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PROSPECTING REPORT
on the
EAGLE 1-2 MINERAL CLAIMS
Clinton Mining Division

**SUB-RECORDER
RECEIVED**
JAN 31 1994
M.R. # \$
VANCOUVER, B.C.

NTS 92P\15W
LAT. 51' 53" N
LONG. 120' 56" W

BY
D. RIDLEY (owner)

and

D. DUNN

PIONEER METALS CORPORATION (operator)

January, 1994

WORK APPROVAL NUMBER: PRG-1993-1000764-4-5681

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,270

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SUMMARY

The Eagle claims are situated approximately 50 kilometers northeast of 100 Mile House, B.C., and are accessible via paved and gravel roads followed by five kilometers of 4X4 road. The claims straddle the contact zone between upper Triassic Nicola Group volcanics to the east and intrusives of the Takomkane batholith to the west.

In 1978, Alf Robinson discovered chalcopyrite-bornite bearing volcanic breccia at the "Knob" showing and staked the initial Clay property which adjoins the Eagle claims to the south. In 1984, Noranda Exploration optioned the Clay property, expanded the land position, and conducted soil geochemistry, geological mapping and ground magnetometer surveys. In 1985 Noranda continued to work the ground and conducted I.P. surveys, machine trenching, and diamond drilling mainly around the "Knob" showing. This work outlined a persistent linear copper soil anomaly extending several hundred meters northerly from the area of the "Knob" showing. Subsequent trenching uncovered subcrop (?) containing up to 1300 ppb gold and 1.2% copper. By 1993 the Clay (Hawkins Lake) property had been reduced to the original eight units centered on the "Knob" showing. The Eagle claims, staked in April 1993, cover the anomalous soil and subcrop (?) defined during Noranda's work.

In June 1993, the claims were optioned to Pioneer Metals Corp. who initiated a preliminary prospecting program. Two days were spent examining the areas of anomalous soil geochemistry and trenching defined by past operators. The "high-grade" assay from Noranda was not reproduced, possibly due to natural in-filling of the trench. Further work is recommended in the form of machine trenching across the soil anomalies and cleaning out the older trenches. Due to overburden depths diamond drilling may be the only means of testing portions of the soil anomalies.

INTRODUCTION

During August 1993, the Eagle property was subjected to a preliminary prospecting program which was restricted to follow-up of several copper soil anomalies defined by past operators. No bedrock source for the soil anomalies was located but several mineralized angular float boulders were encountered.

LOCATION AND ACCESS

The Eagle property is located approximately 50 kilometers northeast of 100 Mile House, B.C. and is accessible by paved, gravel and four-wheel-drive roads. Access from highway 97 is via the Canim Lake road to Eagle Creek, thence via the Ruth Lake road to Hawkins Lake. A rough road leaves the main road at Alf Robinson's house and permission should be obtained before use. This road is followed northerly for approximately five kilometers to the Eagle claims. A hydro transmission line lies approximately 3 kilometers southeast of the claims.

The claims lie at the transition between the Interior Wet and Dry Belt bioclimatic zone and within Quesnel Highlands physiographic region. The claims are situated on the north side of a plateau, between 3000-3500 feet elevation, rising above the lower Eagle creek-Hawkins lake valleys. Topography ranges from fairly flat to moderately steep.

The property is densely forested with a mixture of juvenile and mature timber stands. Portions of the property were logged in the past but no recent logging activities were seen. The juvenile stands are most common along the northeast slopes and locally form dense, impenetrable thickets of cedar, spruce, and balsam. The mature stands consist of douglas fir and logdepole pine which commonly contain little in the way of underbrush.

CLAIM STATUS

The Eagle property consists of two two-post mineral claims situated in Clinton Mining Division. The claims were staked in April 1993 by Andrew Molnar as agent for D. Ridley. Both claims are held by Dave Ridley, General Delivery, Eagle Creek, B.C., VOK1LO. In June 1993 an option was signed with Pioneer Metals Corporation, who has corporate offices at 1770-401 West Georgia Street, Vancouver, B.C., V6B5A1. Pioneer has the right to earn a 100% interest in the property subject to a 2% NSR retained by Ridley. Pertinent claim data is listed below.

Claim Name	Record No.	Date Staked	*Expiry Date*
Eagle 1	317050	Apr. 4, 1993	Apr. 4, 1997
Eagle 2	317051	Apr. 4, 1993	Apr. 4, 1997

* Pending assessment report approval*

PROPERTY HISTORY

Although active exploration was carried out in the region during the 1960's no work was recorded for the area surrounding the present claims until the late 1970's.

In 1978 the Clay property, adjoining the Eagle ground to the south, was staked by Alfred Robinson to cover outcroppings of bornite-chalcopyrite bearing, epidote-altered volcanic breccia. Limited exploration continued until 1982 when Alcare Resources Inc did EM and magnetometer surveys of the "Knob" showing and drilled 11 BQ diamond drill holes totaling 424 meters on and around the showing. Very few mineralized zones were intersected in the drilling. In 1984 and 1985 Noranda Exploration Co. Inc. optioned the ground, expanded the land position, and conducted soil sampling, detailed geological mapping, trenching, magnetometer and I.P. surveys, and drilled four diamond drill holes totaling 397 meters.

This work defined several copper soil anomalies and two main I.P. anomalies, one of which is the Knob showing. The drilling partially tested both I.P. anomalies. The best assay



PIONEER METALS CORP.	
EAGLE CLAIMS	JAN. 1994
GENERAL LOCATION MAP	
CLINTON M.D. N.T.S. 92P/15W	
D. Ridky	FIG. 1
<p>0 100 200 miles 0 100 200 300 Kilometers</p>	

53086

Creek

STEAK 20 310572	STEAK 19 310571	STEAK 17 310567	STEAK 16 310566	STEAK 15 310565	STEAK 14 310564
STEAK 13 310563	STEAK 12 310562	STEAK 11 310561	STEAK 10 310560	STEAK 9 310559	STEAK 8 310558
STEAK 7 310557	STEAK 6 310556	STEAK 5 310555	STEAK 4 310554	STEAK 3 310553	STEAK 2 310552
STEAK 1 310551	STEAK 0 310550	STEAK -1 310549	STEAK -2 310548	STEAK -3 310547	STEAK -4 310546

Roger L.

