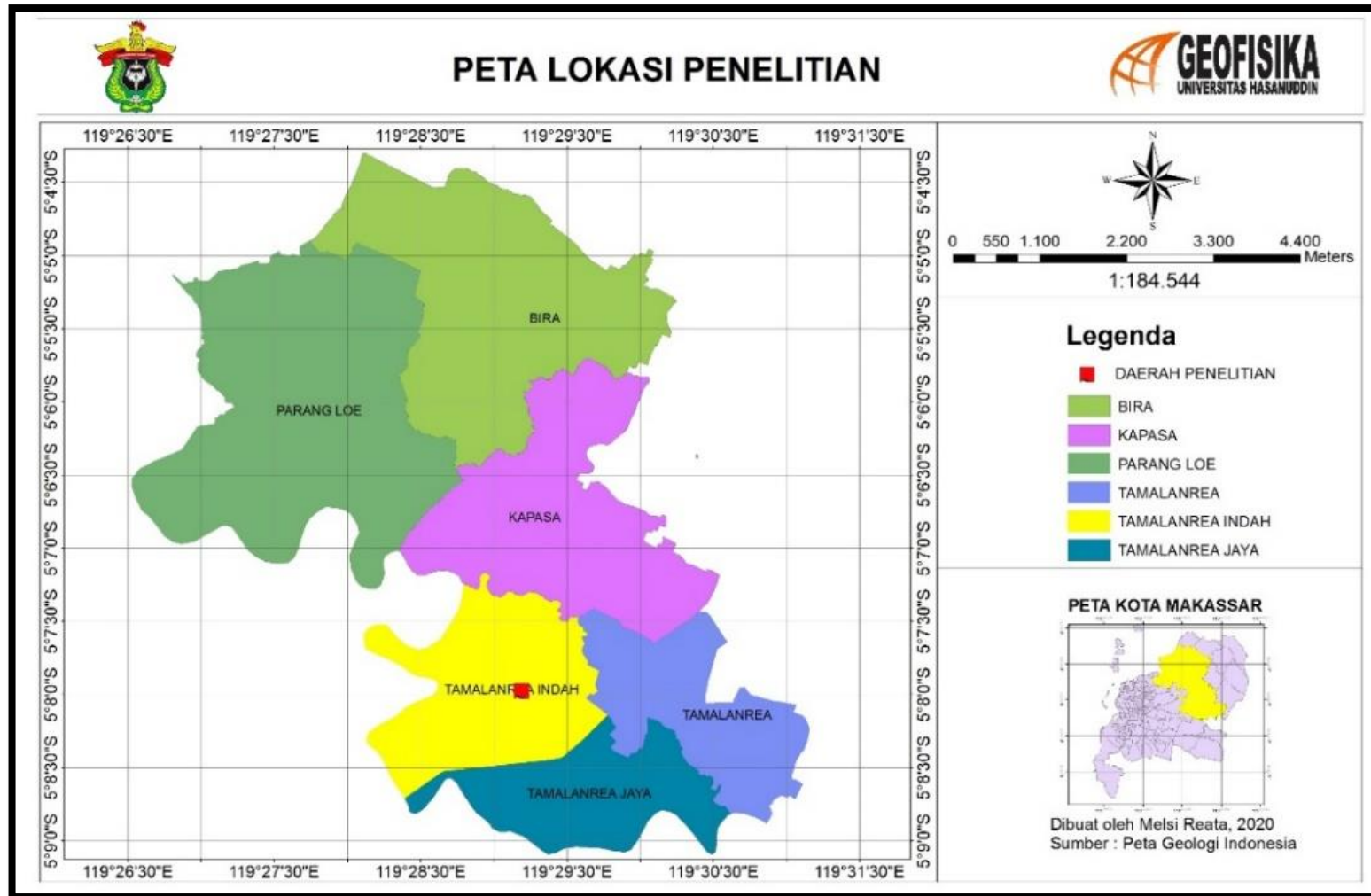
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Lampiran I : Peta Geologi Regional Tamalanrea Universitas Hasanuddin



