Bergvesenet rapport nr	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
BV 3820			Trondheim	**Åpen**
Kommer fra ..arkiv	Ekstern rapport nr BA 4191	Oversendt fra	Fortrolig pga	Fortrolig fra dato:

Tittel

The Waagaard Mines, Ringerike, Norway

Forfatter	Dato	Bedrift
Melbye, S. A.	26.08 1906	

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Ringerike	Buskerud	Østlandske		

Fagområde	Dokument type	Forekomster
Historisk		
Råstofftype	**Emneord**	
Malm/metall		

Sammendrag

THE WAAGAARD MINES.

RINGERIKE? NORWAY.

As requested I made a inspection of this mines on the I8 th. of July I903.

It is situated near " Heen " in Norway and is within I½ mile to the railway stations. The governement is preparing a large company ground and shohting range for military yearly training within 600 yds. to the mine and a new railway station will constructed at the point , which bring the railway within an easy distance for a tiding to the mine I may add that the railway authorithice of Norway do not charge for connecting private siding with their lines of railway as is cutom in this country.

The situation of the mine is everything that could be desined as the re is a splendid side for a dressing plaut with an unlimited supply of water for dressing purpose and a big waterfall , which can be utilised to work all the necessary mining machinery. The conseperation of the surface is most favorable for cheap and spledy mining by mans of adit levels as well as vertical shafts. The geological pasition is a very importent one, being the same country rock as the celebrated Kongsberg silver mines , which be 40 miles to the west of the mine , the formation resembles the Cambrian and in my opinion is the same.

As a further proof the country further south produces a harde slate which is indentifical to the silurian rock of Wales, the devision between these two formations is very conspeccons and the bank of the Drammen river near Hønefos . The richest mines in Norway are found the formations referred to.

The lode is a prowerful one and breaks the surface per about IIOO yds in a very distinct maner and as the characteristic of being a rich one. Its average with along the outerop is about 4 feet . Ores of

lead , blende and copper have been prooved trough haut this lenght.

The strata is trown up to the north the lode dips south.The matrix is very promising composed of flusan on the hanging side where the lode produces on and gossand, decompased spar on the footwald side, the quartz is of a kindly and saft nature ϕ gneiss Iscommon on the footwald side of the lode in the country rock . A shallow adit has been driven for about 40 yds long the lode the end of which is I7 yds below surface and on has been proved allong . For I2 yds the lode is worth 3 tons of lead and 2 tons of blende to the fattom and for another 20 yds it is worth I½ tons of lead and I ton of blende to the fattom there is a good mixture of copper are as well- Excepting a few shallow holes the lode below and beyned this point entirely intact . Mr. S. Lilloe who is a mining expert has conducted the mining operations so far in very shillful maner. In conclusion the mine in very opinion is a valuable one and well worth developing.

"Waagaards Mines"

Estimate

I days working of I0 hours.

Cost of mining 35 tons crude ore at £3 pr factom I3/4 cubik foot	- £ 5- 5 -0	35 tons crude ore of I5 %gruls	
felling & tremming from mine to the mill 35 tons at I/o per ton	I- I5-0	II 5 I0 dressed ore 4 - 0 lead at £ I0 pr ton	£ 40 - 0 - 0
Develop & expantion pr day dressing	I - 0 - 0	I - I0 blende £ 4-I0 pr ton	7 - 0 - 0
Dressing cost at I5/o per ton oer dressed ore ready for market II 6 / 5 I0	4 - 3 - 6		£ 47 - 0 - 0
Managementstons Sunber Rents Renwols etc at 20% pr ton	5 - I0 - 0	total working expenses	£ 23 - 3 - 6
		Nett profit on one days workin	£ 23 - I6 - 6.

Railway rates and shipment of ore sop 20 % per ton 5 - I0 - 0

Pen offfodd Villa Mold
28 july I903

John Robert
(sign)

Pen offfodd Villa

Mold 8 April I904

Dear Sir,

I received your letter of the 3 th. inst. re the Lilloe & Waagaard mines and note contents .

I herewith enclose an estimate cost of working for one day of I0 hours , this estimate is based on the pel contage of the crude ore now in sight in the open workings and shallow adit level the greatest depth of which is I7 yards below surface the entrance ore invalle of the daid adit is at a sufficient elevation to allow for the fiscing of dressing plaat to treat the ores by gravetation as well as automatically.

