

DIAMOND DRILLING REPORT

- on the -

Silica #1 to #8 Claims

- for -

9529

INTERIOR STONE AND MARBLE LTD.,

106A Tranquille Road,
KAMLOOPS, B.C.

Kamloops N.D. 82L/13W.
50° 50 N 119° 50

PREPARED BY:

KERR, DAWSON & ASSOCIATES LTD.,
#206-310 Nicola Street,
KAMLOOPS, B.C.

W. Gruenwald, B. Sc.,
June 26, 1981.

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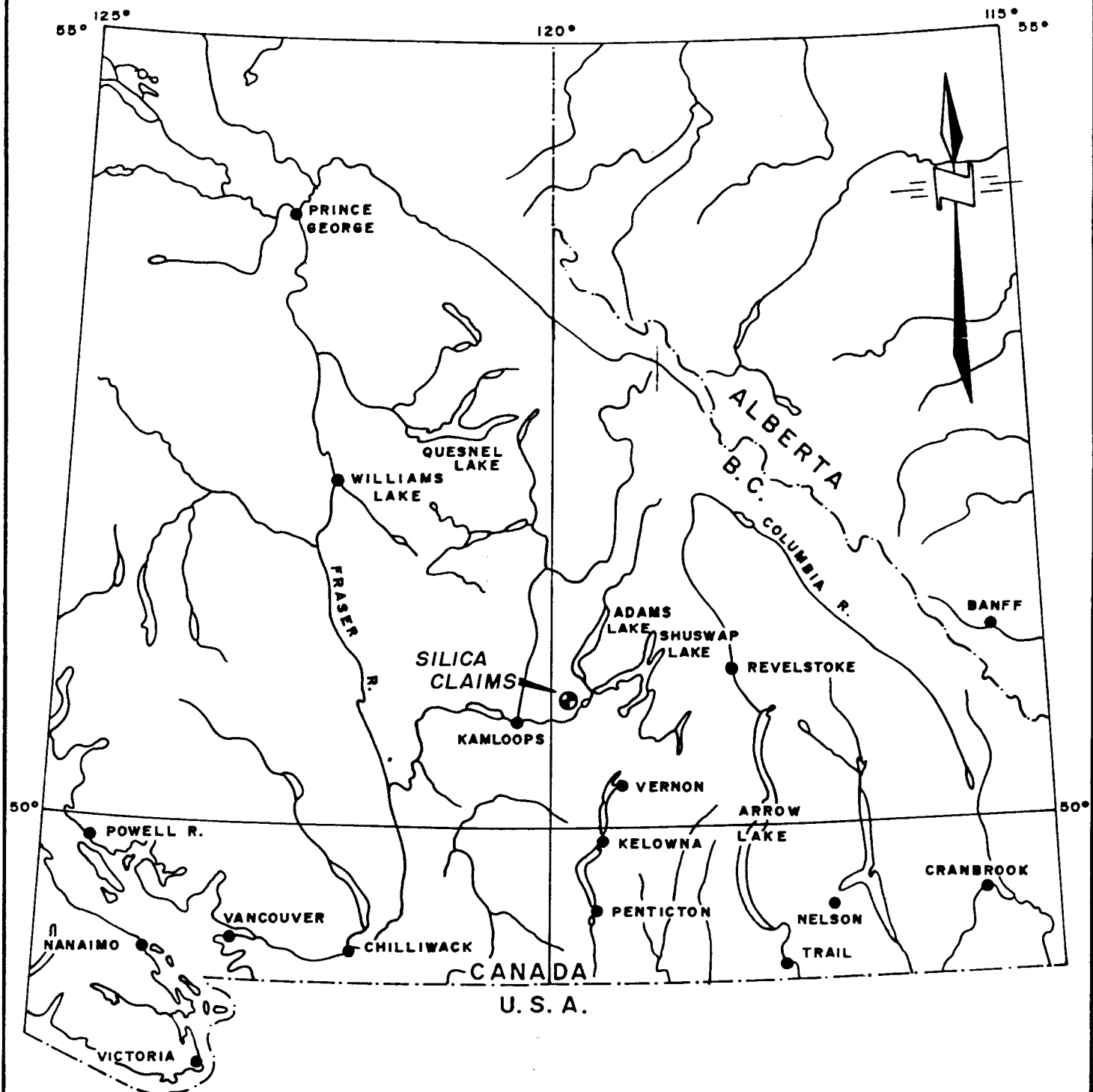
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INTRODUCTION

In late 1980, Kerr, Dawson and Associates Ltd. was requested by Interior Stone and Marble to initiate a drilling programme and thus establish open pitable silica reserves on the Chase Silica Property.

Tex Drilling of Kamloops, B.C. drilled 14 holes totalling approximately 1,200 meters between December 8, 1980, and March 23, 1981. Drill cores were logged and sampled by Kerr, Dawson and Associates Ltd. All cores are presently stored at Interior Stone and Marble, Kamloops.

Total expenditures of the above programme are outlined in detail in the Appendices of this report.



INTERIOR STONE AND MARBLE LTD.

LOCATION MAP

SILICA CLAIMS

KAMLOOPS MINING DIVISION, B.C.

Date: June, 1981.

Scale: 1" = 64 Miles

Dwn by: W.G.

Dwg no. 204-1

LOCATION AND ACCESS

The Chase Silica Property is situated at the headwaters of Niskonlith Creek, 9 km. due west of Chase, B. C. The geographic co-ordinates of the main workings are 50°48.5' North latitude and 119°49.5' West longitude (NTS 82L/13W).

The property is accessible via a good gravel road from Pritchard, B. C. Average driving time from Kamloops, B. C. to the property is slightly over one hour.

PHYSIOGRAPHY AND VEGETATION

The Chase Silica Property is situated in the Interior Plateau of southern British Columbia. For the most part, the property has gentle to moderate slopes. Total relief is slightly over 470 meters from the southeast corner of the claim block (900m) to the northeast corner (1,370m). Topographic relief in the area of the main workings, however, is less than 150 meters.

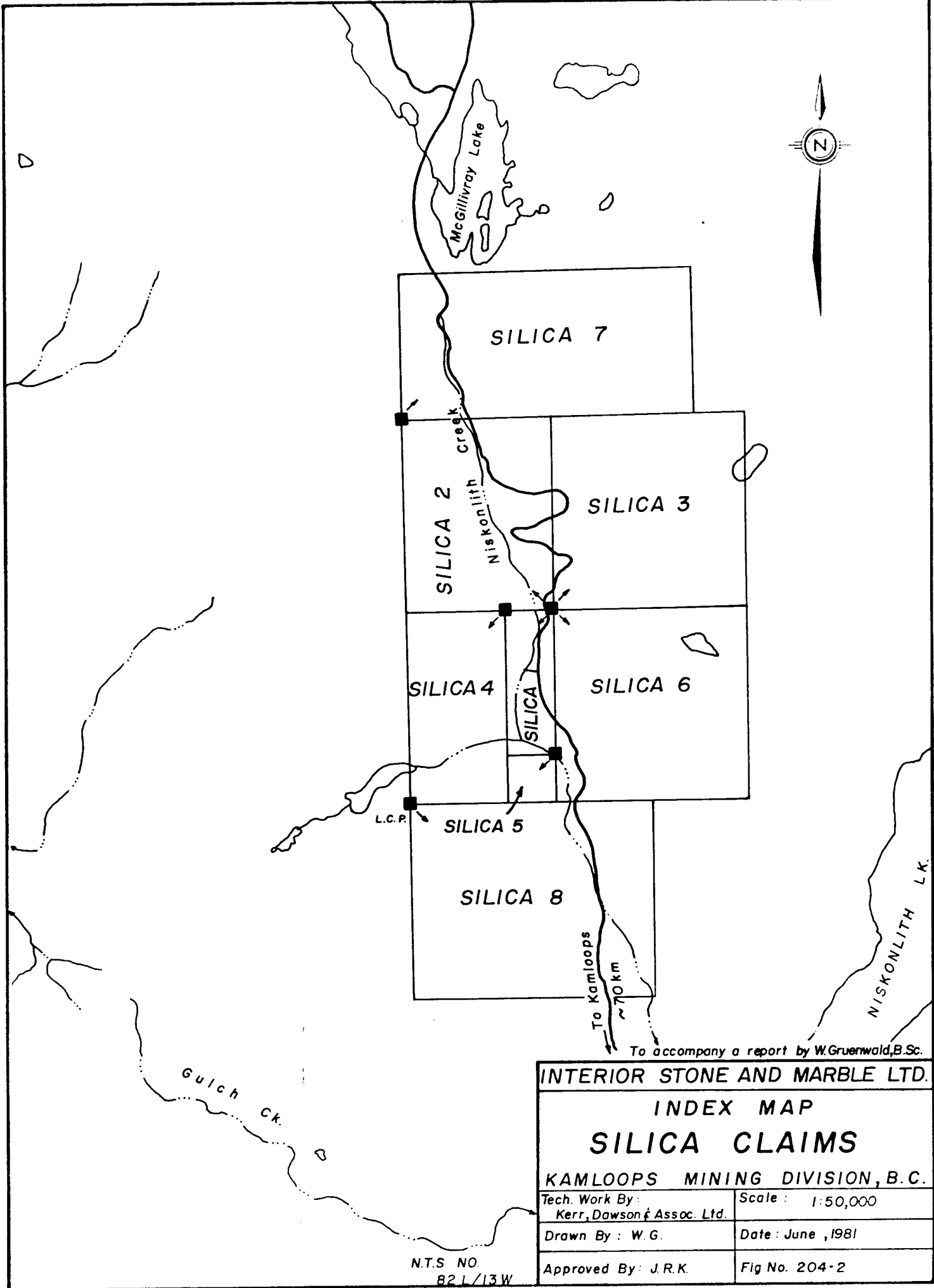
The main workings are situated within an area that has been previously logged and slash burned and therefore contains only secondary growth of fir, balsam, spruce, pine, cedar, birch and alder. Vegetation surrounding the workings and logged area consists of more mature stands of the previously mentioned tree species.

