GEOLOGICAL AND GEOCHEMICAL REPORT

KWOIEK #1-#4 MINERAL CLAIMS

KAMLOOPS MINING DIVISION

KWOIEK CREEK, LYTTON, B.C.

NTS 92I/4E

LATITUDE 50 06'N LONGITUDE 121 43'W

DATES OF WORK: Sept. 29, 1982 - Sept. 27, 1983

Owner: Gordon G. Richards

Operator: JMT Services Corp.

by: J.S. Christie, Ph.D.

December 22, 1983.

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INTRODUCTION

Regional prospecting work along the projection of the Coquihalla serpentinite belt-fault zone in 1980 and 1981 indicated anomalous gold arsenic values in the area. Follow-up work including reconnaissance soil-silt lines at the base of slope gave highly anomalous gold arsenic values in the area of the present claim block. Claims were staked in late August of 1981 and additionnal reconnaissance soil-silt lines were run in the fall of 1981 and 1982. Results were sufficiently encouraging to warrant more work and more detailed evaluation. The current programme of sampling and mapping confirms and provides more data within one of the gold-arsenic anomalous areas as well as further reconnaissance data to the southeast. A total of 69 samples were collected in the 1983 programme of which 51 were soils, 7 were silts and 11 were rock chips.

LOCATION AND ACCESS

The claims are situated on the north facing slope of Pyramid Mountain, east of Kwoiek Lake about 11 km west of the Fraser River, 18 km southwest of Lytton. Access to the property can be made by two wheel drive vehicle along 50 km of good gravel logging road from North Bend which can be reached by an aerial ferry over the Fraser River, one km north of Boston Bar. Access can also be made by four wheel drive vehicle from Lytton via a ferry 2 km north of town to the west bank of the Fraser River, and then over 25 km of dirt road. Access through the claim block is excellent over secondary logging roads.

JMT SERVICES CORP.

Figure 1

PROPERTY LOCATION MAP

KWOIEK #1-#4 MINERAL CLAIMS

SCALE

Mile 136 — 0 — 136 Mile

Prepared by: Drawn by:	Date: Revised:	NTS MAP AREA 93 - E	DRAWING No.

CLAIMS

The following four claims in the Kamloops Mining Division make up the property:

NAME	UNITS	RECORD NO.	RECORD DATE	OWNER
KWOIEK #1	12	3843	Sept. 28, 1981	Gordon G. Richards
KWOIEK #2	8	3844	Sept. 28, 1981	Gordon G. Richards
KWOIEK #3	20	3845	Sept. 28, 1981	Gordon G. Richards
KWOIEK #4	6	3846	Sept. 28, 1981	Gordon G. Richards

