

6227

Geological Report

on

E.K. 281 (5) CLAIM

Located four miles south-east of
Bridestville, B.C.
Greenwood M.D.
Map M82E/3E

Lat: 49 degrees 01 minute North
Long: 119 degrees 06 minutes West

by

A. R. Bullis, P.Eng.

Field Work: 10 & 20 Aug. 1976

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

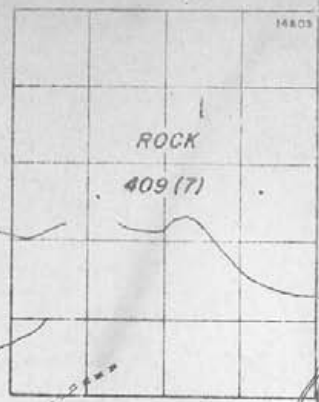
NO. _____

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14804
9/16

GREENWOOD M.D.



Rock Cr.

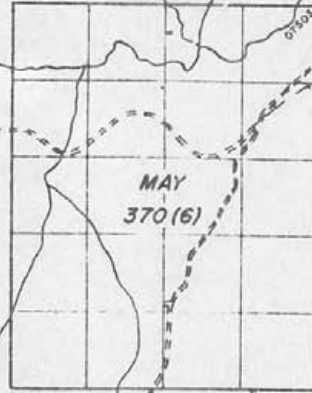
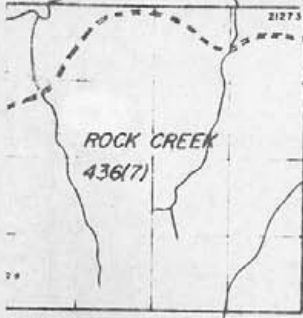
Nathan Cr.

Johnstone Cr.

Kettle R.

JOHNSTONE CREEK PARK

Rock Cr.



Budy Cr.

Myers

E.K. 281 (5)

KUHN SILICA DEPOSIT

E.L. 1877 (13100)

International Boundary

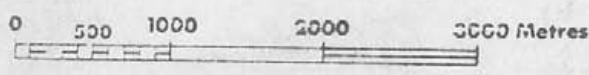
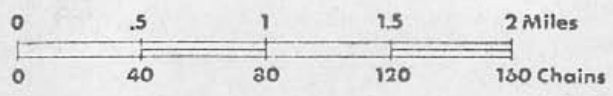
Canada

U.S.A.

Myncaster

49° 00'

119° 00'



6227 -

Claim E.K. 281 (5)

KUHN SILICA DEPOSIT

near Bridesville, B.C.

Map M82E/3E

CRB

BRIDESVILLE SILICA DEPOSIT

by

A. R. Bullis, P.Eng.

24 Feb 1977

INTRODUCTION

The author was retained by The Hanna Mining Co. to make an inventory and assessment of Silica deposits in B.C.

I examined the E.K. Claim in the Greenwood Mining Division, near Bridesville, on 10th and 20th August, 1976. I mapped part of the property, using a tape and compass, on a scale of one inch equals one hundred feet. (1 centimetre equals 12 metres, or 1 to 1,200).

The following report is a summation of my observations and a review of some data supplied by W. Kuhn.

PROPERTY

The property is situated in the Greenwood Mining Division at 49 degrees 01 minute North Latitude and 119 degrees 6 minutes West Longitude. The claim is shown on Department of Mines & Petroleum Resources Mineral Map M82E/3E as E.K. 281 (5). The claim is one "unit" (i.e. 500 metres x 500 metres or 25 hectares in area).

ARB

The claim was staked and registered in April 1976 at the Mining Recorder's Office, at Grand Forks, by William Kuhn, P.O. Box 48812, Vancouver, B.C. V7X 1A6.

The property is readily accessible from Highway #3 at Bridesville via good gravel roads that lead south-east approximately four miles to the claim.