CLAY #1 207920 #211*	CLAY #2 207916 #209*	CLAY #3 207922 #213*	CLAY #4 207924 #215*
CLAY #5 207919 #210*	CLAY #6 207917 #208*	CLAY #7 207921 #212*	CLAY #8 207923 #214*

5752

HAWK 2

HAWK 1

317489

317488

HAWK 5

317492

317491

317490

Hawkins Lake

TRANSMISSION

POWER

L 4865

L 5010

L 4836

L 4837

L 5008

L 3919

L 3922

L 7723

L 7722

L 7721

L 7720

L 7719

L 7718

L 7717

L 7716

L 7715

L 7714

L 7713

L 7712

L 7711

L 7710

L 7709

L 7708

L 7707

L 7706

L 7681

L 7680

L 7684

L 8235

PIONEER METALS CORP.
 EAGLE CLAIMS JAN. 1994
 CLAIMS LOCATION MAP
 CLINTON M.D. N.T.S. 92P/15W
 D. Ridley FIG. 2

500 0 500 1000 2000
 1:50,000 meters

N I M RES

L 2190

L 2748

3915

L 3916

3918

was a 19.66 meter intersection of epidote alteration which returned 0.12% copper, 0.06 oz\ton silver, and 0.007 oz\ton gold. Within this section, a 4.5 meter section assayed 0.27% copper, 0.13 oz\ton silver, and 0.013 oz\ton gold (Gale R.E., 1988). A subcropping rock sample from Trench 3, 800 meters north-northeast of the Knob showing, returned 1300 ppb gold and 1.2% copper (Lewis T.D., Bradish L., 1985). This trench crosscuts a portion of a long, linear copper soil anomaly up to 1.2 kilometers long and originating near the Knob showing.

The Clay (Hawkins Lake) property was modeled after Dome's QR deposit in that it "was situated within Triassic volcanics of the Quesnel Trough, the gold mineralizing event is associated with a comagmatic monzonite (?) stock, gold-sulphide mineralization is within a zone of propylitic alteration, and gold-sulphide mineralization was deposited in a calcareous environment: calcareous tuff (QR); limestone-volcanic contact (Hawkins)" (Lewis, T.D., Bradish, L., 1985).

In 1990 Princeton Mining Corp. optioned the Clay (Hawkins Lake) property, extended Noranda's grid, and conducted soil sampling and geological mapping. This work defined the northerly limits of the copper soil anomalies (Bishop S.T., 1990). No further work has been recorded for the Clay (Hawkins Lake) property and by 1993 it had been reduced to the present eight two-post mineral claims centered on the Knob showing.

REGIONAL GEOLOGY

The Eagle property lies in the Quesnel Trough, a subdivision of the Intermontane belt, which is composed of Triassic to Jurassic volcanic, volcanoclastic, and sedimentary rocks which are intruded by various plutons ranging in age from Triassic to Cretaceous.

The oldest rocks in the region comprise augite andesite-basaltic flows, breccias and agglomerate, tuff, argillite, phyllite, greywacke, and black to grey limestone of the Triassic Nicola Group which is intruded by the upper Triassic-Jurassic

