

BRODIE HICKS ENGINEERING LTD.

SUITE 103

1199 WEST PENDER STREET

VANCOUVER, B.C., CANADA V6E 2R1

TELEPHONE 688-4725

800477

REPORT ON

PROPERTY OF

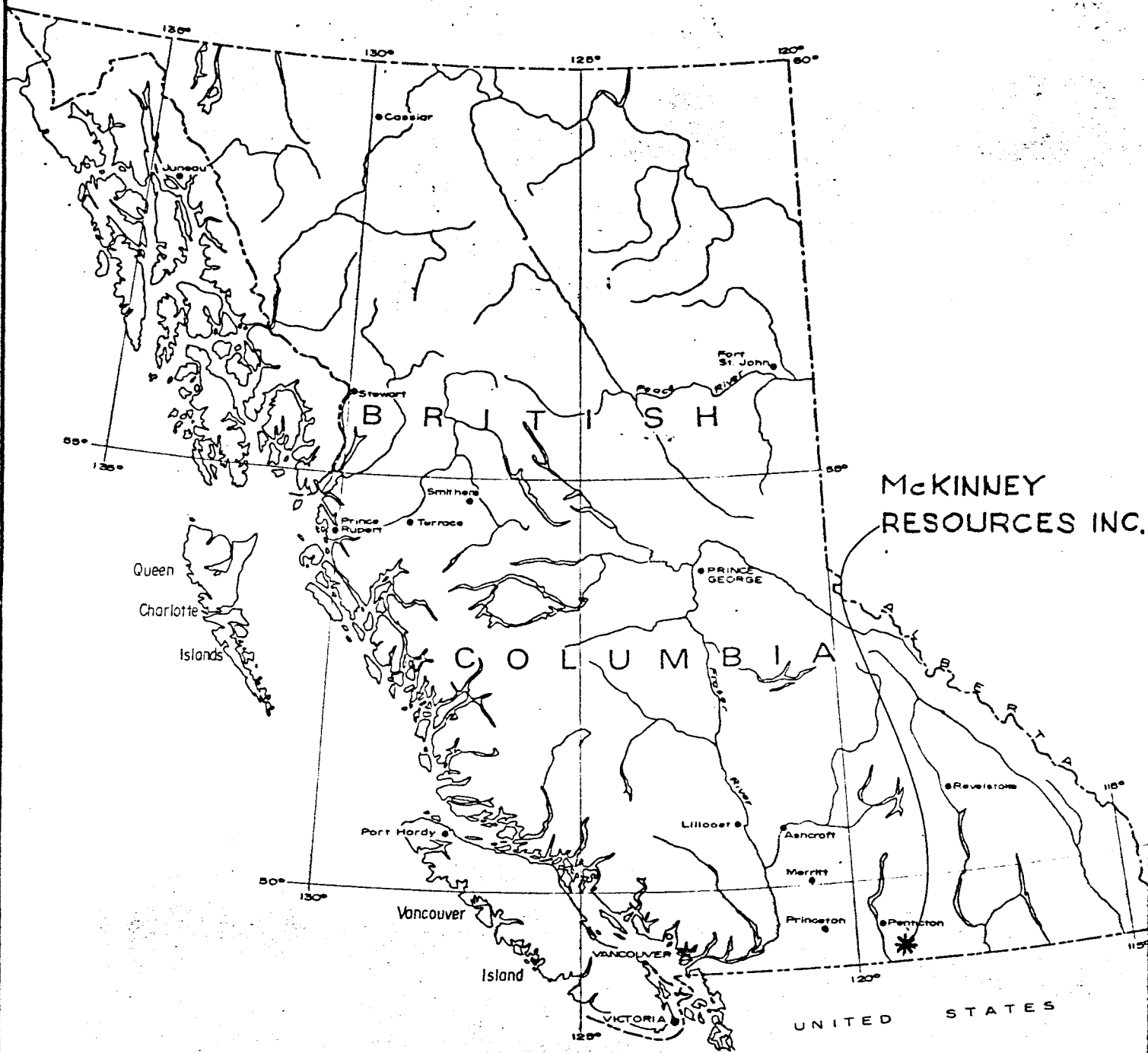
McKINNEY RESOURCES INC.

