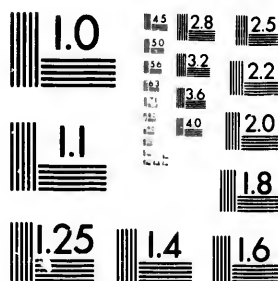
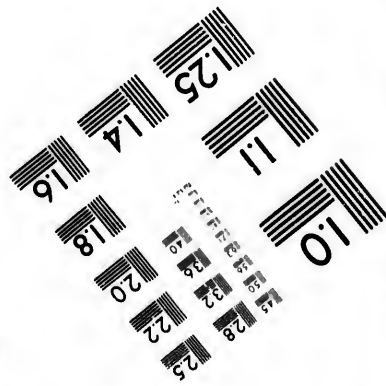
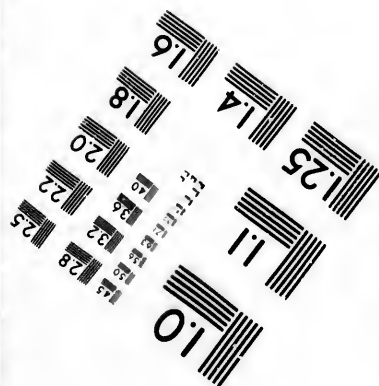


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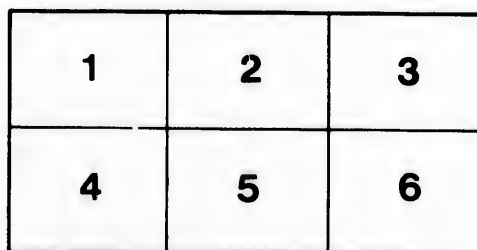
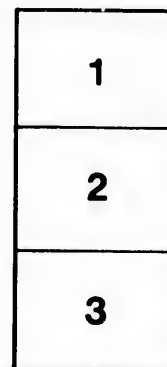
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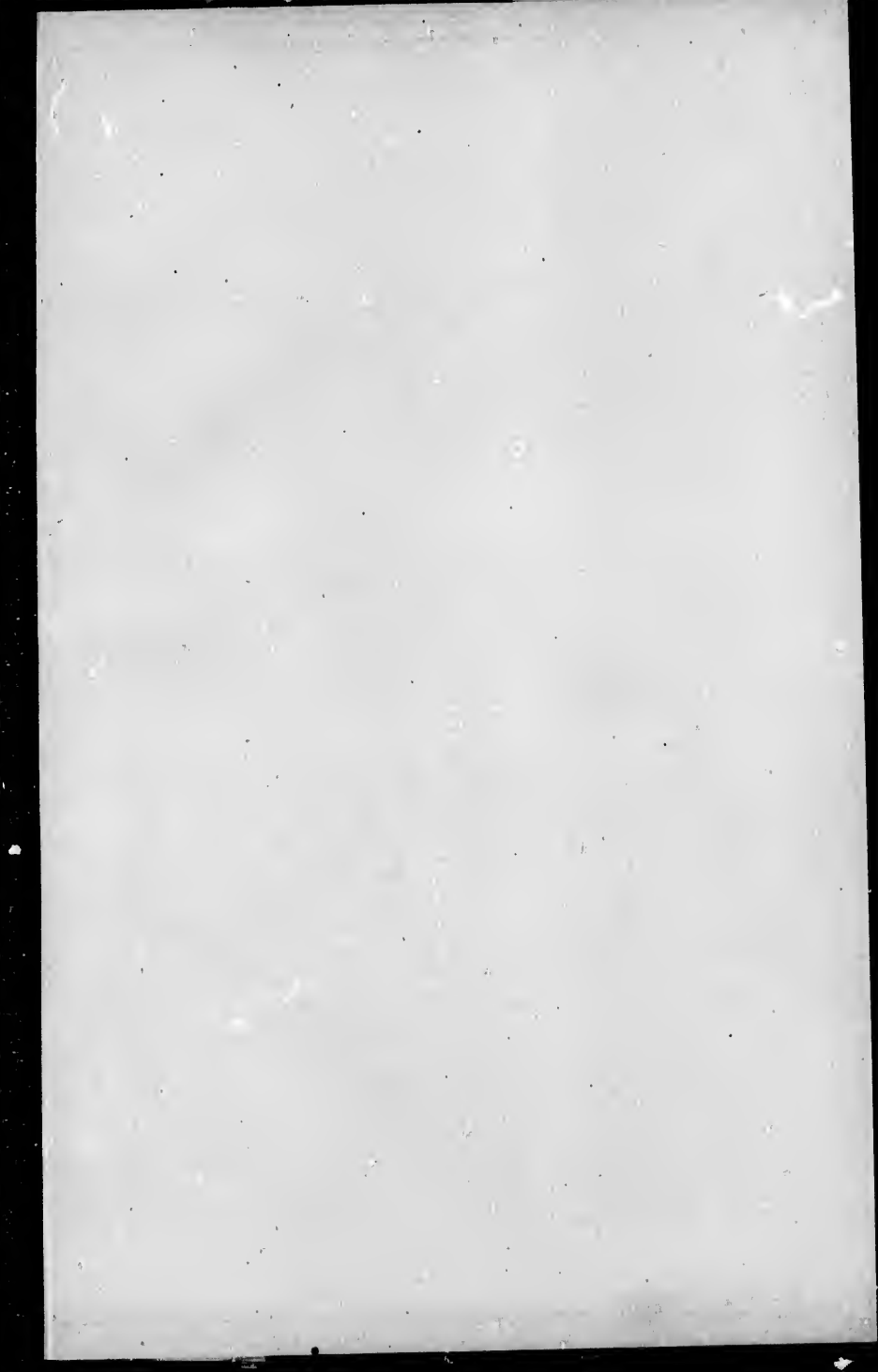
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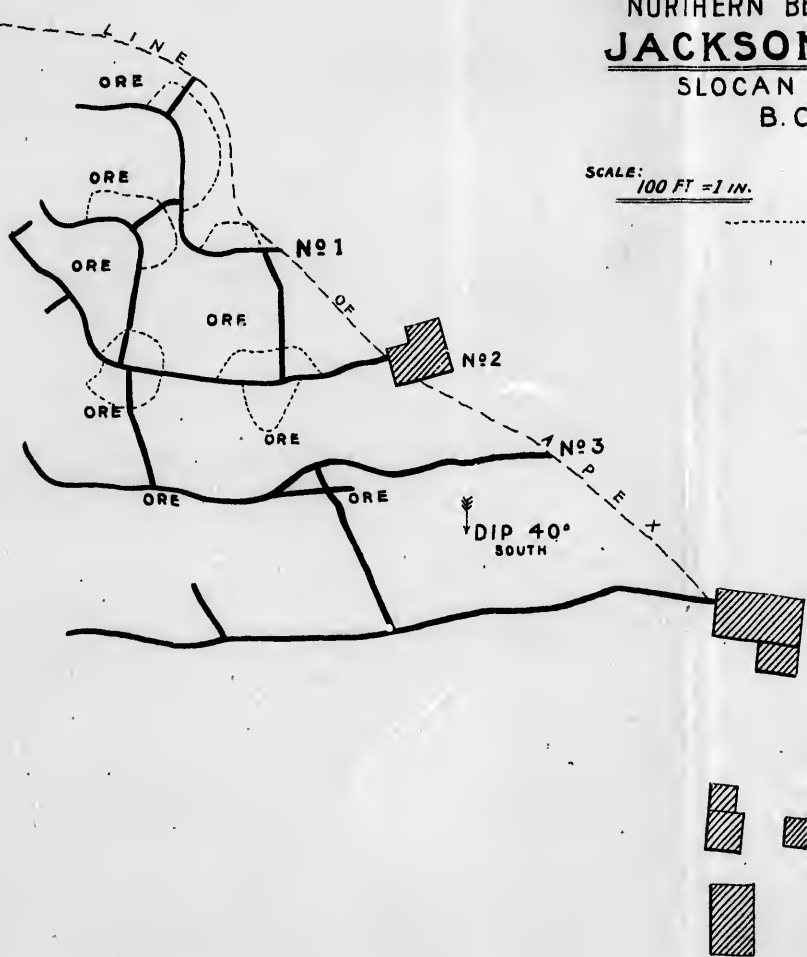
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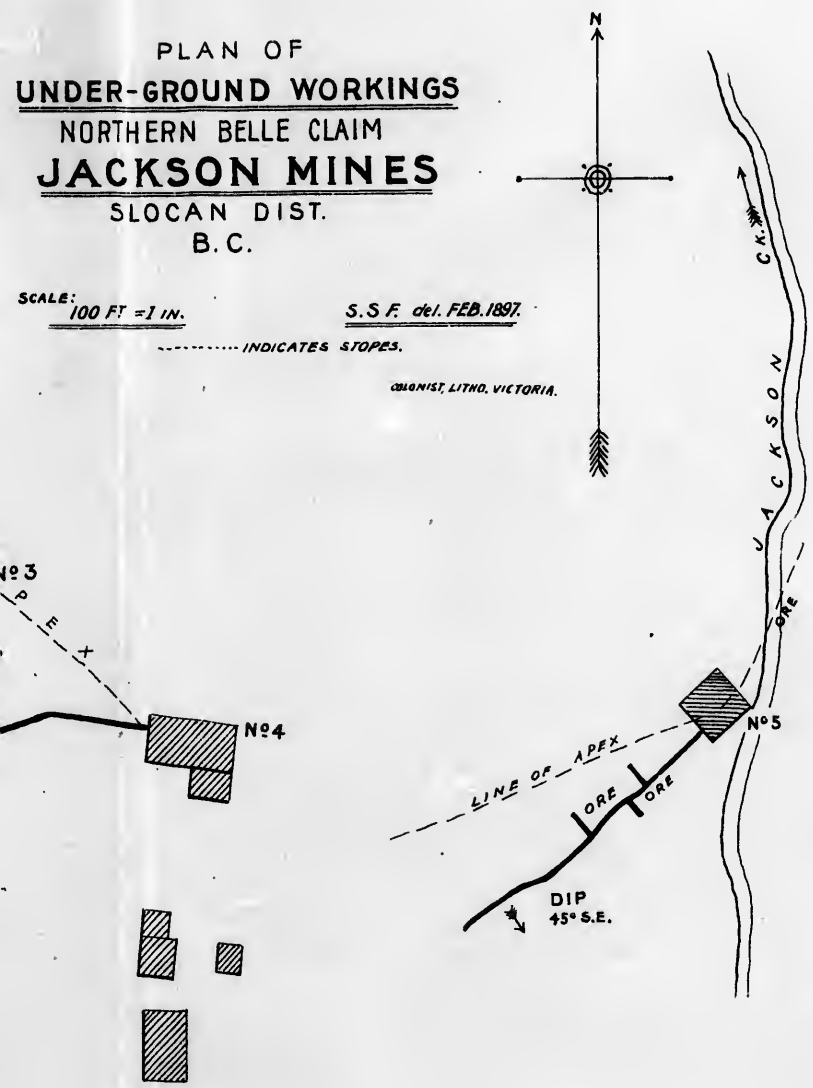
PLAN OF  
UNDER-GROUND WORKINGS  
 NORTHERN BELLE CLAIM  
**JACKSON MINES**  
 SLOCAN DIST.  
 B.C.