HISTORY

The Bridesville silica deposit has been known to local residents for many years. In 1966 and 1967 some core drilling was done on the property but no record of this work appears in the B.C. Minister of Mines reports. Some core was analysed and tested in the Coast Eldridge Laboratories in Vancouver during 1966 and 1967. (See appendices attached).

The result of the core drilling and assaying done in 1966-67 was inconclusive in that analyses of core indicated erratic "high" values in iron, calcium and alumina that would preclude the use of rock for Silicon metal. However, some assays from the holes were within the specifications for Silicon-grade quartz rock and, therefore, the question remains whether or not part of the deposit may be used for this purpose.

CURAB

Further, much of the "contaminated" core was obtained close to the collar of the hole (i.e. near surface) and may indicate contamination from a source other than the quartz rock.

GEOLOGY

The silica rock occurs in a region underlain by schist and volcanic rocks of Carboniferous age. The general trend of the country rock in the area is north-west to west, with dips of 30 to 55 degrees to the north.

The silica outcrops on several small knolls, or hills, that stand above the surrounding rolling countryside and forms a series of en-echelon outcrops that extend in a north-west direction for approximately fifteen-hundred feet in a belt roughly two-to-four hundred feet wide. Most of the area is pasture land, or light second-growth timber, and is covered with overburden. The silica is fine-grained, cherty rock that varies in color from white to pale blue or grey; it is massive with few fractures or joints visible. The largest silica outcrop mapped by the author is about three hundred feet by two hundred feet; the true size is obscured by the overburden. A second large outcrop, one hundred and fifty feet by two hundred feet, is located approximately one hundred feet east of the first and together they may form a single mass of quartz.

Several large outcrops of the same type of quartz are located about six hundred feet to the north-west and are

CARB

comparable in size and quality.

Only one of the above samples, #5, would meet Ferro-silicon rock specifications and none would meet Silicon-grade rock. The possibility that surface contamination has affected the samples must be considered in any review of the economic possibilities for the deposit.

POSSIBLE RESERVES

(Assume that 12 cu ft. of silica rock weighs 2000 lbs.)
The two outcrops, mapped by the author, have a total area of 67,500 sq. ft. (6270.75 sq. metres) and if the depth of the quartz rock averages 25 feet, then the gross reserves in short tons in the deposit are:

$$\frac{67,500 \times 25}{12} = \underline{140,625 \text{ tons}}$$

However, should the outcrops be part of a continuous mass and the depth of the quartz is 64 feet, as indicated in the 1967 drill hole, then the gross reserves could be:

$$\underline{600 \times 200 \times 64} = \underline{640,000 \text{ tons}}$$

Note: These figures include only the area mapped by the author.