Greenwood Mining Division, B.C.

by

H. Brodie Hicks, P. Eng., M. Eng.

Vancouver, B.C.  
June 27, 1979



BRODIE HICKS ENGINEERING LTD  
 LOCATION MAP  
 OF  
 McKINNEY RESOURCES INC  
 JULY 1979

## INTRODUCTION

The following report has been commissioned by the Directors of McKinney Resources Inc., 14th Floor, 1030 West Georgia St., Vancouver, B.C.

The writer visited the property on July 24, 1979, spending about three hours in his examination. Information concerning history, geology, and past production has been drawn principally from Bulletin No. 6 of the British Columbia Department of Mines, "Geology of Camp McKinney", by Dr. M.S. Hedley, 1940, and from reports for the period 1959-62 by Henry L. Hill, P. Eng.

## SUMMARY AND RECOMMENDATIONS

1. The property, comprising ten Crown-granted claims, is located adjacent to good roads, near the village of Bridesville in south-central British Columbia. It is well situated with respect to all necessary facilities.
2. There have been two main periods of production. From 1894 to 1903, 123,457 tons were milled, yielding a recovered grade of 0.56 ounces per ton of gold. From 1959 to 1962, 11,291 tons, averaging 1.06 ounces per ton of gold, were mined and shipped to a smelter as siliceous fluxing ore.
3. It is considered that discovery of large bodies of milling ore is not probable but that a potential exists for the development of one or more oreshoots similar to that mined in the 1959-62 period.
4. The ore occurs in quartz veins, averaging three to four feet in width, cutting a thick series of sedimentary beds. Structure is complex, with much folding and faulting. There is evidence that the composition of the wall rocks has a controlling effect on ore deposition. Mineralization in the veins includes pyrite, galena, sphalerite, chalcopyrite, and free gold.
5. All production to date has been derived from a single vein, the Cariboo. There is a potential for finding additional ore shoots in this vein but for the most part only in the old workings which are presently flooded.
6. A branch vein, of similar dimensions to the main vein, and with similar sulphide mineralization, has been very partially explored by open cuts from surface and a few diamond drill holes. There is no documented record of this work but available evidence supports the conclusion that some gold content is present. Eastward of the surface exposure the vein is expected to traverse an area of favourable wall rocks.

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SUMMARY AND RECOMMENDATIONS (Cont'd)

7. It is recommended that this branch vein be explored by trenching and by approximately 1,900 feet of diamond drilling, over a length of about 300 feet. Details of a proposed programme are outlined below.
8. Cost of the proposed programme is estimated at \$50,000.

PROPERTY

The Company advise that the property is comprised of ten Crown-granted claims as follows:

<u>Name</u>	<u>Lot No.</u>
Maple Leaf	613
Emma	270
Alice	271
Cariboo	272
Amelia	273
Sacotooth	952
Okanagan	274
Wiar-ton	856
Last Chance	751
Fontenoy	752

The status and ownership of the claims have not been verified by the writer.

LOCATION AND FACILITIES

The claim group is located in the Greenwood Mining Division in south-central British Columbia. It is reached by six miles of good gravelled road which branches northward from Highway No. 3 at a point approximately three miles east of the village of Bridesville.

There are no camp facilities on the property at present but a work crew could be accommodated at Rock Creek, 16 miles east of the above-mentioned road junction.

A high-tension transmission line of the West Kootenay Power Co. traverses the property and at its closest point is about 1,700 feet from the main shaft. Water is available from Rice Creek for any probable diamond drilling programme with pumping distances of at most, a few hundred feet.



McKINNEY RESOURCES INC.

CLAIM MAP

1" = 1500'

JULY '79

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### HISTORY

Placer mining in the area commenced before 1860. The first lode discovery was reported in 1884 and the Cariboo vein, the most successful producer, three year later.

The Cariboo and adjoining Amelia claims, which constitute the core of the present property, achieved production in 1894 and over the next ten years 123,457 tons were milled for an output of 69,581 ounces of gold and 5,359 ounces of silver. Recovered gold grade was 0.56 ounces per ton.