Lampiran II : Peta Lokasi Penelitian

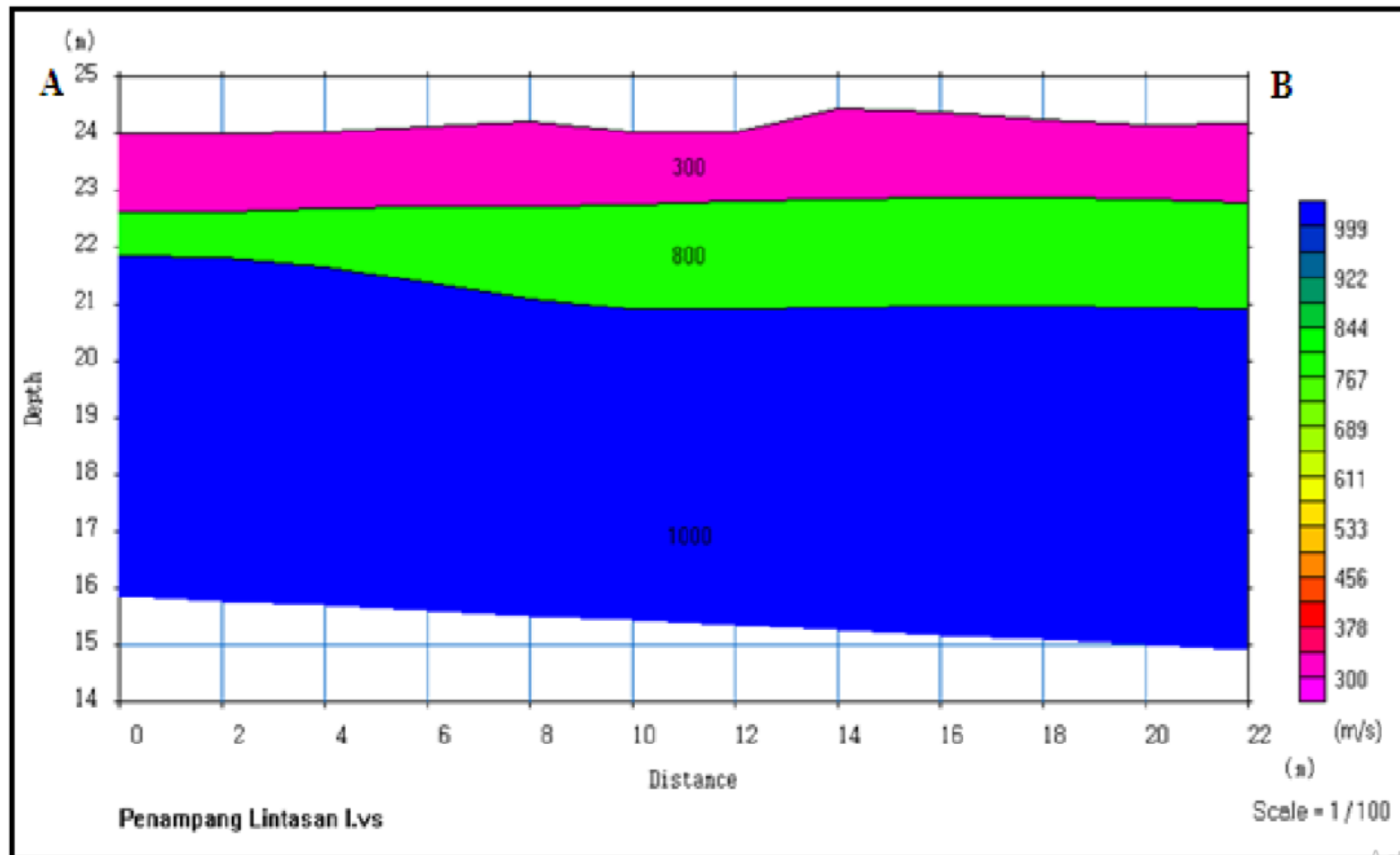


Lampiran III : Lokasi Pengambilan Data Sekunder

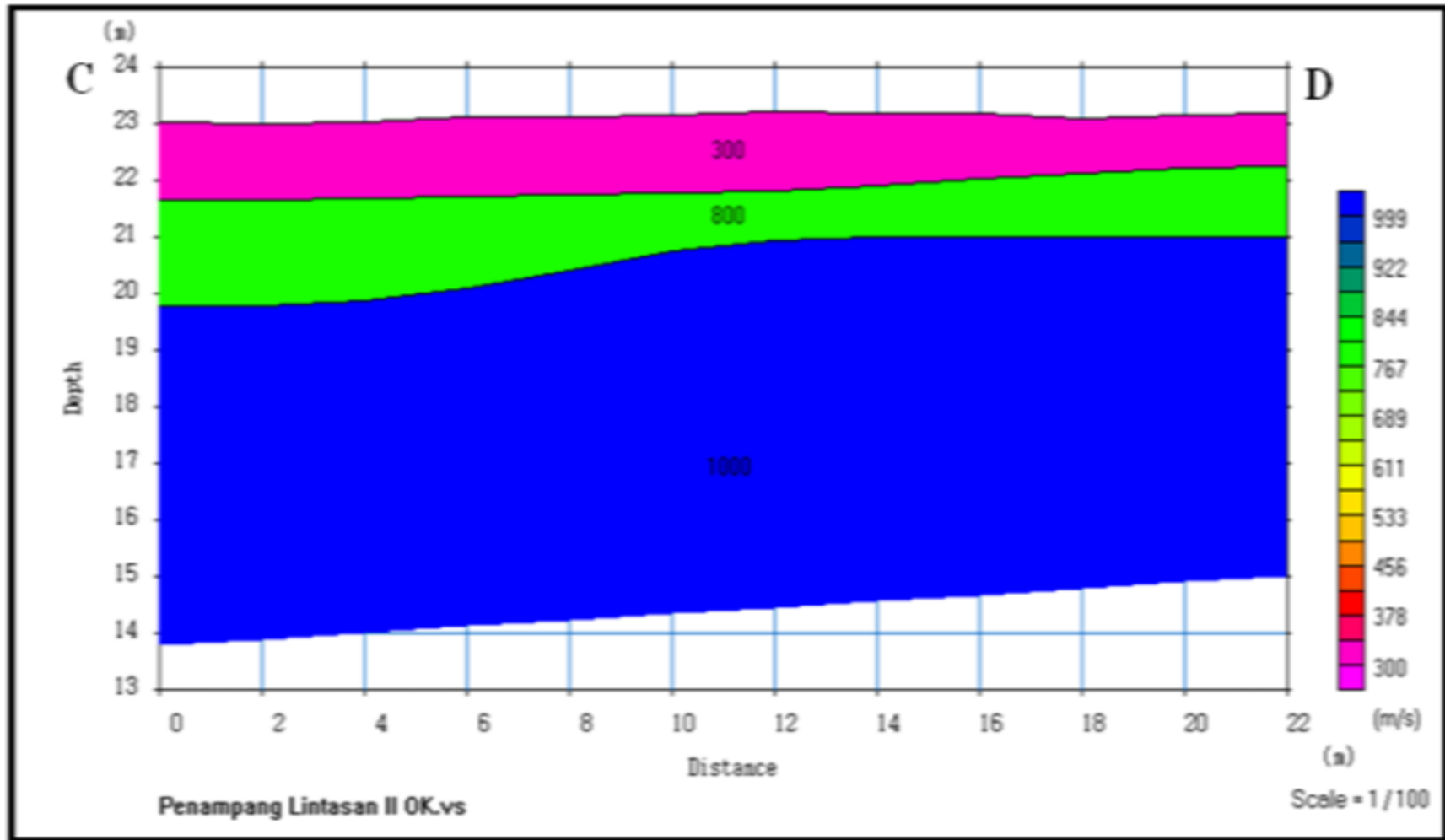


Lampiran IV : Hasil Penampang Seismik Refraksi

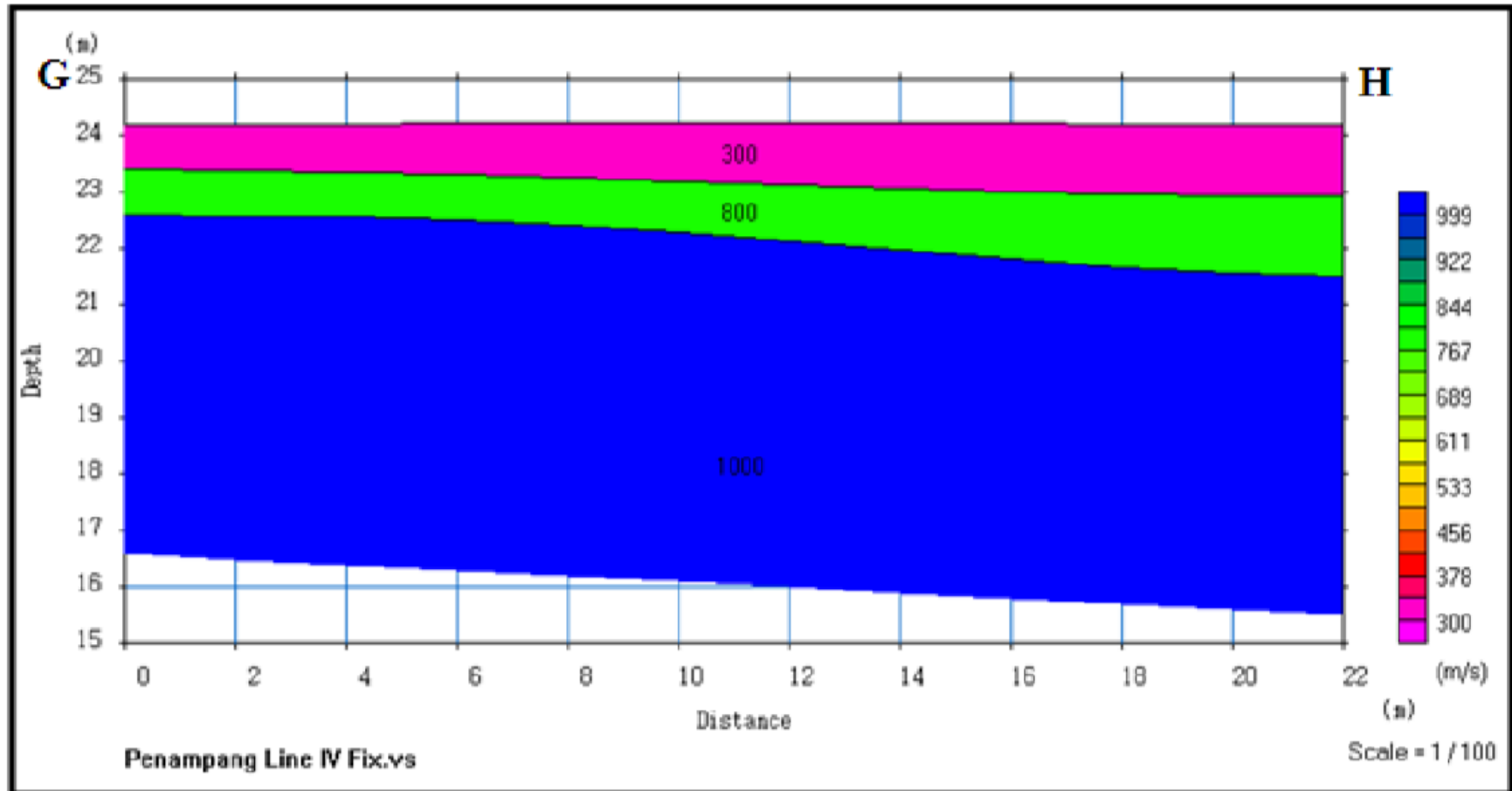
1. Penampang Lintasan 1 Seismik Refraksi



