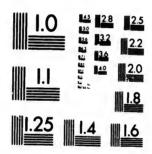
M1.25 M1.4 M1.6

IMAGE EVALUATION TEST TARGET (MT-3)



SIM STATE OF THE S

Ca



CIHM/ICMH Microfiche Series. CIHM/ICMH Collection de microfiches.





Technical Notes / Notes techniques

The post of fill

or ap

Th fil in:

Min up bo

origin featu	nstitute has attempted to obtain the best nal copy available for filming. Physical res of this copy which may alter any of the es in the reproduction are checked below.	qu'il l défau	Itut a microfilmé le meilleur exemplaire ui a été possible de se procurer. Certains ts susceptibles de nuire à la qualité de le duction sont notés ci-dessous.
\checkmark	Coloured covers/ Couvertures de couleur		Coloured pages/ Pages de couleur
	Coloured maps/ Cartes géographiques en couleur		Coloured plates/ Planches en couleur
	Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées	√	Show through/ Transparence
	Tight binding (may cause shadows or distortion along interior margin)/ Reliure serré (peut causer de l'ombre ou de la distortion le long de la marge intérieure)		Pages damaged/ Pages endommagées
	Additional comments/ Commentaires supplémentaires		
	Bibliographic Note	es / Notes bibl	iographiques
	Only edition available/ Seule édition disponible		Pagination incorrect/ Erreurs de pagination
	Bound with other material/ Relié avec d'autres documents		Pages missing/ Des pages manquent
	Cover title missing/ Le titre de couverture manque		Maps missing/ Des cartes géographiques manquent
	Plates missing/ Des planches manquent		
	Additional comments/		

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

The last recorded frame on each microfiche shall contain the symbol → (meaning CONTINUED"), or the symbol ▼ (meaning "END"), whichever applies.

The original copy was borrowed from, and filmed with, the kind consent of the following institution:

National Library of Canada

Maps or plates too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole —> signifie "A SUIVRE", le symbole V signifie "FIN".

L'exemplaire filmé fut reproduit grâce à la générosité de l'établissement prêteur suivant :

Bibliothèque nationale du Canada

Les cartes ou les planches trop grandes pour être reproduites en un seul cliché sont filmées à partir de l'angle supérieure gauche, de gauche à droite et de haut en bas, en prenant le nombre d'images nécessaire. Le diagramme suivant illustre la méthode :

1	2	3
	1	
	2	
	3	
1	2	3
4	5	6

Pan. Eucka Gold Mining Co.

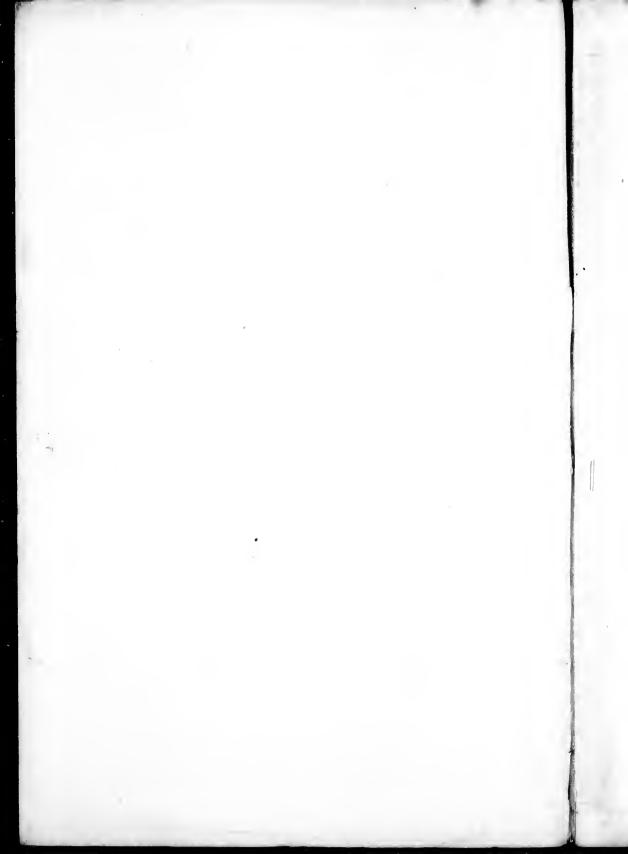
THE

Eureka Gold Mining Con.

NOVA SCOTIA

ALAMA AND THE STATE OF THE STAT

HEAD OFFICE TORONTO



PROSPECTUS, REPORTS AND STATISTICS

OF THE

EUREKA GOLD MINING CO.