Respectfully submitted



A. R. Bullis, P.Eng.
BULLIS ENGINEERING LTD.
DELTA, B.C.

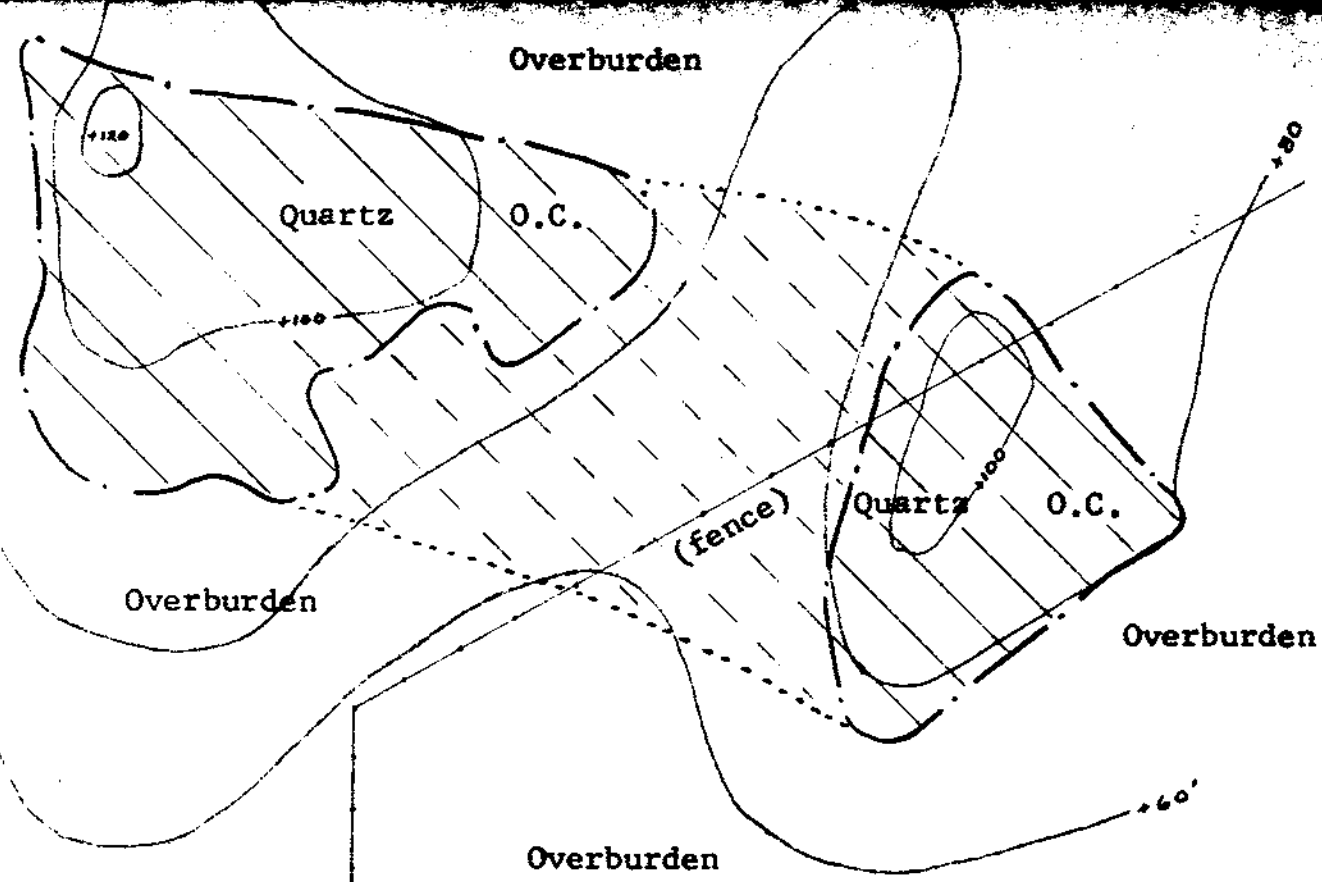
24 Feb. 1977



Schist



Volcanic



+80

+80

Overburden

Overburden

(fence)

Bridenville ←

CMB

6227

Kuhn Deposit

BRIDESVILLE, B.C.

Scale: 1 in. to 100 ft.

CERTIFICATE OF QUALIFICATIONS

I, Albert Ralph Bullis, do hereby certify that:

1. I am a practising geological engineer with residence at 5215 Saratoga Drive, Delta, B.C.
2. I am a graduate of the University of British Columbia and have been granted the degree of Bachelor of Applied Science.
3. I have been practising my profession as a geological engineer for twenty-five years.
4. I am a member of the Association of Professional Engineers of British Columbia.
5. The accompanying report is based on an examination of the area and on data supplied by W. Kuhn.
6. I have no interest, directly or indirectly, in the E.K. Claim nor do I expect to receive any.


A. R. Bullis, P.Eng.

24th Feb. 1977
DELTA, B.C.



To: Mr. F. L. Croteau,
#201 - 540 Burrard Street,
Vancouver, B. C.