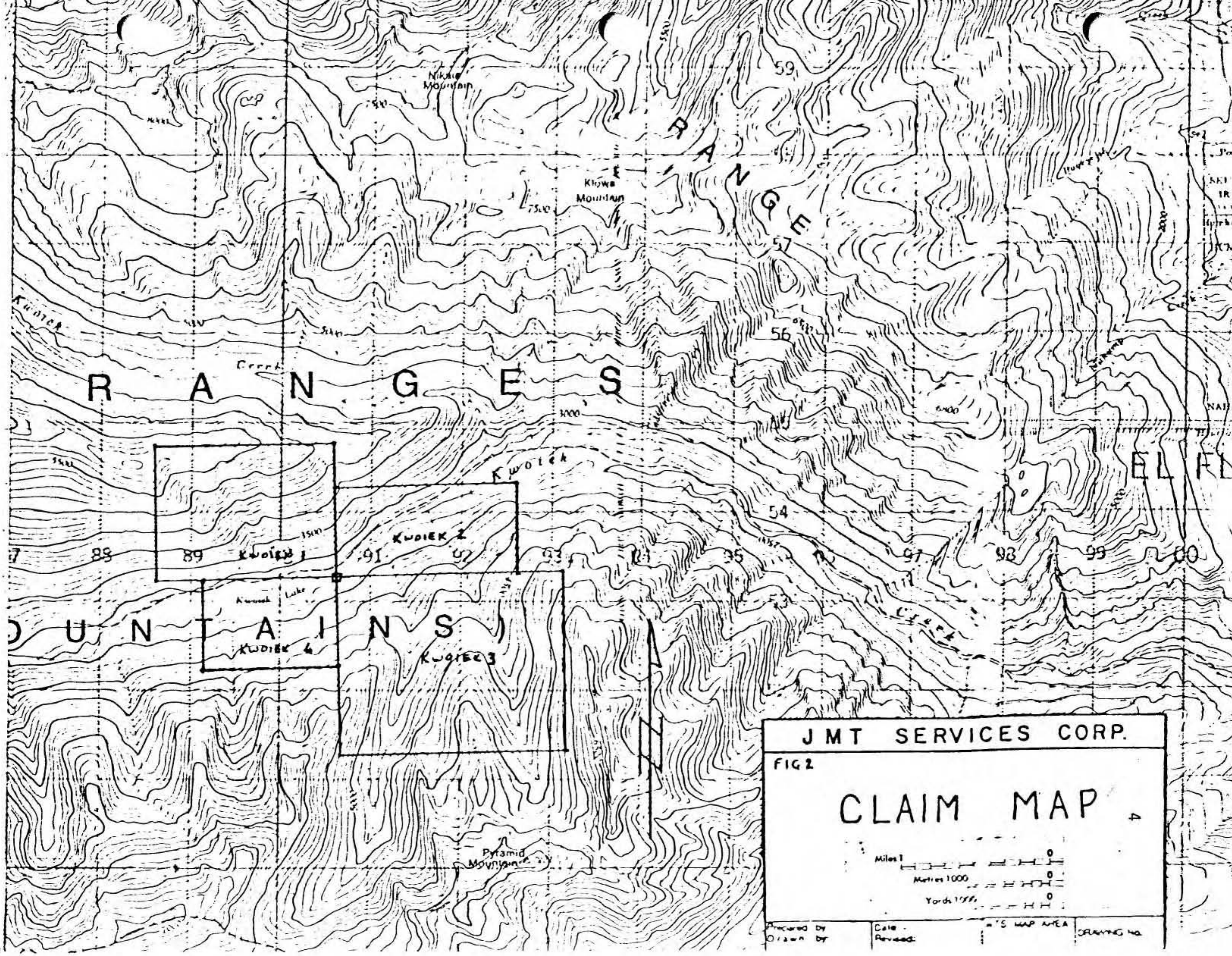
The owner of record is Gordon G. Richards, 6915 Lynas Lane, Richmond, B.C..

GEOLOGY

The KWOIEK claim block is located along a segment of a major regional fault system which has localized the emplacement of numerous bodies of serpentinite, some of which are exposed on the property. This fault system appears to be a direct northerly extension of the "Coquihalla Serpentine Belt" although it is slightly offset on the Fraser Fault System. To the north the structural zone is believed to continue for a considerable distance and merge with strands of the Yalakom Fault System and is referred to in this report as the Coquihalla-Yalakom fault zone.

The geological environment on the KWOIEK claims is believed to be closely analogous with that in the vicinity of the Carolyn Mine northeast of Hope. With similar geology and anomalous geochemical response for gold and arsenic, the property is believed to offer good targets for precious metals exploration.

J.W. Monger (1969), has described the regional geology immediately south of the KWOIEK property as follows:


JMT SERVICES CORP.
FIG 2
CLAIM MAP
Miles 1
Metres 1000
Yards 1000
Prepared by
Drawn by
Date
Revised
NTS MAP AREA
DRAWING No.
RANGES
RANGE
MOUNTAINS)
Nikaia Mountain
Kiowa Mountain
Pyramid Mountain
Kwoiek
Creek
Kwoiek Lake
KWOIEK 1
KWOIEK 2
KWOIEK 3
KWOIEK 4
59
57
56
54
88
89
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93
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00

> The rocks are mainly dark grey, thinly laminated calcareous and graphitic phyllites with irregular finely crystalline quartzite layers oriented parallel to the phyllitic laminations . . . These rocks are intruded by Tertiary granitic rocks and evidence little contact metamorphism. The age of the phyllites is unknown but lithologically they have more in common with Mesozoic than Paleozoic rocks in the northwest of the [Hope] map area. The relative homogeneity of the unit and the absence of metavolcanic rocks indicates that these rocks are probably Mesozoic rather than Paleozoic.

To the southeast of the claims, on the east side of the Fraser River,

> . . . the Jurassic Ladner Group . . . consists of uniformly laminated phyllite, whereas the Paleozoic Hozameen to the southeast comprises volcanic rocks, chert and argillite.

The above description applies to the belt of rocks as it appears to the south of the claims on the Hope mapsheet but is in agreement with the description by Duffel & McTaggert (1952) who studied the continuation of the rocks to the northwest in the area of the property [Ashcroft map area].

Duffel & McTaggert note that,

> . . . under the microscope, the phyllites are seen to consist of a series of thin subparallel layers composed of sericite and opaque argillaceous matter, probably graphitic, separating and surrounding impure lenticles of quartz, minor albite, and a little tourmaline.