2. Penampang Lintasan 2 Seismik Refraksi

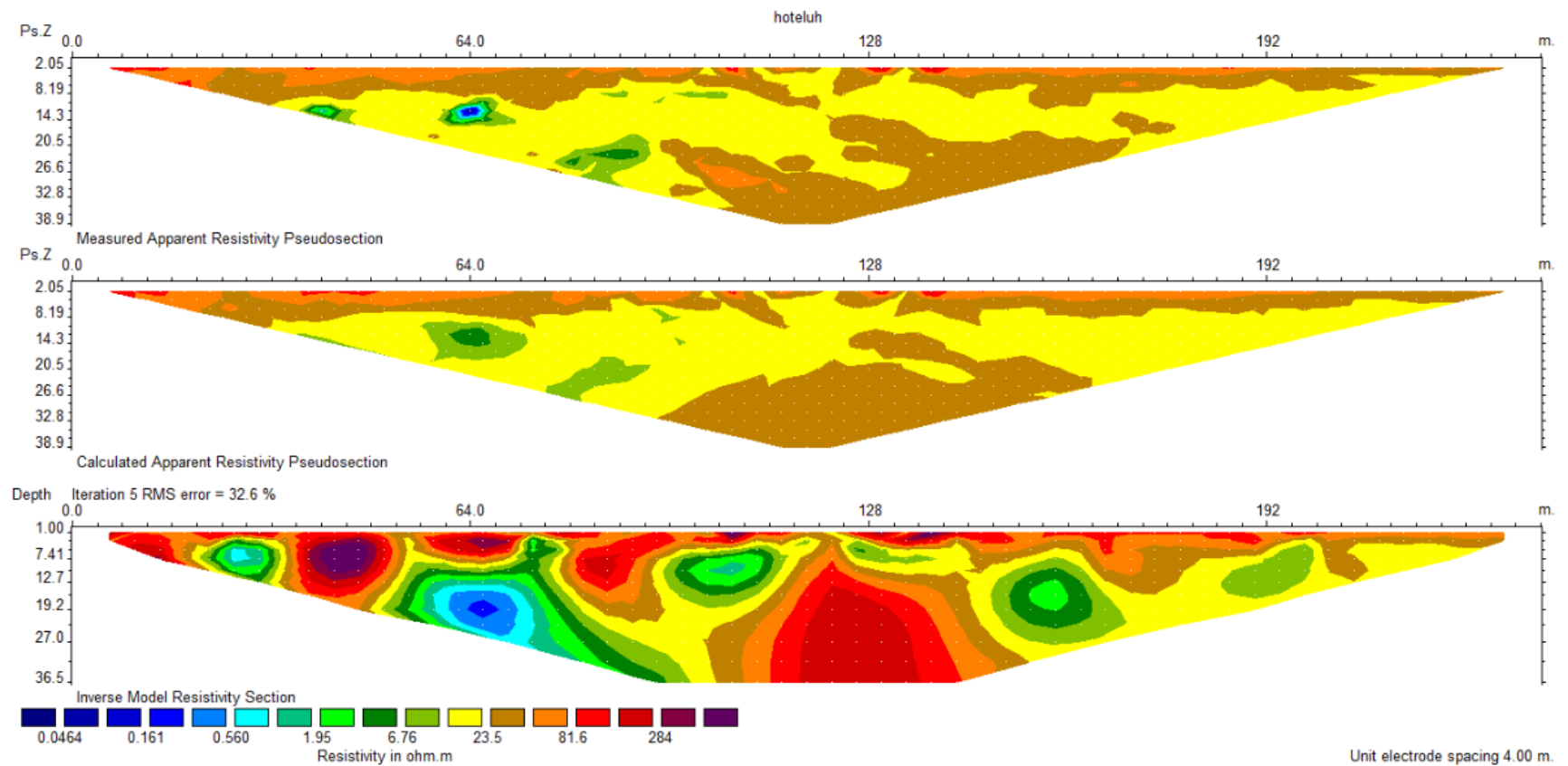


3. Penampang Lintasan 3 Seismik Refraksi

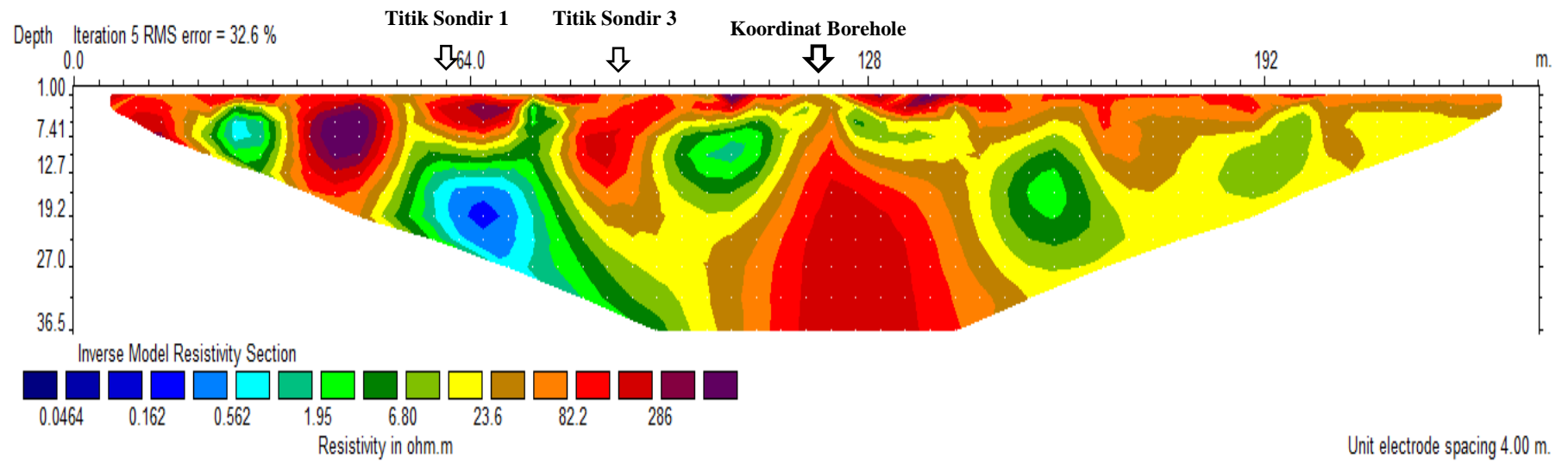


Lampiran V : Hasil Penampang resistivitas

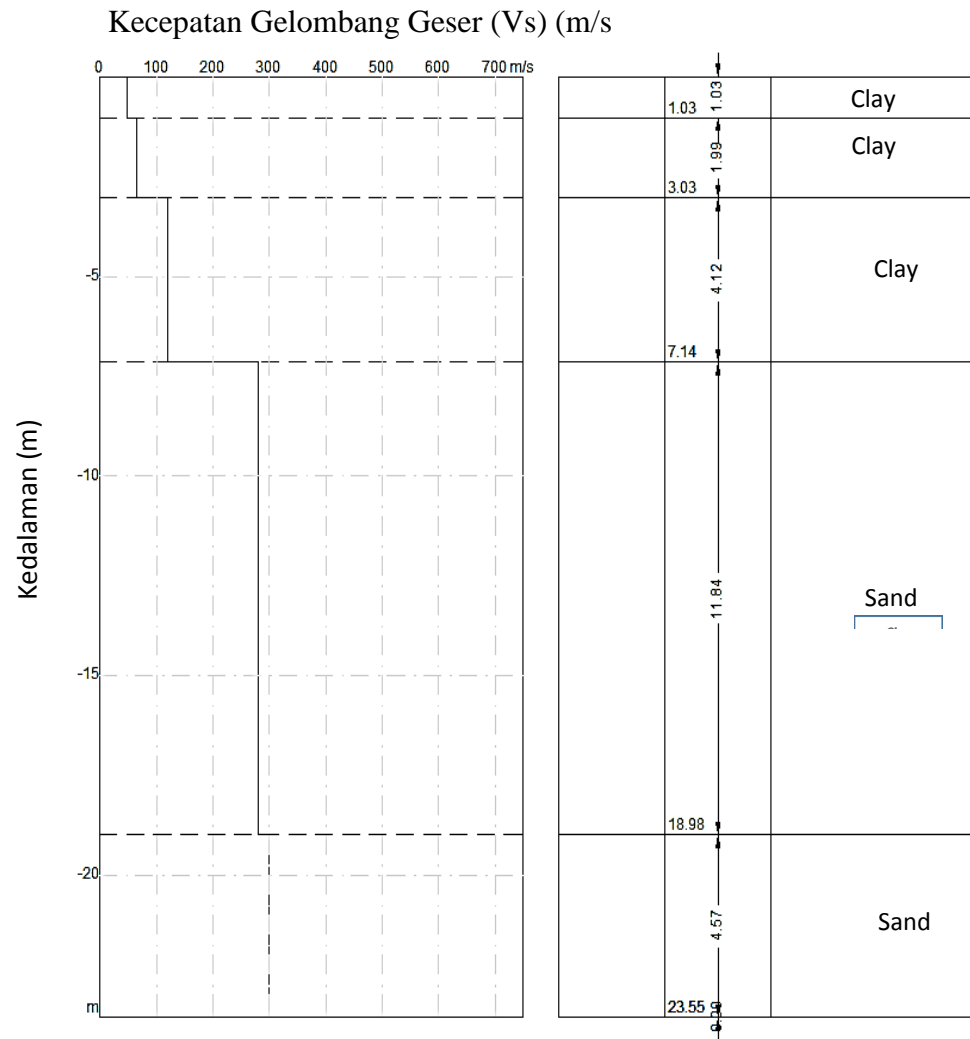
1. Hasil penampang resistivitas (Karangan dan Hariyani, 2020)



