

Borhull nr. 1, HJERKINN.

Petrografical description.

0,00 - 7,19

Tiny-grained amphibolitic greenstone with feldspar (plagiokl.). In this rock are some weak positions of feldspatic-dolomitic matter (average thickness 0,5 or max. 2 cm.) Some a lot of joints have healed by carbonatic or dolomitic minerals. The grain elongation of amphibolite have been following schistosity. The entire colour of this rock is dark gray-green. The weak impregnation of FeS_2 is locality only. Average gradient of foliation is 40° or 50° about.

7,19 - 7,51

The medium-grained methasomatic positions with average minerals content: amphibole (acicular crystals) biotite, chlorite, dolomite (some carbonate too) and feldspar (plagiokl.). The very weak impregnation of FeS_2 is locality. The total colour of this rock is gray-green. The position between 7,35 - 7,46 m creat coarse-grained amphibolite.

7,51 - 7,65

The position creat a methasomatic rock which has dolomite, chlorite, amphibolite and not much feldspar (plagiokl.). The total colour of this rock is yellow-green gray and bright green-gray.

7,65 - 7,88

The medium-grained amphibolite with a lot of dolomite porphyroblastes into. The chlorite, klnozoisite and feldspar (plag.) minerals are present in this rock too. Entire colour of rock is gray-green. Average gradient of foliation is 40° about.

7,88 - 8,00

The position of dolomite with some the other carbonates, amphibole (rodlike and acicular crystals), some chlorite and klnozoisite and a few plagioklase too. The total colour of this rock is yellow-green gray.

8,00 - 10,00

The tiny-grained, tender-grained locality too amphibolite with the dolomite nothing and with some positions of dolomite rock which have in amphibole acicular crystals, less chlorite and feldspar (plag.) very few too. The very few impregnation of FeS_2 is locality only. The total colour of this rock is green-gray and locality dark gray-green. Average gradient of foliation is 40° - 50° about.

10,00 - 12,03

The tender-grained amphibolite with some positions (average thickness is 1-2 cm max. only) of dolomite with some the other carbonates maybe and with acicular crystals of amphibole and with a little chlorite and plagioklase (10,60 - 10,70 m about more this positions of dolomite). The impregnation of FeS_2 is a very few. The entire colour of this rock is dark gray-green. Some joints have been healed by carbonates or dolomite.minerals. Average gradient of foliation is 40° - 50° about.

12,03 - 12,10

The position of quartz, maybe filling some joint, with very weak impregnation of FeS_2 and with chlorite

and klnozoisite too. The joint plane with a striation and on with lominite on too is in 12,05 m about.

12,10 - 12,20

The coarse-grained dolomitic, amphibolite with the big rodlike minerals of amphibole (0,5 - 1 cm in average) and with a weak impregnation of FeS₂ that creat big grains (2 - 5 mm in average). The chlorite is present too very strong.

12,20 - 14,00

The medium-grained amphibolite with some dolomite mottlings in and with some not much posotions dolomite that have chlorite, klnozoisite, sometime, somewhere amphibole and biotite too (this positions more 13,70 m about). The total colour of rock is dark gray-green. Average gradient of foliation is 50° about.

14,00 - 14 15

The position of impregnated ore of FeS₂ affected by hydrothermal leaching (?).

14.15 - 14.20

The keratophyre (?) with a very strong impregnation of FeS₂ in (some positions and by grain clongation following schistosity this FeS₂ impregnation). This rock affected by hydrothermal alteration and hydrothermal leaching. Total colour of rock is yellow-white gray.

14,20 - 14,65

The coarse-grained amphibolite, with dolomite and chlorite too. The amphibole creat big rodlike crystals (5 mm max. 1 cm. or more in average). The impregnation of FeS₂ is present too in some big grain of FeS₂ (0,5 cm max.).