On the KWOIEK claims the lithology mapped is very much as described by Monger, Duffel and McTaggert. Large exposures of fairly uniform grey or green phyllite and phyllitic schist occur as shown on Figure 3. The phyllites are locally silicified and cut by quartz-carbonate altered shear zones; they are often somewhat bleached and talcose. A few strong quartz veins and diabase dykes cut the phyllites on a northwesterly trend. Foliation trends are to the northwest and are steeply dipping to the northeast. The fracture zones, quartz veins and dykes all appear subparallel with that trend, approximately parallel with the Coquihalla-Yalakom fault zone.

Outcrops of serpentinite and talc schist have been mapped on KWOIEK #3 southeast of the LCP at the outlet of Kwoiek Lake. Mapping to date is not sufficiently detailed to determine the shape or extent of the ultra mafic bodies, nor their relationship to the fault system.

Large outcrops of a granitic pluton occur high on the ridge along the east side of the map sheet. These rocks are believed to lie along the northeast side of the major fault system. Mapping and sampling have not yet been extended into that area of the fault zone.

GEOCHEMISTRY

Geochem traverses completed in 1983 were again reconnaissance in nature aimed at further definition and follow-up of previous anomalous samples or extension of anomalous trends, as well as reconnaissance of some areas with no previous sampling. In total, 69 samples comprised of 51 soils, 7 silts and 11 rocks were collected and submitted for analysis.

Soil samples were collected from 50 to 100 meters apart along the traverses from pits excavated to B horizon or nearest approximation. On the steep sidehills a readily defined B horizon is often lacking. In these instances, a mineral soil of C horizon was sampled. Soil pits were usually 10 to 30 cm deep. Silt samples were collected from active silts. Rock samples usually consisted of 3 to 5 chips, weighing 300-500 grams.

All samples were placed in appropriately identified kraft sample bags in readiness for shipment to the assay lab. All samples were shipped to U.S. Borax Research Corp. (USBRC), 412 Crescent Wy., Anaheim, Calif., USA 92801 for geochemical analysis for gold, arsenic, copper, lead, zinc, silver, tungsten, antimony and mercury. Gold was determined using a concentrated HBr/Br digestion followed by a solvent extraction and Atomic Absorption finish. Arsenic was determined using a perchloric-nitric acid extraction followed by a standard Atomic Absorption hydride finish. Copper, lead, zinc and silver were determined by Atomic Absorption with perchloric-nitric acid extraction. Tungsten determinations were colorimetric after pyrosulphate fusion and hydrochloric acid leach of the melt. Antimony analyses were by Atomic Absorption after HCl-KI digestion and MIBK TOPO extraction. Mercury analyses were done using the Hatt-Ott procedure and closed cell Atomic Absorption determination.

The results are shown in the Appendix and gold and arsenic are plotted on Figure 4 enclosed in the pocket appended to this report.

a) Gold-Arsenic

Values obtained range from < .02-.31 ppm for gold and from 7-652 ppm for arsenic. Inspection of the limited quantity of data obtained to date suggests the anomalous threshold values of .04-.05 ppm for gold, and 50 ppm for arsenic. Background values are < .02 ppm and < 30 ppm for gold and arsenic respectively.

The 1983 work was directed towards obtaining more data higher on the slope in an area southeast of Kwoiek Lake where previous sampling at the base of slope had produced strongly anomalous gold and arsenic in soils. The anomalous gold-arsenic values were found to extend at least 500 metres upslope and are open to the southeast (Figure 4). The highest values in gold and arsenic occurred in the area of the mapped serpentinite-ultra-mafic rocks.

A reconnaissance soil line was run across the slope in the central part of KWOIEK #3 approximately along the 5200 foot contour. Anomalous gold-arsenic values from silts collected at the south end of this soil line indicate an exploration target may exist higher on the slope.

b) Copper

Copper analyses average about 60 ppm ranging from 13 to 223 ppm. No pattern of higher values is apparent from inspection of the results (Appendix). A separate map was not prepared to illustrate the results.

c) Lead-zinc

Average values for lead at about 15 ppm and zinc 80 ppm are not strongly anomalous and do not appear to form useful patterns. Results are in the Appendix but are not plotted in map form.

d) Silver

Silver values range from .08-3.1 ppm and average about 1.7 ppm. The area appears to have fairly high background silver values but no strongly anomalous samples were obtained. Results are not plotted in map form.

e) Tungsten-Antimony-Mercury

Values obtained for these three elements are uniformly low (see Appendix) and form no patterns suggesting a relationship with mineralization. No additional analyses for these elements is warranted at present.