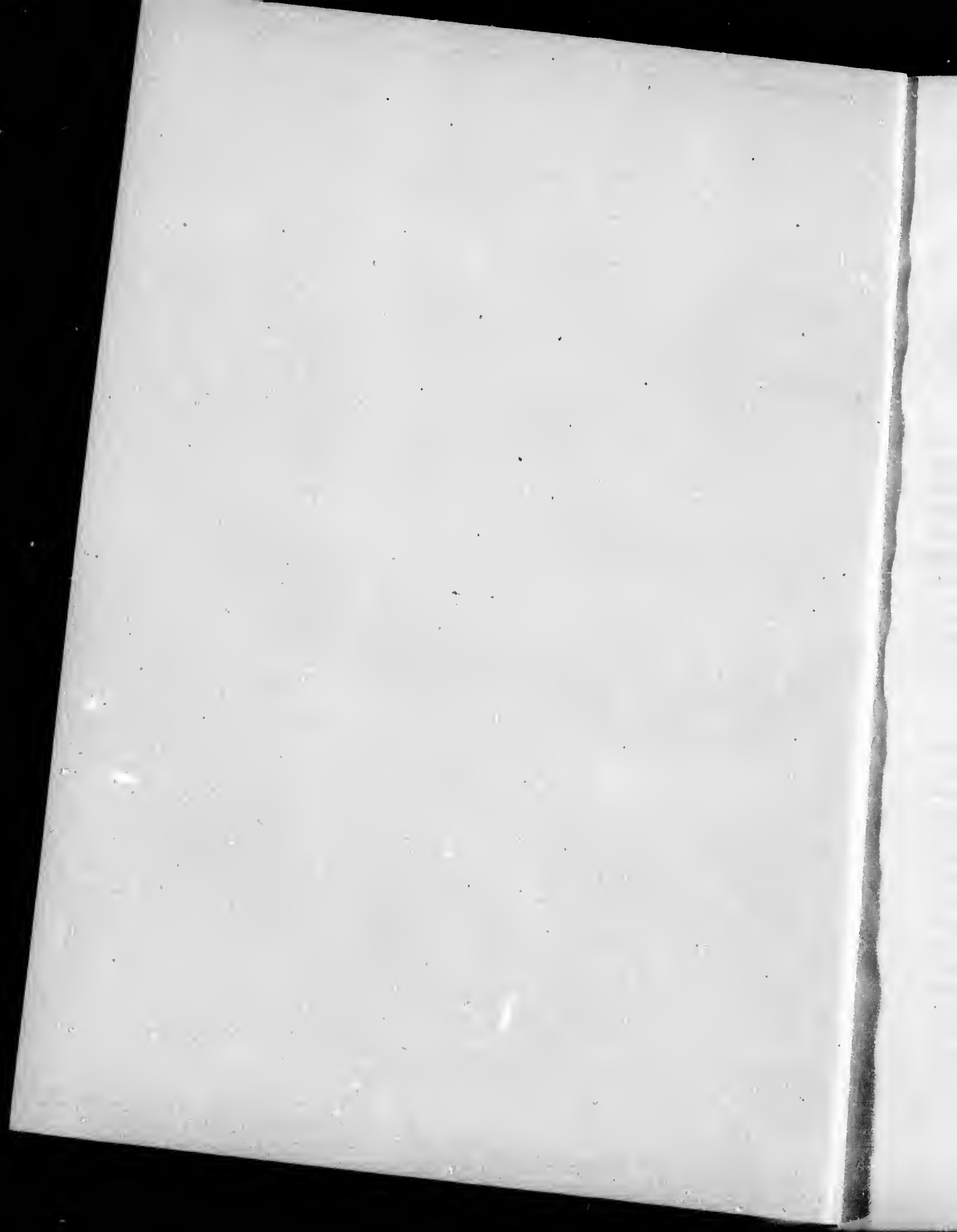
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KASLO, B. C.