CLAIMS

The property consists of 8 contiguous "metric claims" totalling 84 units.

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Silica #1	3	2601	May 21, 1988
Silica #2	12	2602	May 21, 1981
Silica #3	16	2603	May 21, 1981
Silica #4	8	2604	May 21, 1984
Silica #5	1	2605	May 21, 1981
Silica #6	6	2606	May 21, 1981
Silica #7	18	3311	March 12, 1982
Silica #8	20	3312	March 12, 1982

All of the above mineral claims are situated within the Kamloops Mining Division. The registered owner of the claims is Interior Stone and Marble Ltd.



To accompany a report by W.Gruenwald, B.Sc.

INTERIOR STONE AND MARBLE LTD.	
INDEX MAP	
SILICA CLAIMS	
KAMLOOPS MINING DIVISION, B.C.	
Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale: 1:50,000
Drawn By: W.G.	Date: June, 1981
Approved By: J.R.K.	Fig No. 204-2

NTS NO.
821/13W

GEOLOGY

Geological mapping by the Geological Survey of Canada describes the claim area to be underlain by early Paleozoic metasediments and Permian metavolcanics, all of which are intruded by Cretaceous granodiorite.

The head of Niskonlith Creek outlines the trace of a well defined north-south trending fault zone. This fault zone hosts a major quartz vein that is found over a length of 800 meters and varies in width from less than 1 meter to over 20 meters. Significant amounts of lead, zinc, and silver mineralization have been encountered in parts of the hanging wall of the vein.

DIAMOND DRILL PROGRAMME

Diamond drilling on the Chase Silica Property commenced on December 8, 1980 and was completed on March 23, 1981. During this time, Tex Drilling Ltd. of Kamloops, B. C. completed 14 drill holes using a Longyear "38" drill. A total of 1,242.8m (4,076 ft.) of drilling was completed using "NQ" equipment that produces a core diameter of 4.76 cm (1.875 inches).

The drill core was geologically logged with significant quartz or sulphide rich zones being sampled and assayed.

All of the core for this drill programme is presently stored in labelled wooden core boxes in the Interior Stone and Marble Ltd. warehouse in Kamloops.

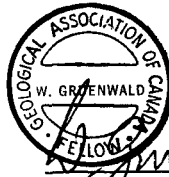
The following table lists the pertinent data for each drill hole. Drill hole locations and other data are also found on Figure No. 204-3.

<u>Drill Hole No.</u>	<u>Core Size</u>	<u>Latitude</u>	<u>Departure</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Depth</u>
S 80-1	NQ	1100N	1068E	270°	45°	147.3 m
S 80-2	NQ	1220N	1021E	270°	45°	102.1 m
S 80-3	NQ	1100N	1015E	270°	45°	71.6 m
S 80-4	NQ	992N	1013E	270°	45°	62.8 m
S 80-5	NQ	1300N	998E	270°	45°	64.0 m
S 80-6	NQ	1400N	998E	270°	45°	71.6 m
S 80-7	NQ	1798N	1054E	270°	45°	100.3 m
S 80-8	NQ	1685N	1032E	270°	45°	80.8 m
S 80-9	NQ	1600N	1032E	270°	45°	99.4 m
S 80-10	NQ	1500N	1014E	270°	45°	99.1 m
S 80-11	NQ	1644N	1032E	270°	45°	89.9 m
S 80-12	NQ	1734N	1037E	270°	45°	82.9 m
S 80-13	NQ	1160N	1020E	270°	45°	76.1 m
S 80-14	NQ	1004N	960E	090°	40°	93.9 m
TOTAL						1,242.8 m (4,076')

Respectively Submitted By:

KERR, DAWSON AND ASSOCIATES LTD.,

KAMLOOPS, B. C.
June 26, 1981.



W. Gruenwald
W. Gruenwald, M. Sc.,
GEOLOGIST

APPENDIX A

COST STATEMENT AND DRILL CONTRACT

COST STATEMENT

Diamond Drilling (Tex Drilling Ltd.):

(as per attached contract)

4,076 ft. and Cost-Plus Charges \$107,783.72

Supervision:

John R. Kerr, P. Eng.,
19 1/4 days @ \$250.00/day \$ 4,812.50

Werner Gruenwald, Geologist
20 1/4 days @ \$180.00/day 3,645.00

Mike Dawson, Assistant,
1/2 day @ \$120.00/day 60.00 8,517.50

Vehicle Rental:

18 days @ \$30.00/day \$ 540.00
1,400 mi. @ 30¢/mile 420.00 960.00

Report Costs:

Map Preparation \$ 82.26
Secretarial 220.00
Photo copying, Blue
Printing, and Binding 166.40 468.66

TOTAL \$118,729.88

THIS AGREEMENT made the day of ,A.D. 1980

BETWEEN:

CONTECH ENTERPRISES LTD.

Registered Office:

Silvertz-Brecknell Keihlbrauch

Box 190

Salmon Arm, Province of British Columbia

(hereinafter referred to as the "Owner")

OF THE FIRST PART

AND:

EDWARD TESSMER , driller, of

#205 - 495 Dalgleish, in the

"TEX DRILLING LTD." City of Kamloops, Province of British Columbia

(hereinafter referred to as the "Contractor")

OF THE SECOND PART

WHEREAS:

A. Interior Stone & Marble Ltd. is the owner of the property on which the proposed diamond drill holes will be located;

B. Contech Enterprises Ltd. is desirous of having Edward Tessmer perform certain diamond drilling.

C. The Contractor, in consideration of the payment hereinafter provided has agreed to carry out the said diamond drilling.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises and mutual covenants herein contained, the Parties hereto covenant and agree to the following:

1. The term "Owner" wherever used in this Agreement shall mean Contech Enterprises Ltd. and for the purposes of this agreement.
2. The Contractor agrees to find and supply all labour, materials, transportation, machinery, equipment and workmanship necessary to carry out a diamond drilling program on the mineral claims of Interior Stone & Marble Ltd. and in accordance with the terms of this agreement at the price herein specified.
3. The Owner guarantees a minimum of two thousand (2000) feet of diamond drilling.

GUARANTEED
FOOTAGE:

(3)

CORE SIZE:

4. The Contractor guarantees to sink with standpipe and/or bore by diamond drill, the specified minimum footage, recovering NQ and BQ wireline core and to supply forthwith one (1) drill outfit, along with necessary associated equipment, industrial diamonds and labour to commence the work within the time limits specified by the Owner.