OF

NOVA SCOTIA,

WITH A PLAN OF

THE WINE HARBOUR GOLD DISTRICT.

LIMITED LIABILITY.

CAPITAL STOCK, : \$100,000.

In 100,000 Shares of 81, each.

TO BE ORGANIZED UNDER A SPECIAL CHARTER FROM THE LEGISLATURE OF NOVA SCOTIA.

HEAD OFFICE, . . . TORONTO.

TORONTO:

GLOBE PRINTING COMPANY, 26 & 28 KING STREET EAST. 1868.

CONTENTS.

I.	Prospectu	S,	PAGE
2.	REPORT OF	A. Heatherington, Esq.,	6
3.	"	Wm. Barnes, Esq.,	9
4.	"	Professor Bell,	11
		A GOLD STATISTICS,	
		Maximum yield per Ton,	
		Average yield per Man,	
		,	

PROSPECTUS

OF

The Eureka Gold Mining Co'y of Nova Scotia.

LIMITED LIABILITY.

HEAD-QUARTERS OF THE COMPANY AT TORONTO, PROVINCE OF ONTARIO.

(To be organized under an Act of Incorporation of the Legislature of Nova Scotia.)

PAGE.

11

15

-16

17

18

3

The property of this Company is located in the Wine Harbour Gold District of Nova Scotia, about 150 miles from Halifax by the travelled route, and 64 miles south of New Glasgow, the chief seat of the Coal Mines of Nova Scotia, and an important town on the line of Railway from Halifax to Pictou, seven miles distant from the last named place. Wine Harbour has a tri-weekly line of stages to New Glasgow, and a water communication by coasting vessels with Halifax. The Port (Indian Harbour) is only 1½ miles distant from the village, and, at all seasons, is one of the most accessible harbours east of Halifax.

The district has an established reputation as one of the best Gold Fields in the Province, and from an area only a few hundred yards distant from the Eureka–Shaft, was taken the second largest nugget forwarded by the Government of Nova–Scotia to the late Paris Exhibition.

The Gold-bearing lodes traversing the district are numerous and well defined; and the well-known "Barrasois," (north, middle, and south lodes) "Desbarres," "Major Norton," "Halliday," "Mitchell," and "Eureka" Lodes pass through the developed portion of the property from West to East, a distance of 900 feet, or across six areas. The "Middle" and "Capel" Locaross three areas (450 feet) at the Southern extremity.

The Barrasois Lode (proper), one foot thick, is extensively worked on the Orient Company's location to the East. The

NORTHERN BARRASOIS Lode, only a short distance to the North of it, consists of three veins of quartz of 15, 1 and 8 inches respectively, separated by slate. The Eureka Lode, varying from 5 to 9 inches, associated with slate, is aiready opened to the depth of 93 feet on the property. The Major Norton group of 24 veins, of which the principal one is worked upon the Major Norton location to the West. The Desnames Lode, the Halliday Lode, the Mitchell Lode, the Middle Lode, to 12 inches, (very rich), worked on the Provincial and El Dorado Companies' properties to the West, and the Capel Lode, on the Prince Albert location to the East.

The property offered consists of 54 areas of three quarters of an acre each, (150 x 250 feet each area) making a block of over 40 acres, as per plan, viz.: 30 developed areas, numbered 1, 2, 3, 12, 13, 14, in Block L; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, in Block Three, and 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, in Block Eight, held under a lease from the Crown, bearing date 26th December, 1867, for a period of 21 years, from 26th September, 1867, and renewable, on the provisions of the Mining Laws of Nova Scotia being complied with. Together with a large undeveloped tract of 24 areas, adjoining and immediately to the north, numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, in Blocks 32 and 37. The Lease for said 24 areas bears date January 31st, 1868, and is for a period of 21 years from January 4th, 1868, also renewable. Two distinct Gold-bearing Lodes crop out on undeveloped Block No. 32. There is a good site for the proposed Fifteen stamp Crushing Mill on area No. 8, Block Eight. (See Report of W. Barnes, Esq.)

The Title to the 54 areas has been transferred to C. J. Campbell, Esq., and Benjamin Morton, Esq. as Trustees, to hold for the benefit of the subscribers hereto, until the organization under a charter, to be obtained from the Legislature of Nova Scotia, is completed.

The Lands of the Orient Company, of Boston, adjoin on the East, and to the West are the Properties of the Provincial Company of Montreal, and the El Dorado, of Boston. The properties of these chartered Companies are all being vigorously worked; while that of the recently organized Temple Company, of Chicago, immediately to the East, is also undergoing development.