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# THE JACKSON MINES.

## LIMITED LIABILITY.

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The Jackson mines are a consolidation of the "Northern Bell," "Kootenay Star," "Dublin Queen," "Ophir" and "Moore Fraction" mineral claims, in the Jackson Basin, Slocan District of West Kootenay. Under its original name of "Northern Bell," this property was located by the pioneer, Robert Jackson, in the summer of 1892, at the commencement of the first rush to the Slocan. During 1894 about 100 tons of ore were shipped from the property, and during 1895 about 300 tons, and by the showing thus effected the owner was enabled to conclude a bonding arrangement for an extensive and systematic work of development. Early in 1896 an organization was formed for this purpose, with a force averaging twenty men in charge of Mr. R. J. McPhee, formerly superintendent of the "Minnie Moore" mine, Idaho.

The result of ten months of constant and thoroughly scientific development work, consisting of over 2000 feet of tunnels and upraises, on five different levels, working the vein to a depth of 320 feet below the highest tunnel, has been to establish the existence of a mine of the first magnitude, justifying the introduction of a complete equipment of machinery to take advantage of the conditions in view. During the first four months of 1897, the actual shipments from the workings of this mine amount to over 500 tons of clean and desirable ore, free from zinc excess, and averaging 65 ounces silver and 65 per cent. lead; but in course of the development work which yielded this shipping ore, enormous deposits of ore of a concentrating character have been exposed, at the rate of about 25 tons to every ton of shipping ore, which call for the immediate erection of a concentrating mill, to be operated by the abundant water power of the adjoining Jackson creek.

One of the notable characteristics of the greatest mines of the Slocan District is this prevalence of concentrating ore. The strongest and most enduring veins (such as that of the "Slocan Star") are marked by a preponderance of concentrating material, in which lies the most

permanent source of profit; and this feature is consequently welcomed by Slocan miners as a guarantee against lack of permanency in the ore deposits. Where sufficient water is cheaply attainable, and the presence of this class of ore in large quantities is evidenced, the concentrating propositions are of all forms of mining production the safest and most profitable. In this particular case, all favourable requirements are established. The ore is in view; the water supply is abundant and within a few feet of the lowest tunnel, and the water rights are duly secured; and transportation facilities are such as to allow of inexpensive shipment of the ore.

The provision of sufficient capital to do justice to this property offers an investment on lines which may be said to have passed beyond the region of speculation whilst pointing to large possibilities of profit.

The Jackson Mines, Limited Liability, are now presented to the public as an opportunity, genuine in every respect, and with every safeguard of which a mining work admits, for enabling the public to participate in the mineral wealth of the Slocan, which is beginning to receive attention from every part of the world, and appears to be on the eve of rivaling South Africa in the favour of the investing public. It is rarely that conditions will admit of a well-developed property, with vast accumulations of ore in sight, added to indications of practically unlimited resources for future working, being offered to the public on reasonable terms, and with all questions of title and local conditions in good order. The price of this property is no higher than has been commanded by "prospects," with little or no development work or ore in sight; yet in this case the reports appended hereto from mining experts who are second to none in reputation, point to a vast property offering ascertained values in sight, in addition to unlimited supplies in prospect.

**EXTENT AND TITLE.** The claims, as surveyed for Crown grant, contain 177 acres. Certificate of improvements qualifying for Crown grant was applied for 23rd January, 1897, and the issue of the Crown grant should follow within eighty days thereafter. A clear title of the entire property to the Jackson Mines, Limited Liability, has been deposited with the Company's solicitors, pending completion of the treasury fund. The shares are issued as fully paid, under the laws of British Columbia, and as an additional and perfect security to the shareholders the articles of association of the Company expressly interdict the management from at any time incurring any debt beyond the actual funds

in the treasury from time to time; to admit of which an abundant working capital in cash, on which to start operations, is provided for the Company's treasury as a condition precedent to the transfer of the property.

**SITUATION.** The claims are at the head of Jackson Basin, altitude above sea level about 5800 feet, four miles from Whitewater station, which is eighteen miles from Kaslo, on the Kaslo & Slocan railroad. Within a circle of three miles radius, having the Jackson Mines as its centre, are the following, among other, shipping mines: "Noble Five" (with concentrator), "Washington" (with concentrator), "Reco," "Good-enough," "Payne," "Fast Chance," "R. E. Lee," "Best," "Antoine," "Surprise," "Rambler," "Cariboo," "Dardanelles," "Blue Bird," "Echo," "Lucky Jim," and many others. The situation gives entire immunity from snowslides.

**ACCESS.** Arrangements have been made to secure the construction to the Jackson Basin of a wagon road from Whitewater station, of which not more than half the cost will be borne by the Jackson Mines. This road has been surveyed by Mr. G. O. Foss, C. E. It will be completed this summer, and will bring the Jackson Mines within a freightage of under \$2 per ton to the railroad. The present rate for rawhiding is \$2.45, which is available during the mid-winter months only.

**WATER RIGHTS.** The Jackson creek runs through the property, within a few feet of the lowest tunnel. It furnishes a supply varying from 500 inches at high water to about 100 at the lowest stage. The fall is so rapid that a survey by Mr. Foss gives a head of over 200 feet by a ditch 400 yards in length. There is also Ophir creek, running into Jackson creek through the "Ophir" claim, which could, in case of future necessity, give a considerable additional supply of power, as a head 500 to 1000 feet, with a minimum of about 40 inches, is available. The "Kootenay Star" lies on the east of Jackson creek; the "Northern Bell" and "Dublin Queen" on the west. Water right of 200 inches is duly recorded in favor of the Jackson Mines.

**BUILDINGS.** These are for the most part new, and consist of boarding accommodation for thirty men, dining-room, office, blacksmith shop, and stabling for six horses.

**TIMBER.** In this important particular there is probably not a mine in West Kootenay District better supplied. An unlimited growth of balsam, spruce, cedar, and other timber, of the best sizes for mining

purposes, surrounds the workings and covers the greater part of the property, in itself a prolific source of revenue as time goes on.