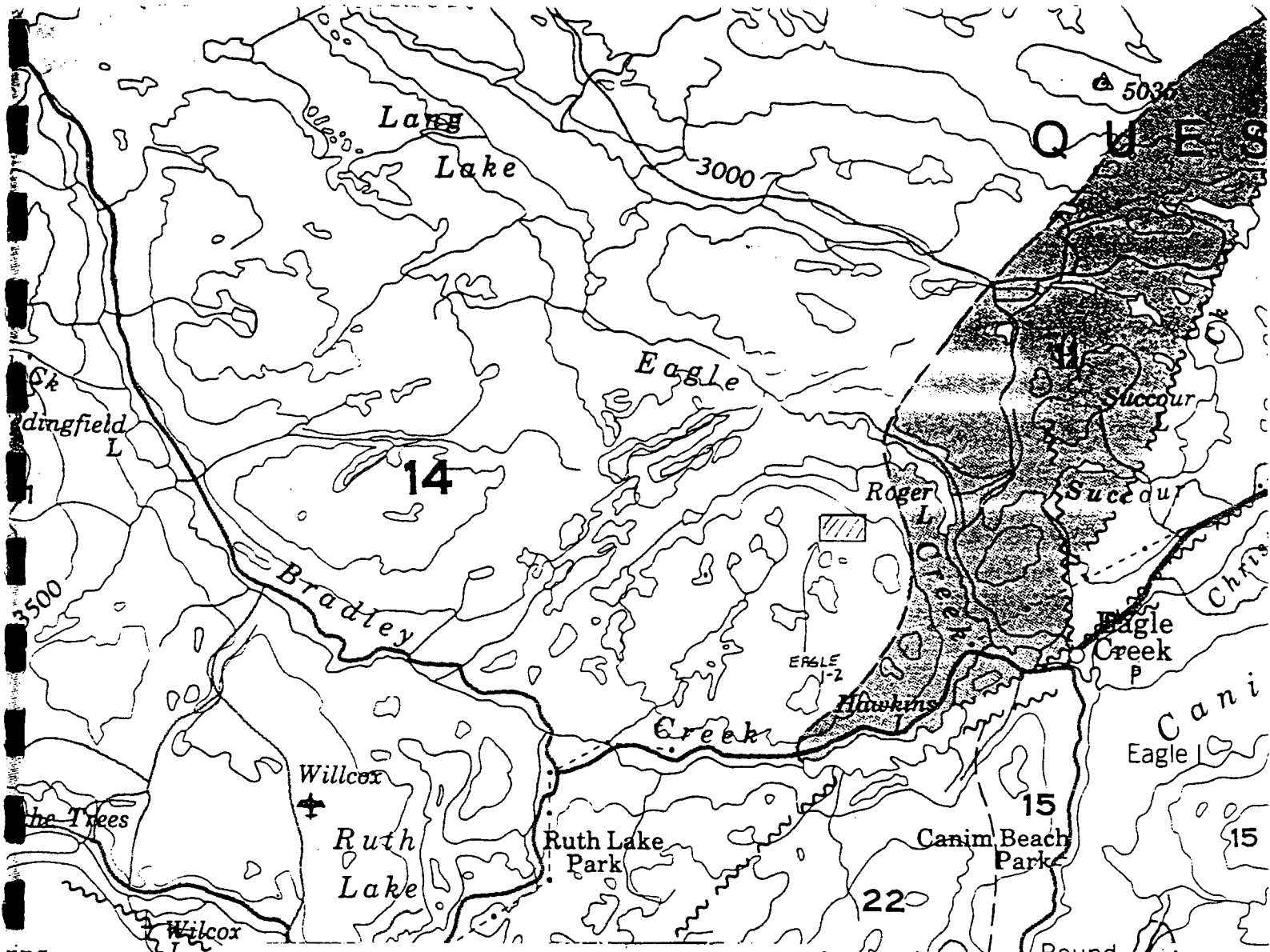


FIG. 3

- TERTIARY OR QUATERNARY**
 Miocene and/or Pliocene
 25 Plateau lava, olivine basalt andesite, related ash and breccia beds; basaltic andesite; 25a, olivine gabbro plugs
- Eocene and (?) Oligocene**
 Kamloops Group (21, 22)
 22 Skull Hill Formation; dacite, trachyte, basalt, andesite, rhyolite, related breccias
- CRETACEOUS**
 20 Raft and Baldy Batholiths and Similar Granitic Rocks; biotite quartz monzonite and granodiorite; minor pegmatite, apatite, biotite-hornblende, quartz monzonite; 20a, quartz diorite, diorite, granodiorite (may include some older rocks); 20b, apatite, leuco-quartz monzonite and granite
- JURASSIC**
 Sinemurian to (?) Middle Jurassic
 16 Porphyritic augite andesite breccia and conglomerate; minor andesite, andesite, tuff, argillite and flows (may include some 11; 16a, isolated areas of hornblende andesite (may be all or partly intrusive)
 15 Andesitic andesite, siltstone, grit, breccia and tuff; local granite bearing conglomerate, graywacke; minor argillite and flows (may include some 11)
- TRIASSIC OR JURASSIC**
 Rhaetian or Hettangian
 14 Hornblende-biotite quartz diorite and granodiorite, minor hornblende diorite, monzonite, gabbro, hornblende; 14a, diorite and andesite; 14b, leuco-quartz monzonite and granodiorite
 13 13a, fine- to medium-grained, pink to brown and grey andesite and monzonite; 13b, medium-grained, creamy-buff, locally coarsely porphyritic (k-feldspar) andesite and monzonite
- TRIASSIC**
 Karnian and Norian
 Nicola Group
 11 Augite andesite flows and breccia, tuff, argillite, graywacke, grey limestone; 11a, includes minor 3 and 10
 10 Black shale, argillite, phyllite, siltstone, black limestone
- MISSISSIPPIAN AND/OR LATER**
 Slide Mountain Group
 2 Pennell Formation; pillow lava flows, greenstone, foliated greenstone, greenschist, argillite, chert, minor amphibolite, limestone, breccia
- WINDERMERE OR CAMBRIAN AND LATER**
 Kaza or Caribou Group
 1 Feldspathic quartz-mica schist, locally garnetiferous, micaceous

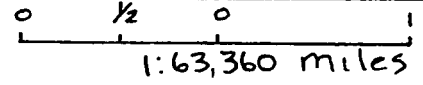
PIONEER METALS CORP.	
EAGLE CLAIMS JAN 1994	
REGIONAL GEOLOGY MAP	
CLINTON M.D. NTS 92P/5W	
D. Ridley	Fig. 3

5000
 1:125,000 meters

Joins Map 5232G, Lac La Hache



PIONEER METALS CORP.
EAGLE CLAIMS | JAN. 1994
AEROMAGNETOMETER MAP
CLINTON M.D. N.T.S. 92P/15W
D. Ridley | FIG. 4



B.C. Dept. of Mines Geophysical
Map # 5231G

Takomkane batholith. The Takomkane batholith is a composite granodiorite intrusion with hornblende-biotite quartz diorite and granodiorite, hornblende diorite, monzonite, gabbro and hornblendite. Phases may be syenodiorite-diorite or quartz monzonite in composition and locally K-feldspar porphyritic, and quartz-rich (Blann, 1993).

A large magnetic high shown on Figure 4, stretching from Roger Lake in the south to north of Iron Lake and roughly outlined by the 3500 relative gamma contour, was found to be underlain by magnetite-rich, locally porphyritic, hornblendite, pyroxenite, gabbro and diorite. It is not clear whether this represents a border phase of Takomkane batholith or the emplacement of a younger, more mafic intrusion, along its margin.

Jurassic rocks comprise andesitic arenite, siltstone, grit, breccia and tuff, local granite-bearing conglomerate, greywacke, minor argillite and flows. These rocks are in apparent fault contact with all other rocks in the area (Campbell, Tipper, 1971). Jurassic and older rocks are intruded by several satellite stocks and smaller bodies, consisting of biotite-quartz monzonite and granodiorite of Cretaceous age. Three small stocks on the east side of Canim Lake believed to be Cretaceous in age, are syenite, syenodiorite to diorite and gabbro in composition.

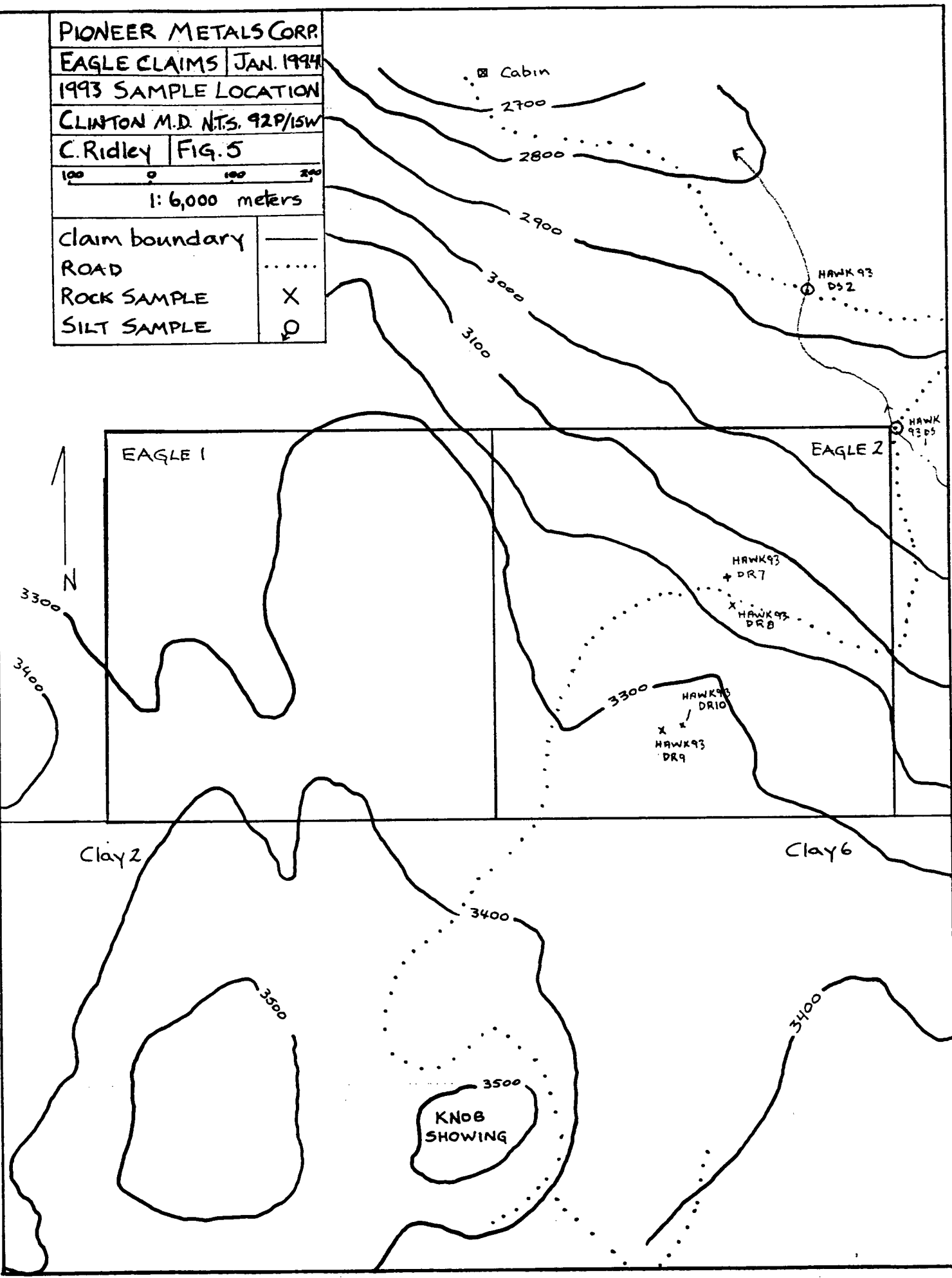
South of Canim and Hawkins Lakes, dacite, trachyte, basalt, andesite, rhyolite, and related breccias of the Eocene to Oligocene Skull Hill formation form the higher hills. Miocene and/or Pliocene plateau lava, olivine basalt, basaltic andesite, and related ash and breccia beds of the Chilcotin Group are found in the lower lying areas and form extensive exposures on the Fraser plateau, immediately west of the property.