The "Eureka" Shaft, from which the property takes its name, is 93 feet deep, and the last crushing, in October (as per sworn returns filed in the office of the Commissioner of Mines in Halifax), of 16 tons 8 cwt., gave 32 ozs., or over \$630 00. The bar, now in the possession of the Proprietors, weighs 31 oz. 11 dwts. From that time, owing to a change of ownership, all work was suspended; but in the latter part of February, the present Proprietors caused the shaft, which had filled up, to be pumped out, and the work to be resumed; and on the 10th March, from 2 tons 860 lbs. of the quartz extracted, they obtained 13 oz. 9 dwts. and 10 grs. of retorted gold, or over 5½ oz. to the ton, as per the official certificate of Mr. John Hewitt, the Foreman of the Victoria Customs Mill, where the crushing was made.

The returns from the Eureka Lode, under the improved system of quartz crushing, may, therefore, with perfect safety, be estimated at over two ounces to the ton, at a cost of production of less than \$10.00 per ton.

The Proprietors of this valuable developed property, held as aforesaid, offer for sale to Canadian Capitalists

CAPITAL STOCK\$100,000,

IN 100,000 SHARES OF ONE DOLLAR EACH,

of which the Proprietors retain Fifty Thousand Shares (50,000) in part payment, and offer Fifty Thousand Shares (50,000) for sale, the par value of which is One Dollar per Share, at the rate of Eighty Cents per Share, or for \$40,000.

Of the above amount, the sum of Ten Thousand Dollars is to be held by the Trustees for the Working Capital Fund, which sum, from the experience of other Companies in Nova Scotia having similar amounts of Capital Stock, has been found ample for the profitable working of the Mines, and the erection of a Fifteen stamp crushing mill.

And the Proprietors undertake that the said fifty thousand shares, so reserved by and belonging to them in part payment of the said fifty-four areas, shall be held by the said Trustees until such time as a net earning of twenty per cent. on the Capital Stock of \$100,000 shall, within eighteen months from 1st May next, have been produced from the property, and that so soon as said net earnings

rters k of 1, 2,

f it,

elv,

hes.

the

rin-

est.

ode,

the

and

2, in
Block
26th
nber,
ws of
andeorth,

d 37. nd is mowundeifteen prt of

ZAMPld for ider a com-

n the ipany these hat of iately

amount to \$20,000, the said shares shall be released; but in the event of such returns falling short of said sum, within such period as aforesaid, an amount of the stock at par value, so held in trust, equal to double the amount of the deficiency, shall be forfeited and become the property of the Company, and be divided rateably among all the other shareholders. And further, that the balance of the stock so held in trust shall be retained until the earnings of the Company upon the entire capital stock, for any six consecutive months thereafter, shall have been at the rate of twenty per cent, per annum. The Proprietors, however, to have the exclusive direction of the work on the property, and use of all plant, material and machinery thereon, during such periods, but to make no charge for their personal services in connection therewith.

TERMS:

 One Fifth Cash when subscribing, and the balance in four equal payments, at one, two, three and four months from 15th inst.

2. No subscription for less than 500 Shares will be received,

Application for Shares to be made to Messr: PELLATT & OSLER, King Street, Toronto, Agents for the Proprietors.

C. J. CAMPBELL, ESQ.,

and B. MORTON, ESQ., Trustees.

Also, Provisional Treasurers,

of Working Capital Fund.

Dated Toronto, 8th April, 1868.

REPORT

By ALEXANDER HEATHERINGTON, Esq.,

Mining Engineer.

Wine Harbour district, in which the claims of the Eureka Gold Mining Company of Nova Scotia are located, is on the south-east coast of Nova Scotia, and about one hundred and sixty miles by land distant from the metropolis, but by sea it is only ninety miles. out in the arch period 1 in trust, orfeited and 1 rateably the balance carnings of consecutive y per cent, usive direc-

raterial and

no charge

nce in four n 15th inst. received, o Mossra.

Agents 10r

ecs.

٠Q.,

Eureka Gold e south-east ty miles by imety miles. The district was first officially recognized in September, 1861, gold having been discovered in July, the previous year, by one Joseph Smith in the sands at Barrasois, south-west f Indian Harbour.

No record has been kept of the gold yield for 1860 and 1861, but in preparing my Statistical Review, by order of the Government, for the Paris Exhibition, I was enabled, by searching the returns of the Mines Department, to show that Wine Harbour ranks third as a producer, in its aggregate yield from 1st January, 1862, to 31st December, 1866, and second in its proportion per man, which is really the safest test of the prosperity of a gold district.

