895107

ASH WEL CU/MO PROPERTY

SIMILKAMEEN MINING DIVISON

BRITISH COLUMBIA

PAUL SAWYER, P. eng 1979



The second s

[and] [and]

MINFILE Detail Report BC Geological Survey Ministry of Energy, Mines & Petroleum Resources

		Location/Ident	ification		
MINFILE Number:	092HSE136				
Name(s):	WEL				
	1			0	
Status:	Prospect		Mining Division:	Similkameen	
Regions:	British Columbia				
NTS Map:	092H07W		UTM Zone:	10 (NAD 83)	
Latitude:	49 22 30 N		Northing:	5471271	
ongitude:	120 53 49 W		Easting:	652659	
Elevation:	1545 metres		0		
location Accuracy:	Within 500M				
Comments:	Sample site 8456, 75	0 metres northwest of Wells Lake, 2.7 ki	lometres northeast of the	e Tulameen River and 29 kilomet	res
	west-southwest of Pr	inceton (Assessment Report 5564, Map	9).		
		Mineral Occur	rence		
Commodities:	Copper, Molybdenum				
Minerals	Significant:	Pyrite, Chalcopyrite, Molybdenite			
	Associated:	Quartz			
		Unknown			
	Mineralization Age:	Ulkhown			
Deposit	Character:	Vein, Disseminated			
-	Classification:	Hydrothermal, Epigenetic			
	Туре:	L04: Porphyry Cu +/- Mo +/- Au			
	Dimension:	1000x550x0 metres Strike/Dip:	325/		
	Comments:	A zone of copper-molybdenum miner			
		Host Roc	k		
Dominant Host Ro	ck: Plutonic				
Stratigraphic Age Jurassic-Cretaceous	Group s	Formation	0	eous/Metamorphic/Other gle Plutonic Complex	
Isotopic Age		Dating Method	Material Metho	d	
Lithology: Bi	otite Granodiorite				
87		s Late Jurassic to Early Cretaceous in ag	e (Geological Survey of	Canada Map 41-1989).	
		Geological S	etting		
		Physiographic Ar		Plateau	
Tectonic Belt:	Intermontane			30-2012-0-1-0-1-0-1-0-1-0-1-0-1-0-1-0-1-0	
		r nysiographic Ar			
Terrane:	Plutonic Rocks	r nystographie Ar			
Tectonic Belt: Terrane: Metamorphic Type	Plutonic Rocks	r nysiographic Ar			
Terrane:	Plutonic Rocks	r nystographic Ar			
Terrane: Metamorphic Type	Plutonic Rocks	Inventor	V		

Ore Zone:	TRENCH		Year:	1974
Category:	Assay/analysis		Report On:	Ν
Quantity:	0 tonnes		NI 43-101:	Ν
Sample Type:	Rock			
	Commodity	Grade		
	Copper	0.8900 per cent		
	Molybdenum	0.0245 per cent		
Comments:	Sample of quartz vein with pyrit	e, chalcopyrite and molybdenite.		
Reference:	Assessment Report 5564, page 1	6 (sample 8456).		

Capsule Geology

The Wel showing outcrops west and northwest of Wells Lake, about 29 kilometres west-southwest of Princeton.

This area in the vicinity of Wells Lake is underlain by biotite granodiorite of the Late Jurassic to Early Cretaceous Eagle Plutonic Complex.

A zone of copper-molybdenum mineralization, 550 metres wide, trends 145 degrees for at least 1000 metres, roughly paralleling the regional foliation of the area. The zone contains numerous quartz veins mineralized with pyrite and chalcopyrite, and sporadic molybdenite. Intersecting pyrite-chalcopyrite-bearing veins are noted to strike in three distinct directions. Chalcopyrite also occurs as disseminations and as blebs along fractures in the enclosing granodiorite. A sample from a quartz vein with pyrite, chalcopyrite and molybdenite analysed 0.89 per cent copper and 0.0245 per cent molybdenum (Assessment Report 5564, page 16, sample 8456).