A great dressing plaat with a capacity of passing 35 tons of crude ore working I0 hours a day would be ample to start with this dressing plaat could be so arranged as to be dublicated should the mine prove and losting. The adit level should be pached forward into the side without delay in order to open out frish reseval ore ground and Winges put down therefore at the some time to prove the ore in depth .

Four hundred of yards beyond the present end of adit, the lode crops out to surface and every trial hale sank there on shous good lead and blende with a nice mixture of copper ire fact , it is one of the richest outcrops I have ever seen.

I can if nessary furnish you with dravings and on estimate of the dressing plaat required and shall be pleased to furnish you with any furthol information you want.

Yours faithfully

I2 great st Helens London E. C.

John Roberts (Sign)

On the 28 th. of june I905 the undersigned superintendent of mines inspected the mines of " Waagaard " Ringrike district. At these foundings great trial works have been carried on during the last years disclosing lodes in the east westerly direction , quartz lodes , which can be followed for 800 - I000 metres and more , and mostly with steep fall in souterly direction braking the gneiss going north south . The quartz lodes have different breath up to I.5 - 2 metres and more and contains lead glance and zinc blende sufficient for working purpose as a little copper .

In the westerly part of the founding the lodes on accound of displocements occur somewhat irregular. Further last in the founding where the present works are carried on, the lodes are more regular .Hear is a sochet driwn down to a depth of 5 - 8 metres . The lode is hear I.5 meter in breath an the ore camping portion up to 75 cm. in breath with rich lead glance and zinc blende . At this place occur also side lodes and crossing lodes which not yet are much examined.

I condider these foundings to be very promissing .

Christiania 2 august I905

L. Meinich (sign.)

Analysis :

Lead	49.I0%
Zinc blende	I4.25%
Copper	I.04%

Statment and drawing of Waagaard mines .

About 3 kilometres in mortheasterly direction for Heen railway station and about I kilometer in north for the railway line and paralell with tis line is the Waagaard lead & zinc mines situated

This founding has been known and worked a little on for many years and thus some examinations have been done and ore taken out.

Insufficient capital has coused stopage of the work for shorter

and longer periods. The last workers of the mine have built some houses and done a lot of work , but then have not carried out more wisely. The first that had to be done was to give the water outled which will not be difficult as the ground rises considerably both in north and west.

The last worker of the mine has appasently done all to accumulate water as he has done some upfillement which is damming up the water. The further up lying marsh has an outlet both in south and north and need not therefore with a sensible regulation lead water to the mine . The ore which occur here is lead glance and zinc which occur in quartz lodes, which are breaking the gneiss in east westerly direction . The principal lode which has a considerable great I-2 metres is exposed in about 450 metres lenght and can be followed in a lenght of I000 meters . On the side of the mine lode some crossing and parallel side lodes appear near point C. In these sides lodes 2 lodes of 5-8 meters depth are driven down. Rich lead glance and zinc blende appear also here. This founding has a breath of about I.5 meter here of with more than half contains ore. The reason why there on the side of the main lode is several parallel lodes is diaplocement in the rock . At point A the last worker of the mine has gone down with a pocket on this place a lot of ore has been taken out , but he has disclosed the exposed lode with ore and waste from the adit level at especially point . B. From point B from the socket there has also been taken out a lot of rich ore . The point A & B are therefore the places where a new working should been start . The adit level going out from point B. is considered made for the purpose of getting the work to stop , persunably to get the mines for nearly nothing at stand . This presumption strenghtenes in seeing 2 days later the manager of the company before laying down his work making a contract with Johan Martinsen Alme for the purchase of this 2 costanings was according to the contract show n Kr. IO.000. At the point C there is also a socket , when the ore the ore is very feire . This is also the case with point D. between point C. & D

there has been mined a little and the ore is very pure here and abundant On all the places where there has been mined on the same rich lead glance and zinc blende appear .

It is of course understood that when all the side lodes and crossing lodes are included , the lodes extensiveness vary from 20 cm up to 2 metres . To this contributes also whether the work carried out on the surface or in a great depth .

At a new start the provions works should first be developed and expecially with the points A , B & C and D.

Furthermore the adit level going in from point B. should be given another direction as it is on this place the displacement in the lodes appear . The lead glance is as known of a very fragile ore , and therefore some of the fine ore will always be lost under the mining and further treatment . A scullery ought therefore to be erected at the mine especially as the chut port is scullery ore . Should the working however work for export of sorted ore all the sorting must take place in a house erected for that purpose and not as hitherts in the open air . The fine ore would then be saved.