The actual quantity of gold produced for the above period amounted to twelve thousand six hundred and fifty-one ounces, nineteen pennyweights, and twenty grains, which would represent in round numbers a value of two hundred and fifty-three thousand dollars, or about two dollars and forty-three cents daily for each person engaged in or about the mines. This invites to a comparison with Victoria, in Australia, where mining is pursued on a very large scale, and every improvement which experience can suggest or money purchase, is brought to aid and increase the gold yield.

ANNUAL EARNINGS PER MAN.

Year,	Wine Harbour, N.S.	Victoria, Australia.
1862	\$ 823,38	\$339.25
1863	605,00	352,30
1864	1094.95	370.45
1865	827.66	371.05
1866	716,75	402.07

A comparison which tells surprisingly in favour of this Province.

The average per ton is also considerably higher in Wine Harbour than in Australia, though not equal to that of some districts in Nova Scotia, on account of the greater width of its lodes; but it has given some very extraordinary yields, having in 1863 produced as much as 73 oz. 18 dwts. 9 grs. to the ton of 2240 lbs. There is, however, the great advantage in working wide lodes of having a larger total yield from a smaller amount of labour in raising the quartz. Many properties being in transitu, and many explorations

and temporary suspensions having taken place this year, the gross yield at Wine Harbour has slightly fallen under that for 1866; but there are very safe indications of renewed and prosperous activity in the coming spring, and fresh lodes are constantly being discovered. It is only right to add, also, that the Wine Harbour district (with the exception of the properties owned by the Orient and El Dorado Companies of Boston), has fallen into the hands of gentlemen whose very natural policy was for a time to stay active operations while completing purchases, but who are now largely aiding in its development, and within the past four months have disposed of two other properties besides the Eureka, viz: that of the Provincial Company, of Montreal, and the Temple Company, of Chicago. And again it must not be forgotten that the El Dorado Company have been tunnelling for drainage purposes, as well as carrying out the quartz, for the past eighteen months, and during that period have ceased all work on their shafts.

The property of the Eureka Company is admirably situated, being in the heart of the district and crossed by some of the very It consists of thirty developed areas, viz: best lodes.

No's, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Block 8.

3 and $^{\prime\prime}$ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

" 1, 2, 3, and 12, 13, 14,

on the North, and of twenty-four areas, immediately a 1111 two gold-bearing undeveloped, but upon which, namely on Block se aceas are numlodes are seen cropping out on the surface. bered

No's, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Block 32, and " 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

In the Northern part of the developed thirty areas, there are the Barrasois lodes and the Eureka, and to the South the celebrated Major Norton, Desbarres, Halliday, Mitchell, Middle, and Capel lodes, and it is certain, from what I know of the district, that diligent search in the Northern range of lots will reveal other well-paying lodes, besides those already referred to.

In addition to their greater width, which it is well known considerably lessens the cost of mining, and will yield a handsome profit on a yield of even half an ounce to the ton, their regularity is a great feature of the lodes of this district, and one which is generally found to be a very sure proof of their continuing to a profound depth.

gross

; but

ity in

ered.

with

ntle-

era-

 $_{
m ling}$

sed

the

ΠV,

11:-

ell

ng

d.

T.

E1

The property comprises a tract of sufficient extent for productive mining for many years, even were operations to be solely confined to the development of the known lodes. The success of so many mining Companies has been frustrated through failing to secure proper width of ground, that the judicious selection which has been made in this case is of good angury, and one that gives great value to the property, as (with the exception of the Middle and Capel Lodes, which cross three areas respectively, or four hundred and fifty feet), there are nine hundred feet mining right on the course of all the other lodes. From an inspection of the sworn returns for the month of October last, in the office of the Chief Commissioner of Mines in Halifax, I may add that the last crushing from the Eureka shaft, over 90 feet deep—16 tops 8 cwt.—gave 32 ozs, of unsmelted gold; and with the greatly improved mills now being erected all over Nova Scotia, the yield would not be less than two ounces to the ton.

What, therefore, with the general advantages of the district, and the special favorable characteristics of this property, I cannot do otherwise than express my confident belief, that with judicious and skilful management, it will become one of the representative gold mines of the District, and indeed of the Province.

ALEXANDER HEATHERINGTON,

Author of "Cosmopolite's Statistical Reviews," and "Guide to the Gold Fields of Nova Scotia," &c.

Halifax, N. S., 28th December, 1867.

REPORT

By WILLIAM BARNES, Esq., C.E.,

Mining Engineer and Geologist.