2. Hasil penampang resistivitas dikorelasikan data pendukung (Karangan dan Hariyani, 2020)

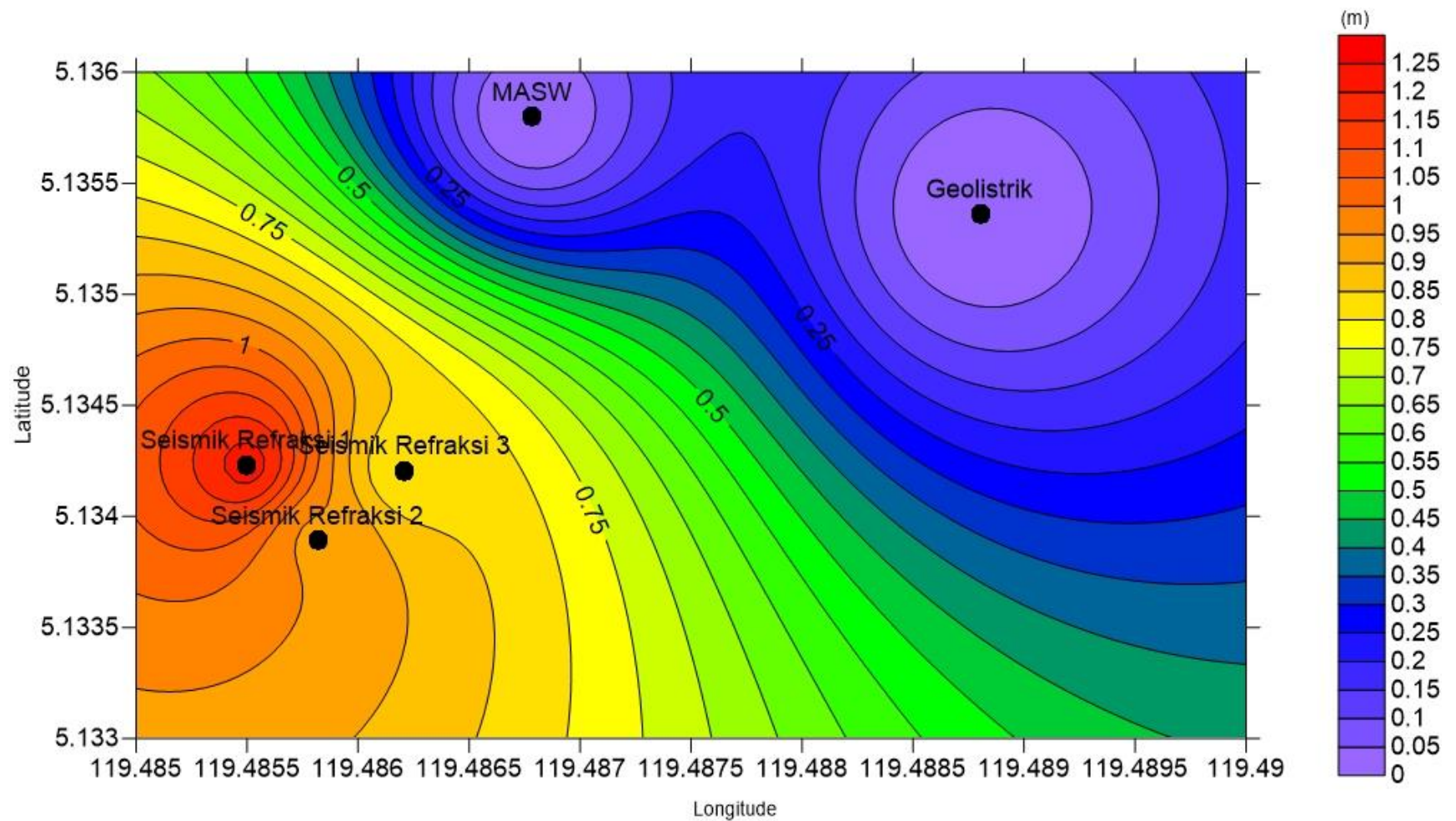


Lampiran VI : Hasil Penampang Sub-bawah permukaan V_{s30}