CONCLUSIONS AND RECOMMENDATIONS

A major zone of faulting with associated mafic-serpentinite bodies along the zone has been identified crossing the KWOIEK property, in a NW-SE direction. The fault zone (Coquihalla-Yalakom fault system) is developed primarily in phyllites similar to the Jurassic Ladner Group to the southeast, and appears to truncate a quartz diorite pluton on the northeast. Outcrops of this major fault zone have not been found to date and its existence is inferred on the basis of aligned ultra mafic bodies and photo linears including the sharp contact with intrusive rocks to the northeast. That gold mineralization may be associated with strands of this fault zone is inferred on the basis of a significant number of soil and silt samples which have returned moderate to strongly anomalous values in gold and arsenic, in close association with ultra mafic-serpentinite outcrops. Sampling to date has been reconnaissance in nature, sample intervals are large, and locally soil and overburden conditions are far from ideal for soil geochemistry.

Results are good enough in the area southeast of Kwoiek Lake to warrant detailed sampling and mapping of all outcrops on a scale of 1:1000. A slope-corrected 100 x 25 metre soil grid should be completed to provide control for the mapping. All samples should be analyzed for gold and arsenic.

Reconnaissance soil geochem lines should continue to be the method of exploration of the rest of the property. Attractive targets have been indicated to the south and east, and the area northwest of Kwoiek Lake on KWOIEK #1 should receive some attention.

Respectfully submitted,

James S. Christie, Ph.D.
Geologist

APPENDIX #1

STATEMENT OF COSTS

KWOIEK #1 - #4 MINERAL CLAIMS

WORK DATES: Sept. 29, 1982 - Sept. 27, 1983

GEOLOGIST:			
Bill Howell -	June 26, 27, 28 July ½27, 28 Aug. ½5, ½6	5½ days @ $250	$ 1,375.00
TECHNICIAN:			
Geof. Vezina	June 26, 27, 28 July ½28	3½ days @ $150	525.00
CAMP RENTAL, includes chain saw and trail bike			60.00
Meals Field - $25 x 6 man days			150.00
JMT 4 x 4 (Jinny) - 3 days @ $60. incl. fuel, insurance & mileage			180.00
Sample bags, flagging, hip chain thread, Misc. tech. supplies			40.00
Geochemical Analyses - 59 Samples, Cu, Pb, Zn, Au, Ag, W, As, Sb, Hg			1,755.00
Freight			75.00
Drafting: Fineline Drafting			160.00
Motel - 2 men 1 night			40.00
Report including preparation, typing, duplication			500.00
			$ 4,860.00

APPENDIX #2

KWOIEK GEOCHEMICAL ANALYSES

1983

Explanation of Codes

CJB-900R	Rock Chip Sample
CJB 900 S	Soil Sample
CJB 900 X	Silt Sample

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USBRC Geochemical Analysis --- NW83HA01 --- 16-AUG-83

Field Number	CU PPM	PB PPM	ZN PPM	AU/AA PPM	AG/AA PPM
CJB-890R	60.	17.	40.	0.05	0.8
CJB-892R	14.	23.	78.	INS	2.2
CJB-895R	81.	15.	84.	INS	1.5
CJB-898R	23.	15.	9.	0.02	1.3
CJB-899R	116.	27.	28.	0.02	3.0
CJB-900R	130.	28.	33.	0.17	3.1
CJB-901R	90.	18.	116.	0.05	1.6
CJB-904R	15.	16.	20.	0.07	1.4
CJB-909R	77.	15.	14.	0.17	1.5
CJB-915R	49.	15.	36.	0.13	1.7
CJB-903X	96.	16.	64.	0.07	1.8
CJB-905X	84.	25.	42.	0.22	1.9
CJB-924X	98.	16.	45.	0.11	2.1
CJV-110X	55.	14.	64.	0.16	1.8
CJV-112X	69.	17.	65.	0.17	2.1
CJV-113X	56.	17.	60.	0.09	2.1
CJB-882S	131.	26.	163.	0.31	2.6
CJB-883S	28.	16.	65.	0.04	2.1
CJB-884S	39.	15.	51.	0.09	2.0
CJB-885S	100.	19.	133.	0.06	2.5
CJB-886S	39.	17.	72.	0.05	2.2
CJB-887S	73.	10.	92.	0.09	0.8
CJB-888S	39.	8.	105.	0.07	0.6
CJB-891S	86.	15.	168.	< 0.02	1.6
CJB-893S	70.	15.	136.	0.13	1.1
CJB-894S	223.	12.	63.	0.06	1.2
CJB-896S	52.	12.	122.	0.27	1.2
CJB-897S	39.	11.	59.	0.02	1.0
CJB-906S	15.	10.	46.	< 0.02	1.1
CJB-907S	26.	13.	39.	0.05	1.1
CJB-908S	49.	15.	39.	< 0.02	1.6
CJB-910S	48.	6.	25.	0.05	1.0
CJB-911S	52.	10.	63.	0.08	1.0
CJB-912S	67.	12.	57.	0.06	1.8
CJB-913S	16.	11.	51.	0.04	1.2
CJB-914S	13.	11.	29.	0.04	1.3
CJB-916S	43.	13.	67.	0.19	1.4
CJB-917S	46.	9.	24.	0.06	1.1
CJB-918S	32.	9.	35.	0.03	1.2
CJB-919S	64.	12.	43.	0.05	1.2