Since my acquaintance with the Wine Harbour Gold District my attention has frequently been directed to the locality of the areas there known as the property of "The Eureka Gold Mining Company," and lately, pursuant to instructions to that effect, I have made a careful examination of the same, and have now to offer the following Report:—

The areas owned by the Company extend from Block L, as shown on the accompanying plan, 2,500 feet north, and embrace in their extent the most productive leads of the whole district.

On Block 3, between areas Nos. 9 and 10, a shaft has been sunk to the depth of 93 feet, on a quartz vein, varying from 5 to 9 inches. Levels have been driven east and west 40 feet on the lead, and a large amount of quartz extracted. At or near the bottom of the shaft, and dipping westerly, a remarkably rich belt of ore has been cut, almost every piece of quartz now raised showing several particles of gold—the size of the lode, as well as its yield, being gradually on the increase.

I am of opinion that a continuous increase of yield may, with certainty, be looked for in sinking, as well as in the extended west workings.

The Barrasois leads, three in number, varying from 26 to 30 inches, worked by the Orient Company, also pass through the property at about 280 feet north of the Eureka lead.

I have examined the extent of the Company's surface area, with reference to future operations, and have to state that with the exception of a small extent in block 32 the whole property lies at such an elevation that excellent surface drainage can be secured.

A Mill site can be found on Lot 8, Block 8, as shown on the plan, with an amply sufficient run of water for a 20 stamp steam Mill, and which may be relied on the entire year; a small dam only being requisite. A belt of rock runs through the Lot, and will furnish a good foundation for the batteries.

South of the Eureka will be found the "Major Norton," "Halliday," "Mitchell," "Desbarres," "Middle" and "Capel" Leads, as they are respectively upon the locations known as the Major Norton, El Dorado, Provincial and Prince Albert properties.

WILLIAM BARNES,

Mining Engineer.

Goldenville, Gnysboro', N.S., 7th March, 1868.

offer the

ck L, as brace in

as been
om 5 to
on the
ttom of
ore has
several

, with l west

being

o 30 i the

with exex at

the eam nly ur-

llils, or

REPORT

By ROBERT BELL, C.E., F.G.S.,

Professor of Chemistry and Natural Sciences, Queen's University, Kingston, Ont.

The geological features are very similar in all the gold districts in Nova Scotia. The rocks consist of dark grey slaty quartitie, locally known as "whin," interstratified with thin bands of dark glossy clay slate. The auriferous quartz veins run in these slaty bands, and are therefore parallel with the stratification and to one The slate and quartz together, being thus enclosed between walls of whin rock, constitute what are called the "leads," Their course is east and west, which is always regarded as the most favorable direction for metalliferous veins. The quartz veins themselves are generally thin, seldom exceeding a foot in thick-Notwithstanding this, they are remarkably persistent both in length and depth, as might be expected from their mode of occurrence in the strike of these regularly stratified altered rocks. They are spoken of by Professor Silliman as continuous sheets of quartz. The quantity of ore which they are capable of yielding is practically inexhaustible. The persistency and parallilism of the leads is shown by the fact, that wherever the outerop of one of them is concealed by the superficial deposits, it is only necessary to mark its course upon the surface and sink through the drift in order to find it. In sinking upon the veins, they are found to expand and contract considerably in width. The expansions are called "swells," and are generally richer than the rest of the vein. Their existence shows that the movements which originally produced the fissures, now occupied by the quartz veins, were in the direction of their depth, and therefore no apprehension of their giving out need be entertained.

The veins are found to be all more or less anriferons, the gold being finely and regularly diffused through them. Besides gold, the quartz veins contain arsenical, iron, and copper pyrites, galena, blende, chlorite and bitter spar. Very little of the gold, however, is associated with the sulphurets, by far the greater propor-

tion occurring in a free and uncombined state in the quartz. This is of great importance, as it allows of the easy separation of the gold by the ordinary process of amalgamation with quicksilver alone.

Gold is frequently found in the whin forming the wall-rock, and the slate of the leads is generally so thoroughly impregnated with the precious metal as to render it profitable to crush it along with the quartz. On splitting open the lamine of slate, large flakes of gold are often exposed. In some cases these are thicker than writing-paper, and cover surfaces of several square inches.

These strata belong to the Lower Silurian series, which is considered the true gold-bearing formation in all parts of the world.

The Eureka property consists of fifty-four mining claims or areas, each measuring 250 by 150 feet, and containing over three-quarters of an acre, making a total of about forty-two acres, in one compact block, in the centre of the district. It measures 2,500 feet from north to south, by 900 on the course of the veins, (except in the two southern ranges.)

