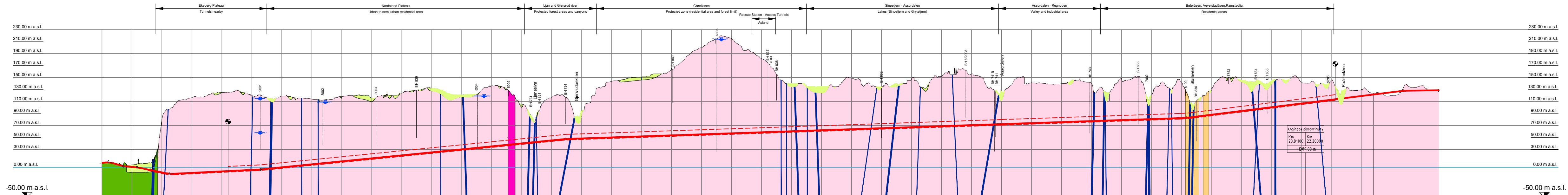
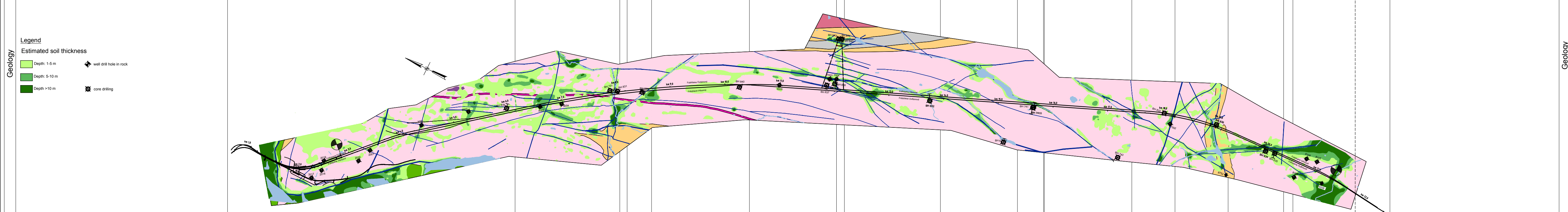


Geotechnical longitudinal profile
Follobane Outbound



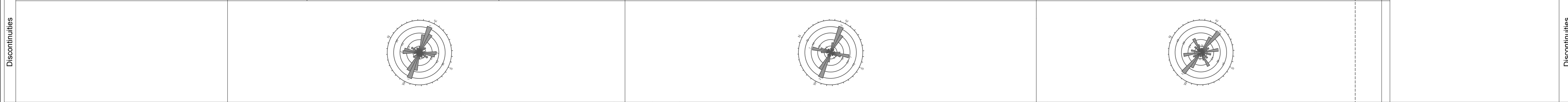
| Geometry | | Geometry | |
|---|--|---------------------------------|--|
| Chainage [m] | | Chainage [m] | |
| Terrain level [m a.s.l.] | | Terrain level [m] | |
| Tunnel (axis) outbound level [m a.s.l.] | | Tunnel (axis) level [m] | |
| Overburden [m a.s.l.] | | Overburden [m] | |
| Geological unit | | Geological unit | |
| Width of assumed weak zones [m] | | Width of assumed weak zones [m] | |

| Geology | | Geology | |
|-----------------------|--|-----------------------|--|
| Exploration drillings | | Exploration drillings | |
| Length [m] | | Length [m] | |
| Bearing / Incl. [°] | | Bearing / Incl. [°] | |
| Elevation [m] | | Elevation [m] | |



| Laboratory testing of rock samples from core drillings | | Laboratory testing of rock samples | |
|--|--|---|--|
| Borehole number (core section) | | Borehole number (core section) | |
| Rock type description | | Rock type description | |
| DRI = Drilling Rate Index | | DRI = Drilling Rate Index | |
| CLI = Cutter Life Index | | CLI = Cutter Life Index | |
| UCS [MPa] = Uniaxial Compressive Strength | | UCS [MPa] = Uniaxial Compressive Strength | |
| PLT [kN] [MPa] = Point Load Test | | PLT [kN] [MPa] = Point Load Test | |
| CAI = Cerchar Abrasivity Index | | CAI = Cerchar Abrasivity Index | |
| Quartz [%] | | Quartz [%] | |
| γ [N/m³] | | γ [N/m³] | |
| E [GPa] | | E [GPa] | |
| ν [-] | | ν [-] | |
| Weakness zones excl. | | Weakness zones excl. | |
| Weakness zones incl. | | Weakness zones incl. | |

| Jointing [strike/dip] | | Jointing [strike/dip] | |
|-----------------------|--|-----------------------|--|
| Spacing [m] | | Spacing [m] | |



| Sensitive areas | | Sensitive areas | |
|--------------------------------|--|--------------------------------|--|
| Locations | | Locations | |
| Area classification | | Area classification | |
| Sensitivity | | Sensitivity | |
| Rock type description | | Rock type description | |
| Average [m/s] (Lugeon value) | | Average [m/s] (Lugeon value) | |
| Max / Min [m/s] (Lugeon value) | | Max / Min [m/s] (Lugeon value) | |

NOTES

Inclusions of amphibolite and pegmatite will occur

The location, orientation and width of weakness zones are based on interpretation and can differ from drawing. Weakness zones with assumed width < 1m are not drawn

The total number of water level measurements are not shown on drawing. A complete list of water level measurements is found on webpage: http://bioweb07.biorforsk.no/follobanen_grunnvann

Accepted

Accepted w/comments

Not accepted (comments)

Revise and resubmit

For information

Sign:

| DEFINED SCALE APPLIES TO A1 FORMAT | | | | |
|------------------------------------|--------------------|----------------|----------------|----------------|
| 278 | Revised for tender | 30.01.2014 | KG | ESS |
| 008 | Issued for tender | 27.09.2013 | ME | JGA |
| Rev. | Reason for issue | Date | By | Checked by |
| 1/2000/200 | Scale | Project | 1:1000 (A4) | |
| Produced | Produced by | Produced by | Produced by | Produced by |
| UFB-30-V-30333 | UFB-30-V-30333 | UFB-30-V-30333 | UFB-30-V-30333 | UFB-30-V-30333 |
| Project: The Follo Line Project | Area: Tunnel | Drawing number | Revision | |
| Geotechnical longitudinal section | | | | |
| Project: The Follo Line Project | Area: Tunnel | Drawing number | Revision | |
| Geotechnical longitudinal section | | | | |