		Bibli	ography		
EMPR ASS RPT *5	564, 5992				
EMPR EXPL 1976-I	E81				
EMPR GEM 1974-1	14				
GSC MAP 888A; 13	86A; 41-1989				
GSC MEM 243					
GSC P 85-1A, pp. 34	49-358				
Date Coded:	1985/07/24	Coded By:	BCGS	Field Check:	N
Date Revised:	1992/01/23	Revised By:	PSF	Field Check:	Ν



1

1

MINFILE Detail Report BC Geological Survey Ministry of Energy, Mines & Petroleum Resources

		Location/Identi	fication	
MINFILE Number:	092HSE100			
Name(s):	ASH 2			
	WEL			
Status:	Prospect		Mining Division:	Similkameen
Regions:	British Columbia			
NTS Map:	092H07W		UTM Zone:	10 (NAD 83)
Latitude:	49 22 53 N		Northing:	5471944
Longitude:	120 54 55 W		Easting:	651309
Elevation:	1579 metres			
Location Accuracy:				
Comments:		9-12 claims), 300 metres southeast of		
	River and 30 kilometre	s west-southwest of Princeton (Assessi	nent Report 5583, Map	3).
		Mineral Occur	rence	
Commodities:	Molybdenum, Copper			
Minerals	Significant:	Molybdenite, Pyrite, Chalcopyrite		
	Associated:	Quartz		
	Alteration:	Kaolinite, Chlorite, Epidote, Ferrimo	lybdite, Malachite	
	Alteration Type:	Argillic, Propylitic, Oxidation		
	Mineralization Age:	Unknown		
	0			
Deposit	Character:	Podiform, Disseminated		
Deposit	Classification:	Magmatic, Hydrothermal, Epigenetic		
	Туре:	L05: Porphyry Mo (Low F- type)		
	Dimension:	500x0x0 metres		
		Host Roc	k	
Dominant Host Ro	ck: Metaplutonic			•
Stratigraphic Age Jurassic-Cretaceou		Formation		neous/Metamorphic/Other gle Plutonic Complex
T		D.C. Mala		
Isotopic Age		Dating Method	Material Metho	od
and and said and and				
		iorite, Syenite Dike, Andesite Dike	5 	
Comments: Th	ne Eagle Plutonic Complex is	Late Jurassic to Early Cretaceous in ag	e (Geological Survey of	f Canada Map 41-1989).
		Geological S		
Tectonic Belt:	Intermontane	Physiographic Are	ea: Thompson	n Plateau
Terrane:	Plutonic Rocks			
Metamorphic Type	e: Regional			
Grade:	Amphibolite			
		Inventory	,	

Ore Zone:	SHOWING		Year:	1975
Category:	Assay/analysis		Report On:	N
Quantity:	0 tonnes		NI 43-101:	Ν
Sample Type:	Grab			
	Commodity	Grade		
	Molybdenum	0.5000 per cent		
C .			1	
Comments:		e bodies. Grade given for molybdenite.		
Reference:	Assessment Report 5583, page 2.			

Capsule Geology

The Ash 2 showing is situated southeast of Packers Creek, 2 kilometres northeast of the Tulameen River and 30 kilometres west-southwest of Princeton.

The showing is hosted in biotite gneiss (gneissic granodiorite) of the Late Jurassic to Early Cretaceous Eagle Plutonic Complex. The complex is locally intruded by northeast-striking andesite and synite dykes, 0.6 to 3.0 metres wide.

Mineralization outcrops sporadically along the southeast bank of Packers Creek over a length of 500 metres. Most of the mineralization is contained in several large, irregular masses of milky white quartz and muscovite, up to 24 metres wide, that may have formed as late differentiates in the Eagle Plutonic Complex. These bodies are enclosed in kaolinite and/or chlorite-epidote alteration envelopes. They are irregularly mineralized with molybdenite and ferrimolybdenite, occurring as fine disseminations and along fractures in quartz. Minor disseminated pyrite and chalcopyrite are developed in the surrounding gneiss. The molybdenite content of these bodies varies up to 3 per cent and is reported to average about 0.50 per cent (Assessment Report 5583, page 2).

The syenite dykes contain minor malachite and disseminated chalcopyrite.

		Bibli	og r aphy			
EMPR ASS RPT *	3182, *5583, 5992, *7974					
EMPR EXPL 1975	5-E69; 1976-E81					
EMPR GEM 1969-	-282; 1971-273					
GSC MEM 243						
GSC P 85-1A, pp.	349-358					
GSC MAP 888A; 1	1386A; 41-1989					
Date Coded:	1985/07/24	Coded By:	BCGS	Field Check:	Ν	
Date Revised:	1992/01/23	Revised By:	PSF	Field Check:	Ν	