1993 WORK PROGRAM

The 1993 work program consisted of detailed prospecting in the vicinity of past trenches and soil anomalies. The work was conducted August 15 and 16, 1993 by D. Ridley under the direction of D. Dunn, geologist for Pioneer Metals Corporation. The program resulted in the collection of 4 rock samples on the property, and 3 rock and 2 silt samples were collected off the property to the north.

PIONEER METALS CORP.
 EAGLE CLAIMS | JAN. 1994
 1993 SAMPLE LOCATION
 CLINTON M.D. N.T.S. 92P/15W
 C. Ridley | FIG. 5
 100 0 100 200
 1: 6,000 meters

claim boundary	———
ROAD
ROCK SAMPLE	X
SILT SAMPLE	⊙



PROSPECTING AND SAMPLING

The Eagle property contains few outcrops and exposures are generally small. Angular float is fairly plentiful and the underlying geology may be generalized from it. The granodiorite body near Trench 7, mapped by Noranda in 1985, was the most extensive outcrop found during prospecting in 1993.

Prospecting the area of Trench 3 revealed a 40 cms. diameter float boulder consisting of augite porphyry cut by epidote veinlets and containing malachite on the fractures. Analysis returned values of 325 ppb gold, 0.6 ppm silver, and 3295 ppm copper (HAWK93 DR7). Soil sampling by Noranda in 1985 returned 420 ppm copper from the same site. A grab of angular float from the upslope portion of the road cut and about 25 meters south of DR7 returned only 5 ppb gold and 204 ppm copper (HAWK93 DR8).

A large angular boulder was found during prospecting upslope and south of Trench 3 at L54N:51+75E. This material consisted of augite porphyry cut by carbonate and epidote veinlets with trace chalcopyrite and malachite. A sample returned only 321 ppm copper with no detectable gold (HAWK93 DR9).

A sample of large, angular float consisting of carbonate-epidote-chlorite altered mafic volcanic containing 1% hematite and minor to trace amounts of malachite returned only 191 ppm copper and no detectable gold (HAWK93 DR10).

Three rock samples were obtained from angular float off the property to the north near Deep lake. The first consists of a large angular chunk of rock which is exposed in the access road bank approximately 500 meters east of the Deep lake cabin. The rock is completely altered by quartz-ankerite and carries up to 3% pyrite-pyrrhotite. No anomalous values were obtained from analysis (HAWK93 DR11). The second sample was found on the north shore of Deep lake towards its western end. This consisted of highly skarned (epidote-carbonate-quartz-K-spar-garnet (?)) rock that contained trace pyrite and magnetite. Analysis failed to detect anomalous values (HAWK93 DR1). The third sample was obtained from the north shore of Deep lake towards the western end and consisted of a volcanic breccia with carbonate-epidote veinlets and trace pyrite-chalcopyrite. Analysis returned values of 15 ppb gold and 115 ppm copper (HAWK93 DR2).

PIONEER METALS CORP.