THE SLOCAN DISTRICT. Little requires to be said here of a district already so well known. Probably the most eloquent testimony on this head is the fact that during the past four months Slocan ore to the average value of over ten thousand dollars a day has been shipped from Kaslo alone, with probably half as much going out by the other route.

The Government report by Mr. W. A. Carlyle on this district, issued in January, 1897, gives much valuable information, and contains an account of the Jackson Mines too lengthy for insertion here, but to which readers are referred. On the general position of the Slocan the following opening sentences of this report may be quoted:

"The Slocan, according to the number of its shipping mines and the amount and value of the ore sold, now ranks as the most productive mining district in the Province, and in point of importance is not surpassed by any other.

"In an area of fifteen by twenty five miles there have been discovered many veins of high grade silver-lead ore, which are being developed with great vigour and success, and among the mining men is every feeling of confidence and hopefulness. This winter nearly fifty of these properties are shipping high grade ore that yields very profitable returns, and a large number of other claims are being opened up.

"So far but comparatively little imported capital has been expended here, as in the case of nearly every mine now established, sufficient money has been realized from ore extracted during development to pay for more extensive workings, new buildings, mills, trails, roads, and also dividends; but more or less capital will be required to properly open up many other claims on which veins exist, but are not so easily accessible as those first discovered. But as most of these veins are found along the steep mountain sides, and can be worked by tunnels, and the cost of mining is low, requiring little or no machinery, capital will be necessary mostly when tramways and concentrators are to be built, or in some cases for hoisting plants and pumps, when tunnel sites may not be available. \* \* \* \* \*

"For some time back there has existed a strong antipathy to silver properties, and foreign investors especially have refused to entertain any proposition that was not on a gold basis; but now the fact is being realized that with silver even at its greatly reduced value, if there is a

sufficient number of ounces of this white metal in the ore, a silver or silver-lead mine is quite as profitable and as desirable as a gold mine, and the handsome returns from the very high grade silver ores being mined in the districts to be described are attracting increasing attention, as is testified by the number now seeking silver properties and the transactions recorded, as many mines or claims have been bought or bonded by English, American and Canadian investors during the past season, not only within these districts but other parts of British Columbia."

Among many similar extracts that could be given in this connection from influential foreign journals, is the following from a recent article in the leading English financial paper, the "Economist":

"The future of the mining industry which has sprung up during the last few years in the Kootenay district of British Columbia seems brighter and more permanent today than in any other period of its brief history. \* \* \* Concerning the vast width and permanency of the true fissure veins of high-grade argentiferous galena in the Slocan there is no doubt."

An excellent indication of the actual progress of the Slocan is afforded by the following official figures taken from the Custom House clearances:

Ore shipped via Kaslo for quarter ending January 31, 1896, 4,834,100 lbs.  
Ore shipped via Kaslo for quarter ending January 31, 1897, 9,425,475 lbs.

CAPITALIZATION. The Company is to take possession of the property discharged of all liability, free from all expenses for the formation of the Company, and with an ample treasury fund provided from the first sales of stock, to build a concentrator and equip the mine with water-power plant and all necessary machinery, as well as to defray the cost of a large amount of further development work, which will thoroughly open up the ore deposits for profitable working.

Thus the Company will be in possession of a mine, one of the best equipped in the Slocan, and in a position to start shipping ore on a considerable scale as soon as the concentrator and wagon road are completed.

To provide the mine with the best and most economical equipment for dealing with its volume of concentrating ore, the following is a safe

and liberal estimate in accordance with the recommendations in the engineers' reports appended hereto:

1. Concentrating mill, with capacity for 75 tons per day.....	\$16,000
2. Water-power plant, with capacity for operation of concentrating mill and mining machinery .....	3,000
3. Hoisting and pumping plant to allow of sinking a deep shaft on the excellent outcrop at the creek level, at present undeveloped.....	5,000
4. Further development work to the extent of 600 feet of tunnels and 300 feet of shaft.....	10,500
5. Wagon road to Whitewater Station, for which half is contributed by the Provincial Government.....	3,500
6. General expenses.....	2,000
Total.....	<u>\$40,000</u>

Accordingly this sum of \$40,000 will be lodged in the Company's treasury from the first sales of stock; and the Company's solicitors have meanwhile possession of the title deeds to the property, on behalf of the Company, so that the Company will take possession of the property and the treasury fund immediately on completion of the latter, and not otherwise.

The Company has acquired the property, inclusive of the above treasury fund, in return for 1,000,000 shares, of the par value of \$1 each, fully paid up, of the Company's stock. To realize the treasury fund of \$40,000 a sufficient number of these paid up shares have been placed for sale in the treasury. An additional 25,000 of these shares have also been placed in the treasury, to be applied to the Company's use, at the discretion of the Directors, as occasion may require. Thus the treasury of the Company will consist of a net sum of \$40,000 in cash, in addition to a further reserve of 25,000 shares. The Company is incorporated under the laws of British Columbia.



## ENGINEERS' REPORTS.

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REPORT BY S. S. FOWLER, E. M., Mining Engineer to the London & British Columbia Goldfields, Limited :

The Jackson Mines are situated about four miles by trail south from Whitewater Station, on the Kaslo & Slocan railway, at an altitude of about 5800 feet above sea level, and 2700 feet above the railway. They lie near the lower or north end of Jackson Basin, on each side of a creek of the same name, which with a very rapid descent flows northward. From each side of the creek the mountains rise rapidly, and are covered by a heavy growth of excellent timber for mining and constructional purposes. The topography and timber preclude the possibility of snowslides in this vicinity, and thus make the location one desirable and safe in which to operate.

Jackson creek and at least one of its tributaries afford a water-power which may be developed cheaply in sufficient volume for all probable requirements.

The claims were located in 1892 upon a discovery of croppings, whose trend is northwesterly, and development by means of tunnels has proved the existence of a large and valuable vein, whose strike is generally easterly and westerly, and whose dip is about 40 degrees to the south. The vein occurs along a line or zone of fracture, in what is known as the Slocan slates, and these slates, with bands of siliceous limestone and more or less shaley material, contain the principal and so far nearly all of the silver-lead deposits of the wonderfully rich Slocan mining district.

The fractured zone mentioned has been, previous to its mineraliza-

tion, partially occupied by, and may have been caused by, a dyke of eruptive rock, now much altered, whose presence is a strong point in favour of the idea of the deepseated origin and permanency of the deposits. The vein which cuts the slates in their dip varies from three to eight feet and more in width, and beside inclusions of the very graphitic shaley country rock affords as a gangue, quartz, spathic iron, calcite, and, especially near the foot wall, large quantities of zinc blende. These minerals are all accompanied by argentiferous galena, and with it constitutes the ore.

By far the greater part of the total galena is disseminated through the vein matter; but during the process of development several chutes or lenses of shipping ore have been encountered. These have been and are now being mined and shipped, after being hand-sorted, and the smelter returns on about 500 tons of this sorted product show a metal tenure of about 65 ounces silver and 60 per cent. lead. The values vary slightly in different parts of the mine, but show on the average a little more than one ounce of silver to each per cent. of lead.