PRICE:

SCHEDULE OF RATES FOR

DIAMOND DRILLING DEPTH OF HOLE RANGE	PRICE PER FOOT	
	NQ	BQ
0 - 500 feet	\$18.00	\$17.50
500 - 1000 feet	\$19.50	\$19.00

If holes of a greater depth than one thousand (1,000) feet are desired, such drilling shall be performed only upon such conditions and at such rates as may be agreed upon before commencement of such drilling.

5. The Contractor agrees that all its labour, diamond wear and loss and all other operating expenses, except as hereinafter provided, shall be at its own cost and expense and for its own account.

PENETRATION
OF OVERBURDEN:

6. Wherever overburden or broken rock is encountered on a set-up, it is agreed that the Contractor's charge for penetrating such overburden or broken rock shall be at the drilling rate for the first fifty (50) feet and at the hourly rate of fifty dollars (\$50.00) per hour thereafter. All consumables will be charged at delivered replacement cost plus ten percent (10%).

The Owner agrees that the time per hole for setting and pulling casing shall be at its expense. The Owner agrees to reimburse the Contractor at the hourly rate. The Owner agrees to pay for all casing shoes used at delivered cost plus ten percent (10%).

HOURLY RATE:

7. It is agreed that the hourly rate of fifty dollars (\$50.00) shall be interpreted here and hereinafter to mean the labour of a two man crew, drill and equipment rental, pipe and casing damaged or left in holes, diamond and setting charges, materials and supplies consumed in the work at replacement cost plus ten percent (10%).

In the event extra labour over and above the regular two man crew is required, the Owner agrees to pay for such additional labour at the rate of twenty dollars (\$20.00) per man per hour.

CAVES:

8. In the event that cavities or loose and caving materials are encountered of a nature as to prevent the successful completion of any hole, the Contractor does not, under such conditions, guarantee to drill to a predetermined depth, and in the event that it becomes necessary to abandon the hole, the Owner agrees to pay for such uncompleted holes at the rates herein specified for all footage completed. If required to continue on such holes on specific orders and approval from Owner's Resident Engineer or Representative then the Contractor shall have the option revert to drilling at the hourly rate, plus all required materials, supplies and equipment at replacement cost plus ten percent (10%).

(6)

In the event it becomes necessary to resort to cementing, recovering equipment, hole conditioning, reaming, hole stabilization, casing, mud circulation or hole reduction in bedrock or overburden, the Owner agrees to reimburse the Contractor at the hourly rate plus ten percent (10%) on consumables for the cementing, recovering equipment, hole conditioning, reaming, hole stabilization, casing, mud circulation or hole reduction operations. In the course of drilling where mud, additives, rod grease and soluble oils are required then the Contractor shall charge the Owner for these consumables at delivered cost plus ten percent (10%).

9. Wherever pipe, casing or other equipment is damaged or is left in a hole the Owner agrees to pay the Contractor, for such pipe, casing or other equipment, at their replacement cost plus ten percent (10%). The Owner further agrees to pay the cost of recovery of material or attempted recovery at the hourly rates. The Owner agrees to pay the Contractor the cost of casing shoes in addition to the cost of any casing left in the hole. The Owner's representative will decide whether and how long to attempt recovery of the materials down hole.

(3)

(b) Moving including assembly time and tear down time, for the first drill site from the transport discharge point, between holes and from the last drill site from the transport discharge point, between holes and from the last drill site to the transport loading point will be to the Owner's account. No charge shall be made to the Owner for the first four (4) hours and a rate of fifty dollars (\$50.00) per hour shall be charged thereafter.

(c) Drill roads and sites will be constructed and maintained by the Owner accessible to a skid mounted drill rig and 4 x 4 service pickup.

(d) The Owner shall supply necessary moving equipment including cats and lowbeds.

WAITING TIME
FOR ORDERS:

13. It is understood and agreed that time lost waiting for orders from the Owner's Resident Engineer or Representative shall be charged to the Owner at the hourly rate. Delays for site preparation and those delays beyond the control of the Contractor shall also be chargeable to the Owner at fifty dollars (\$50.00) per hour.

(9)

DIAMOND
PRODUCTS:

14. In the event the actual diamond product cost exceeds three dollars (\$3.00) per foot for the project, then the excess cost shall be charged to the Owner at cost.

CORE:

15. The Drilling shall be conducted so as to produce maximum core recovery with every reasonable precaution taken to prevent crushing, wearing, or grinding of core. All cores recovered by the Contractor shall be carefully marked and placed in receptacles to be furnished by the Owner, at the drill site. To ensure maximum core recovery, the Contractor will supply experienced wireline operators. The Owner will be responsible for the transportation of core from the drill site.

SECURITY:

16. The Contractor will not give out any information regarding drill core to any person other than the Owner's accredited representatives, except upon specific permission of responsible officials of the Owner, which must be presented in writing by Owner's or accredited representative.

DISCIPLINE:

17. The Contractor shall, at all times, enforce strict discipline and maintain good order among its employees and shall not retain on the work any unfit person or anyone not skilled in the work assigned to him.

Any employee of the Contractor who are objectionable or unsatisfactory to the Owner, shall be removed from the work and replaced by an employee satisfactory to the Owner.

INSURANCE:

18. The Contractor shall insure and keep insured during the term of this contract with an insurer acceptable to and approved by the Owner, at the Contractor's own expense and cost, the following liability insurances:

(i) Comprehensive general liability insurance on an occurrence basis, and including but not limited to, operations, Contractor's protective contractual, products and completed operations and non-owned automobile. The Owner shall be added as an additional insured under this item and the following clause shall be made part of the agreement:

"Cross Liability" - The insurance afforded by this policy shall apply to any action brought against any of the insureds by any other insured in the same manner as though separate policies were issued to each."

(11)

(ii) Automobile - owned The insurers limit of liability in respect to the above-mentioned insurances shall not be less than one million dollars (\$1,000,000.00) aggregate for products and completed operations.

19. The Contractor shall be responsible for and will pay promptly all dues and assessments payable under any Workers' Compensation Act or other similar act, whether Provincial or Federal, in respect of its employees.

ENVIRONMENT:

20. During the course of the work, the Contractor shall at all times keep the Owner's premises free from accumulation of waste material or rubbish and upon completion of the work shall remove all tools, scaffoldings, surplus materials and rubbish and leave the premises in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to the prevention of forest fires and sanitation in the bush.

The Owner will be responsible for procuring and maintaining applicable permits for land and water usage. The Owner will hold The Contractor harmless for any liability claims which may arise from normal activity related to this agreement, including pollution of ground water or surrounding land from

(12)

discharge of drill water and wastes save if the Contractor employees act in an irresponsible manner.

PAYMENT OF
WORK:

21. The Owner agrees to pay the Contractor Canadian funds at the above prices. Payment shall be made as follows:

1. All funds shall be paid to the Contractor in advance.

2. The sum of Twenty Thousand Dollars (\$20,000.00) shall be held in trust at the Bank of Montreal and shall be paid to the Contractor in accordance to approved billings as presented to the Owner.

3. Invoices shall be submitted to the Owner twice monthly.

4. When the invoices equal the Twenty Thousand Dollar (\$20,000.00) advance, the Owner shall pay such further amount in advance as the parties hereto agree. This procedure shall be carried on until the contract is complete. Provided however that prior to any further advances the Contractor shall provide the Owner with evidence satisfactory to the Owner that at all payrolls and bills for materials and

other indebtedness connected with the work have been paid, failing such evidence being provided, the Owner may retain fifteen percent (15%) of the total invoices from future advances, pursuant to the provisions of the Builders Lien Act of British Columbia.

5. Any advance funds held by the Contractor in excess of the total invoiced contract price at the completion of the contract shall be refunded to the Owner.

**MANNER OF
PERFORMING
WORK:**

22. The Contractor shall perform his work in such a manner as to not interfere with the Owner's operations. If delays are caused by the Owner in the normal course of operations then the Owner agrees to apy the Contractor at the hourly rates. The rig will be operated on a twenty (20) hour per day, seven (7) day week basis with statutory weekends off.