USBRC Geochemical Analysis --- NW83HA01 --- 16-AUG-83

Field Number	W PPM	AS PPM	SB PPM	HG PPM
CJB-890R	1.	27.	< 2.	0.105
CJB-892R	1.	15.	< 2.	< 0.050
CJB-895R	2.	291.	< 2.	< 0.050
CJB-898R	1.	239.	< 2.	< 0.050
CJB-899R	2.	52.	< 2.	< 0.050
CJB-900R	1.	54.	< 2.	< 0.050
CJB-901R	1.	6.	< 2.	< 0.050
CJB-904R	1.	38.	< 2.	< 0.050
CJB-909R	1.	313.	< 2.	< 0.050
CJB-915R	1.	8.	< 2.	< 0.050
CJB-903X	1.	94.	< 2.	< 0.050
CJB-905X	1.	61.	< 2.	0.090
CJB-924X	2.	62.	< 2.	< 0.050
CJV-110X	2.	54.	< 2.	< 0.050
CJV-112X	2.	57.	< 2.	< 0.050
CJV-113X	2.	74.	< 2.	< 0.050
CJB-882S	3.	56.	< 2.	< 0.050
CJB-883S	3.	49.	< 2.	< 0.050
CJB-884S	2.	86.	< 2.	< 0.050
CJB-885S	2.	73.	< 2.	< 0.050
CJB-886S	3.	406.	< 2.	< 0.050
CJB-887S	2.	142.	< 2.	0.090
CJB-888S	2.	45.	< 2.	0.090
CJB-891S	3.	97.	< 2.	< 0.050
CJB-893S	2.	129.	< 2.	0.070
CJB-894S	2.	652.	< 2.	< 0.050
CJB-896S	6.	360.	< 2.	0.070
CJB-897S	2.	260.	< 2.	0.070
CJB-906S	1.	7.	< 2.	< 0.050
CJB-907S	2.	24.	< 2.	0.070
CJB-908S	2.	77.	< 2.	0.090
CJB-910S	2.	37.	< 2.	0.090
CJB-911S	2.	41.	< 2.	< 0.050
CJB-912S	2.	66.	< 2.	< 0.050
CJB-913S	3.	117.	< 2.	0.090
CJB-914S	3.	61.	< 2.	0.090
CJB-916S	4.	390.	< 2.	< 0.050
CJB-917S	3.	79.	< 2.	0.070
CJB-918S	2.	48.	< 2.	< 0.050
CJB-919S	3.	36.	< 2.	0.070

USBRC Geochemical Analysis --- NW83HA02 --- 19-AUG-83

Field Number	CU ppm	PB ppm	ZN ppm	AU/AA ppm	AG/AA ppm
CJB-920	24.	16.	32.	< 0.02	0.9
CJB-921	24.	16.	58.	< 0.02	1.1
CJB-922	51.	14.	50.	< 0.02	1.3
CJB-923	19.	15.	39.	< 0.02	1.1

CJV-88S	41.	20.	81.	< 0.02	2.2
CJV-89S	40.	15.	65	< 0.02	1.5
CJV-90S	30.	21.	50.	< 0.02	1.5
CJV-91S	55.	19.	81.	< 0.02	1.6
CJV-92S	38.	20.	99.	< 0.02	1.7
CJV-93S	26.	24	115.	< 0.02	1.6
CJV-94S	21.	20.	68.	< 0.02	1.6
CJV-95S	37.	28.	111.	0.02	1.8
CJV-96S	13.	15.	44.	< 0.02	1.3
CJV-97S	85.	23.	103.	< 0.02	1.4
CJV-98S	15.	22.	44.	< 0.02	1.5
CJV-99S	109.	57.	78.	< 0.02	1.7
CJV-100S	44.	18.	173.	< 0.02	1.6
CJV-101S	75.	16.	116.	< 0.02	1.5