1120



Certificate of Assay
COAST ELDRIDGE
 ENGINEERS & CHEMISTS LTD.
 125 EAST 4TH AVE. VANCOUVER 16 CANADA



FILE A.3-C.1-66-26215
 DATE July 21, 1966

We Hereby Certify that the following are the results of assays made by us upon

MARKED	GOLD		SILVER	SILICON	LOSS ON	IRON	ALUMINUM	CALCIUM	MAGNESIUM
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	DIOXIDE (SiO ₂)	IGNITION (%)	OXIDE (Fe ₂ O ₃)	OXIDE (Al ₂ O ₃)	OXIDE (CaO)	OXIDE PER CENT (MgO)
23976 - <i>outer</i> #1				99.25	0.21	0.10	0.30	0.05	0.02
23977 - ✓ #2				98.82	0.47	0.12	0.40	0.05	0.01
23978 - ✓ #3				98.42	0.66	0.17	0.56	0.06	0.01
23979 - ✓ #4				99.17	0.21	0.04	0.42	0.02	0.01
<i>West side</i> 23980 } #5				99.05	0.19	0.05	0.34	0.02	0.01
<i>Center</i> 23981 } - ✓				99.20	0.31	0.07	0.36	0.01	0.01
<i>East side</i> 23982 }				99.15	0.44	0.09	0.32	0.02	0.01

Gold calculated at \$ per ounce

Note: Returns valid for one week.
 Payment will be made on delivery.
 Payment will be made on delivery if the sum of
 one pound of gold is arranged.
 Method of assay is by fire and
 gravimetric.

H. S. ...

COAST ELDRIDGE

ENGINEERS & CHEMISTS LTD.

125 EAST 4TH AVE., VANCOUVER 10, B.C.

TELEPHONE: 876-4111

Client: Chemical Testing

FILE NO. C.3-C.1-67-36121

Vancouver Laboratory

Preliminary

DATE November 23, 1967

Project: Quartz Drill Core

REPORT NO.

10-0

Order to: C.E. Crippen & Associates Ltd.,
1605 Hamilton Street
North Vancouver, B.C.

ORDER NO.

ATTENTION: Mr. E.H. Talbot

We have tested six samples of Quartz Drill Cores submitted by you on November 24, 1967 and report as hereunder:

SAMPLE IDENTIFICATION

The samples were labelled

No. 1	-	0'	-	17'
No. 2	-	17'	-	18'
No. 3	-	32'	-	49'
No. 4	-	49'	-	63'
No. 5	-	64'	-	78'
No. 6	-	27'	-	

TEST PROCEDURE

The samples were placed in a muffle furnace at 1800° F for 20 minutes, removed from the muffle and cooled to room temperature. Observations were made during the heating period and subsequent cooling period for any disintegration or swelling of the samples.

OBSERVATIONS

There was no discernible swelling of the samples during heating. The samples did not flake during the heating or cooling periods and retained their shape throughout the test.

After cooling it was noted that the samples were easily broken along fracture lines that appeared to be present in the sample before heating.

/JP

COAST ELDRIDGE

W. Wong
W. Wong,
SENIOR CHEMIST

COAST ELDRIDGE

ENGINEERS & CHEMISTS LTD.

125 EAST 4TH AVE., VANCOUVER 10, B.C. TELEPHONE 876-4111

Chemical Analysis

FILE NO: C.3-C.2-67-38127

Vancouver Laboratory

DATE: December 5, 1967

Quartz Samples

REPORT NO.

G.E. Crippen & Associates Co. Ltd.,
1605 Hamilton Street
North Vancouver, B.C.

ORDER NO.

ATTENTION: Mr. Oakay

We have tested eight samples of Quartz sampled by us on November 24, 1967 at the client's premises in North Vancouver and report as hereunder:

RESULTS

A. Sampling

The samples to be analyzed were selected from the box of drill core to be as representative of the core as possible. Several chips were chosen at intervals along the core, and where the footage contained drill sludge, this sludge was included in the sample.

B. Identification of Samples

- 1. 0' - 17' - Core and Sludge
- 2. 0' - 17' - Core only
- 3. 17' - 20' - Core and Sludge
- 4. 20' - 32' - Core only
- 5. 32' - 49' - Core only
- 6. 49' - 63' - Core only
- 7. 63' - 66' - Core only
- 8. 64' - 79' - Core only

C. RESULTS

- 1. See the attached table for the analysis of Samples No. 1, 2, 3, 4, 5, 6 and 8.
- 2. See the attached semi-quantitative spectrographic analysis of Sample No. 7.