The crude and expensive method of winning ore temporarily adopted is also very inefficient, because of the great amount of waste or second-class resulting. This can only be avoided by the erection of a concentrating plant, and when such plant is in operation there will not only be very little waste, but the grade of the product will be increased to about 65 per cent. of lead with about 70 ounces silver, which at present market prices will afford a gross value of about \$80 per ton.

Under the present ownership, development work has been proceeding steadily since June, 1896, and at the now existing stage shows about 1500 feet of tunnels and 500 feet of upraises, winzes and crosscuts. This work has been laid out with a view to permanent use, and in such manner as to secure a perfect natural ventilation in all parts.

The tunnels, five in number, cover a vertical distance of about 320 feet, or about 500 feet in the plane of the vein, and show three well-defined ore bodies, whose relations and manner of occurrence are such as to lead to the conclusion that they are each succeeded in depth by others of a like nature, and are connected with them by chutes or chimneys, of relatively small transverse extent. Tunnels Nos. 1, 2 and 3 have passed through two of these bodies of ore, which in No. 2 have a combined length of about 250 feet, and from these has come most of the ore produced. No. 4 tunnel passes through the narrow chimneys mentioned, but has not yet been extended to where it should penetrate

a re-enlargement of the principal ore bodies so far found. No. 5 tunnel is driven from near the level of the Jackson creek, about 124 feet below No. 4, to prospect a very strong cropping at that point. This has served to show the vein to be from four to eight feet wide, and, in the direction of the tunnel passes through about 90 feet of ore in the plane of the vein. In the other direction the ore passes for about thirty feet along a surface opening, and thence under and along the creek bed. This ore body is therefore known to be at least 150 feet long.

These workings are within a length along the vein of less than 800 feet, and are all on the "Northern Bell" claim. The other claims of the group have not been prospected, but most encouraging and valuable croppings appear on each, thus proving the continuity of the main vein, and indicating the probable occurrence of others.

After accounting for the ore which has been shipped, we find that the upper workings have left in sight in the mine and on the dumps about 9000 tons of concentrating material, which will yield about 2000 tons of product. As to further ore supplies, there is every reason to believe that the extension of tunnels Nos. 3 and 4, by a total of about 300 feet, will place in sight fully 8500 tons of material, which, at the ratio of concentration of 4 to 1, will afford 2125 tons of concentrates; and by sinking a shaft to a depth of 200 feet on the creek showing, and driving to the extent of 400 feet therefrom, another 8500 tons will be placed in sight, which at above ratio will yield 2125 tons of product. The total of these figures (26,000 tons of ore and 6250 tons of concentrates) certainly justifies the immediate construction of a concentrating plant, of a daily capacity of 75 tons. The development work indicated can be completed much before the mill can be constructed, and this ore can be treated in about one year from the date of completion of the mill. At the end of that time a profit of \$125,000 will have been made.

In order to accomplish the necessary work, and provide a milling and mining plant, a treasury fund of \$40,000 should be provided. Further requirements may safely be expected to be derived from the profits of the operation of the mill, which should be completed before all the necessary development has been accomplished.

With further concurrent development in the upper levels, and judicious exploratory work at the surface, the physical features of the vein already mentioned leave little room for doubt that the Jackson group, with the expenditure of the above-mentioned \$40,000, may be placed in position to continue to yield the handsome profit named for many years to come.

[SIGNED] SAMUEL S. FOWLER, E. M.  
Kaslo, B. C. February 25, 1897.

REPORT OF L. L. PATRICK, Manager of the Montezuma mine, and formerly manager of the Blewett Mining company, of Seattle, Washington, and Colonel Sellers' mining interests in Leadville, Colorado:

Having, as requested, examined the Jackson Mines for the purpose of estimating the quantity of ore at present available for concentration, and also as to the probabilities of a larger amount being developed, I have the following to report:

The most important showings of ore at present are in tunnels Nos. 1, 2 and 5. No. 3 also shows some ore, but does not seem to have been driven far enough to reach the main ore body. This, I think, is also the case in No. 4 tunnel, as the chute seems to have a decided trend to the west.

The largest block of ore developed at present is from No. 2 level up to No. 1, and from there to the surface. This body is continuous in No. 2 level for a distance of 180 feet, beginning about 40 feet from the mouth. The average height to the surface would be about 90 feet, and the average width of vein about 30 inches. Two stopes have been started in the No. 2 level, and one in the No. 1, from which several hundred tons of clean shipping ore have been extracted. In estimating the quantity of ore in this block I have deducted one-sixth for the ore already stoped, which I think is ample. This would leave in the block about 33,850 cubic feet, or 3760 tons. This will be reduced by concentration  $4\frac{1}{2}$  or 5 tons into one, making something over 800 tons of concentrates.

An intermediate level run about midway between No. 1. and No. 2, in this large body, passes for over 60 feet of the course through four feet of ore that will average 35 per cent. lead, and make a ton of concentrates for each two tons of ore. Bodies of ore like this, but smaller, are found in various places in the block of ground above mentioned; so I think the estimate will be found to be correct.

Below the No. 2 level two underhand stopes have been started, and reached a depth of 25 and 40 feet respectively. The clean ore exposed has been extracted, but the sides and bottom show a good grade of concentrating ore; and as the same ore is exposed along the bottom of the level for the same distance as it shows above, and being part of the same chute, I think it is safe to say that 10,000 cubic feet of ore, or about 900 tons, can be extracted, making about 225 tons of concentrates.

Tunnel No. 5 shows a remarkably fine body of ore—one that I be-

lieve with further development in depth will prove of great importance. The tunnel has been driven a distance of 190 feet, showing a very strong vein, with more or less ore the entire distance. The principal part of the ore chute extends from the mouth a distance of 80 feet into the tunnel, and will average 30 inches wide: being so near the mouth of the tunnel the surface will be reached at an average of about 30 feet. This would give about 700 tons of crude ore, and as it contains more lead than the upper chute would concentrate better than 3 into 1, making 225 tons of concentrates.

At various places in the different tunnels, and especially in No. 3, there are several smaller blocks of ore not included in either of the above estimates. These, I think, could be roughly estimated at 1000 tons of crude ore, or about 200 tons of concentrates.

On account of a large amount of snow it was impossible to make a correct estimate of the ore on the various dumps, but from the workings and what could be seen, it is safe to place the total at 2500 tons. This would make an additional 600 tons of concentrates.

Footing up the estimates of the various ore bodies and dumps will give a total of 8860 tons of crude ore, or 2025 tons of concentrates.

The concentrates should not run less than 65 per cent. lead and carry 75 ounces of silver, as I understand this to be the ratio between the silver and lead in the ore which has been shipped.