USBRC Geochemical Analysis --- NW83HA02 --- 19-AUG-83

Field Number	W PPM	AS PPM	SB PPM	HG PPM
CJB-920	2.	67.	< 2.	0.125
CJB-921	4.	71.	< 2.	0.075
CJB-922	3.	21.	< 2.	< 0.030
CJB-923	2.	45.	< 2.	0.080

CJV-88S	2.	49.	< 2.	0.140
CJV-89S	3.	61.	< 2.	0.050
CJV-90S	2.	643.	< 2.	0.060
CJV-91S	2.	39.	< 2.	0.090
CJV-92S	3.	47.	< 2.	0.060
CJV-93S	2.	23.	< 2.	0.050
CJV-94S	3.	14.	< 2.	< 0.030
CJV-95S	4.	38.	< 2.	0.060
CJV-96S	2.	10.	< 2.	0.050
CJV-97S	2.	21.	< 2.	0.060
CJV-98S	3.	8.	< 2.	0.060
CJV-99S	2.	42.	< 2.	< 0.030
CJV-100S	4.	569.	< 2.	0.140
CJV-101S	2.	148.	< 2.	< 0.050

USBRC Geochemical Analysis --- NW83HA03 --- 1-SEP-83

Field Number	CU ppm	PB ppm	ZN ppm	AU/AA ppm	AG/AA ppm
CJV-102S	44.	12.	112.	< 0.02	1.2
CJV-103S	22.	12.	86.	< 0.02	1.4
CJV-104S	44.	16.	160.	0.02	1.8
CJV-105S	37.	11.	145.	< 0.02	1.7
CJV-106S	64.	9.	160.	< 0.02	1.9
CJV-107S	56.	23.	135.	< 0.02	1.7
CJV-108S	36.	17.	105.	0.02	2.0
CJV-109S	45.	20.	49.	0.06	1.7
CJV-111S	93.	22.	52.	0.04	1.9
CJV-114S	81.	14.	45.	0.03	1.7
CJB-889X	105.	32.	169.	< 0.02	2.3

USBRC Geochemical Analysis --- NW83HA03 --- 1-SEP-83

Field Number	W ppm	AS ppm	SB ppm	HG ppm
CJV-102S	< 1.	99.	< 2.	0.205
CJV-103S	< 1.	10.	< 2.	0.185
CJV-104S	< 1.	15.	< 2.	0.220
CJV-105S	< 1.	39.	< 2.	0.190
CJV-106S	< 1.	59.	< 2.	0.150
CJV-107S	< 1.	107.	< 2.	0.180
CJV-108S	< 1.	82.	< 2.	0.220
CJV-109S	< 1.	47.	< 2.	0.190
CJV-111S	< 1.	37.	< 2.	0.220
CJV-114S	< 1.	29.	< 2.	0.180
CJB-889X	< 1.	69.	< 2.	0.150

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USBRC Geochemical Analysis --- NW83HA04 --- 18-AUG-83

Field Number	CU PPM	PB PPM	ZN PPM	AU/AA PPM	AG/AA PPM
CJB-902R	13.	16.	15	0.04	0.9