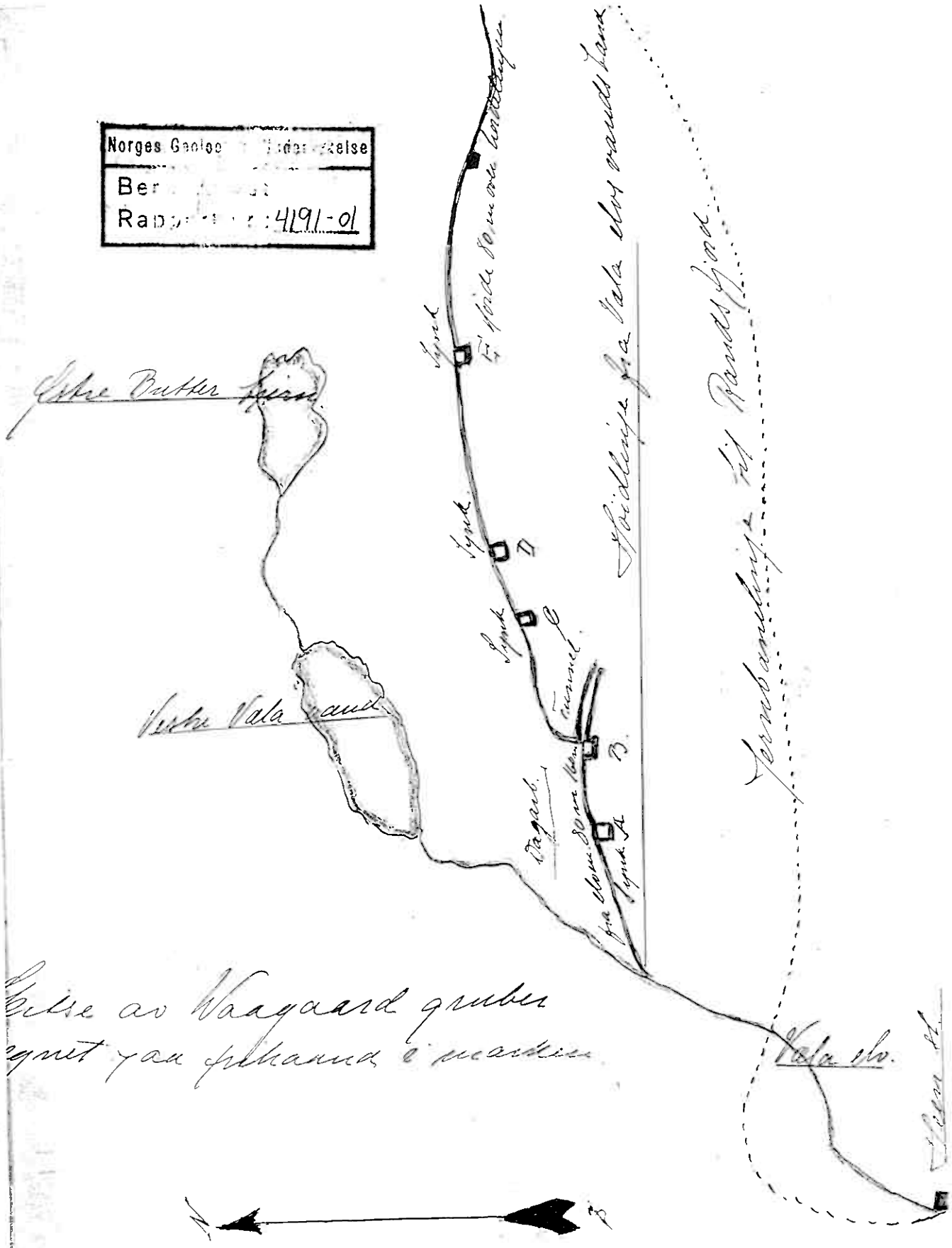
The mines office buildings and barrack for I6 men , workshop and dynamitehouse e. t. c. The communication for transport is good as the railway is going parallel with the founding. The distance varies from 300- I000 meters . There is also a good road right to the mine . With a rational working a side rail would be preferred .