DATA COMPILE FROM
ASS. RPT. #'s 13571, 14798

EAGLE CLAIMS JAN. 1994

COMPILATION MAP FIG. 6

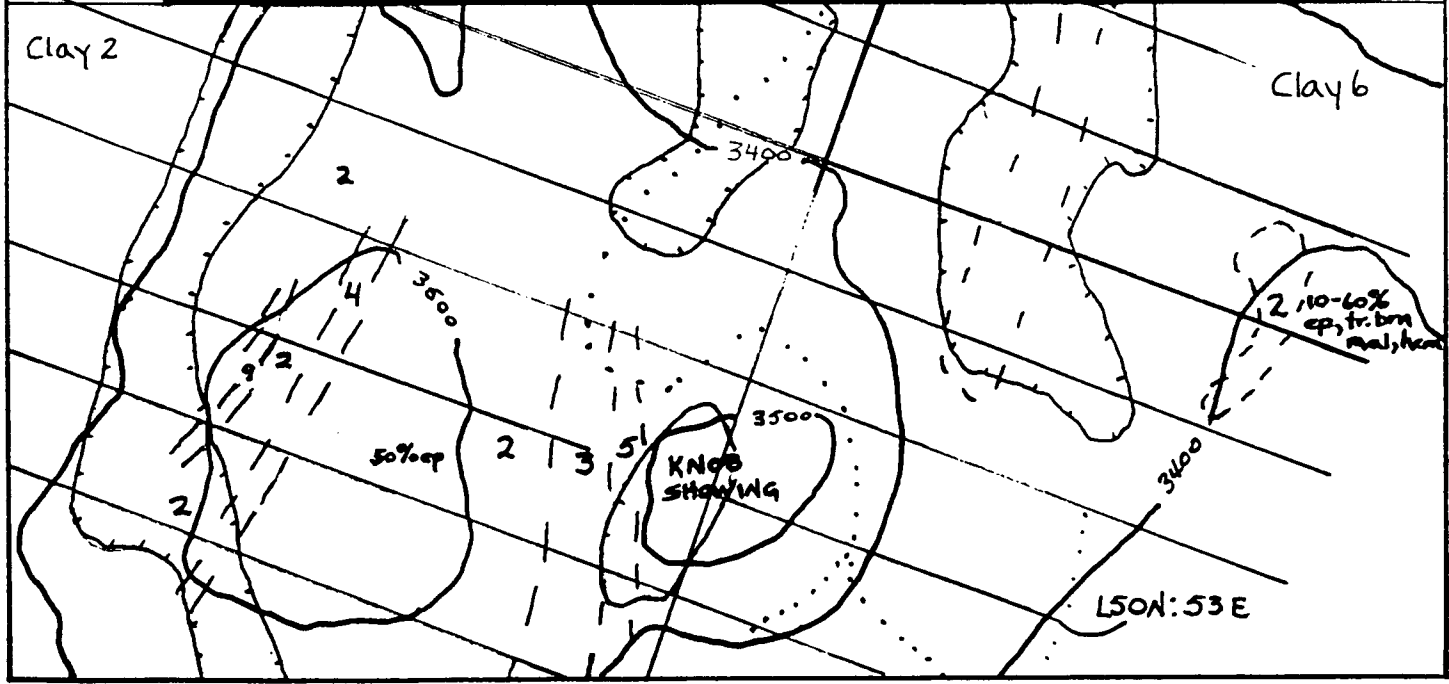
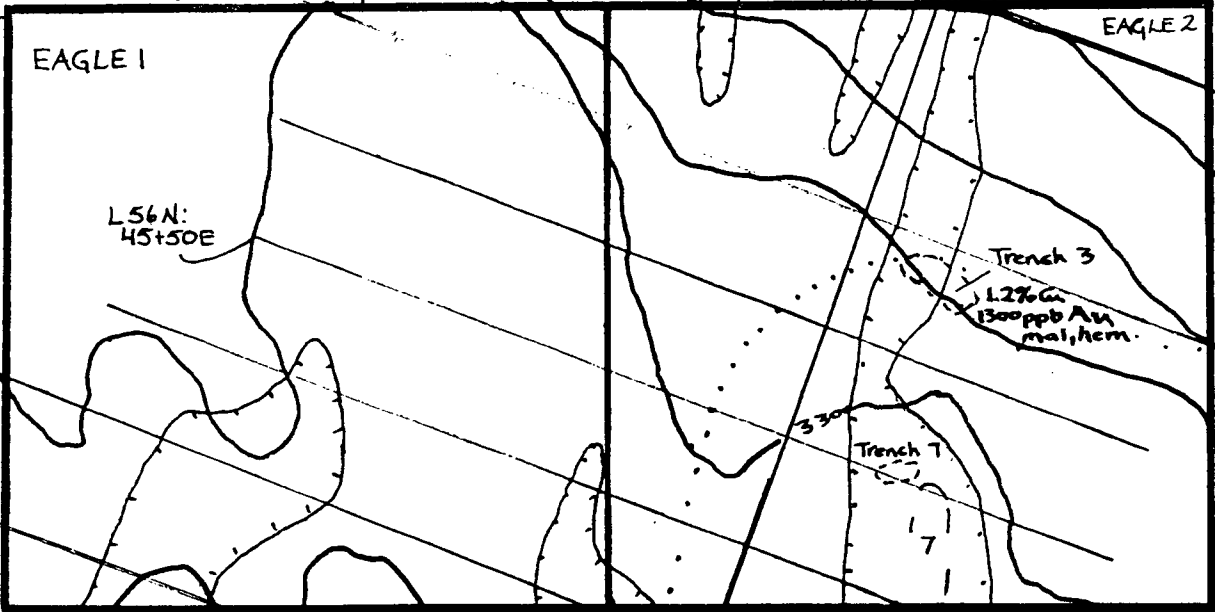
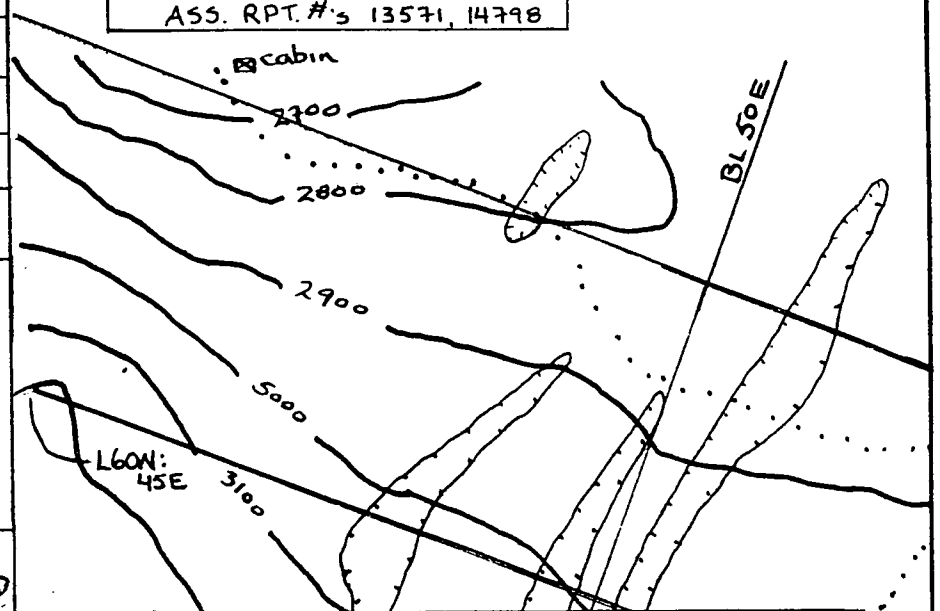
CLINTON M.D. N.T.S. 92P/15W

100 0 100 200
1:6,000 meters

Geology:

- 2 - HORNBLENDE BASALT
- 3 - HORNBLENDE BASALT BRECCIA
- 4 - FELSIC SCHIST
- 5 - ALTERED LIMESTONE
- 7 - GRANODIORITE
- 9 - FELDSPAR PORPHYRY DYKE

ROAD OLD GRID #
 CLAIM LINE ———
 COPPER SOIL ANOMALY (≤ 100ppm) ○



(7)

Two silt samples were obtained from a northerly flowing stream between the Eagle claims and Deep lake. Sample HAWK93 DS1 was taken where the stream first crosses the access road and analysis returned 92 ppm copper and 5 ppb gold whereas the second sample wasn't anomalous (HAWK93 DS2). Sample DS2 was taken further downslope and dispersion may account for the difference in values.