COAST ELDRIDGE

W. Wong
W. Wong,
SENIOR CHEMIST

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PHONE: TEL. 2-4111

CABLE ADDRESS "ELDRICO"

To: G.E. Crippen & Associates
1605 Hamilton Street
North Vancouver, B.C.

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

COAST ELDRIDGE

ENGINEERS & CHEMISTS LTD.

125 EAST 4TH AVE. VANCOUVER 10, CANADA

FILE NO. **C.3-C.2-67-38127**DATE **December 5, 1967**

We Hereby Certify that the following are the results of semi quantitative spectrographic analyses made on _____ samples submitted.

SAMPLE IDENTIFICATION	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Ga	Au	Fe
Sample 7 C3-64	5.0	ND	ND	0.03	Trace	ND	ND	ND	1.0	0.003	0.001	0.001	ND	ND	2.0
SAMPLE IDENTIFICATION	Pb	Mg	Mn	Mo	Nb	Ni	Si	Ag	Sr	Ta	Sb	Ti	W	V	Zn
	ND	2.0	0.2	ND	ND	ND	Matrix	Trace	0.01	ND	ND	0.6	ND	0.001	0.01

All results are expressed as percent by weight

ND - NOT DETECTED

Matrix - Major Constituent

Trace - Detected but below normal spectrographic range

Note: Rejects retained one week.
 Pulps retained three months.

COAST ELDRIDGE ENGINEERS & CHEMISTS LTD.

ANALYSIS OF QUARTZ SAMPLES

December 5, 1967

0-17
0-17
17-23
52-49
0-17
0-17

	<u>Sample 1</u>	<u>Sample 2</u>	<u>Sample 3</u>	<u>Sample 4</u>	<u>Sample 5</u>	<u>Sample 6</u>	<u>Sample 8</u>
Silicon Dioxide (SiO ₂)	98.45 %	97.29 %	99.18 %	99.15 %	99.04 %	99.12 %	87.98 %
Iron Oxide (Fe ₂ O ₃)	0.20 %	0.02 %	0.10 %	0.08 %	0.07 %	0.07 %	0.10 %
Aluminum Oxide (Al ₂ O ₃)	0.75 %	0.70 %	0.28 %	0.27 %	0.32 %	0.33 %	0.65 %
Calcium Oxide (CaO)	0.25 %	0.55 %	0.05 %	0.03 %	0.05 %	0.05 %	1.85 %
Magnesium Oxide (MgO)	0.13 %	0.30 %	0.06 %	0.07 %	0.06 %	0.07 %	1.65 %
Titanium Oxide (TiO ₂)	0.01 %	0.003%	0.01 %	0.01 %	0.007%	0.005%	0.01 %
Loss On Ignition	0.21 %	1.17 %	0.43 %	0.39 %	0.42 %	0.28 %	7.49 %

0-17
87.98 %
0.10 %
0.65 %
1.85 %
1.65 %
0.01 %
7.49 %

↙
NONSENSE

COAST ELDRIDGE
ENGINEERS & CHEMISTS LTD.

1024

125 EAST 4TH AVE., VANCOUVER 10, B.C. TELEPHONE 876-4111

Chemical Analysis

FILE No. C.3-C.1-67-38329

Vancouver Laboratory

DATE December 15, 1967

Quartz Samples

REPORT NO.

C.D. Crippen & Associates
1605 Hamilton Street
North Vancouver, B.C.

ORDER No.

We have tested 18 samples of Quartz submitted by you on December 7, 1967 and report as hereunder:

RESULTS

The samples were two boxes of drill core representing 64 feet of quartz. The core was split in half at our laboratory and half was assayed as per the attached table.