SAFETY:

23. The Contractor will abide by all provisions of the Workers' Compensation Board that pertain to safety and such other matters relevant to this agreement. The Contractor's equipment shall meet all Workers' Compensation Board regulations.

ENGINEER:

24. The Owner's Engineer or Representative referred to herein shall be the site geologist or such other person as he may nominate in writing as his representative shall be authorized to approve all Contractor billings for payment by the Owner.

NOTICES:

25. All communications in writing between the Parties shall be deemed to have been received by the addressee if delivered to the individual or to a member of the firm or to an officer of the corporation for whom they are intended, or sent by post and/or telegram addressed as follows:

The Owner: P.O. Box 2070
Kamloops, B.C. V2B 7K6

The Contractor: #205-495 Dalgleish
Kamloops, B.C.

GENERAL:

26. Whenever in this agreement it is stipulated that anything shall be done or be performed by either of the parties hereto, it shall be assumed that such party does hereby enter, into a covenant with the other Party to do or perform the same.

27. All grants, covenants, privileges and liabilities contained in this agreement shall be read and held as made by and with and granted to and imposed upon the respective Parties hereto and their respective successors and assigns, in the same manner as if the words "Successors" and "assigns" had been inscribed in all proper and necessary places, and in the event of more than one person being the Contractor, the said grants, covenants, provisos and liabilities, shall be construed and held to be several as well as joint.
28. Whenever the singular or masculine is used throughout this agreement, the same shall be construed as meaning the plural or feminine or body corporate, as the context or the Parties so require.
29. Any condoning, excusing or overlooking by the Owner or any breach, or non-performance by the Contractor at any time or times in respect to any covenant, term, condition, and proviso contained in this agreement shall not operate as a waiver of the Owner's right in respect of continuing or subsequent default, breach or non-performance.

30. This agreement may be altered only by written consent of both Parties hereto.

31. Time is of the essence in this Agreement.

IN WITNESS WHEREOF the Parties hereto have caused these presents to be executed as of the day and year first above written.

PER: _____)
_____)
_____)
_____)
_____)
_____)

SIGNED, SEALED & DELIVERED)
in the presence of:)

NAME B. J. Gardiner)

ADDRESS Kanawapa)

BC)

OCCUPATION Bkpr)



EDWARD TESSMER

APPENDIX B

DRILL LOGS

KERR-DAWSON & ASSOCIATES LTD. DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.
 Kamloops, B.C.
 Phone 374-0544

PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 1

SHEET No. 2 of 4

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
58.1 - 66.0m	0.2 m	Pale grey/green, mod - highly altered, micaceous meta volcanic.						
		58.1-60.4 - Pale green talcose zone, locally very soft, and sheared.						
		60.4-60.8 - Extremely micaceous shear or gouge zone (very soft).	S 80 - 1					
		60.8-61.7 - Dirty quartz vein, or possible chert horizon.	60.8 - 61.7m	.9m	.001 Au	.03Ag	TR Pb	TR Zn
		61.7-66.0 - Variably micaceous highly altered metavolcanic, biotite extremely abundant.		TR W				
		64.0-66.0 - Pale green nickel alteration mineral (annabergite).	S 80 - 1 64-74	10m	TR Au	.31 Ag	.08 Ni	.02 W
66.0 - 98.4m	1.0m	Pale grey, weakly - highly silicified, bleached, fine-grained, dense, hard felsic metavolcanic. Relic fragments present throughout. Possible origin pyroclastic.	77.1- 84.2		.001 Au	.06 Ag	.02 W	
		66.0-67.5 - Sheared and brecciated zone, with pale green annabergite.						
		70.0-70.6 - Pure white, crumbly quartz - carbonate zone.						
		71.0-73.2 - Sections of white quartz-carbonate zone, in biotite rich metavolcanics.						

KERR-DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

1 Vict. 1.
Kamloops, B.C.
Phone 374-0544

PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 1

SHEET No. 3 of 4

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
66.0 -		(continued)						
98.4m		75.3-76.8 - Fine grained, porcelain like quartz - carbonate zone. Less than 1% pyrite.						
		76.8-82.9 - Rock has distinct lineation - possible relic flow banding ~40° to core axis.	S 80 - 1					
		Pyrite 1-3%.	77.1 -	7.5m				
		83.7; 88.4; 94.2 - Dark grown-black, dendritic (manganese?) mineral.	84.6m					
		91.3-91.5 - Smoky quartz vein with minor pyrite.						
		95.0-95.3 - Smoky quartz vein. Less than 1% pyrite.						
		97.5-98.4 - Brecciated and infilled quartz and calcite.						
98.4-	0 m	Light grey, very fine grained, massive, hard silicified, metavolcanic. Possibly transitional zone from unit above to unit below. Number of fine, incipient, quartz-carbonate filled fractures. Finely diss. pyrite ~1%. Locally seams of brown biotite.						
101.7m								
101.7-	0 m	Light to dark green, fine grained metavolcanic (andesite?) Marked banding due to laminated quartz seams @ 45°-60° to core axis.						
107.3m		103.1 - .25 meter quartz vein containing minor, pyrite. Locally biotite is quite abundant, dominant in last .3 meters of section.						

KERR-DAWSON & ASSOCIATES LTD. DIAMOND DRILL RECORD

1
Kamloops, B.C.
Phone 374-0544

PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 2

SHEET No. 3 of 5

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
60.3 -	0.1m	Milky white quartz vein, containing blotches of	60.3 -	2.3m				
61.0m		pyrite, with lesser galena and sphalerite.	62.6 m	.001 Au	2.41 Ag	.12 Pb	.01 Zn	TR W
61.0 -	0.2m	Highly altered and sheared, locally brecciated,	65.5 -	1.7m	TR Au	1.21 Ag	.08 Pb	.03 Zn
70.8m		fine-grained, grey green metavolcanics with	67.2m		TR W			
		abundant qtz stringers and veins. Vuggy qtz						
		filled cavities. Green alteration mineral						
		abundant.						
		61.9-62.2 - Quartz vein and wall rock mixed.						
		Contains 5% pyrite with minor galena						
		and sphalerite.						
		62.3-62.6 - Quartz vein, minor wall rock.						
		64.0-64.6 - High concentration of biotite						
		- some talc.						
		65.5-66.4 - Qtz vein - milky white with minor wall						
		rock. Drasy cavities noted. 2-3% sulphides						
		(mainly pyrite).						
		66.8-67.2 - Quartz vein - highly fractured.						
		Contains zones of biotite - minor						
		sulphides.						
		68.7-69.5 - Mixed quartz vein with wall rock.	68.7 -	2.1m	.001 Au	3.93 Ag	.27 Pb	.23 Zn
		Contains shear zone with green	70.8		.07 Ni	TR W		
		alteration annabergite. 69.1 m abund-						
		ant galena and sphalerite. Fractures						
		@ 60° to core axis.						

KERR-DAWSON & ASSOCIATES LTD. DIAMOND DRILL RECORD

Sheet 1 - 210 - Victoria St.
Kamloops, B.C.
Phone 374-0544

PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 2

SHEET No. 4 of 5

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE	.001 Au	.22 Ag	TR W	99.26 SiO ₂
70.8 -	0m	Milky white quartz vein, often fractured. Contains	70.8 -	1.1m	.001 Au	.22 Ag	TR W	99.26 SiO ₂
71.9m		green alteration mineral (annabergite), and dark	71.9m				.01 CaO	.06 Fe ₂ O ₃
		grey, soft metallic mineral (sulphide?).						.04 Al ₂ O ₃
		Fluorescent mineral possibly scheelite.						25 P ₂ O ₅
71.9 -	0m	Pale grey/green, highly altered and sheared						
73.6m		volcanic rock.						
		73.1-73.6 - High content of secondary biotite						
		with disseminated pyrite.						
		73.6 - contact @ 70° to core axis.						
73.6 -	0.4m	Milky white quartz vein. Contact @ 73.6 crushed	73.6 -	3.1 m	.18 CaO	35 P ₂ O ₅	TR W	99.1 SiO ₂
76.7m		zone, with green nickle alteration mineral.	76.7 m	.001 Au	.08 Ag			.30 Fe ₂ O ₃
		Sulphide content lower than previous quartz						.27 Al ₂ O ₃
		sections.						
		Fluorescent mineral in quartz - possible scheelite						
		or carbonate.						
76.7 -	0.4m	Pale grey, mottled, highly altered and sheared,						
95.6m		volcanic ? Very high content of talc and						
		carbonate.						
		80.5-81.2 - Extremely high content secondary						
		biotite and talc.						
		Contact @ 45° to core axis. Possible						
		schistosity or alignment of minerals						
		@ 70° to core axis.						