CONCLUSIONS

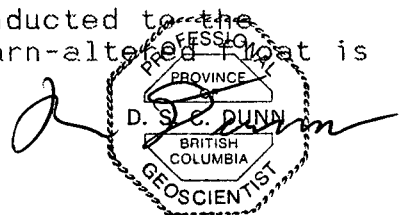
Based on compilation of past data and a brief examination of selected portions of the Eagle claims in 1993, it can be concluded that the property, as it currently exists, has some potential to host economic mineralization at depth. This is due a generally favourable geological environment and scattered occurrences of weakly mineralized float, in part, coincident with anomalous copper soil anomalies.

A good potential for skarn-type deposits may exist northwest of the property and additional prospecting traverses are warranted in this area.

RECOMMENDATIONS

Further work on the Eagle claims should be directed at machine trenching in the area of Noranda's Trench 3. This would include cleaning out the old trench to bedrock and new trenching along strike of the copper soil anomaly at 50-100 meter intervals.

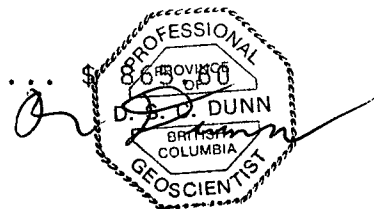
Additional prospecting should be conducted to the northwest above Deep lake where angular skarn-altered float is fairly abundant.



FINANCIAL STATEMENT

PERSONEL	
D. Ridley, prospector; 2D @ \$200\day	\$ 400.00
TRAVEL	
A.T.C. Rental; 2D @ \$40\day	\$ 80.00
Gas;	\$ 10.00
GST PAYABLE	
7% on contracting and vehicle rental	\$ 33.60
SAMPLE ANALYSIS	
i) Rocks; 7 @ \$16 each	\$ 112.00
ii) Silts; 2 @ \$15 each	\$ 30.00
SHIPPING	\$ 7.50
FIELD SUPPLIES	\$ 5.00
PHOTOCOPYING	\$ 10.50
FAX	\$ 2.00
REPORT PREPARATION	\$ 175.00

TOTAL EXPENDITURES FOR 1993 WORK PROGRAM




(9)

STATEMENT OF QUALIFICATIONS

I, David Wayne Ridley, of General Delivery, Eagle Creek, B.C., VOKILO, do hereby certify:

- 1) That I completed the "Mineral Exploration for Prospectors" course, hosted by the BC Ministry of Mines at Mesachie Lake, B.C. in 1984.
- 2) That I completed the short course entitled "Petrology for Prospectors" held in Smithers, B.C., and hosted by the Smithers Exploration Group, in 1990.
- 3) That I have prospected independently since 1982 and have been employed as a prospector by various exploration companies in B.C., Alaska, and Yukon Territory since 1984.
- 4) That I conducted the work set out in this report while under the supervision of D. Dunn.
- 5) That I currently own an interest in the subject property.

Dated at Eagle Creek, B.C., Jan. 9. 1993



David Wayne Ridley

(10)

I, David St. Clair Dunn, with a business address of 2348 Palmerston Avenue, West Vancouver, B.C. V7V 2W1, declare that;

1. I am a professional Geoscientist registered under the Professional Engineers and Geoscientists Act of the Province of British Columbia.
2. I am a Fellow of the Geological Association of Canada.
3. I am a Fellow of the Association of Exploration Geochemists.
4. I have practiced my profession as a prospector and geologist for more than 20 years in Canada, U.S.A. and Australia.
5. I supervised the work program on the Eagle Property described in this report.
6. I am Exploration Manager for Pioneer Metals Corporation.


David St. Clair Dunn, P. Geo.



BIBLIOGRAPHY

- Baerg R.J., 1985; Geological, Geochemical and Drilling Report on the Hawkins Lake Property; Ass. Rpt. #13571.
- Bishop S.T., 1990; Geological and Geochemical Report on the Robby Claim Group; Ass. Rpt. #14798.
- Botel W.G., Werner L.J., 1982; Preliminary Geological Report on the Hawkins Lake Property; Ass. Rpt. #10183
- Burton A.D.K., 1980; Report on the North and Clay Mineral Claims; Private Report for Alclare Resources Ltd.
- Campbell R.B., Tipper H.W., 1972; Geology of the Bonaparte Lake Area; GSC Memoir 363.
- Gale R.E., 1988; Report on Hawkins Lake Copper-Gold Prospect; Private Report for Sheba Copper Mines Ltd.
- GSC Geophysics Paper 5231; Canim Lake, 92P\15; Aeromagnetic Survey, 1968; Map #5231G.
- Lewis T.D., Bradish L., 1985; Geological, Geochemical and Geophysical Report on the Hawkins Lake-Alclare Resources Option; Private Report for Noranda Exploration Co. Inc.

APPENDIX "A"