COAST ELDRIDGE

W. Wong
W. Wong,
SENIOR CHEMIST

/sp

ANALYSIS OF QUARTZ - DIAMOND DRILL HOLE NO. 2

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9
FOOTAGE -	0' - 4'	4' - 9'	9' - 11'	11' - 14'	14' - 20'	20' - 22'	22' - 25'	25' - 27'	27' - 29'
Silicon Dioxide (SiO ₂)	99.46 %	99.66 %	99.42 %	99.52 %	99.75 %	99.57 %	99.62 %	99.67 %	99.65 %
Iron Oxide (Fe ₂ O ₃)	0.06 %	0.02 %	0.03 %	0.04 %	0.03 %	0.015%	0.04 %	0.025%	0.06 %
Aluminum Oxide (Al ₂ O ₃)	0.07 %	0.02 %	0.10 %	0.09 %	0.01 %	0.07 %	0.09 %	0.02 %	0.08 %
Calcium Oxide (CaO)	0.07 %	0.02 %	0.04 %	0.03 %	0.03 %	0.04 %	0.02 %	0.005%	0.01 %
Magnesium Oxide (MgO)	0.02 %	0.01 %	0.02 %	0.01 %	0.01 %	0.02 %	0.02 %	0.01 %	0.02 %
Titanium Oxide (TiO ₂)	0.003%	0.004%	0.003%	0.002%	0.001%	0.001%	0.003%	0.003%	0.003%
Loss on Ignition	0.15 %	0.08 %	0.16 %	0.13 %	0.06 %	0.16 %	0.16 %	0.10 %	0.17 %

	Sample 10	Sample 11	Sample 12	Sample 13	Sample 14	Sample 15	Sample 16	Sample 17	Sample 18
FOOTAGE -	29' - 34'	34' - 35'	35' - 40'	40' - 46'	46' - 52'	52' - 53'	53' - 55'	55' - 58'	58' - 64'
Silicon Dioxide (SiO ₂)	99.69 %	99.65 %	99.73 %	99.69 %	99.61 %	99.67 %	99.65 %	99.73 %	99.67 %
Iron Oxide (Fe ₂ O ₃)	0.01 %	0.015%	0.015%	0.03 %	0.04 %	0.03 %	0.015%	0.02 %	0.01 %
Aluminum Oxide (Al ₂ O ₃)	0.06 %	0.11 %	0.06 %	0.08 %	0.12 %	0.08 %	0.08 %	0.07 %	0.07 %
Calcium Oxide (CaO)	0.01 %	0.01 %	0.01 %	0.01 %	0.05 %	0.04 %	0.04 %	0.03 %	0.03 %
Magnesium Oxide (MgO)	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %
Titanium Oxide (TiO ₂)	0.002%	0.002%	0.003%	0.003%	0.002%	0.002%	0.002%	0.001%	0.001%
Loss on Ignition	0.18 %	0.15 %	0.13 %	0.12 %	0.10 %	0.10 %	0.09 %	0.06 %	0.03 %

STANDARD

OTTAWA

SiO₂ 99.65

MgO 0.030

Fe₂O₃ 0.015

EAST ELDRIDGE
ENGINEERING & CHEMISTS LTD.

COAST ELDRIDGE

ENGINEERS & CHEMISTS LTD.

125 EAST 4TH AVE., VANCOUVER 10, B.C. TELEPHONE 876-4111

Chemical Testing

Vancouver Laboratory

Quartz Core

REPORTED TO G.E. Crippen & Associates Ltd.
1605 Hamilton
North Vancouver, B.C.

FILE NO C.3-C. 7-30 25
(Addition)

DATE December 25, 1951

REPORT NO.

ORDER NO.

Quartz

161

We have tested the sample of drill core submitted by you and report as hereunder:

TEST PROCEDURE

The sample was heated to 850°C for 30 minutes and allowed to cool.

RESULTS

Heating tests performed on the drill core caused cracking or fracturing of the core.

COAST ELDRIDGE

W. Wong
W. Wong
Senior Chemist

/bh