KERR-DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.
Kamloops, B.C.
Phone 374-0544

PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80 - 3.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NO.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 71.6.....
 % Recovery 99%.....
 Elev. Collar.....
 Latitude 1100N.....
 Departure 1015E.....

Sheet No 1..... of 3.....
 Logged by..... J.Kerr & W. Gruenwald.....
 Date Begun..... January 6, 1981.....
 Date Finished..... January 9, 1981.....
 Core Stored At..... Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-21		Overburden						
21-24.2	0.1	Pale green, fine grained, altered feldspar porphyry - volcanic origin (intermediate) contains 2-5% magnetite - discrete clots up to 3 mm across.						
24.2-27.7	0	Pale green-grey intensely altered volcanic, locally contains abundant chlorite and biotite. Magnetite present 2-3%; up to 1% pyrite.						
27.7-32.3	0	Dark green, fine grained, altered volcanic (dyke?) or flow. Distinct lineation of relic feldspar xls @ 50° to core axis. Chlorite alteration widespread. Pyrite up to 4%. 32.0-32.3 - High content of biotite talc and chlorite.						
32.3-51.6	0.1	Pale grey, fine grained, variably altered felsic intermediate volcanic rock. Locally some feldspar phenocrysts; however, alteration has removed original texture.	37.1-39.0	1.9	.001 Au	.17 Ag	.01 W	.01 Pb
					TR Zn			

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80-3

SHEET No. 2 of 3

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
32.3-51.6	(cont'd)	32.3-36.0 - Very soft with high content of talc and carbonate. Magnetite grains up to 3%.	39.0-40.8	1.8m	.001 Au	.24 Ag	.01 W	TR Pb
		37.1 - 39.6 Pale grey, fine grained variably silicified zone. Contains local areas of pyrite, pyrrhotite and dark grey, soft, maleable mineral (tungstenite). @ 37.1-37.4 - noted in drusy cavities. Minor sphalerite and galena.	50.5-51.6	1.1m	TR Au	.14 Ag	.01 W	TR Pb
		39.6-39.9 - Zone of pale green nickel alteration mineral - contains massive pyritic and pyrrhotite (0.1m).			TR Zn			
		40.2-40.8 - Sulphide zone as noted above. Contains 0.4m impure silica.						
		40.4-51.6 - Pale green alteration mineral, along with talc and sulphides.						
51.6 -	0.1	Milky white quartz impure vein. Contains green alteration mineral plus sulphides. Very highly fractured and brecciated.	51.6-52.6	1.0m	.001 Au	.06 Ag	TR W	82.72SiO ₂
54.2				3.59	1.65 Fe ₂ O ₃	.74 CaO	54 P ₂ O ₅	
			52.6-54.2	1.6m	.001 Au	.09 Ag	TR W	98.10SiO ₂
					.03 Al ₂ O ₃	.10 Fe ₂ O ₃	.08 CaO	45 P ₂ O ₅
54.2 -	0.2	Grey-green, fine grained, altered rock, probably of volcanic origin. Section contains abundance of mica, diss. pyrite, local talc, and widespread green alteration mineral.	55.6-57.6	2.0m	TR Au	.07 Ag	TR W	TR Pb
61.1					TR Zn			

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80 - 4.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 62.8.....
 % Recovery 93%.....
 Elev. Collar
 Latitude 992N.....
 Departure 1013E.....

Sheet No 1 of 2
 Logged by J. Kerr & W. Gruenwald
 Date Begun Jan. 11, 1981
 Date Finished Jan. 14, 1981
 Core Stored At Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-24.4		Overburden						
24.4-35.0	0.5	Pale grey-white, felsic volcanic rock. Highly altered and silicified, containing disseminated pyrite throughout up to 3%. Some darker sulphides noted - galena and sphalerite suspected.						
		Occasionally contains grey quartz veinlets from 10-45° to core axis. Streaky texture at 45° to core axis.	24.4-30.5	6.1m	TR Au	.06 Ag	TR W	TR Pb
		Locally contains dendritic growths, some of which contain sulphides and sericite.			TR Zn			
35.0-39.3	0	Dark green, highly chloritic, altered volcanic rock. Highly broken fractured and sheared. Low pyrite content.						
39.3 - 62.8	2.1m	Dark grey, graphitic and pyritic quartz - sericite schist. Quartz - carbonate veinlets and stringers @ 45-60° to core axis.						

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 5

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ
 Angle of Hole 45°
 Claim Silica
 Section
 Bearing

Total Depth 64.0
 % Recovery 91%
 Elev. Collar
 Latitude 1300N
 Departure 998E

Sheet No 1 of 3
 Logged by J. Kerr & W. Gruenwald
 Date Begun Jan. 16, 1981
 Date Finished Jan. 19, 1981
 Core Stored At Interior

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-20.4		Overburden						
20.4-	1.1	Dark green, fine grained, chloritic metavolcanics.						
29.9		Locally abundant biotite. Fine grained pyrite throughout - ~1%.						
		27.9-29.9 - Massive dark green, andesite horizon (or dyke?).						
		Fractures contain pyrite coating.						
		27.2-27.9 - Very high content of talc.						
29.9-34.7	0.2	Pale grey, fine grained, talc rich, highly altered, volcanic rock. Contains disseminated magnetite. Pyrite content ~1%. Presence of carbonates suspected.						
34.7 -	0.9	34.7-37.2 - Highly silicified, grey-brown zone.	34.7 -	2.5m	TR Au	.14 Ag	.02 W	TR Pb
4.9		Contains abundant biotite and minor talc and carbonate. Quartz veinlets and stringers abundant. Abundant solution cavities lined with fine grained quartz crystals. Irregular patches of	37.2		TR Zn			
			37.2 -	1.2m	TR Au	.17 Ag	.01 W	TR Pb
			38.4		TR Zn			

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S - 80 5

SHEET No. 2 of 3

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
34.7 -	(cont'd)	of pyrite, galena, sphalerite, in	38.4 -	1.8m	.001 Au	15.21Ag	TR W	1.49 Pb
4.9		areas of solution cavities.	40.2		1.60 Zn			
		37.2-38.4 - Pale grey-green, highly altered rock	40.2 -	2.1m	TR Au	.66 Ag	TR W	.04 Pb
		containing disseminated pyrite ~3%.	42.3		.01 Zn			
		Relic feldspar porphyritic texture.						
		38.4-40.2 - Highly altered rock, containing	42.3 -	2.6m	TR Au	2.06 Ag	TR W	.06 Pb
		abundant blebs of pyrite, sphalerite,	44.9		.06 Zn			
		galena, and dark grey soft mineral						
		(tungstenite?) in siliceous matrix.						
		Pale green alteration mineral throughout.						
		40.2-44.9 - Highly altered, light grey-green rock,						
		containing abundant silicious zones.						
		Pyrite sphalerite, galena, and dark						
		grey mineral throughout.						
44.9 -	0.4	Pure white, variably fractured quartz vein. Contains	44.9 -	2.6m	.001 Au	.21 Ag	TR W	99.16SiO
50.0		minor pyrite and dark grey mineral.	47.5		.06Al ₂ O ₃	1.01CaO		130 P ₂ O ₅
			47.5 -	2.5m	.001 Au	.02 Ag	TR W	99.02SiO
			50.0		1.01 Fe ₂ O ₃	16 P ₂ O ₅		1.01Al ₂ O ₃
								1.01CaO
50.0 -	1.2	Pale grey-green, fine grained, metavolcanic;						
64.0		contains pyrite ~ 1% and abundant talc-magnetite						
		patches common from 62.2-64.0.						
		White pale green talc seams occasionally throughout						

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80 - 6.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 71.6.....
 % Recovery 97%.....
 Elev. Collar
 Latitude 1400N.....
 Departure 998E.....