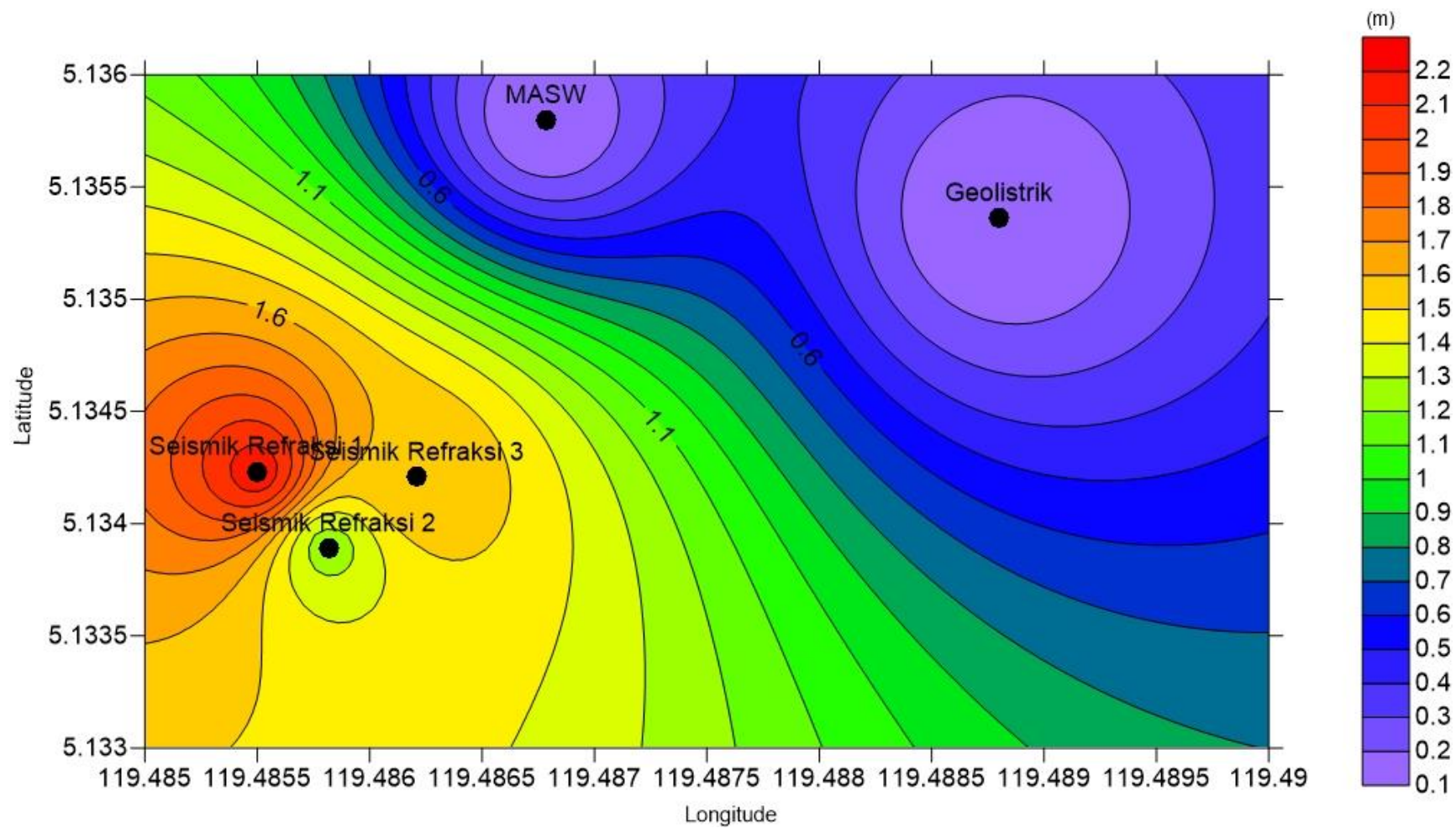


Lampiran VII : Peta Isopach Stratigrafi

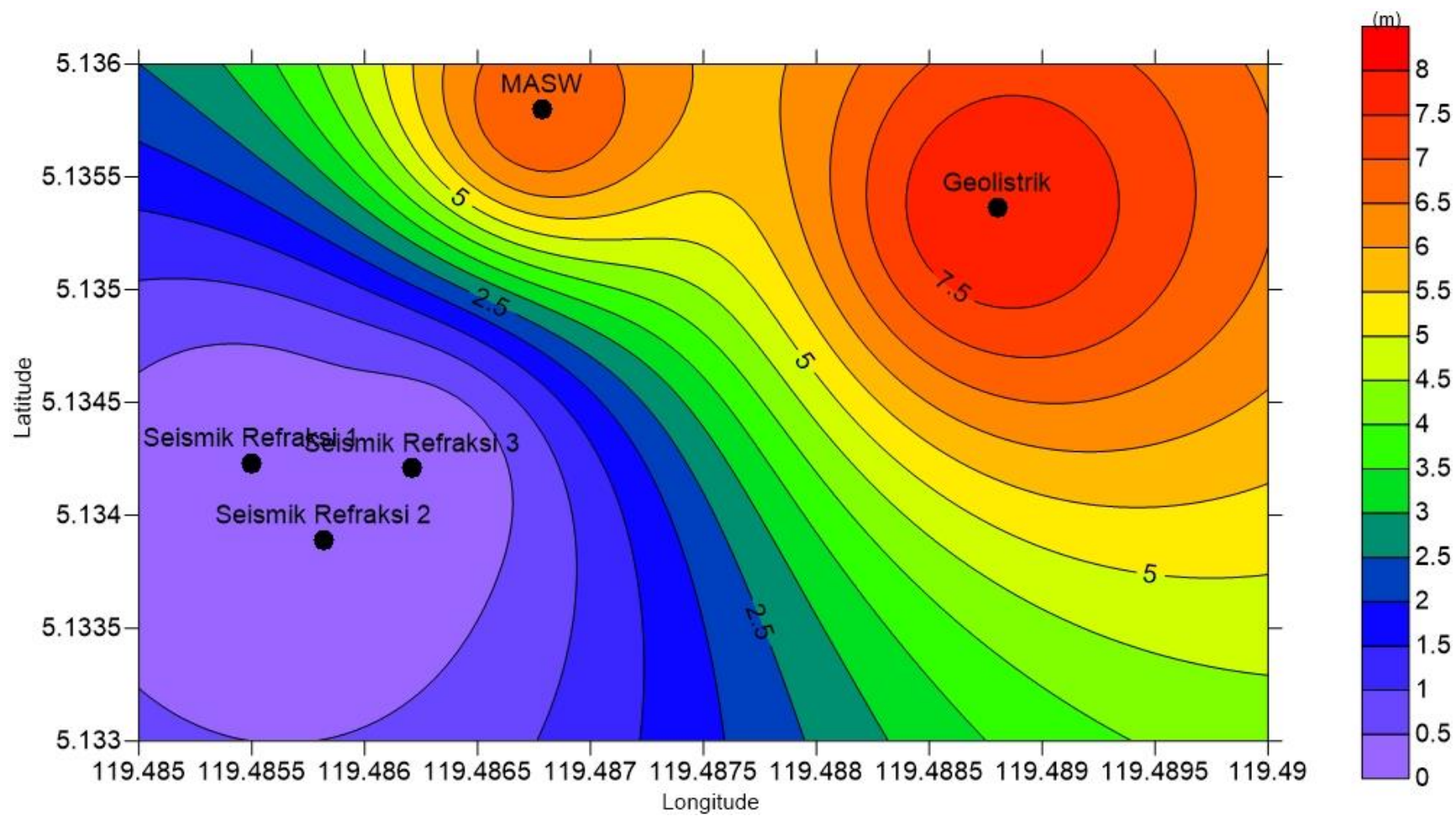
1. Peta Isopach Lapisan Tanah (*Soil*)