An estimate of the cost of mining, handling and concentrating this ore would be about as follows:

Mining 6360 tons, at \$2.50 per ton.....	\$15,800
Handling (dump) 3500 tons, at 25 cents per ton.....	625
Concentrating 8860 tons, at 75 cents per ton.....	6,645
Total cost.....	\$23,070

Each ton of concentrates carrying 65 per cent. lead and 75 ounces of silver would be worth, at present prices, \$87.75. Deducting freight, treatment, duty and loss in smelting, amounting in all to \$41.00, would leave \$46.66 as the net value per ton, leaving a net profit on the ore actually in sight as follows:

2025 tons concentrates, at \$46.66.....	\$94,486.50
Less mining and concentrating, as above.....	23,070.00
Net profit.....	\$71,405.50

While the available ore would only keep a mill of 60 or 70 tons daily capacity running a short time, I think you would be fully justified in erecting such a plant as soon as the circumstances will permit. At

best it could hardly be completed before September 1st of this year, and by pushing development work I see no reason why several times the present amount of ore may not be developed. I think it is only a question of a short time until the chute is found in No. 3. and when that is done it will be an easy matter to drive No. 4 to it, as I fully believe it will go down.

I regard the chute opened at No. 5 as being of even more importance than the upper one as a concentrating proposition. From the indications on the surface and in the tunnel I will be surprised if, on sinking say 200 feet and drifting, you do not find the chute run 150 feet in length and three or four feet wide.

From the present showings I think an estimate of the quantity of ore which can in all probability be taken from this chute is permissible. This would give a block 200 feet deep by 150 feet long, and fully three feet wide, or about 10,000 tons of ore which would make 2500 tons of concentrates, which would give you a further net profit of \$90,000.

There is every reason to believe that with further development the upper chute will be found in No. 4 tunnel, and when it is, another large block of ore will be available, as this tunnel is 160 feet below No. 2.

In conclusion I will say that in the Jackson Mines you have a very valuable property; but in order to obtain the best results a concentrating plant is necessary, which, in my estimation, together with the necessary development work, would not cost more than \$40,000.

[SIGNED]

L. L. PATRICK.

February 20, 1897.

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REPORT OF R. J. M'PHEE:—Being asked for a short report on the "Northern Bell" mine of the Jackson group, and being at this time in charge of the above property, will state that I feel satisfied that there is a bright future for the "Northern Bell" mine.

Since being in charge for the last nine months, and closely noting the work done, there is every indication that by pushing development we will in a short time develop larger ore bodies than we have as yet encountered. I find one feature which particularly pleases me (from a miner's standpoint) and that is the strength and continuity of the vein or lode, and also the uniformity of the ore chutes we have already encountered, showing a vertical trend from the croppings to our lower workings. I also find that there are three, and possibly four, distinct

ore chutes already encountered, varying in length from 50 to 150 feet, and separated from one another by what we miners call a "pinch," or "squeeze," varying on the horizontal plane from 30 to 100 feet, which will, by following them down to the deep, generally form a junction; at least that has been my observation in other mines I have managed, and more particularly the famous "Minnie Moore" mine, of Wood River, Idaho, U. S. A. From the surface down to the 200-foot level she showed distinct ore chutes, separated by pinches or squeezes from 30 feet to 100 feet long, and even longer; but on the 7th, 8th and 9th levels the ore chutes formed a junction of immense proportions, from which was extracted in eight years about \$6,000,000. I find several features (of geological nature) in the "Northern Bell" reminding me of the "Minnie Moore" mine, of Idaho, which I consider not necessary to mention in this short report.

In conclusion I will state that by careful, intelligent development work, taken with the amount of ore uncovered already, I feel safe in recommending the "Northern Bell" mine as one of the surest and safest for investment to be found in the entire Slocan District of British Columbia.

Respectfully,

[SIGNED]

R. J. MCPHUE.



THE JACKSON MINES.

LIMITED LIABILITY.

FORM OF APPLICATION FOR SHARES.

*To the Bank of British North America, Kaslo, B. C.:*

*I hereby request you to forward me.....  
Shares in the above-named Company, at the price of.....  
net per share; and I hereby agree to accept the same, or any  
smaller number, and to pay for the same against delivery of  
certificate through the Bank of British North America, or its  
agents.*