Sheet No 1..... of 2.....
 Logged by J.Kerr & W. Gruenwald.....
 Date Begun Jan. 21/81.....
 Date Finished Jan. 23/81.....
 Core Stored At Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-24.6		Overburden						
24.6 - 46.4	0.8	Pale grey-green, fine grained, talcose metavolcanic.	21.3 - 33.3	2.1m				
		32.5-33.3 - Impure white quartz vein, contains green mica mineral and pyrite (possibly galena, sphalerite, and dark grey mineral).						
		31.2-32.5 - Highly brecciated shear zone @ 30° to core axis.	31.2-33.3	TR Au	.14 Ag	.01 W	TR Pb	TR Zn
		33.3-35.6 - Shear zone contains pale green mica, abundant talc and several quartz veinlets. Pyrite locally abundant.						
		39.5-39.8 - Pale green, extremely pure, coarse grained talc.						
		43.6-43.9 - Brecciated and fractured shear zone.						
		45.4-46.4 - Noted pale green micaceous mineral.						
46.4 - 50.9	0	Siliceous zone containing pure white quartz veins. Relic streaky texture indicates rock may	46.4 - 48.6	2.2 m	TR Au	.15 Ag	TR W	TR Pb
					TR Zn			

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80-7.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 100.3.....
 % Recovery 100%.....
 Elev. Collar
 Latitude 1798N.....
 Departure 1054E.....

Sheet No 1..... of 3.....
 Logged by J.R.Kerr & W.Gruenwald
 Date Begun January 31, 1981.....
 Date Finished February 5, 1981.....
 Core Stored At Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-19.8		Overburden						
19.8 - 32.0	0	Dark-pale grey/green, variably altered metavolcanic.						
		19.8 - 25.0 - Dark grey/green, massive, basic. unit of above. Contains disseminated magnetite and pyrite.						
		25.0-32.0 - Pale green/grey, highly sheared, locally brecciated metavolcanic. Rock contains discrete clots of magnetite to 26.0m. Variable alteration, sheaving and gouge throughout zone, alteration includes talc, biotite, and clay minerals.						
		Contact at 32.0 meters at 25° to core axis.						
32.0 - 45.0	0	White to pale grey, massive, medium grained, altered, felsic near surface intrusive rock (dyke, sill?) Contains minor aligned biotite, giving rock foliated texture. Disseminated						

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80-7

SHEET No. 2 of 3

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
32.0 -	(cont'd)	pyrite found throughout - 1% content. Quartz						
45.0		veinlets and small veins at 0-20° to core axis.						
		Highly fractured and blocky core in zones.						
45.0 -	0	White-pale grey, altered and bleached, medium	S 80-7					
53.0		grained felsic intrusive as above, with stockwork	45.0-53.0		.001 Au	TR Ag		
		of quartz veins. High content of rusty fractures	(chip)					
		Disseminated pyrite in quartz veins and altered						
		intrusive. Numerous quartz veinlets and veins						
		@ 20-45° to core axis.						
53.0 -	0.2	Massive, grey, impure quartz vein, contains	S 80-7					
54.8		altered fragments of country wall rock. Minor	53.0-		TR Au	TR Ag	97.5 SiO ₂	.01 W
		pyrite.	54.8		1.74 Al ₂ O ₃	.10 Fe ₂ O ₃	.01 CaO	
			(split)			TR P ₂ O ₅		
54.8 -	0	Pale grey-white, medium grained, altered intrusive	S 80-7					
81.0		rock with intense stockwork of quartz veins and	54.8 -		.001 Au	TR Ag		
		veinlets as above. Several cavities lined with	60.6					
		pyrite and quartz crystals. Clots of massive	(chip)					
		pyrrhotite up to 1 cm. diameter. Sulphides						
		average 1-1 1/2% decreasing towards end of						
		section. Locally highly fractured and brecciated.						

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PROPERTY..... CHASE SILICA DEPOSIT.....

HOLE No. S 80 - 8.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 80.8.....
 % Recovery 98%.....
 Elev. Collar.....
 Latitude 1685N.....
 Departure 1032E.....

Sheet No 1..... of 2.....
 Logged by..... J.R.Kerr & W.Gruenwal.....
 Date Begun..... February 7, 1981.....
 Date Finished..... February 13, 1981.....
 Core Stored At..... Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			
0-29.0		Overburden					
29.0 - 60.8	1.1	Generally massive, milky white quartz vein, with irregularities and impurities as noted below.	29.0-		.002 Au	.27 Ag	.01 Ni .21 Cu
		29.0-29.3 - Very massive pyrrhotite, with minor pyrite and chalcopyrite.	29.3		.001 Au	TR Ag	59.2 SiO ₂ .76 Al ₂ O ₃
		29.3-31.2 - Impure quartz, contains buff-coloured, chalky alteration mineral.	31.2		4.59 Fe ₂ O ₃		7.69 CaO Tr P ₂ O ₅
			31.2 -		.001 Au	TR Ag	98.8 SiO ₂ .09 Al ₂ O ₃
			34.2		.03 Fe ₂ O ₃		.01 CaO TR P ₂ O ₅
		36.4-37.2 - Zone in quartz containing buff alteration mineral and several clots	34.2 -		TR Au	Tr Ag	99.5 SiO ₂ .09 Al ₂ O ₃
		of pyrite and minor sphalerite and galena.	36.4		.09 Fe ₂ O ₃		TR CaO TR P ₂ O ₅
			36.4		.001 Au	3.44 Ag	93.2 SiO ₂ 2.65 Al ₂ O ₃
			37.2		1.13 Fe ₂ O ₃		TR CaO TR P ₂ O ₅
		55.1-58.2 - Highly altered zone containing pale green mica mineral. Possible altered				.02 W	.12 Pb .14 Zn
		intrusive and metavolcanic wall rock.	37.2-40.0		.001 Au	.01 Ag	99.4 SiO ₂ .08 Al ₂ O ₃
		Sulphides present, mainly pyrite and			.17 Fe ₂ O ₃		TR CaO TR P ₂ O ₅
		pyrrhotite with minor galena and	40.0-45.0		.001 Au	.06 Ag	98.8 SiO ₂ .04 Fe ₂ O ₃
		sphalerite.			.08 Al ₂ O ₃		TR CaO TR P ₂ O ₅
			45.0-50.0		TR Au	.04 Ag	98.4 SiO ₂ .08 Al ₂ O ₃
					.30 Fe ₂ O ₃	TR CaO	TR P ₂ O ₅

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 8

SHEET No. 2 of 2

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE					
29.0-	(cont'd)	55.1-58.2 (continued) Noted small section of very	50.0-55.1		TR Au	TR Ag	99.3 SiO ₂	.08 Al ₂ O ₃	
60.8		pure quartz crystals at 55.2m.	55.1-58.2		.08 Fe ₂ O ₃		TR CaO	TR P ₂ O ₅	
					.001Au	.03 Ag	73.7 SiO ₂	10.94Al ₂ O ₃	
			58.2-60.8		3.22 Fe ₂ O ₃		.29 CaO	TR P ₂ O ₅	
						.01 W			
60.8 -	0	Pale green, well altered, locally brecciated			TR Au	TR Ag	99.2 SiO ₂	.11 Al ₂ O ₃	
80.8		intermediate volcanic rock.			.13 Fe ₂ O ₃	TR CaO	TR P ₂ O ₅		
		60.8-64.4 - Green-brown fine grained schistose,							
		highly altered volcanic rock containing							
		several quartz veins and veinlets.							
		Alteration includes talc, biotite,							
		and chlorite.							
		64.4-72.8 - Altered volcanic shows relic feldspar							
		porphyritic texture and contains clots							
		of magnetite (1-3%).							
		72.8-80.8 - Pale green, highly altered sheared and							
		often brecciated volcanic. Suspect fault							
		zone between 78-80 meters.							
80.8		END OF HOLE.							

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PROPERTY..... CHASE SILICA DEPOSIT.....

HOLE No. S 80-9.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 99.4.....
 % Recovery 94%.....
 Elev. Collar.....
 Latitude 1600N.....
 Departure 1032E.....