The 30 areas forming the southern part of the property lie within the developed tract, and contain many of the richest leads of the district. Although the remaining 24 areas are as yet undeveloped, there is every reason to believe that they are traversed by numerous lodes, two of which have been already uncovered. These lodes could be laid bare at a small cost, and form a reserve of mining ground, which could be worked in the future, and would last for an indefinite time.

The most important veins which traverse the 30 areas first referred to are the following:—The Barrasois lead, over a foot in thickness, extensively worked on the Orient Company's location to the east, and a lead a short distance to the north of it, consisting of three veins of quartz of 15, I and 8 inches respectively, separated by slate; the Eureka lead, opened to a depth of over 90 feet on this property; the Major Norton group of 24 veins, of which the principal one is being worked upon the Major Norton location to the west; the Desbarres lead; the Halliday and Mitchell leads; the Middle lead, worked on the El Dorado location to the west; and the Capel lead, opened on the Prince Albert location to the east.

A parcel of 16 tons 8 cwt. of quartz, from the Eureka shaft on this property, which was crushed in an imperfect mill in October last (since which time no crushing has been done up to this date), gave 32 onnces of retorted gold. (See sworn returns.) The bar of smelted gold obtained from this weighs 31 oz. 11 dwts. (value \$631), and is now in the possession of the proprietors. The gold from the Wine Harbour district is almost pure, and sells for \$20 per onnce in Philadelphia, and at nearly that rate in Halifax.

The large size of the Eureka property affords an opportunity for following the veins through 900 feet of their course. The advantages of thus being able to carry on operations continuously upon any one lode are very great. The comparative thickness of the veins is another great advantage. Veins of only two inches have sometimes been profitably worked, but the cost per ton of the quartz, in such a case, is about five times as great as when the lode is a foot thick.

The proximity of the property to Indian Harbour is of importance, as affording a cheap source of fuel, and an easy means of obtaining supplies and machinery for working the mines. Coal, suitable for generating steam, can be supplied at about \$3 per ton.

11

e

Y

ď

1

S

l,

11

t

The results of gold mining in Nova Scotia have hitherto been very satisfactory to those who have invested capital in the business. The returns for the whole time during which gold mining operations have been carried on in Nova Scotia, taking the whole Province into consideration, show an average of over an ounce of gold, or about \$20, for every ton of quartz which has been crushed. No other gold-field in the world has given so high an average. This fact has only recently been brought out by the compilation of the official statistics, which are under, rather than over, the actual yield; and even this high rate of production will no doubt be greatly exceeded in future under the organized systems of labor, and the greater skill and improved machinery, which are being introduced. If we take the returns for the Wine Harbour District alone, we find that they also average more than one ounce of gold to the ton for a period of five years, and that the maximum yield was as high as 73 oz. 18 dwts. 9 grs. to the ton (see London Mining Journal). defective process of extracting the gold which has been in use, the quantity lost has, in many cases, been almost equal to that saved. Chemical assays show the tailings to be rich in gold, and it is found that they may be worked over with advantage in improved mills. In the Orient Company's new mill, about two ounces to the ton have been extracted from quartz which yielded only half an ounce in their old mill.

As instances of large returns obtained in Wine Harbour, it may be mentioned that on the Provincial Company's location, adjoining the Eureka property, \$136,343 worth of gold was extracted from one lead in the breadth of a single area, and about \$60,000 worth from the same lead on a portion of the next area to the west.

In view of these facts, and bearing in mind that the work of gold-mining in Nova Scotia has been carried on, not by miners, but by fishermen, who have learned by their own experience whatever they know of mining, during the very time that this result was being produced, and that owing to the imperfection of the mills, and the want of skill in managing them, an immense loss is known to have been going on, it is evident that gold mining in Nova Scotia offers a sure and very remunerative opening for the investment of capital.

The cost of living in Nova Scotia is probably as moderate as in any part of Europe or America. As these facts become more generally known, capital will be sure to continue to seek investment in the gold mines of this province. Quartz, yielding only seven pennyweights of gold to the ton, is worked with profit in California, and with the same amount of skill and care in mining and milling, a still smaller return could be made to pay in Nova Scotia. Ordinary miners' wages are only \$1.25, and skilled miners' \$1.50 per day.

Quartz mining possesses the great advantage over placer diggings of a regularity and steadiness in the yield, which may be counted upon with considerable certainty. This kind of mining has now become an established business in Nova Scotia, and the official record extends over a sufficient length of time to prove beyond doubt its remunerative nature. In working a good location, the amount of profit is limited only by the magnitude of the operations.

The Eureka property is one of the best to be found in Nova Scotia, and gold mining operations upon it, if properly managed, cannot fail to produce highly satisfactory returns.

ROBERT BELL.