TABLE OF CONTENTS

	Page
INTRODUCTION	1
PROPERTY	3
HISTORY AND PREVIOUS WORK	3
1979 WORK PROGRAM	5
GEOLOGY	6
Regional Geology	6
Local Geology	6
GEOCHEMISTRY	7
GEOPHYSICS	8
Magnetometer Survey	8
Induced Polarization Survey	8
CONCLUSIONS	9
RECOMMENDATIONS	10
CERTIFICATE	12
APPENDIX A - Copies of Geochemical Laboratory Reportsin	n pocket
APPENDIX B - Statement of Personnel Employed	
APPENDIX C - Statement of Expenditures	
List of Thustons	
List of Illustrations	
Fig. 1 General Location Sketch, 1" = 125 miles	2
Fig. 2 Claim Sketch, 1:50,000	4
Map 1 Geology - East and West Sheets, 1" = 100 metres in	n pocket
Map 2 Soil Geochemistry, Copper - East and West Sheets, 1" = 100 metres	n pocket
Map 3 Soil Geochemistry, Molybdenum - East and West Sheets, 1" = 100 metres in	n pocket

_ SAWYER CONSULTANTS INC. .

This report may not be reproduced in whole or in part without the written permission of Sawyer Consultants Inc.

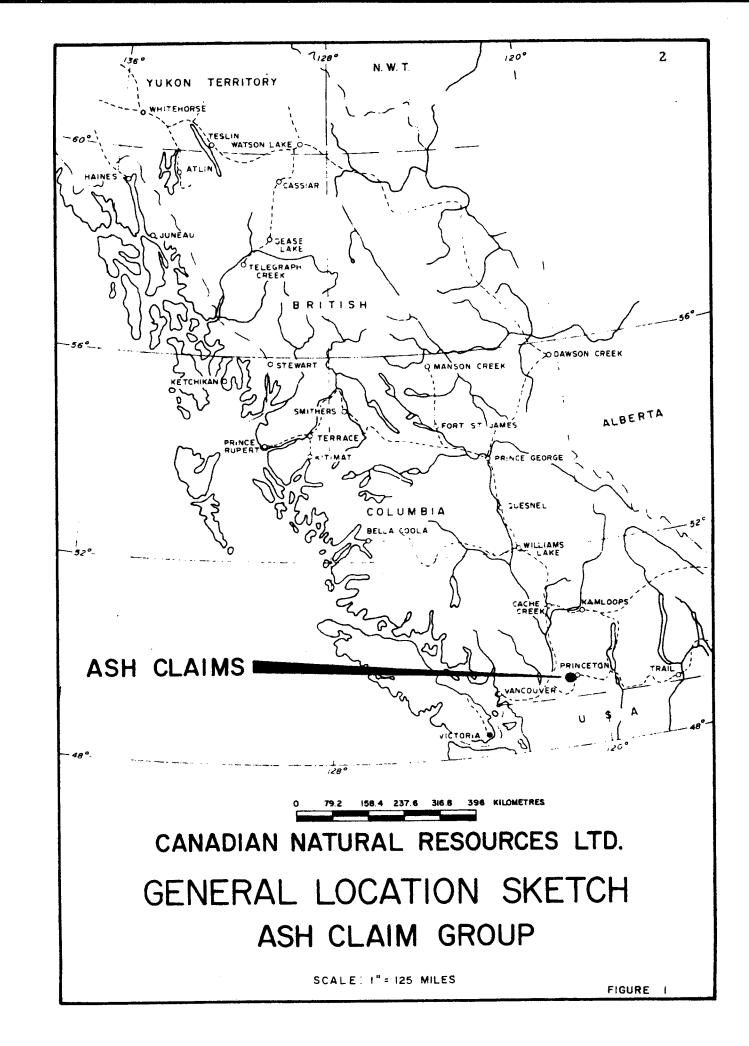
INTRODUCTION

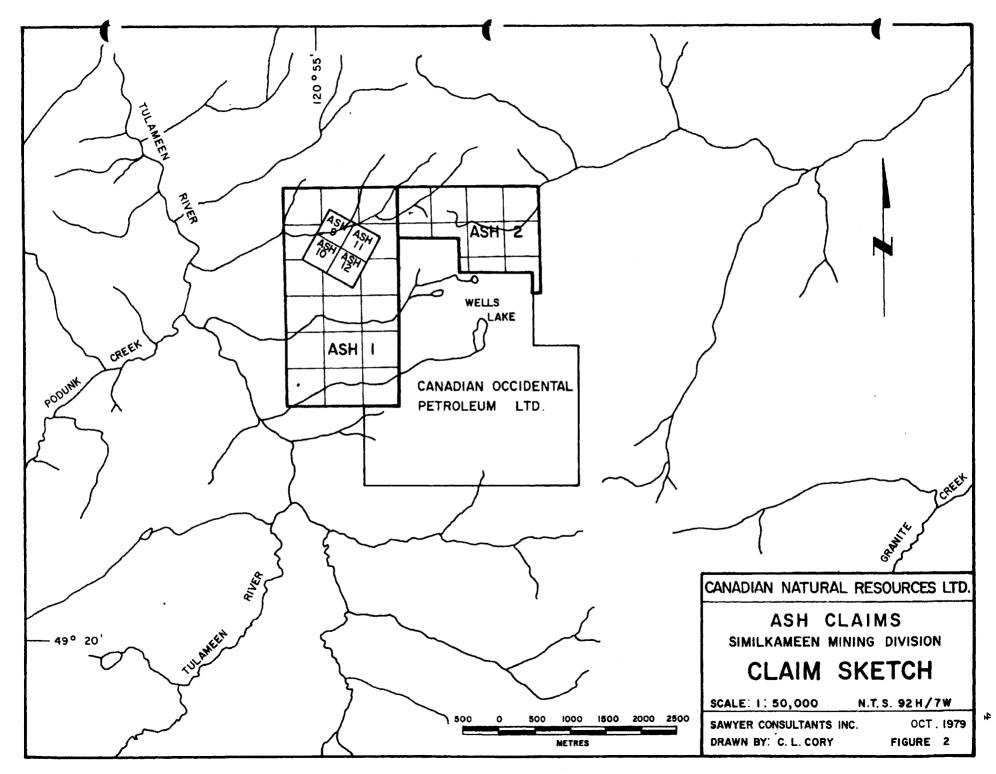
In the spring of 1979 Canadian Natural Resources Ltd. negotiated an option from Karma Ventures Ltd. to explore the Ash Claim Group located in the Wells Lake area, some 20 miles west of Princeton, in the Similkameen Mining Division, British Columbia.

Sawyer Consultants Inc. was retained to carry out an exploration program on this property for Canadian Natural Resources Ltd. In the period July 15th, 1979 to September 30th, 1979, a work program consisting of line cutting, geological mapping, geochemical soil sampling, a ground magnetometer survey, and induced polarization surveying over selected parts of the grid was completed. This brief report summarizes the work done and its results.

SAWYER CONSULTANTS INC.

This report may not be reproduced in whole or in part without the written permission of Sawyer Consultants Inc.





and the second second

PROPERTY