Sheet No 1 of 3.....
 Logged by W. Gruenwald.....
 Date Begun Feb. 14/81.....
 Date Finished Feb. 19/81.....
 Core Stored At Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-30.5		Overburden						
30.5m - 48.5m	0m	Pale to medium green altered metavolcanic containing a few drusy quartz + carbonate veinlets. Magnetite locally abundant, 2-4%. Pyrite ≤ 1%.						
48.5m- 50.2m	0.1m	Dark green, highly sheared, crumbly metavolcanic; may represent fault zone.						
50.2m- 52.6m	0m	Pale green, massive metavolcanic containing discrete clots of magnetite; 1-3mm across.						
52.6m - 61m	0.8m	Pale green, well sheared and altered metavolcanic containing small clots of magnetite. Beginning to note pale green micaceous mineral; 57.9m -59.5m abundance of fine grained biotite mica. 59.5m-61m - rock becoming highly fractured and crumbly (brecciated). Also beginning to note silica containing fine grained pyrite.						

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PROPERTY CHASE SILICA DEPOSIT

HOLE No. S 80-9

SHEET No. 2 of 3

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			
61m -	5m	White quartz vein containing disseminated to locally	S-80-9				
73.5m		massive pyrrhotite. Massive sulphide sections	61m-64m	3m			
		contain > 50% pyrrhotite with minor pyrite,	64m-65m	1m			
		galena, sphalerite and chalcopyrite (especially	65m-66.9m	1.9m			
		between 65.2-67.1m.	66.9-68.6m	1.7m			
		67.1m - 68.6m - pale green highly sheared	68.6-72.9m	4.3m			
		metavolcanic containing irregular zones of silica and	72.9m -	0.6m			
		variably amounts of pyrite and pyrrhotite. This	73.5m				
		probably represents sliver of wall rock within the					
		vein.					
		68.6m-72.9m - quartz vein, highly broken, contains					
		pyrite and pyrrhotite. NOTE: High core loss in					
		this area.					
		72.9m-73.5m - quartz vein containing irregular pat-					
		ches of pyrite and pyrrhotite. Abundant solution					
		cavities in last 0.6m.					
73.5-82m	0.2m	Pale green-brown locally well sheared and altered					
		metavolcanic. Locally this section contains					
		high abundance of biotite mica (ie between 75.3-76.8m)					
		Small zones of silica contained within this					
		section. Pale green mica mineral found throughout					
		section.					

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80-11.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 89.9m.....
 % Recovery.....
 Elev. Collar.....
 Latitude 1644N.....
 Departure 1032E.....

Sheet No 1..... of 2.....
 Logged by J. R. Kerr, P. Eng.,.....
 Date Begun February 26, 1981.....
 Date Finished March 3, 1981.....
 Core Stored At Interior.....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-30.5m		Overburden						
30.5-53.7m	0	Mixed light-dark grey and grey-green, mottled, moderately altered intermediate-basic volcanic rock. Mottling affect due to clots of magnetite up to 10% and chlorite. Relic feldspar x'ls occasionally noted. Pyrite content variable from trace - 1%.						
		35.4-38.7 - Dark grey-green, highly fractured and sheared, fine grained volcanic rock. Serpentine alteration on fracture and sheared faces.						
		44.2-43.3 - Dark green volcanic rock as above. Serpentine alteration noted, some talc and secondary biotite.						
		53.4-53.7 - Increasing alteration to contact @ 53.7m.						
53.7-65.3	0.7	Light to dark grey highly sheared, fractured and altered, fine grained volcanic rock. Alteration includes talc, sericite, biotite, occasional						

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PROPERTY CHASE SILICA PROPERTY HOLE No. S 80 - 11 SHEET No. 2 of 2

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			
53.7-		(continued)					
65.3m		green nickel mica. Pyrite content variable 1/2 - 3%. Rock in general is highly bleached.					
		62.6-63.8m - Dark grey, sheared and altered rock. Possible dyke.					
65.3-	0.2	Quartz vein containing variable content of	S 80-11				
73.2m		sulphides, pyrite, pyrrhotite, galena, sphalerite and chalcopyrite.	65.3-67.1	1.8m			
		65.3-67.1 - Quartz with some altered wall rock. Sulphide content to 10%.	67.1-70.6	3.5m			
		67.1-70.6 - Massive and xlline quartz sulphide content < 2%.					
		70.6-73.2 - Quartz with sulphide content up to 20%.	70.6-73.2	2.6m			
73.2-	0m	Massive white quartz vein. Highly fractured. Some	73.2-75.9	2.7m			
79.0		impurities on fracture faces.	75.9-79.0	3.1m			
79.0-89.9	0m	Light grey, bleached, altered, fine-medium grey felsic volcanic rock. Alteration includes talc, carbonate, and some minor mica minerals. Trace 1/2% pyrite content noted.					
		83.9m - Minor shear zone.					
89.9 m		END OF HOLE.					

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80-12.....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ.....
 Angle of Hole 45°.....
 Claim..... Silica.....
 Section.....
 Bearing

Total Depth 82.9m.....
 % Recovery 95%.....
 Elev. Collar
 Latitude 1734N.....
 Departure 1037E.....

Sheet No. 1 of 2.....
 Logged by J.R.Kerr, & W.Gruenwald.....
 Date Begun March 6, 1981.....
 Date Finished March 12, 1981.....
 Core Stored At

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-21.3m		Overburden						
21.3 - 26.7m	0	Highly oxidized and fractured quartz vein, containing numerous crystalline cavities. Note 0.1m section wallrock containing pale green mica. Intense limonite on fractures from 21.3-25 meters. Minor pyrite.	S80-12 21.3- 26.7m	5.4m				
26.7- 49.7m	2.8m	Zone of numerous quartz veins, veinlets and lenses, with highly altered, medium grained intrusive rock, with buff coloured feldspar. Small irregular zones of massive sulphides, mainly pyrite with some pyrrhotite, galena, and shalerite @ 28m, 30m and 36m. Bright green to blue alteration mineral associated with small grains of unidentified sulphides throughout section.	S80-12 35.2- 36.9m	1.7m				
		39.5-42.0m - Pure quartz vein with high purity quartz crystals in last 0.5m.	39.5- 42.0m	2.5m				
		44.2-47.0 - Pure quartz vein.	44.2- 47.0	2.8m				

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PROPERTY..... CHASE SILICA PROPERTY.....

HOLE No. S 80 - 13

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size NQ

Angle of Hole 45°

Claim..... Silica

Section.....

Bearing

Total Depth 76.1

% Recovery 98%

Elev. Collar

Latitude 1160N

Departure 1020E

Sheet No 1 of 2

Logged by J.R.Kerr & W.Gruenwald

Date Begun March 14, 1981

Date Finished March 19, 1981

Core Stored At Interior

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-19.8m		Overburden						
19.8-38.5m	0	Pale green fine grained altered metavolcanic, containing blebs and grains of magnetite (2-4%). Relic porphyritic texture noted locally. Carbonate stringers. 37.8-38.5 - Highly sheared and micaceous. 35.9-36.4 - Shear zone.						
38.5-45.5m	0	Dark green, fine grained, finely porphyritic basic dyke rock. Appears to have gneissic texture (trachytic?) Few quartz (+ carbonate) veinlets. Pyrite 1-2% on fracture faces. 44.0-44.8 - Pale green altered metavolcanic.						
45.5-76.1m	1.2m	Pale grey, variably altered and bleached metavolcanic containing several quartz veins, noted below. 45.5-49.0 - Locally intense shearing and abundant micaceous minerals. Pale green mica mineral present. Massive grey carbonate zones present, contains						

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PROPERTY CHASE SILICA PROPERTY

HOLE No. S 80 - 13

SHEET No. 2 of 2

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
45.5-		(cont'd)						
76.1m		minor pyrite.						
		49.0-51.3 - Pale grey, massive silicified rock, containing finely diss. pyrite (2-5%).						
		51.3-51.8 - Massive white quartz veind with some green mica mineral. Contains minor pyrite, and possibly galena and sphalerite.	S80-13	1.8				
		51.8-56.3 - Pale grey, fine grey, highly sheared and altered metavolcanic. Pale green mica mineral found throughout - several quartz veins and veinlets noted.	54.5-56.3					
		Disseminated pyrite and pyrrhotite, locally up to 15% content.	S80-13					
		56.3-56.9 - White quartz vein numerals quartz lined cavities.	56.3-56.9					
		57.4-57.8 - Quartz vein, contains green mica.	S80-13					
		58.3-59.3 - Quartz vein.	58.3-59.3	1.0m				
		63.3-66.5 - White, massive quartz vein.						
		67.5-76.1 - Pale grey and white bleached, altered fine grained dyke or intrusive rock.	S80-13	3.2m				
		73.5-76.1 - Rock becomes more coarse grained towards end of hole - granitic in appearance. Finely disseminated pyrite, 1-2%.	63.3-66.5					
76.1m		END OF HOLE.						