In 1935, a subsidiary of Bralorne Mines carried out surface diamond drilling and in 1939 Pioneer Gold Mines dewatered the mine and surveyed, geologized, and sampled the workings as well as carrying out an underground drilling programme. Subsequently, Highland Bell also carried out limited underground exploration. The prime objective of these programmes appears to have been location of the presumed faulted eastern extension of the vein.

In 1958, surface drilling by T. McArthur and Associates of Greenwood, intersected good values to the southeast of the old workings. On the basis of these results, R. Hunstone and Associates (later McKinney Gold Mines Ltd.), dewatered the mine, drove a 250-foot crosscut from the No. 5 level, and encountered a new oreshoot. Production from this shoot commenced in July 1959 and terminated in May 1962. During this period, 11,291 tons were extracted of an average grade of 1.06 ounces gold per ton. This material was shipped directly to the smelter as siliceous gold fluxing ore.

Subsequent work has been confined to minor trenching and three diamond drill holes discussed below.

On others of the Company's claims there is extensive evidence of past work including shafts and trenches but it does not appear that any of these produced significant tonnages of ore.

### GEOLOGY

A detailed description of the local geology is provided in the report of Dr. M.S. Hedley, cited above.

The property is underlain by a finely-banded series of mainly sedimentary rock of many types of which the most common are quartzite and greenstone. Their general strike is northwesterly and the dip northeasterly but there is both major and minor contortion. Faulting has been widespread.

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GEOLOGY (Cont'd)

The veins of which the most prominent is the Cariboo vein, are persistent, quartz-filled fissures, ranging in width from a few inches to ten feet. Mineralization includes pyrite, galena, sphalerite, chalcopryite, and occasional free gold. The veins cut all rock types, but there is reason to suppose that ore deposition is strongly influenced by the type of wallrock, the most favourable being greenstone. Longitudinal sections of the old working suggest a rake eastward of about 30 degrees probably due to the eastward dip of the favourable host rocks and of the more prominent faults.

The Cariboo vein, striking approximately east-west, has been traced on surface for 3,000 feet and in underground workings for 2,000 feet and to a depth of more than 500 feet. Only a portion of this area has actually been developed. Hedley, writing in 1940, was of the opinion that the possibility of locating additional oreshoots was good but that complications introduced by faulting made it difficult to pinpoint favourable areas. His opinion has been reinforced by the work performed in 1959-62.

At a point about midway along the developed length of the vein, a subsidiary, or branching, vein offers promise as an exploration target. This structure is more fully discussed below.

GENERAL DISCUSSION

On existing evidence, it does not appear probable that a major orebody, warranting construction of a treatment plant, will be found. The more probable targets are small shoots of good grade which could be shipped directly to a smelter as siliceous flux. The 1959-62 operation provides a typical example. Production of 10,000 tons of one ounce gold per ton grade at today's gold price would provide a substantial profit.

It is necessary, therefore, to consider the optimum location for an exploration programme. From available old maps and sections, it appears that substantial remnants of ore may exist in the old underground workings but the evidence is too uncertain to warrant the cost of pumping out and rehabilitating the mine. On surface, the vein is known to extend westward from the existing workings but it may be assumed that if grade had been good, some mining would have taken place. This may be considered a secondary target. To the east, on surface, the vein has not been located although the faulted extension was developed underground during the latest production period.

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GENERAL DISCUSSION (Cont'd)

Under the circumstances, the branch vein mentioned above merits consideration.

BRANCH VEIN

The branch vein appears on surface at a point roughly half way along the mined portion of the main Cariboo vein, striking about 30 degrees south of east in contrast to the generally east-west strike of the main vein. As exposed in old workings, it has a width of four to six feet of quartz, mineralized as is the main vein, with pyrite, galena, and sphalerite. Chalcopyrite was not noted. Dip is nearly vertical.

On the evidence of old maps, it does not appear to have been developed on any of the underground workings, but there are two surface cuts, reportedly the work of leasors. There is an undocumented statement that two rail cars of sorted ore were shipped by them, averaging 0.43 ounces per ton gold. Whether or not this report be accepted, the amount of work carried out suggests that some encouragement was received.