*Name in full (for registry of certificate).....*

*Address.....*

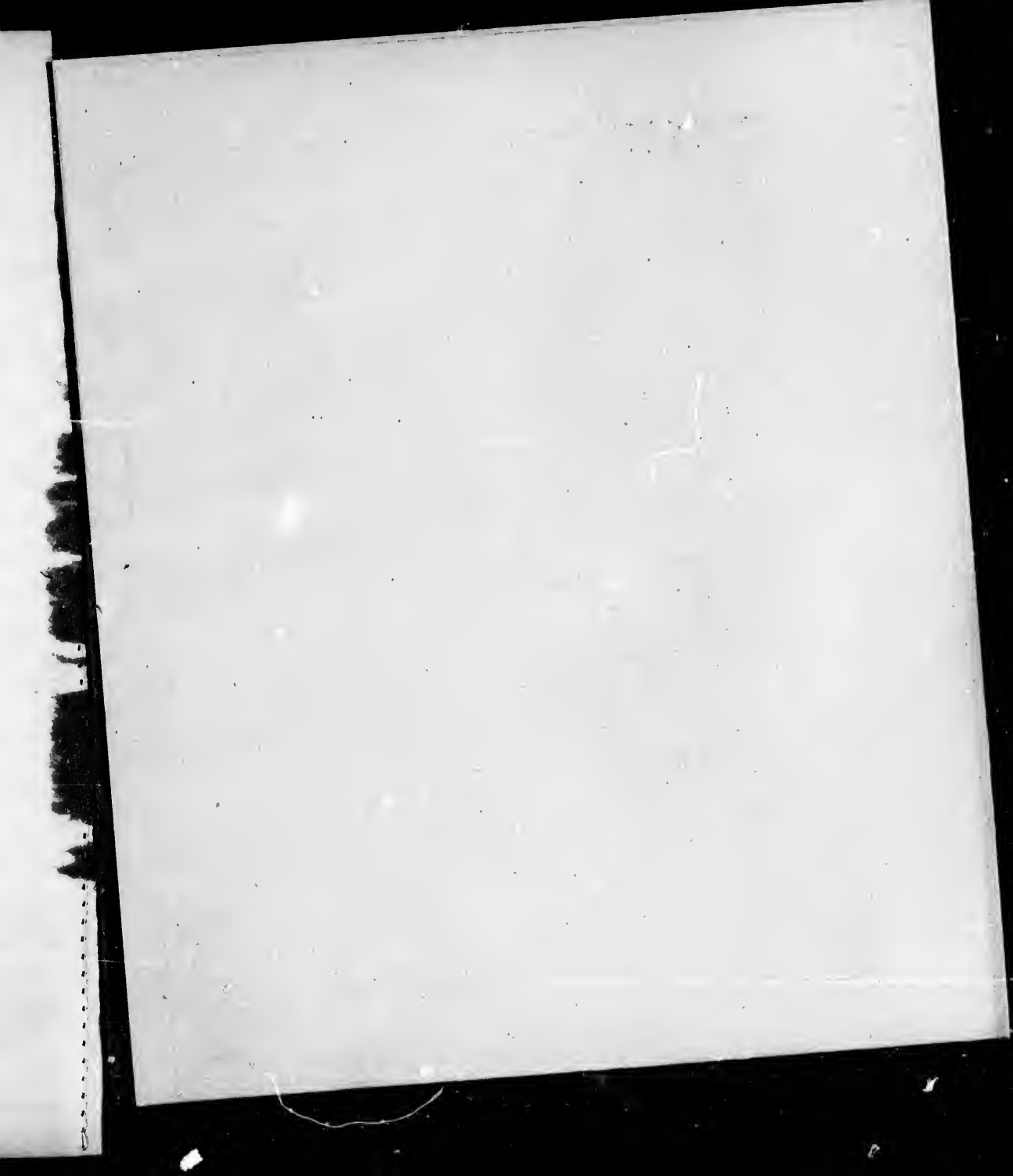
*Profession.....*

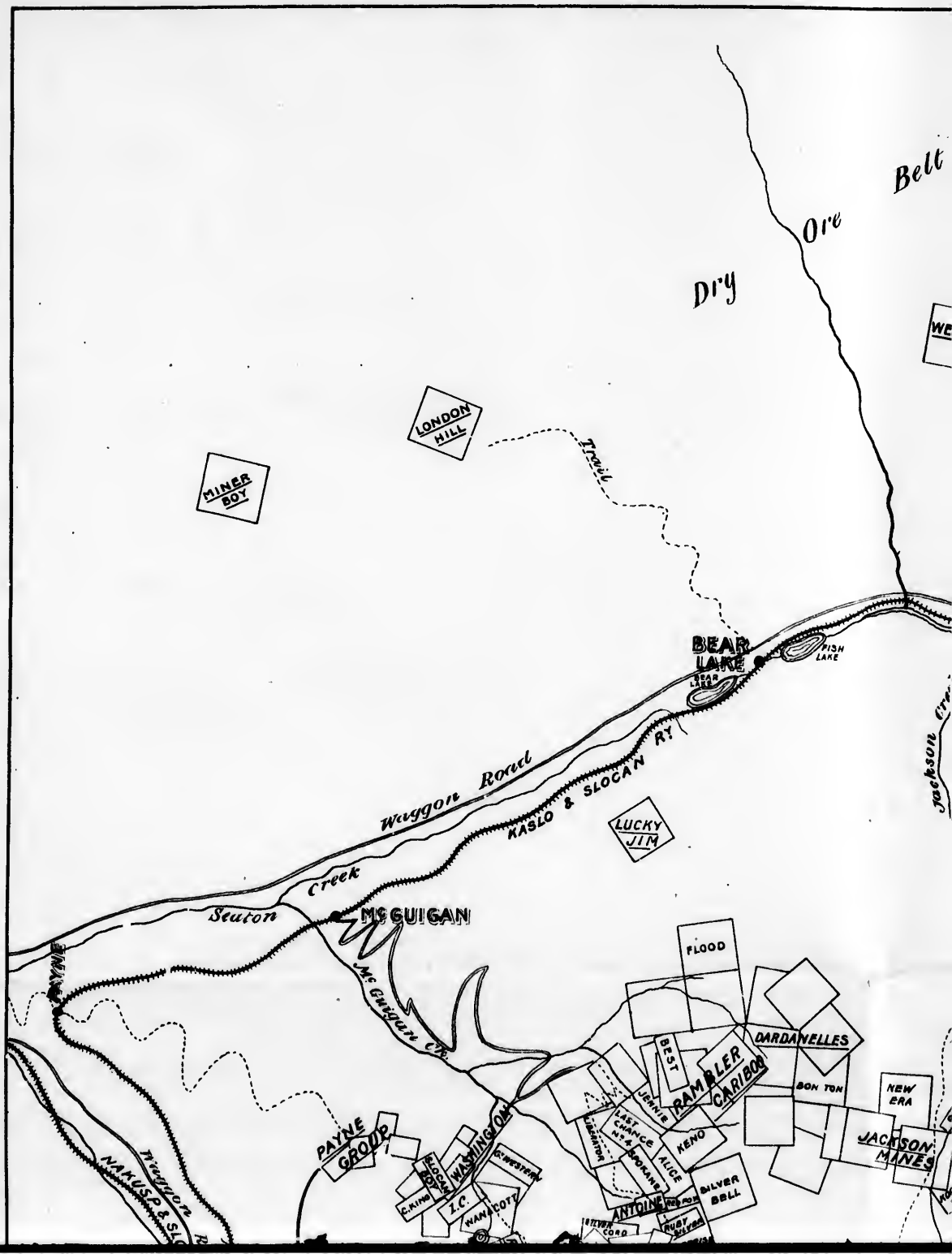
*Name and address of agent, if any, to whom Share  
Certificate is to be delivered.....*