The property is comprised of a total of six claims. Four of these, Ash 9, 10, 11, and 12, were staked under the old two-post system and date from 1969. The other two claims were staked early in 1979 on the new British Columbia modified grid system and include a total of 30 units. These two later grid claims, named Ash 1 and Ash 2, completely surround the earlier Ash 9 to 12 claims. Total acreage involved in the property is approximately 2037 acres. Ash 2 and the eastern edge of Ash 1 claims partly overlap existing grid staked claims owned by Canadian Occidental Minerals Corporation which take precedence by virtue of their earlier recording date.

The following table summarizes the pertinent claim data.

<u>Claim</u>	Record <u>No.</u>	Recorded	Expiry Date	Registered Owner
Ash 9	25482	July 22, 1969	July 22, 1980	S.J. Young
Ash 10	25483	July 22, 1969	July 22, 1980	S.J. Young
Ash 11	25484	July 22, 1969	July 22, 1980	S.J. Young
Ash 12	25485	July 22, 1967	July 22, 1980	S.J. Young
Ash l	558	April 30, 1979	April 30, 1980	David O'Sullivan
Ash 2	559	April 30, 1979	April 30, 1980	David O'Sullivan

The claims lie to the east of the Tulameen River and are centred just to the west of a small lake, Wells Lake, which lies approximately 3.5 miles north of Granite Mountain. The area is approximately 20 miles west of the town of Princeton, British Columbia, whence access to the property is possible by two routes. The northerly route is along the road from Princeton to Coalmont thence south through Lodestone Lake to the Wells Lake area. The more southerly route leaves Highway #3 approximately 9 miles west of Princeton and travels via Whipsaw Creek past Skaist and Granite Mountains to Wells Lake. In the property area these roads are very poorly maintained and are passable only with difficulty to four-wheel drive vehicles for a distance of approximately 5 miles in either direction from Wells Lake. The property lies within NTS map sheet 92H, Hope, British Columbia, on the 1:250,000 scale, and map sheet 92H/7, Princeton, British Columbia, on the 1:50,000 scale.