14,65 - 15,10

The position of dolomitic rock with some the other carbonates, chlorite and klnozoisite and with not much amphibole acicular crystals and a little with biotite and plagioklase somewhere too. The total colour of this rock is bright yellow-green gray.

15,10 - 15,45

The position of strong feldspatic-quartz rock, little calcarcous too (maybe keratophyre ?) with the strong impregnation of FeS₂. The clongation of FeS₂ positions or FeS₂ grain clongation follow schistosity. The total colour of this rock is white yellow gray. The rock affected hydrothermal alteration and hydrothermal leaching maybe (?).

15,45 - 16,10

The medium-grained and tiny-grained amphibolite with some impregnation of FeS₂. The schistosity of rock is clear locality only. The total colour of this rock is dark gray green. Average gradient of foliation is 50° about.

16,10 - 16,25

The position of crystallic dolomite with a rodlike and acicular crystals of amphibole. Chlorite, klnozoisite and biotite and some FeS₂ impregnation is present too. The total colour of this rock is bright green-yellow gray.

16,25 - 16,65

The medium- and tiny-grained amphibolite with a lot

of dolomitic grains in and with some positions of crystals dolomitic rock with chlorite, klonozoisite and acicular crystals of amphibole too. The entire colour of rock is dark gray-green and gray-green.

16,65 - 18,40

The tiny-grained amphibolite with some not much thickness positions of quartzite ore feldspatic quartzite (keretophyre ?) with strong impregnation of FeS_2 in. The total colour of rock is dark gray-green or gray and or green-gray. Average gradient of foliation is 75° - 80° about.

18,40 - 18,80

The tiny or medium-grained amphibolite which is a dark gray-green colour with a very weak impregnation of FeS_2 only.

18,80 - 19,30

The coars-egrained, strong dolomitic amphibolite, with chlorite and little some plagioklase only. The FeS_2 impregnation is very weak only. The total colour of this rock is dark green.

19,30 - 21,60

The tender-grained and some tiny-grained amphibolite with some joints which are filling by carbonates and dolomite. The total colour of rock is dark green. Average gradient of foliation is 45° about.

21,60 - 21,90

The coarse-grained amphibolite with chlorite and some grains of dolomite and with a weak impregnation of FeS_2 only (the grains of FeS_2 are 1-2 mm big in average). The colour of this rock is dark green.

21,90 - 30,55

The tender and tiny-grained amphibolitic greenstone with a lot of dolomitic and dolomite-carbonatic weak positions which follow schistosity. The some joint system filled carbonate-dolomitic minerals. A lot of preventions are between tiny-grained amphibolitic greenstone and medium-grained amphibolite greenstone, which have a lot of chlorite and some clear impregnation of FeS_2 (in 27,00, -28,00^a and 29,00 m about exist these variants). In 27,00 m about is a 15 cm thick position of dolomitic rock with the other some carbonates and with the acicular crystals of amphibole. The total colour of this rock is dark green, and dark gray-green. Average gradient of foliation is 45° - 50° about.

30,55 - 31,10

The position dolomitic and carbonae- dolomitic rock that is full of acicular crystals of amphibole (1 - 2 mm long in average). The total colour of rock is dark gray-green. Average gradient of foliation is 35° - 40° about.

31,10 - 42,40

The alternation (exchanging) of positions of tiny- and tender-grained amphibolitic greenstone which have green or dark green colour and which is a more homogenate, medium-grained amphibolitic greenstone, which have usually a lot of chlorite and more porphyroblasts of dolomite or carbonates and klnozoisite too. Quartz and phagoiklase can be present in too. This medium-grained amphibolitic greenstone has very weak impregnation of FeS_2 but more strong