USBRC Geochemical Analysis --- NW83HA04 --- 18-AUG-83

Field Number	W PPM	AS PPM	SB PPM	HG PPM
CJB-902R	2.	92.	<2.	< 0.050

CERTIFICATE OF QUALIFICATIONS

I, James S. Christie of Vancouver, British Columbia, do hereby certify that,

1. I am a Professional Geologist residing at 3921 West 31st Avenue, Vancouver, B.C. V6S 1Y4.

2. I am a graduate of the University of British Columbia, B.Sc. Honours Geology, 1965; Ph.D. Geology, 1973.

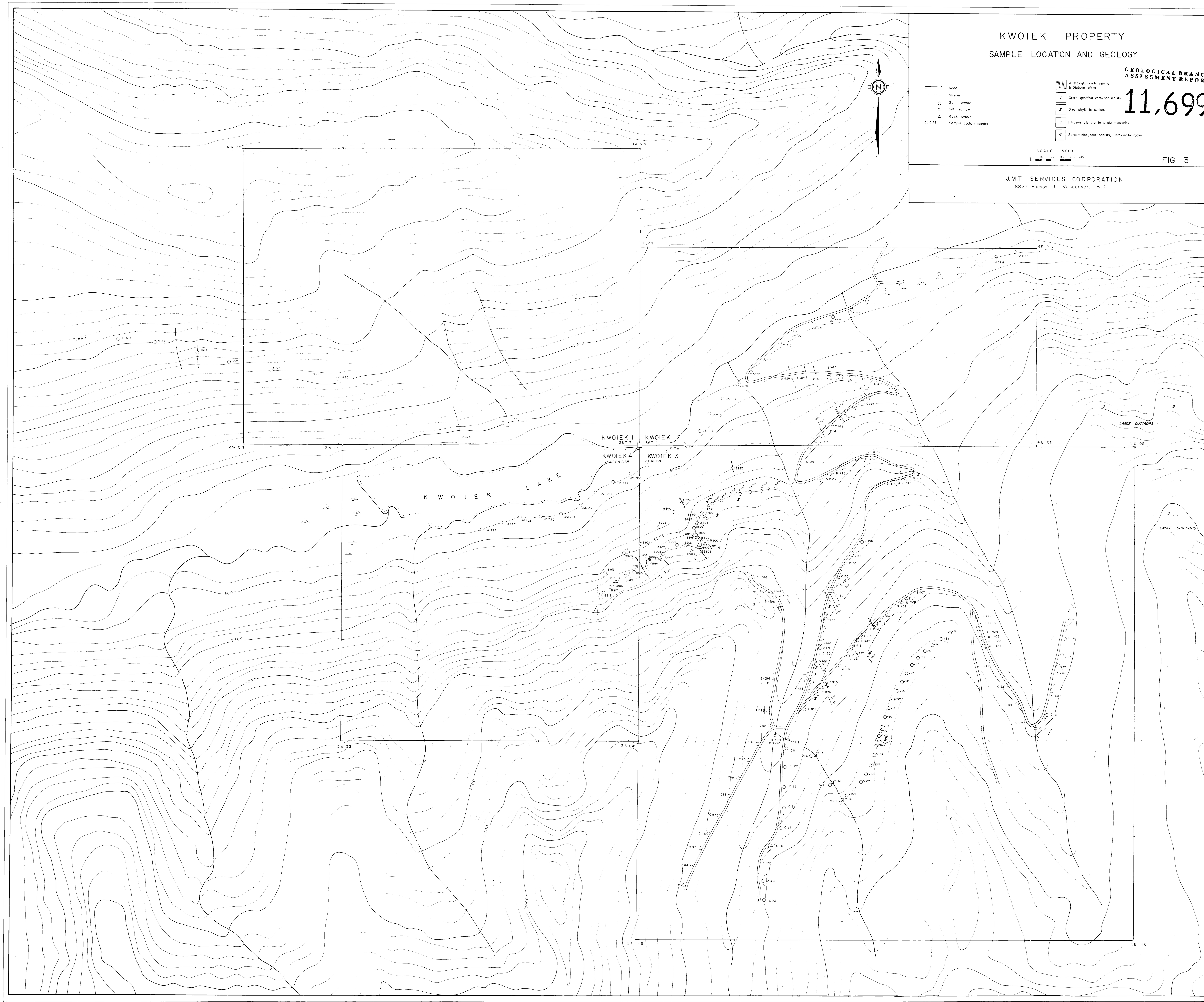
3. I have practiced my profession as a mining exploration geologist, continuously since 1965.