Rock Description Sheets

ROCK SAMPLE SHEET

① of ①

Sampler D. Ridley
Date August 1993

Property HAWK-EAGLE

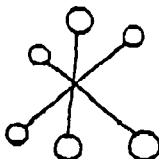
NTS 92P/15

SAMPLE NO.	Sample Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS			
		Rock Type	Alteration	Mineralization		Au	Ag	Cu	Cr
HAWK 93 DR1	F	skarn	epidote pink calcite K-spar/garnet	trace pyrite magnetite	S. shore Deep L. (near where creek is supposed to flow in ^{exist}) but wasn't found to	15	<.2	12	44
HAWK 93 DR2	1m	volcanic breccia	carb + epidote veinlets	trace py-cpy?	N. shore Deep L. towards E. end: subcrop (probably outcrop?):	15	<.2	115	35
HAWK 93 DR3	F	skarn	garnet- epidote calcite	minor py trace cpy	along E. edge Camper L. \approx 20 m above shoreline. much similar stuff lying about: prospecting upslope failed to find any outcrop.	10	<.2	201	115
HAWK 93 DR4	70cm	qtz vein	malachite	bornite along fractures	@ 50+10E: 41+60N: wallrx are augite porphyry with minor epidote	255	1.2	1400	190
HAWK 93 DR5	2.5m	augite andesite	epidote	trace py + cpy	wallrx @ DR4:	35	<.2	166	32
HAWK 93 DR6	1.5m	shear zone	epidote qtz veinlets bleaching	malachite minor cpy	10m S of L43N: 47+75E: zone trends 060/80S: in microdiorite.	405	.4	2204	44
HAWK 93 DR7	F	augite porphyry	epidote veinlets	malachite on fractures	@ L58N: 51E: beside soil hole: float very angular probably close to source.	325	.6	3245	119
HAWK 93 DR8	F	andesite	qtz- pink calcite veinlets	minor cpy malachite	\approx 20 m upslope from DR7 across road: appears to be part of overgrown talus slope: similar float to DR7 seen here also.	5	<.2	204	256
HAWK 93 DR9	F	augite porphyry	carb + epidote veinlets	trace cpy malachite	L54N: 51+75E: very angular float:	45	<.2	321	106
HAWK 93 DR10	F	"	"	hematite minor malachite on fractures	large angular float: very close to source: trench has been dug \approx 10m E of sample site.	<5	<.2	191	166
HAWK 93 DR11	F	altered volcanic	qtz carbonate	3% f-grain "tinny" pyrite	along road above Deep L.: very angular: dug up during road construction:	5	<.2	80	17
HAWK 93 DR12	F	volcanic breccia	bleaching	up to 3% disem pyrite	along main road on Hawk claims: angular float	5	<.2	145	163
HAWK 93 DR13	F	"	"	pyrite to 5-7%	5m S of DR12: breccia contains diorite clasts:	<5	<.2	310	59
HAWK 93 DR14	2.5m	augite porphyry	qtz-carb stockwork chlorite	minor pyrite trace cpy	Hilda showing Trench 1: veins (qtz) to 1cm wide: trend 080/70N: filled fractures 360/80W	<5	<.2	67	87
HAWK 93 DR15	50cm	shear zone	qtz-carb	minor cpy	Hilda showing Trench 2: cuts augite porphyry trends 025/40W	10	<.2	73	139

↑
EAGLE
↓

APPENDIX "B"

Laboratory Procedures



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. **Soil or Sediment:** Samples are dried and then sieved through 80 mesh nylon sieves.
2. **Rock, Core:** Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.
3. **Heavy Mineral Separation:**
Samples are screened to -20 mesh, washed and separated in Tetrabromothane.
(SQ 2.98)

METHODS OF ANALYSIS

All methods have either certified or in-house standards carried through entire procedure to ensure validity of results.

1. **Multi-Element** Cd, Cr, Co, Cu, Fe (acid soluble),
Pb, Mn, Ni, Ag, Zn, Mo

Digestion

Hot aqua-regia

Finish

Atomic Absorption, background correction applied where appropriate

- A) **Multi-Element ICP**

Digestion

Hot aqua-regia

Finish

ICP

2. **Antimony**

Digestion

Hot aqua regia

Finish

Hydride generation - A.A.S.

3. **Arsenic**

Digestion

Hot aqua regia

Finish

Hydride generation - A.A.S.

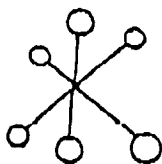
4. **Barium**

Digestion

Lithium Metaborate Fusion

Finish

I.C.P.

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13. Tin

Digestion

Ammonium Iodide Fusion

Finish

Hydride generation - A.A.S.

14. Tungsten

Digestion

Potassium Bisulphate Fusion

Finish

Colorimetric or I.C.P.

15. Gold

Digestion

- a) Fire Assay Preconcentration followed by Aqua Regia

Finish

Atomic Absorption

- b) 10g sample is roasted at 600°C then digested with hot Aqua Regia. The gold is extracted by MIBK and determined by A.A.

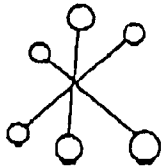
16. Platinum, Palladium, Rhodium

Digestion

Fire Assay Preconcentration followed by Aqua Regia

Finish

Graphite Furnace - A.A.S.



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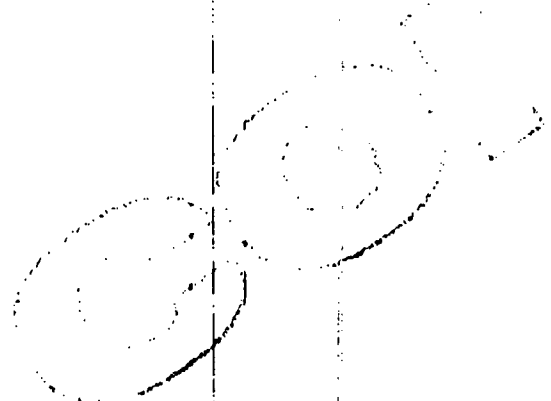
LABORATORY METHOD ASSAYS

- Gold - Coventional fire assay with A.A. finish

- Gold "Metallics" - A 300g re-split is taken from the rejects and pulverized in a ring and puck pulverizer. The entire split is screened to -140mesh. The entire +140 mesh oversize is assayed separately. Two replicate assays are performed on the -140 mesh fraction.

- Ag Pb Sb Zn - Aqua regia digestion, A.A. finish

- As - Aqua regia digestion, ICP finish



APPENDIX "C"

Sample Analysis Certificates

ECO-TECH LABORATORIES LTD.
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 FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-321
 1770-401 W. GEORGIA STREET
 VANCOUVER, B.C.
 V6B 5A1