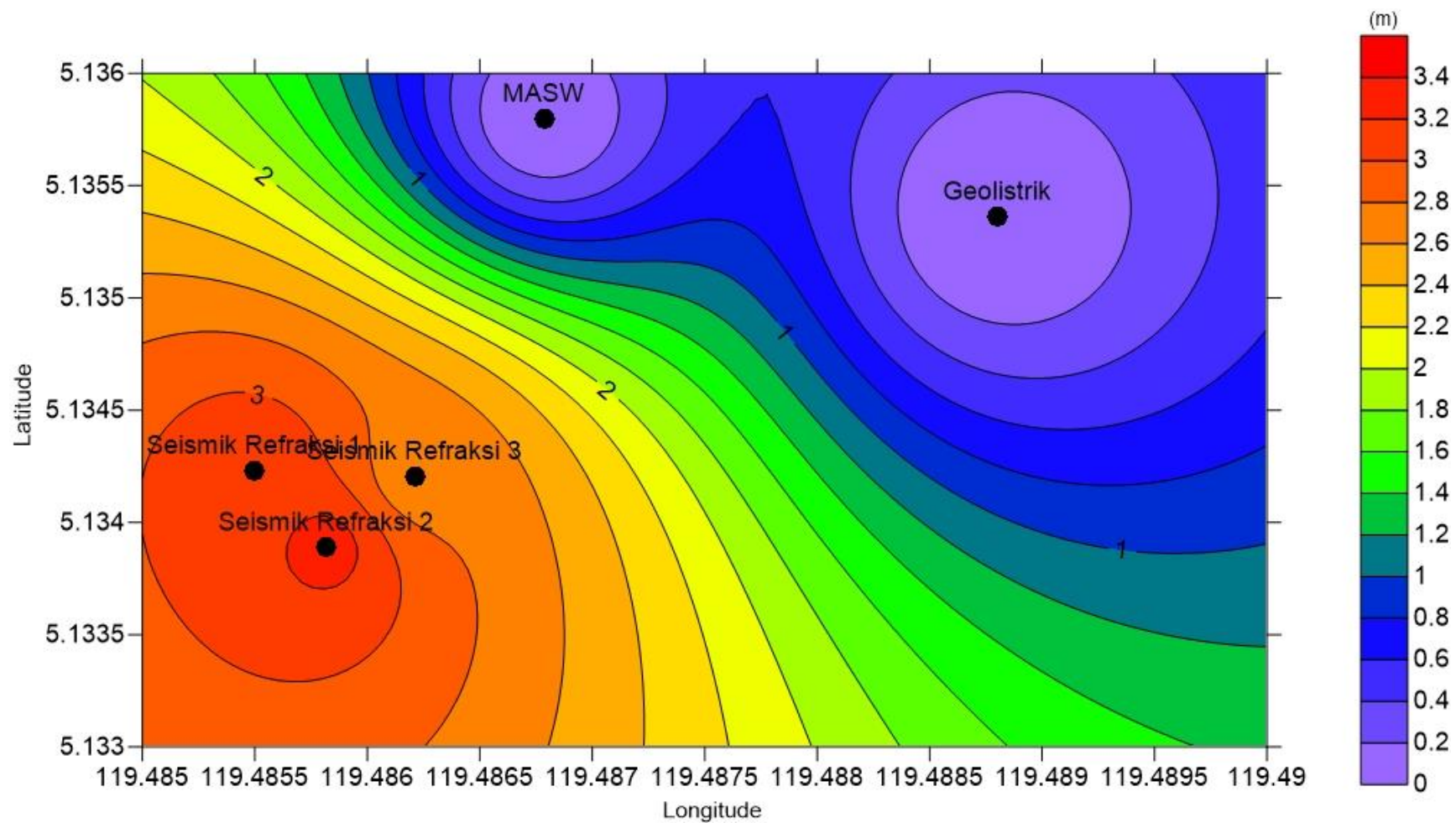
2. Peta Isopach Lapisan Lempung (Clay)



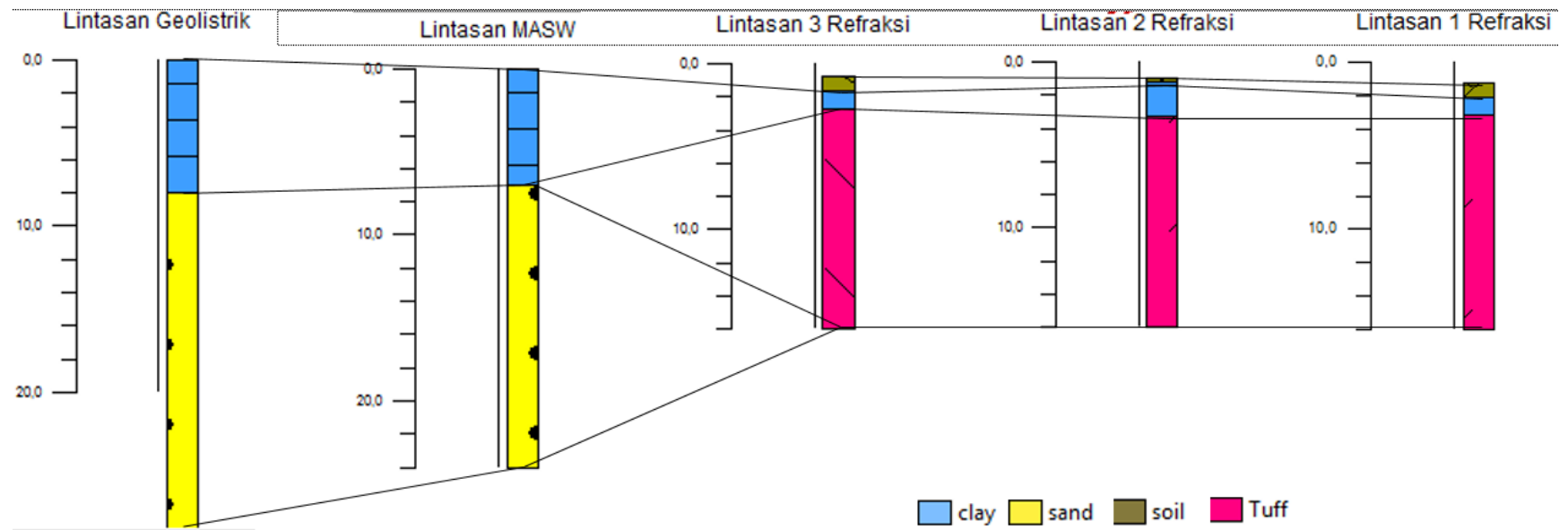
3. Peta Isopach Lapisan Pasir (Sand)