Queen's University, Kingston, Canada, December 3rd, 1867.

NOVA SCOTIA GOLD STATISTICS.

The following, extracted from the columns of the Montreal Gazette of 25th September, 1867, contains much valuable information, as showing the products of the Gold Districts up to 30th Sept., 1866.

"The mineral resources of Nova Scotia are beginning to receive the attention of Europeans. The London Mining Journal, the first authority among the publications of the world on mining matters, has of late devoted several columns to the subject, and from its Pizis correspondent publishes the following with regard to

f

e

8

l.

11

1-

ì,

iu

gs gd w

bt nt

ra

"Nova Scotian Gold Statistics.—To ensure the portion of the Nova Scotian exhibition representing her auriferous resources to be readily appreciated, the local Government have adopted the very excellent statistical table of Mr. A. Heatherington, and a tetraglot—English, French, German and Spanish—edition of it, with a suitable introduction, has now been issued, for the benefit of visitors to the Exhibition. It is remarked that the mineral resources of Nova Scotia are destined to secure for her a prominent position among nations, but without some publicity and demonstration by figures, it would be hopeless to expect recognition by foreigners of these resources or their importance. The small gilt pyramid and the few, though rich, specimens of auriferous quartz sent to Paris-but imperfectly represent the capationities of Nova Scotia as a gold-producing country, whilst she also possesses mines of coal, iron, and other minerals; and, unlike some of the other rich mineral districts on the American continent, she is free from pestilential disteases, from poisonous reptiles, from wild animals, and from treacherous 'Indians. The subjoined table shows the yield of gold from 1862 to 1866, 'both inclusive, for the several districts:

District.	No, of days labour,	s' Quartz raised, ewts,	Gold obtained, oz. dwt.gr	Maximum yield per ton, oz dwł gr	Value, (Sterling.)
Waverley	379,496	980,055	33,314 12 21	22 15 20	£137,978
Sherbrooke	131,794	247,070	18,001 4 13	23 10 9	74,555
WINE HARBOUR	99,866	287,514	12,651 19 20	73/18 - 9	52,400
Renfrew	96,928	174,483	9,697 19 17	9.18 - 0	40, 166
Isaac's Harbour		92,745	6,406 - 1.20	9.41 - 5	26,532
Oldham	97,838	131, 124	5, 107 14 4	116 - 2 - 21	21, 154
Tangier	115,050	74,232	2,907 - 9.45	10 9 7	12,042
Montague	68,588	33,742	2,819 1 15	6 - 2 - 11	11,676
Ovens		::, 042	442 - 8 - 6	2 4 20	1,832
Divers		9,320	357 3 11	12 0 0	1,479
Lawrencetown		1,970	$139\ 17\ 12$	10 1 14	579
Uniacke	1,326	2,170	$72 \cdot 16 \cdot 9$	10 0 0	302
Country Harbour	936	480	40 0 0	5 10 13	166
Total	1,107,106 2	,038,947	91,958 10 16	116 2 21	£380,861

In connection with the foregoing it may be remarked that, under the Mining Laws of Nova Scotia, reliable data are at all times procurable from the office of the Chief Commissioner of Mines at Halifax, showing from sworn returns the actual working in every district. Lessees and licensed mill-owners are alike required to

make quarterly returns under oath, to the end that the areas may be actually worked and not taken up for purposes of speculation, and that the royalty of three per cent, may be properly accounted for and collected. Thus every lessed is bound to state the number of days' work performed on each area—the amount of quartz raised—the amount crushed—the mill to which the quartz was sent—the date when sent—and the yield of gold from such crushing; and, at the same time, each licensed mill-owner must show, from entries in the Mill Book (and this book is at all times open to the inspection of the resident Deputy Commissioner of the District), the following particulars, viz:—Date of crushing, owner of quartz, from what areas obtained, the receipt in tons—the yield of gold (smelted so much, unsmelted so much)—and the amount of royalty payable.

STATISTICS---MAXIMUM YIELD PER TON.

By a partial selection of the quartz it is possible to produce a very large proportionate yield, but the practice is not considered fair, and occurs very rarely. The maximum per ton is generally calculated from the average crushings, and not from any choice or selected lots.

The maximum per ton of 2,240 lbs, during the years 1862 to 1866, for each district, reads as follows:

	ozs.	dwts.	grs.
Sherbrooke	146	8	19
Oldham	116	2	21
WINE HARBOUR	73	18	9
Waverley	22	15	20
Unclassified	12	i)	0
Lawrencetown	10	1	14
Tangier	10	9	7
Uniacke	10	0	0
Renfrew	9	18	O
Isaac's Harbour	9	11	5
Montague	G	2	11
Country Harbor	5	10	13
Ovens	2	4	50

Sherbrooke, therefore, has the distinction of having yielded the maximum; but it should be noted that, for that district and Oldham, the quantity of ore crushed from which such high returns were made was, in each case, only four hundred-weight, and that the yield was

calculated in proportion only to the ton. The maximum returned for the other districts is from the actual crushing of several tons.