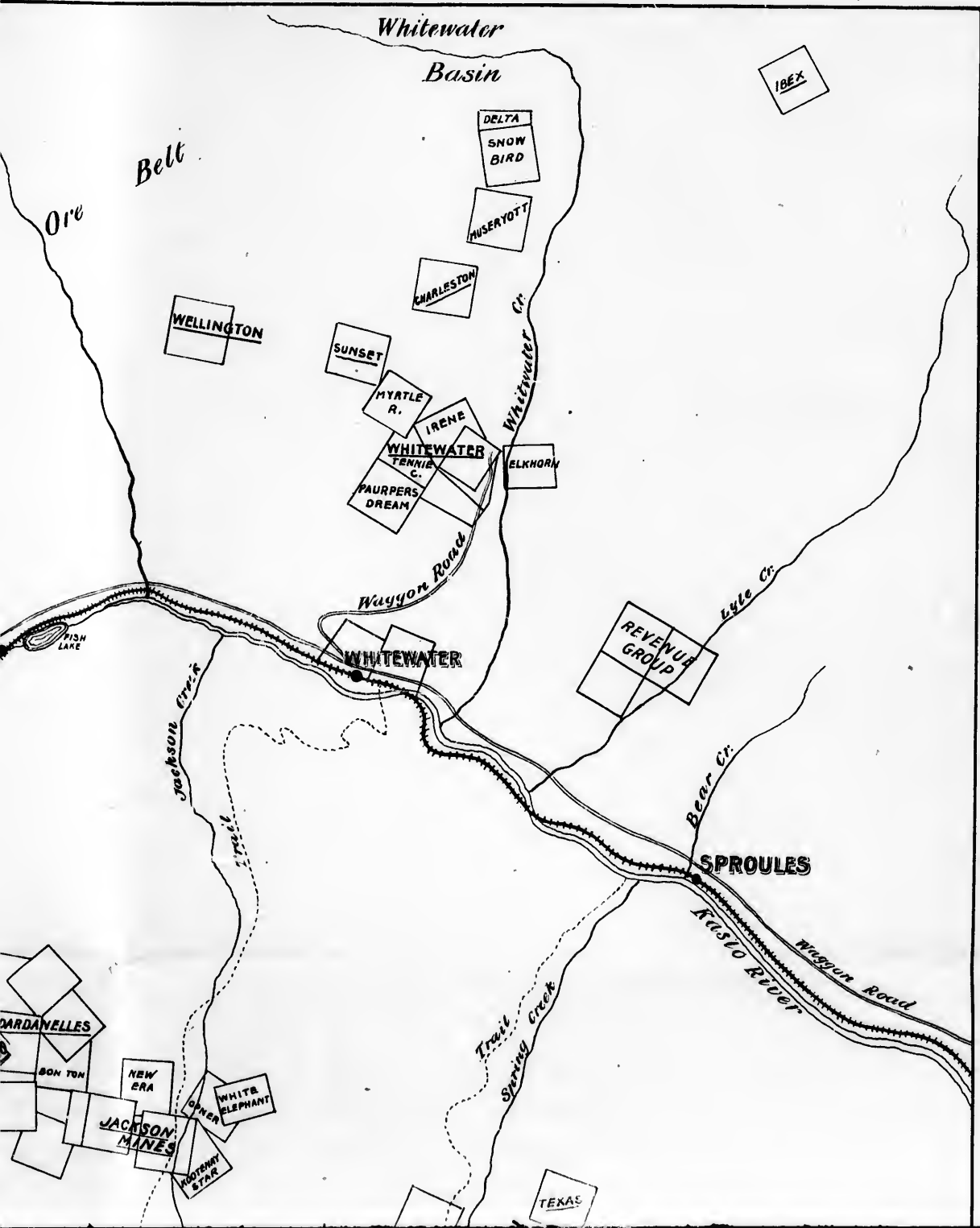
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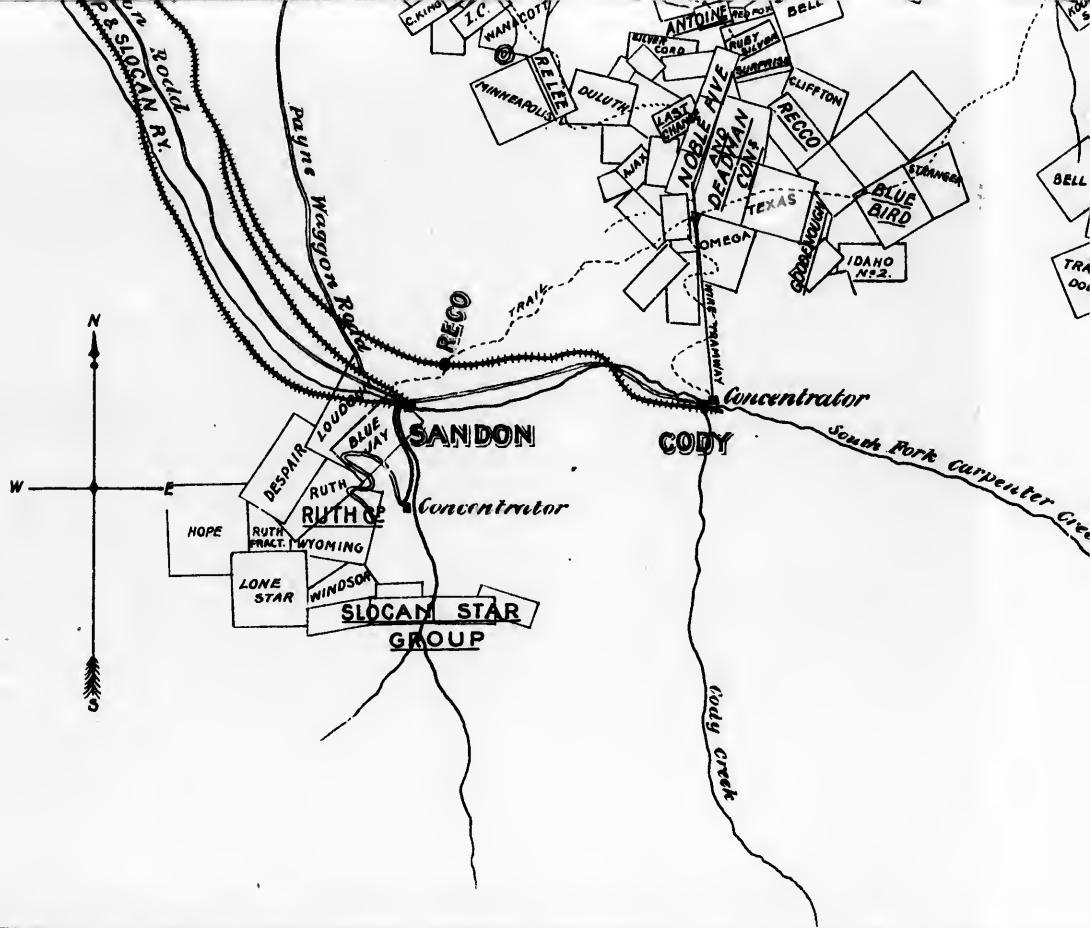
*Signature.....*

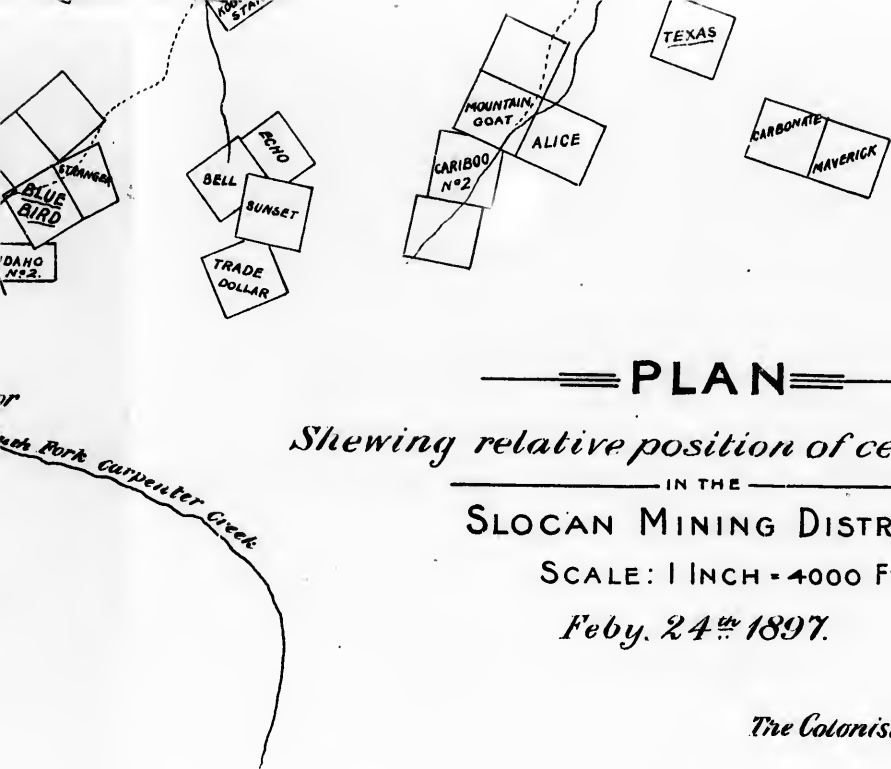












## —≡PLAN≡—

*Shewing relative position of certain Mines.*

— IN THE —  
SLOCAN MINING DISTRICT

SCALE: 1 INCH = 4000 Ft.

*Feby. 24<sup>th</sup> 1897.*

*The Colonist Litho. Victoria, B.C.*

NOTE: POSITION OF MINES APPROXIMATE

*G. O. Foss. Del.*

1907.  
THE KOOTENAI POWER PRINTING HOUSE,  
KARLO, B. C.