ATTENTION: D. DUNN

SEPTEMBER 10, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

19 ROCK SAMPLES RECEIVED AUGUST 24, 1993

PROJECT #: CANIM LAKE

SHIPMENT #: 06

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93-DR 1	15	<.2	1.68	55	4	60	10	5.29	<1	29	44	12	4.57	.07	<10	1.50	1321	1	.03	9	2390	6	10	<20	287	.16	<10	181	<10	16	73
2	- HAWK 93-DR 2	15	<.2	3.27	40	12	60	<5	5.24	<1	19	35	115	3.88	.08	<10	1.07	745	<1	.02	23	1220	20	10	<20	112	.13	<10	184	<10	13	51
3	- HAWK 93-DR 3	10	<.2	1.95	125	6	120	<5	2.88	<1	24	115	201	3.56	.47	<10	1.43	607	1	.05	19	1250	12	10	<20	196	.27	<10	177	<10	21	39
4	- HAWK 93-DR 4	255	1.2	.24	5	6	15	<5	.40	<1	3	190	1400	.57	.02	<10	.12	147	10	<.01	2	160	2	<5	<20	27	.02	<10	20	<10	1	7
5	- HAWK 93-DR 5	35	<.2	1.23	105	4	50	<5	1.58	<1	22	32	166	4.25	.10	<10	1.02	616	1	.03	4	2100	8	10	<20	100	.24	<10	167	<10	17	39
6	- HAWK 93-DR 6	405	.4	1.53	80	6	55	<5	1.99	<1	20	44	2204	3.49	.14	<10	1.39	661	2	.08	3	1820	10	10	<20	74	.19	<10	217	<10	16	33
7	- HAWK 93-DR 7	325	.6	1.60	80	8	75	<5	1.70	<1	34	119	3245	5.77	.50	<10	2.00	602	3	.09	19	1270	6	15	<20	111	.22	<10	197	<10	14	45
8	- HAWK 93-DR 8	5	<.2	2.27	<5	8	120	<5	8.96	<1	31	256	204	4.40	.25	<10	4.07	1216	<1	.01	60	930	6	15	<20	189	.02	<10	120	<10	6	50
9	- HAWK 93-DR 9	<5	<.2	1.33	80	8	40	<5	2.39	<1	8	106	321	1.30	.05	<10	.49	481	2	.01	11	1060	10	5	<20	400	.15	<10	88	<10	10	14
10	- HAWK 93-DR 10	<5	<.2	1.49	60	4	45	<5	2.13	<1	21	166	191	3.02	.56	<10	1.68	541	<1	.06	35	1510	8	5	<20	163	.15	<10	116	<10	10	44
11	- HAWK 93-DR 11	5	<.2	.77	<5	6	100	<5	6.74	<1	34	17	80	5.16	.49	<10	2.73	1510	<1	<.01	13	2240	2	25	<20	212	<.01	<10	75	<10	4	61
12	- HAWK 93-DR 12	5	<.2	1.61	90	4	145	<5	2.05	<1	29	163	145	3.44	.36	<10	1.68	595	<1	.05	52	1250	10	10	<20	80	.20	<10	103	<10	15	43
13	- HAWK 93-DR 13	<5	<.2	1.57	105	4	50	<5	1.79	<1	36	59	310	4.66	.21	<10	1.47	484	1	.05	22	1260	10	10	<20	112	.25	<10	136	<10	18	40
14	- HAWK 93-DR 14	<5	<.2	1.72	75	4	175	5	5.02	<1	29	87	67	4.46	.12	<10	2.10	873	<1	.03	29	930	6	15	<20	108	.24	<10	166	<10	19	43
15	- HAWK 93-DR 15	10	<.2	2.30	45	2	90	5	10.80	<1	23	139	73	3.67	.18	<10	2.60	1220	<1	<.01	46	340	6	15	<20	148	.13	<10	118	<10	11	40
16	- HAWK 93-DR 16	215	6.6	2.55	110	4	90	<5	2.14	<1	59	172	6959	5.52	.42	<10	2.81	849	4	.02	54	640	12	15	<20	40	.24	<10	143	<10	16	78
17	- HAWK 93-DR 17	15	<.2	3.29	120	4	245	<5	3.18	<1	31	235	421	5.32	.69	<10	3.53	1085	3	.02	65	670	14	20	<20	61	.28	<10	172	<10	19	77
18	- HAWK 93-DR 18	5	<.2	1.11	<5	4	175	<5	.49	<1	6	85	100	2.07	.16	<10	.62	562	4	.02	3	650	12	5	<20	79	.01	<10	35	<10	4	39
19	- HAWK 93-DR 19	<5	<.2	1.71	65	4	55	5	2.30	<1	20	53	52	3.73	.18	<10	1.21	565	1	.08	6	2400	10	5	<20	220	.19	<10	149	<10	16	35

Frank J. Pezzotti
 ECO-TECH LABORATORIES LTD.
 FRANK J. PEZZOTTI, A.Sc.T.
 B.C. Certified Assayer

PIONEER METALS CORPORATION ETK 93-321

ECO-TECH LABORATORIES LTD.

SEPTEMBER 10, 1993

PAGE 2

QC/DATA:	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN	
Repeat #:																																
15 - HAWK 93-DR 15	<.2	2.26	55	2	90	10	10.61	<1	23	136	78	3.61	.17	<10	2.57	1199	<1	<.01	45	350	8	15	<20	148	.12	<10	116	<10	10	39		
STANDARD 1991:	1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74		

NOTE: < = LESS THAN

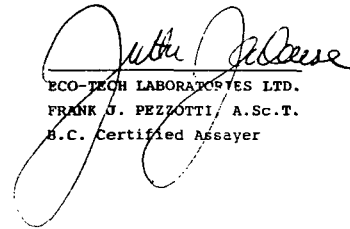
Fax #: 669-1240

cc: David Ridley

Fax #: 397-2958

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 FAX - 604-573-4557

PIONEER METALS CORPORATION ETK 93-320
 1770-401 W. GEORGIA STREET
 VANCOUVER, B.C.
 V6B 5A1

ATTENTION: DAVID DUNN

SEPTEMBER 10, 1993

4 SILT SAMPLES RECEIVED AUGUST 24, 1993

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT #: CANIM LAKE

SHIPMENT #: 6

F
9
1
C

ET#	DESCRIPTION	AU (ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- HAWK 93 CS 1	<5	<.2	2.41	45	14	245	5	1.79	1	24	90	78	4.40	.27	<10	1.11	2365	<1	.02	39	1180	26	10	<20	130	.13	10	110	<10	15	103
2	- HAWK 93 DS 1	5	<.2	2.11	75	10	125	5	1.34	<1	28	68	92	4.53	.32	<10	1.29	868	<1	.03	28	920	16	10	<20	66	.19	<10	116	<10	14	67
3	- HAWK 93 DS 2	<5	<.2	1.44	70	8	80	5	.79	<1	19	47	30	3.07	.16	<10	.98	432	<1	.02	27	600	14	5	<20	43	.15	<10	77	<10	13	55
4	- HAWK 93 DS 2	15	<.2	1.52	80	10	90	5	1.18	<1	20	PI	46	3.34	.23	<10	1.13	518	<1	.02	28	610	12	5	<20	60	.17	<10	93	<10	14	63

QC/DATA:

Repeat #:

3	- HAWK 93 DS 2	<.2	1.45	80	8	80	5	.82	<1	20	48	29	3.14	.16	<10	.98	431	<1	.02	28	650	14	10	<20	41	.15	<10	79	<10	13	54
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STANDARD 1991:	1.0	2.17	80	4	165	<5	1.88	<1	21	75	85	4.04	.41	<10	1.11	746	<1	.03	25	660	28	10	<20	85	.15	<10	92	<10	13	74
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NOTE: < = LESS THAN

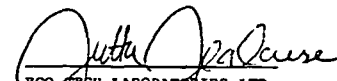
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