than this tiny or tender-grained type. The grains of FeS_2 are usually elongation by direction of schistosity. The medium-grained type with a lot of chlorite has a very good parting along schistosity. The very much, very weak positions (average thickness 1,2 and max. 5 mm.) of dolomite and carbonatic dolomite with chlorite and amphibole and klnozoisite too are present in both types of amphibolite greenstone. These weak positions are always parallel with schistosity of rock. In this complex of type of rocks is a lot of more thick positions of amphibolitic dolomite with chlorite, klnozoisite etc. Amphibole creat the acicular crystals (1 or 2 mm, max. 3 mm long in average). The other carbonates are present too. These amphibolitic dolomite positions are bright green-gray or a green-gray colour, 5-10 cm. max. 15 cm thick in average. The occurrence of these positions of amphibolitic dolomite is in 32,00 - 32,70 m, 33,60 - 33,90 m, 34,30 - 34,50 m, 34,60 - 34,80 m, 38,90 m (where is quartz parallel position thick 1 cm.) about. Average gradient of foliation is 40° - 50° about.

42,40 - 44,35

The position of amphibolitic dolomitic rock with chlorite, biotite and a lot of big grains of carbonates (1-2 mm) which are elongation by schistosity. The amphibolitic creat acicular crystals (1-3 mm max. 4-5 mm long in average). The total colour of this rock is bright green-gray and green-gray. In 42,40 m and 43,20 m are some joint systems with a very big angle of dip, 75° - 85° about. On the joint places are the covers of limonite. The footprints after wather leaching are clear in these areas of joint. Average gradient of foliation is 50° about.

44,35 - 44,40

The position of medium-grained amphibolitic greenstone with chlorite and some dolomite or carbonatic grains elongation along foliation or schistosity. The total colour of rock is green and dark green. Average gradient of foliation is 50° about.

44,40 - 51,35

The medium-grained carbonatic and more dolomitic amphibolitic greenstone with some not thick positions of tiny-grained amphibolitic greenstone with more chlorite. The lot of the preventions are present between the both types of amphibolitic greenstones and amphibolitic-chloritic dolomite type with biotic and not much klnozoisite too. Amphibole creat acicular or less rodlike crystals in all types of these rocks (average longing of amphibol. crystals are 1-3 mm, max. 5 mm). The impregnation of FeS_2 isn't exist or it is very weak only. The total colour of these rocks are green, green-gray and dark green somewhere too. Average gradient of foliation is 50° - 60° about.

51,35 - 52,07

On the beginning of this position is the medium-grained and coarse-grained carbonatic and dolomitic amphibolitic greenstone with rodlike and acicular crystals of amphibole (3-5 mm and 5-10 mm in average)

with some chlorite, biotite and little klnozoisite too. On the finish of this position is more biotite and chlorite and this rock slowly present to following rock. The impregnation of FeS_2 is a very weak in the finish of this position only. The total colour of rock is dark gray-green or green-gray. Average gradient of foliation is 60° - 65°

52.07 - 52.39

The carbonatic dolomite with chlorite, amphibolite and biotite and with the impregnation of FeS_2 . The total colour of this rock is gray and dark gray. In the finish of this position are some joint places with mylonite and carbonates on and with some striation on too. Average gradient of foliation is 60° about. Angle of dip of places of joint (?) is 60° - 70° about.

52.39 - 53.10

The strong impregnation of FeS_2 in a quartzite. The total colour of this rock is dark yellow gray. The average gradient of foliation is 60° about.

53.10 - 72.77

The impregnated ore of FeS_2 with very weak contact of CuFeS_2 and FeS too. 10 - 20 % are grains of quartz from this ore. Between 72.40 - 72.77 m is loss of core.

72.77 - 74.00

The mica quartzite with clear schistosity. In the quartzite are biotite, sericite and chlorite, most on foliation places. This rock is without some ore and ore minerals impregnation. In 72.90 m, 73.20 m and 73.80 m are some joints with some striation on joint places. The angles of dip of these joints 10° and 20° - 30° . The total colour of this rock is gray and bright gray. The average gradient of foliation is 50° - 55° about.

The underground ablique hole finish in 74.00 m. The angle of dip of this hole nr. 1 is 50° .

(M. Motys).

Profile of borehole nr. 1.