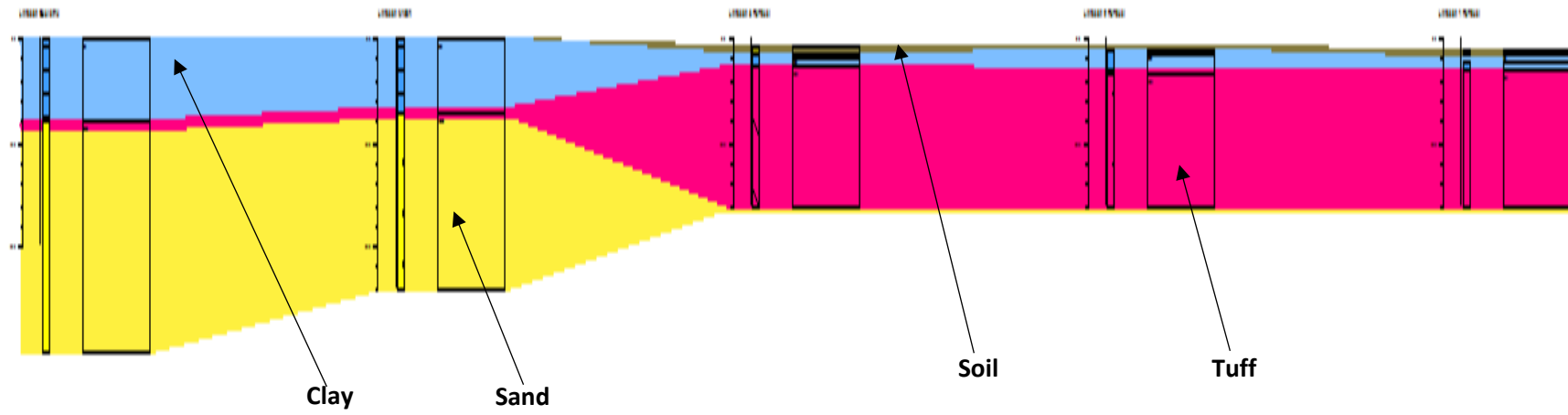
4. Peta Isopach Sebaran Lapisan Tufa (*Tuff*)



Lampiran VIII : Diagram Pagar Stratigrafi



Lampiran IX : Penampang Stratigrafi



Lampiran X : Data sekunder gabungan

| Jenis Data | X (Horizontal) | | | Y (Vertikal) | | | Bujur | Lintang | soil | clay | sand | tuff | sampel |
|-----------------|----------------|----|-------|--------------|---|------|----------|----------|------|------|------|------|--------------------|
| | ° | ' | " | ° | ' | " | | | | | | | |
| Data Refraksi | 119 | 29 | 8,45 | 5 | 8 | 9,25 | 119,4857 | 5,134233 | 1,22 | 2,16 | 0 | 3,14 | Seismik Refraksi 1 |
| | 119 | 29 | 8,95 | 5 | 8 | 2,01 | 119,4858 | 5,133892 | 0,94 | 1,25 | 0 | 3,28 | Seismik Refraksi 2 |
| | 119 | 29 | 10,36 | 5 | 8 | 7,74 | 119,4862 | 5,134208 | 0,81 | 1,6 | 0 | 2,69 | Seismik Refraksi 3 |
| Data MASW | 119 | 29 | 10,8 | 5 | 8 | 8,88 | 119,4863 | 5,1358 | 0 | 0,1 | 7 | 0 | MASW |
| Data Geolistrik | 119 | 29 | 19,75 | 5 | 8 | 7,34 | 119,4888 | 5,135364 | 0 | 0,1 | 8 | 0 | Geolistrik |

Lampiran X : Input Data di Software Rockworks16

The screenshot displays the Rockworks16 software interface, specifically the Borehole Manager window. The interface is organized into several panels:

- Project Manager (Left):** Lists various project files including Project Tables, Datasheet Files (150 Files), Grid Models (35 Files), Solid Models (1 File), 2-D Diagrams (13 Files), 3-D Diagrams (9 Files), ReportWorks Diagrams (2 Files), Google Earth Files (6 Files), LAS Files (0 Files), RCL Files (65 Files), and System Tables.
- Toolbar (Top):** Contains icons for Welcome, EarthApps, Utilities, and Borehole Manager. Below these are icons for Intro, Map, StripLogs, Lithology, Stratigraphy, I-Data, T-Data, P-Data, Fractures, Aquifers, Colors, and Vectors.
- Borehole Manager Window:**
 - File Edit View:** A menu bar for the Borehole Manager window.
 - Borehole List:** A list of boreholes with checkboxes. Selected items include Lintasan 1 Refraksi, Lintasan 2 Refraksi, Lintasan 3 Refraksi, Lintasan Geolistrik, and Lintasan MASW.
 - Location and Orientation:** A panel for setting borehole parameters.
 - Interval Data Table:** A table showing borehole intervals with columns for Depth to Top, Depth to Base, Keyword, and Comment.

| Depth to Top | Depth to Base | Keyword | Comment |
|--------------|---------------|---------|---------|
| 1,22 | 2,16 | Soil | |
| 2,16 | 3,14 | Clay | |
| 3,14 | 16,0 | Tuff | |
- Bottom Panel:**
 - Project Coordinates:** Shows UTM Coordinates with Datum: WGS-84 1984 (NAD-83) and Zone: 13 (Northern Hemisphere).
 - Output (Model) Dimensions:** A table showing dimensions for X, Y, and Z axes.

| | Minimum | Maximum | Spacing | Nodes | Range | Units |
|----|---------|---------|---------|-------|-------|----------|
| X: | 568.000 | 568.250 | 50 | 6 | 250 | } Meters |
| Y: | 775.550 | 775.950 | 50 | 9 | 400 | |
| Z: | -15 | 9 | 0,25 | 97 | 24 | |
 - Adjustable Units:** Allows setting Area (ac), Mass (mt), and Volume (m³).

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Project Manager

- Project Tables
- Datasheet Files (150 Files)
- Grid Models (35 Files)
- Solid Models (1 File)
- 2-D Diagrams (13 Files)
- 3-D Diagrams (9 Files)
- ReportWorks Diagrams (2 Files)
- Google Earth Files (6 Files)
- LAS Files (0 Files)
- RCL Files (65 Files)
- System Tables

Welcome EarthApps Utilities Borehole Manager

Intro Map StripLogs Lithology Stratigraphy I-Data T-Data P-Data Fractures Aquifers Colors Vectors

58 boreholes (5 Enabled)

File Edit View

Borehole

- DH-34
- DH-35
- DH-36
- DH-37
- DH-38
- DH-39
- DH-40
- DH-41
- DH-42
- DH-43
- Lapangan 1A
- Lapangan 1b
- Lapangan 1c
- Lapangan 2A
- Lapangan 3A
- Lintasan 1 Refraksi
- Lintasan 2 Refraksi
- Lintasan 3 Refraksi
- Lintasan Geolistrik
- Lintasan MASW

Location

- Orientation
- Lithology
- Stratigraphy
- I-Data (Intervals)
- I-Text (Interval Te...)
- T-Data (Time Int...)
- P-Data (Points)
- P-Text (Point Text)
- Colors
- Fractures
- Water Levels
- Symbols
- Patterns
- Bitmaps
- Vectors
- Well Construction

Datasheet Lithology Types Tab Manager From Elevation

| Depth to Top | Depth to Base | Keyword | Comment |
|--------------|---------------|---------|---------|
| 0,94 | 1,41 | Soil | |
| 1,25 | 3,28 | Clay | |
| 3,28 | 16,0 | Tuff | |

Project Coordinates

UTM Coordinates

Datum: WGS-84 1984 (NAD-83)

Zone: 13 (Northern Hemisphere)

Output (Model) Dimensions

| | Minimum | Maximum | Spacing | Nodes | Range | Units |
|----|---------|---------|---------|-------|-------|----------|
| X: | 568.000 | 568.250 | 50 | 6 | 250 | } Meters |
| Y: | 775.550 | 775.950 | 50 | 9 | 400 | |
| Z: | -15 | 9 | 0,25 | 97 | 24 | |

Adjustable Units

Area: ac Mass: mt

Volume: m³

Scan Datasheet Scan Boreholes ...