In 1962 (personal communication) Mr. R. Hunstone, a principal in past and present activities on the property, drilled three holes into the vein from a location about 75 feet to the south of the old workings. These holes, the collars of which were inspected in the course of the writer's recent visit, were directed respectively about N 30° E, N 37° - 30'E, and N 45° E, all at a dip of -45°. Mr. Hunstone states that all three intersected the vein and returned values of the order of 0.2 to 0.3 ounces per ton gold over widths of from three to eight feet. Again, this information is undocumented but supports the probability that the vein carries gold values and may warrant further exploration.

On the main vein, from a point opposite to these old workings and the drill holes, there is evidence of extensive stoping extending eastward. It appears therefore, that the wall rocks in this area are favourable to ore deposition. It may be assumed that the same wall rocks will enclose the branch vein for an unknown distance eastward and downward.

In summary, on the basis of available data, it is the writer's opinion that a modest programme of exploration, comprising diamond drilling and trenching, is warranted to explore the potential of the branch vein.



PROPOSED PROGRAMME

It is recommended that bulldozer trenches, at about 100 foot intervals, be excavated eastward from the known exposure along the strike of the vein both to obtain samples and to provide a guide for diamond drilling.

Diamond drilling is recommended as the principal means of exploration. It is suggested that pairs of holes be drilled from the southerly side of the vein in a direction N 30° E, or at right angles to the assumed strike, each pair to consist of one hole at -45° and one at -60°. The collars would be set back 75 feet from the vein. Each -45° hole would have a maximum length of 120 feet and each -60° hole of 150 feet, or 270 feet per set-up.

The first set of holes would be drilled at the same location as Mr. Hunstone's drilling, mentioned above, and successive sets would be stepped out 50 feet to the east, more or less, depending on availability of suitable sites. It is suggested that seven sets be drilled, to cover a length of 300 feet of the vein. This would require approximately 1,890 feet of drilling. The Company has advised that a contract price for drilling of \$15.00 per foot has been obtained and this figure is used below.

PROGRAMME COST

Bulldozer Trenching, 100 hours @ \$75/hr	-	\$ 7,500
Diamond Drilling, 1,890 feet @ \$15/ft	-	28,350
Supervision, assaying, engineering, etc.	-	7,500
		<hr/>
		\$43,350
Contingencies, 10%		4,335
		<hr/>
		\$47,685
	or, say,	<u>\$50,000</u>

FUTURE WORK

Should the proposed programme be successful in locating an oreshoot it would probably be necessary to extract it by underground methods. This would involve rehabilitation of the existing headframe and bins, at least

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FUTURE WORK (Cont'd)

partial dewatering of the workings, and crosscutting from the existing drifts to the branch vein. The cost of such work cannot be estimated at this time but it would be substantially lower than the cost of development if the old workings were not in existence.

Respectfully submitted

BRODIE HICKS ENGINEERING LTD.



H. Brodie Hicks, P. Eng., M. Eng.


HBH/sg

CERTIFICATE

I, Henry Brodie Hicks, do certify as follows:

1. That I am a consulting mining engineer with offices at Room 101, 1199 West Pender Street, Vancouver, B.C., V6E 2R1.
2. That I am a graduate of McGill University, Montreal, with the degrees of Bachelor of Engineering (1934) and Master of Engineering (1935) in Mining Engineering.
3. That I have been practising my profession for more than 40 years.
4. That I am a member of the Association of Professional Engineers of the Provinces of British Columbia and Ontario.
5. That this report is based on a visit to the property on July 24, 1978, and on a study of reports by qualified engineers.
6. That I have no interest, directly or indirectly, in the subject property nor in the securities of McKinney Resources Inc. nor do I expect to receive any such interest.
7. That this report may be used in a Statement of Material Facts or similar document but may not be abbreviated or excerpted without my consent.

BRODIE HICKS ENGINEERING LTD.



H. Brodie Hicks, P. Eng., M. Eng.

HBH/sg

Vancouver, B.C.  
July 27, 1979