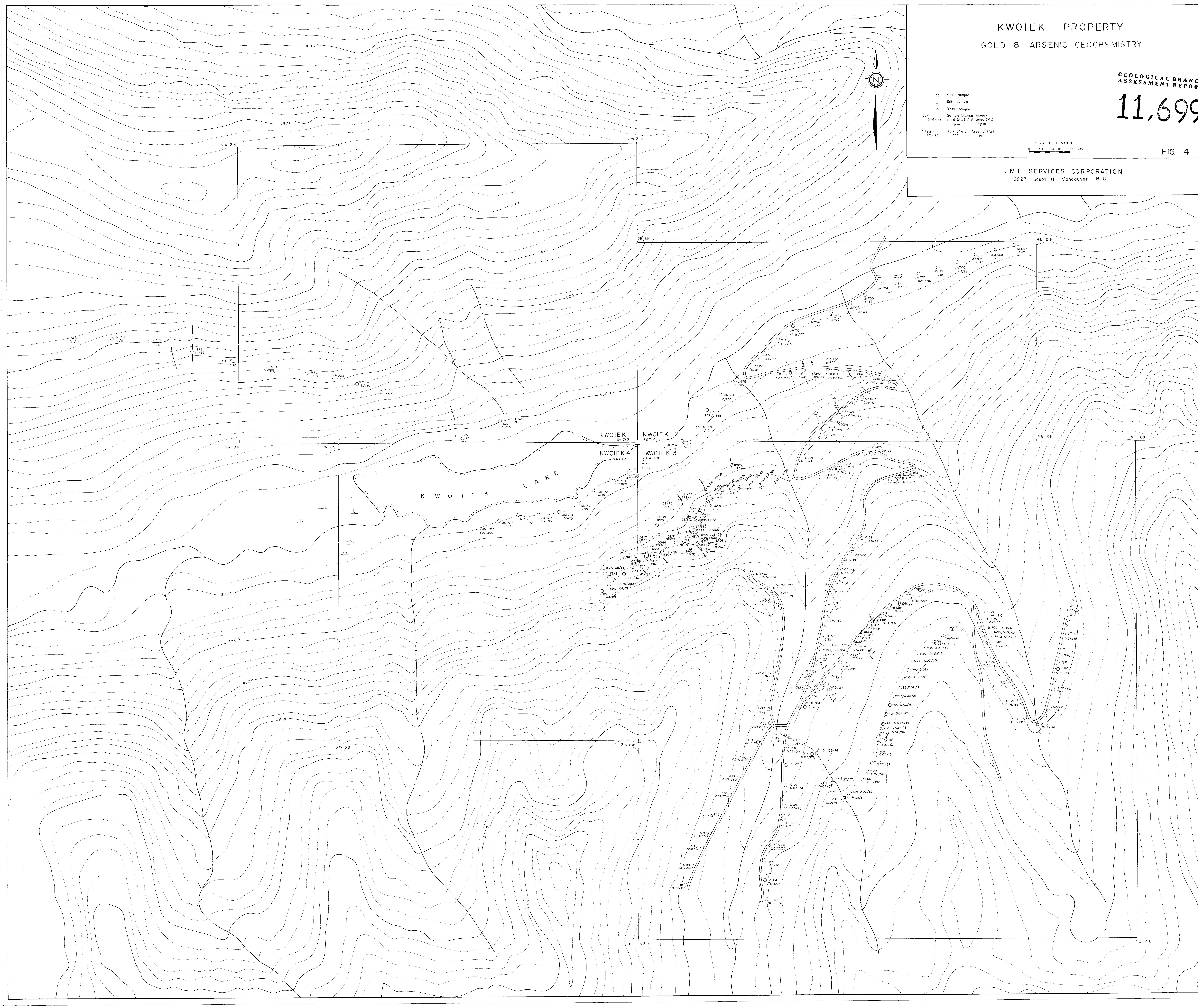
4. I am a Fellow of the Geological Association of Canada.

5. I am a Member of the Geological Society of America.

6. This report is compiled from notes of the personnel who completed the 1983 work, and is based on my personal knowledge of the district and mapping parts of the geology at the property in 1981 and 1982.

James S. Christie, Ph.D.


KWOIEK PROPERTY
SAMPLE LOCATION AND GEOLOGY
GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,699
Road
Stream
Soil sample
Silt sample
Rock sample
C138 Sample location number
a Qtz/qtz-carb veining
b Diabase dikes
1 Green, qtz/feld-carb/ser schists
2 Grey, phyllitic schists
3 Intrusive qtz diorite to qtz. monzonite
4 Serpentinite, talc-schists, ultra-mafic rocks
SCALE 1:5000
FIG. 3
J.M.T. SERVICES CORPORATION
8827 Hudson st, Vancouver, B.C.
KWOIEK 1
36713
KWOIEK 2
36714
KWOIEK 4
64885
KWOIEK 3
64884
KWOIEK LAKE
LARGE OUTCROPS
LARGE OUTCROPS
4W 3N
0W 3N
0E 2N
4E 2N
4W 0N
3W 0S
4E 0N
5E 0S
3W 3S
3S 0W
0E 4S
5E 4S



KWOIEK PROPERTY
GOLD & ARSENIC GEOCHEMISTRY
GEOLOGICAL BRANCH ASSESSMENT REPORT
11,699
Soil sample
Silt sample
Rock sample
C138 0.05/41 Sample location number Gold (Au) / Arsenic (As) ppm ppm
JM 711 22/77 Gold (Au), Arsenic (As) ppb ppm
SCALE 1:5000
0 50 100 150 200 250
FIG. 4
J.M.T. SERVICES CORPORATION
8827 Hudson st., Vancouver, B.C.
KWOIEK 1 36713
KWOIEK 2 36714
KWOIEK 3 64884
KWOIEK 4 64885
K W O I E K L A K E
4000
4500
5000
5500
3500
3000