

TUNNEL: <b>INC.</b>	MACHINE: <b>TBN 7</b>	DATE: <b>1/3/18</b>	REF. Nº: <b>307</b>
CHAINAGE: <b>5+078</b>	RING: <b>3719</b>	HOUR: <b>14:30</b>	

Mapping performed: ☒ Yes ☐ No

Plan view

Face of the Excavation

Cutter Head

Schematic position of the cutter head while mapping

Schematic Rock Mass Structure

1.0 m

Light Gneiss Dark Gneiss Foliation Joint Set (Strike/dip) Joint Set (sub. Vertical) Geological Contact Weakness zone < 1m

Pegmatite Amphibolite Joint Set (Sub Horizontal) Geological Contact (diffuse) Water Weakness zone > 1m (thickness)

DISCONTINUITIES						FACE CHARACTERISTICS			
Fracture set	1	S <sub>0</sub>	SH	?		Quartz	Veins	<input type="checkbox"/>	Masses <input checked="" type="checkbox"/>
Strike (α <sub>s</sub> )	E-W	N-S	-			Garnets	Low	<input checked="" type="checkbox"/>	High <input type="checkbox"/>
Dip (α <sub>f</sub> )	~80-90	~70°W	~15°E			Water	Dry	<input type="checkbox"/>	Moist <input type="checkbox"/>
Spacing (cm)	-	-	-				Dripping	<input type="checkbox"/>	Flowing <input checked="" type="checkbox"/>
Length (m)	1-5	1-5	1-5				Quantity:	~20 l/min	
Aperture (mm)	<1.0	<1.0	<1.0			Fracturing	RQD:	90/30	
Roughness	VII	VI	VII			Overbreak	Depth (cm):	5-30	
Infilling	-/clay	-/clay	-/clay				Amount (%):	30-40	
Weathering	W2-3	W2-3	W2-3			Mixed face	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

**NOTES**

LG WITH SEVERAL INTRUSIONS OF ~~LG~~ AND WITH PEGMATITE LG IS LOW FRACTURED, WHERE THE OTHERS ARE HIGHLY FRACTURED. WATER FLOWS FROM DYKES AND CONTACTS, WITH THE LEFT CONTACT HIGHLY WEATHERED (CLAY). (LOW VISIBILITY WITH CUTTER HEAD IN CONTACT WITH FACE).

\*BEN DOES NOT AGREE TO INCLUDE MIXED FACE ASSESSMENT IN MAPPING.

AMP = Amphibolite, DG = Dark gneiss, LG = Light gneiss, PG = Pegmatite, OB = Overbreak, WZ = Weak zone, LS/RS = Left/Right side

AGJV Geologist			Bane NOR Geologist		
Date	Name	Signature	Date	Name	Signature
1/3/18	XIV	Xavier Niquel	1/3/18	INF	M. Niquel



TUNNEL: INBOUND  
CHAINAGE: 05+078  
DIRECTION: NORTH

MACHINE: TBM 1  
RING: 3719

DATE: 01/03/2018  
HOUR: 11:30

REF. Nº:  
TBM1\_20180301\_05078\_307

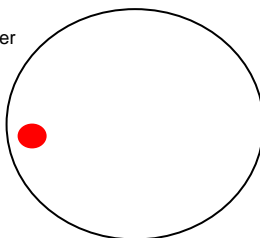
LEFT SIDE



RIGHT SIDE



Schematic position of the cutter head while mapping



UPPER PART



FACE



AGJV Geologist

Date	Name	Signature
01/03/2018	XMV	

Bane NOR Geologist

Date	Name	Signature



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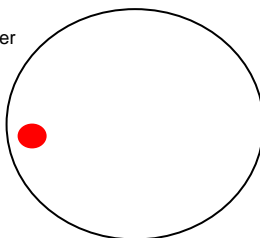
LEFT SIDE



RIGHT SIDE



Schematic position of the cutter head while mapping



UPPER PART



FACE



AGJV Geologist

Date	Name	Signature
01/03/2018	XMV	

Bane NOR Geologist

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