11,

٠d

er,

чl

10

d, ies

4.

1)]-

1111

.ed

de.

3 a

 $_{
m red}$

dly or

10

the

attii,

nade

was

The occurrence of gold in pockets, or rich streaks, is not usually considered a favourable indication of the continuity of the vein, but still, occasional large deposits are always welcomed.—*Heatherington's Guide*.

STATISTICS---AVERAGE YIELD PER MAN.

The profitableness of any pursuit can only be estimated from the average earnings of all engaged in it; and, although in order strictly to follow out the rule, in its application to Gold Mining, it would be necessary to include the officers, the proportion of each miner is not an uncommon, or an unsafe method of average.

The actual quinquennial mean (of the Province) for 1862 to 1866, was \$517.32; the triennial mean for 1864 to 1866, \$680.90; and the biennial mean for 1865 to 1866, \$744.16. The mean for each district, and the number sharing therein, were as under:—

District.	No. of days' Labour.	Annual Average per man.
Sherbrooke	131,794	\$852.60
Wine Harbour	99,866	790.52
Renfrew	96,928	624.32
Waverley	379,496	547.72
Isaac's Harbour	89,856	444.84
Uniacke	1,326	342,64
Oldham	97,838	325.72
Lawrencetown	3,120	279.72
Country Harbour	936	265.80
Ovens		264.72
Montague	68,588	256,48
Unclassified.	11,882	187.52
Tangier		157.68
The Province	1,107,106	517.32

In reviewing this table, it should be borne in mind that much gold has been lost, and much not reported; and that with economical and well applied labour the production per man for every district could be considerably increased, in some cases even doubled.—

Heatherington's Guide.

CONCLUSION.

From the information given in the foregoing pages, it will be seen that, in Nova Scotia, gold mining has become established as an important branch of business, requiring skill and capital for its prosecution, and yielding steadily good returns to investors. It is thus free from the uncertainties attending the first operations in new regions, having no history or record to fall back upon as a guide to what may be looked for in the future.

Legitimate mining is, in most countries, more profitable than the average of industrial pursuits. But the prizes which are frequently obtained are apt to give rise to undue speculation, and hence mining, in general, is popularly regarded as extremely hazardous. In Nova Scotia gold mining was begun about seven years ago, and has ever since been carried on quietly and unostentatiously, the yield showing a steady increase each succeeding year. Wherever the locations have been judiciously selected, and mining operations properly managed, the returns have been highly satisfactory, and in some cases extraordinarily large. The average yield of gold, amounting to over an ounce to the ton, has exceeded that of either California or Australia.

It has only been within the last year or two that these gratifying results have become generally known, and the consequer. has been, that a larger amount of capital has been invested last year than during any previous one. In arriving at these results, there has been little ground for uncertainty, as all the figures have been derived from the sworn official returns, which the Government have always required to be handed in regularly, every quarter, by both lessees and mill-owners. The mining operations have been constantly under the inspection of the Deputy Commissioners residing in each district, and the mining laws have been framed so as to enforce the working of the claims taken up, and to prevent mere speculation.

The fact that the gold occurs in a free and uncombined state in the quartz is of great importance, as it may thus be extracted by the ordinary stamp mill, and a very much larger proportion saved than in regions where it is associated with sulphurets.

Nova Scotia possesses the advantage of being easily accessible from other parts of Canada, the United States and Britain. The cost of living is very moderate; materials for construction, fuel and machinery, may be obtained at lower rates than in any other part of the continent. From the abundance of labour and cheapness of provisions, wages are low for a mining country, ranging from \$1 to \$1.50 per day.

From these circumstances, and the fact that, even in sinking shafts, the material excavated often repays the outlay, only a small amount of working capital is required. A first class steam mill of fifteen heads of stamps, which in the Western States would cost about \$20,000, may be had in complete running order in Nova Scotia for \$6,000.

The unusual purity of Nova Scotian gold is also a circumstance worth taking into consideration in estimating the value of the mines. It is readily saleable at any of the banks in Halifax for \$19.85, and in Philadelphia at \$20 per ounce. This makes a great difference in the aggregate profits of a year's work over mines like those of the Pacific coast, producing gold worth only \$17 an ounce.