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PROPERTY CHASE SILICA PROPERTY HOLE No. S 80 - 14 SHEET No. 2 of 2

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
40m-44.6m	0.6m	Dark gray, brecciated quartz-sericite + graphite schist. Disseminated fine grained pyrite locally						
		3-5%. Core often quite crumbly. Slickensides noted in several areas - often seen as polished graphite i.e. 40.1m - 44.6. Fault planes (slickensides) are 5-10° to core axis. Movement generally in a direction nearly parallel to core axis.	S 80-14 40-44.6m	4.6m				
44.6-93.9m	3m	Light to medium gray, fine grained quartz-sericite schist.						
		Noted graphite on a few fracture planes. i.e. 67.7m, 90.8m - generally graphite is not present.						
		Pyrite is found throughout as fine grained disseminations 1-3% - may be locally higher. Quartz veinlets found throughout - from hairline to 4 cm. thick. Larger quartz veinlets sometimes contain fragments of phyllitic wall rock. Rock locally has finely laminated appearance, when uncontorted, these are generally at angles from 20-40° to core axis. Locally some laminae @ 0° to 10° to core axis. Noted some gypsum in quartz veinlets.	(Quartz veinlets generally less than 45° to C.A.)					
93.9m		END OF HOLE.						

APPENDIX C

REFERENCES

REFERENCES

KERR, J. R.

- April 10, 1981

- Summary Report
on the Silica Claims.

APPENDIX D

WRITER'S CERTIFICATE

Werner GRUENWALD, B. Sc.

Geologist

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CERTIFICATE

I, WERNER GRUENWALD, OF THE CITY OF KAMLOOPS, BRITISH COLUMBIA,

DO HEREBY CERTIFY THAT:

- (1). I am employed by Kerr, Dawson and Associates Ltd. with my office at #206 - 310 Nicola Street, Kamloops, B. C.
- (2). I am a fellow of the Geological Association of Canada and have practised my profession as a geologist since graduation from the University of British Columbia in 1972 with a B. Sc. in Geology.
- (3). I, along with John R. Kerr, P. Eng., jointly supervised the described drilling programme on the Chase Silica property.

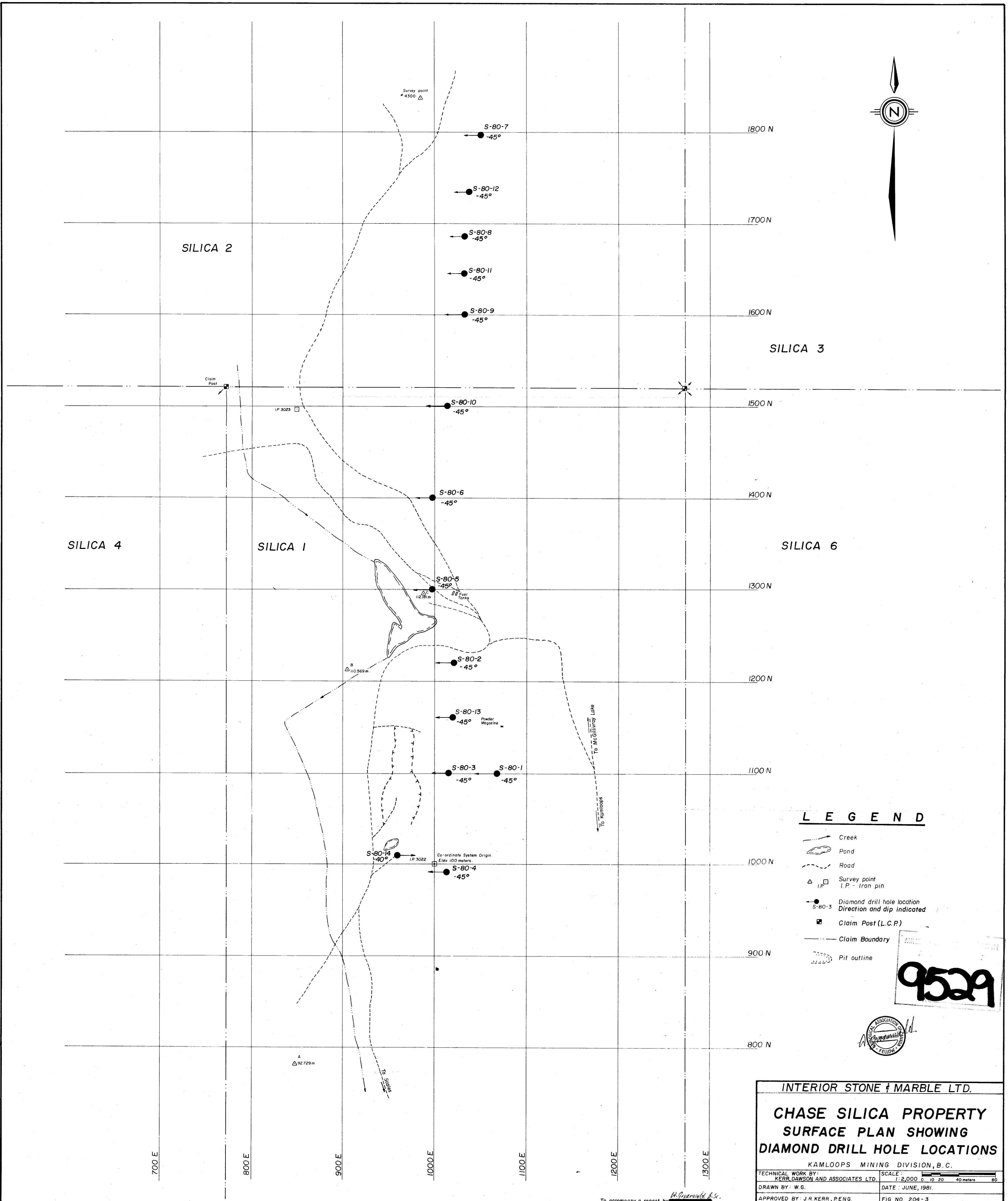
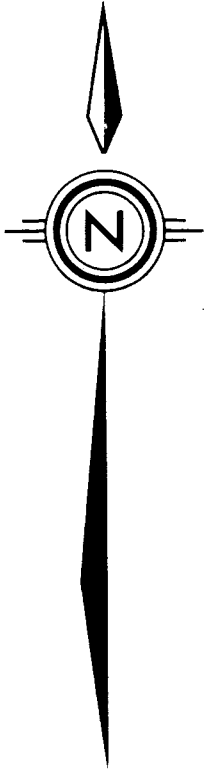
KERR, DAWSON & ASSOCIATES LTD.,



Werner Gruenwald

Werner Gruenwald, B. Sc.,
GEOLOGIST

Kamloops, B. C.,
June 26, 1981.



LEGEND

- Creek
- Pond
- Road
- Survey point
I.P. - Iron pin
- Diamond drill hole location
Direction and dip indicated
- Claim Post (L.C.P.)
- Claim Boundary
- Pit outline

9529



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**CHASE SILICA PROPERTY
SURFACE PLAN SHOWING
DIAMOND DRILL HOLE LOCATIONS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON AND ASSOCIATES LTD.	SCALE: 1:2,000 0 10 20 40 meters 80
DRAWN BY: W.G.	DATE: JUNE, 1981.
APPROVED BY: J.R. KERR, P.ENG.	FIG NO. 204-3

To accompany a report by *H. Patterson & Co.*