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Project Manager

- Project Tables
- Datasheet Files (150 Files)
- Grid Models (35 Files)
- Solid Models (1 File)
- 2-D Diagrams (13 Files)
- 3-D Diagrams (9 Files)
- ReportWorks Diagrams (2 Fil
- Google Earth Files (6 Files)
- LAS Files (0 Files)
- RCL Files (65 Files)
- System Tables

File Edit View

Borehole Manager

58 boreholes (5 Enabled)

Location

Orientation

Lithology

Stratigraphy

I-Data (Intervals)

I-Text (Interval Te...

T-Data (Time Int...

P-Data (Points)

P-Text (Point Text)

Colors

Fractures

Water Levels

Symbols

Patterns

Bitmaps

Vectors

Well Construction

Datasheet Lithology Types Tab Manager From Elevation

| Depth to Top | Depth to Base | Keyword | Comment |
|--------------|---------------|---------|---------|
| 0,81 | 1,82 | Soil | |
| 1,6 | 2,69 | Clay | |
| 2,69 | 16,0 | Tuff | |

Project Coordinates

Output (Model) Dimensions

Scan Datasheet Scan Boreholes ...

UTM Coordinates

Datum: WGS-84 1984 (NAD-83)

Zone: 13 (Northern Hemisphere)

| | Minimum | Maximum | Spacing | Nodes | Range | Units |
|----|---------|---------|---------|-------|-------|----------|
| X: | 568.000 | 568.250 | 50 | 6 | 250 | } Meters |
| Y: | 775.550 | 775.950 | 50 | 9 | 400 | |
| Z: | -15 | 9 | 0,25 | 97 | 24 | |

Adjustable Units

Area: ac Mass: mt

Volume: m³

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Project Manager

- Project Tables
- Datasheet Files (150 Files)
- Grid Models (35 Files)
- Solid Models (1 File)
- 2-D Diagrams (13 Files)
- 3-D Diagrams (9 Files)
- ReportWorks Diagrams (2 Fil
- Google Earth Files (6 Files)
- LAS Files (0 Files)
- RCL Files (65 Files)
- System Tables

Welcome EarthApps Utilities Borehole Manager

Intro Map StripLogs Lithology Stratigraphy I-Data T-Data P-Data Fractures Aquifers Colors Vectors

58 boreholes (5 Enabled)

File Edit View

Borehole

- DH-34
- DH-35
- DH-36
- DH-37
- DH-38
- DH-39
- DH-40
- DH-41
- DH-42
- DH-43
- lapangan 1A
- lapangan 1b
- lapangan 1c
- lapangan 2A
- lapangan 3A
- Lintasan 1 Refraksi
- Lintasan 2 Refraksi
- Lintasan 3 Refraksi
- Lintasan Geolistrik
- Lintasan MASW

Location

- Orientation
- Lithology
- Stratigraphy
- I-Data (Intervals)
- I-Text (Interval Te...
- T-Data (Time Int...
- P-Data (Points)
- P-Text (Point Text)
- Colors
- Fractures
- Water Levels
- Symbols
- Patterns
- Bitmaps
- Vectors
- Well Construction

Datasheet Lithology Types Tab Manager From Elevation

| Depth to Top | Depth to Base | Keyword | Comment |
|--------------|---------------|---------|---------|
| 0,0 | 8,0 | Clay | |
| 8,0 | 30,0 | Sand | |

Project Coordinates

UTM Coordinates

Datum: WGS-84 1984 (NAD-83)

Zone: 13 (Northern Hemisphere)

Output (Model) Dimensions

| | Minimum | Maximum | Spacing | Nodes | Range | Units |
|----|---------|---------|---------|-------|-------|----------|
| X: | 568.000 | 568.250 | 50 | 6 | 250 | } Meters |
| Y: | 775.550 | 775.950 | 50 | 9 | 400 | |
| Z: | -15 | 9 | 0,25 | 97 | 24 | |

Adjustable Units

Area: Mass:

Volume:

Scan Datasheet Scan Boreholes ...

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Project Manager

- Project Tables
- Datasheet Files (150 Files)
- Grid Models (35 Files)
- Solid Models (1 File)
- 2-D Diagrams (13 Files)
- 3-D Diagrams (9 Files)
- ReportWorks Diagrams (2 Files)
- Google Earth Files (6 Files)
- LAS Files (0 Files)
- RCL Files (65 Files)
- System Tables

Welcome | EarthApps | Utilities | Borehole Manager

Intro | Map | StripLogs | Lithology | Stratigraphy | I-Data | T-Data | P-Data | Fractures | Aquifers | Colors | Vectors

File | Edit | View

58 boreholes (5 Enabled)

Datasheet | Lithology Types | Tab Manager | From Elevation

| Depth to Top | Depth to Base | Keyword | Comment |
|--------------|---------------|---------|---------|
| 0,0 | 7,0 | Clay | |
| 7,0 | 24,0 | Sand | |

Borehole

- DH-34
- DH-35
- DH-36
- DH-37
- DH-38
- DH-39
- DH-40
- DH-41
- DH-42
- DH-43
- lapangan 1A
- Lapangan 1b
- Lapangan 1c
- Lapangan 2A
- Lapangan 3A
- Lintasan 1 Refraksi
- Lintasan 2 Refraksi
- Lintasan 3 Refraksi
- Lintasan Geolistrik
- Lintasan MASW

Location

- Orientation
- Lithology
- Stratigraphy
- I-Data (Intervals)
- I-Text (Interval Te...)
- T-Data (Time Int...)
- P-Data (Points)
- P-Text (Point Text)
- Colors
- Fractures
- Water Levels
- Symbols
- Patterns
- Bitmaps
- Vectors
- Well Construction

Project Coordinates

UTM Coordinates

Datum: WGS-84 1984 (NAD-83)

Zone: 13 (Northern Hemisphere)

Output (Model) Dimensions

| | Minimum | Maximum | Spacing | Nodes | Range | Units |
|----|---------|---------|---------|-------|-------|----------|
| X: | 568.000 | 568.250 | 50 | 6 | 250 | } Meters |
| Y: | 775.550 | 775.950 | 50 | 9 | 400 | |
| Z: | -15 | 9 | 0,25 | 97 | 24 | |

Adjustable Units

Area: Mass:

Volume:

Scan Datasheet | Scan Boreholes ...

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