Conclussion:

The lodes great extention , the ore exceptional richness and the fine situation entitles to a new start and will surely give a good profit when the sufficient capital and wisely method of working is practiced .

pr. Heen 26 August I906

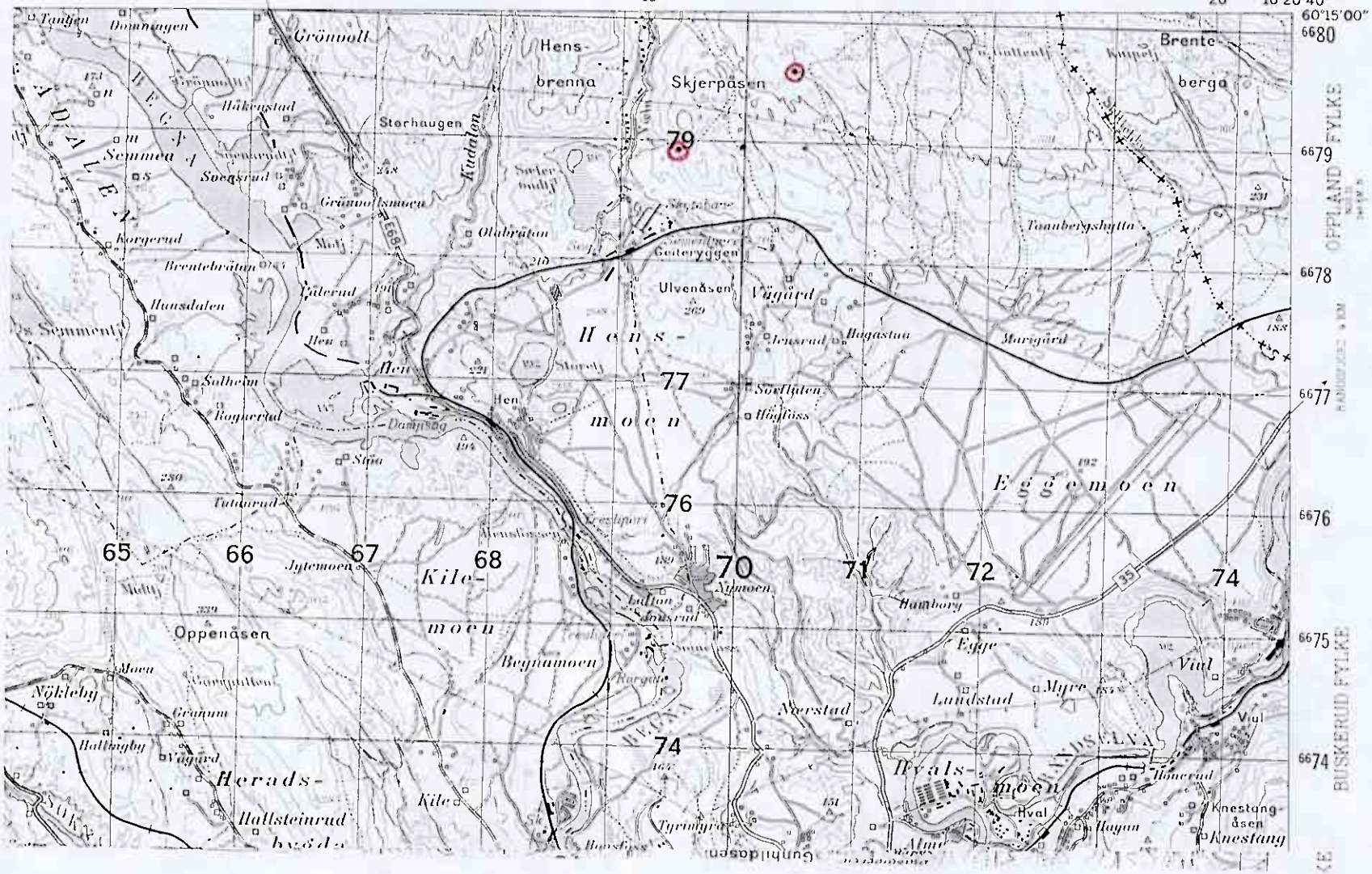
S. A. Melbye.



Kartskisse av Wragaard gruben
og omgivelser

EFOSS

1815 III



Serie M 711 Series
Blad 1815 III Sheet
Utgave 2 NOR Edition

Hen =
Waagaard = } Zu forck.
Vågard

Innplottet 1989 BjL