HISTORY AND PREVIOUS WORK

The general area within which the Ash claims lie has attracted the attention of prospectors over many years, the earlier work being directed towards both lode and placer occurrences of gold and other precious metals. More recently the area has been covered by at least two major mining companies as part

SAWYER CONSULTANTS INC.

of a regional geochemical program and anomalous values in copper and molybdenum have been detected in the immediate claims area. The only detailed follow-up work which appears to have been done was a very limited program in the 1960's by Copper Range Exploration and by Hanna Mining who optioned the property from Copper Range Explorations, and later by Canadian Occidental Minerals Ltd., in the 1970's to the present. The latter work, by Canadian Occidental Minerals Ltd., and that carried out for Canadian Natural Resources Ltd. in 1979, described in this report, appear to have been the most detailed.

1979 WORK PROGRAM

The work program carried out under the general direction of Sawyer Consultants Inc., on behalf of Canadian Natural Resources Ltd., in the period June to October 1979 consisted of the following.

(a) Establishment of a control grid of base line and picket lines. Lines were spaced 100 metres apart and stations along these lines were flagged at 50 metre intervals. The base line was picketed at 100 metre intervals.

(b) Geological mapping using the picket line grid for control. The mapping was carried out by Dr. A. M. deQuadros, assisted for a limited period by Mr. T.G. Hawkins, of Sawyer Consultants Inc.

(c) Geochemical soil sampling. A total of 1480 soil samples were collected at 50 metre intervals along all of the grid lines. The samples were submitted to the Vancouver Laboratories of Bondar-Clegg & Co. Ltd. where they were analysed for total copper and total molybdenum content. The results for each of these metals were treated by standard statistical techniques to determine threshold values and the individual values were plotted on a base map at a scale of 1'' = 100 metres. The plotted values were contoured on a statistical basis. In addition, a limited amount of profile sampling at selected locations was also carried out to attempt to determine the source of the metals and to what degree, if any, the anomalies were transported.

(d) A ground magnetometer survey using the picket line grid for control was carried out under contract by Peter E. Walcott & Associates. Corrected values for the vertical component of the earth's magnetic field were plotted and contoured.

(e) 14.45 kilometres of induced polarization surveying were carried out under contract by Peter E. Walcott & Associates over selected parts of the grid to investigate geochemical and/or geological features.

The results of all of this work are briefly described below.

SAWYER CONSULTANTS INC.

GEOLOGY

Regional Geology

Regionally, the Ash claims are underlain by the Eagle Granodiorite Complex, part of the Jurassic Coast intrusives. This complex consists of a highly folded series of granodiorite gneisses, biotite gneisses and biotite hornblende gneisses intruded by both concordant and discordant quartz rich veins and pegmatites. The gneisses show both meta-sedimentary intrusive and anatectic features and are, in general, highly folded, mostly isoclinally but also ptygmatically, and exhibit strong foliation. In general it appears that intrusive elements predominate.

The significant mineralization occurring in the area consists of pyritemolybdenite in quartz veins and large irregular quartz intrusions, sometimes accompanied by chalcopyrite. It is not clear whether these represent a high level expression of a molybdenum porphyry system at depth but this was the early impression from previous work in the area and personal observation. The more detailed work concluded during the past field season has not eliminated this possibility.

Local Geology

Mapping by Sawyer Consultants Inc. in July and August 1979 led to the following classification of rock units in the area.

<u>Biotite Gneiss</u> - this is the most common sedimentary rock unit occurring on the property. It is a well foliated rock with quite intensive layering of varying thicknesses being developed. The main component is biotite with varying content of plagioclase and relatively minor development of garnet and sulphides. In parts of the property the biotite gneiss tends to grade into the granodiorite gneiss.

<u>Biotite - Hornblende Gneiss</u> - this is also well foliated, and thinly layered. Component minerals include biotite, hornblende, quartz, and plagioclase with minor garnet and epidote. Some of the layers are composed almost entirely of hornblende. In general the biotite hornblende gneiss tends to occur in irregular, thin, unmappable units in both the biotite gneisses and granodiorite gneisses.

<u>Granodiorite Gneiss</u> - this rock unit occurs throughout the property having a generally gradational relationship to the biotite-gneisses. It exhibits a strong mineral banding which makes minor folds, commonly tightly isoclinal, easily visible. deQuadros has described the rock as being generally "a biotitegranodiorite, medium to coarse grained, with strong jointing, distinctive foliation, and blocky", composed essentially of biotite, plagioclase, quartz, and accessory hornblende.

SAWYER CONSULTANTS INC.

This report may not be reproduced in whole or in part without the written permission of Sawyer Consultants Inc.

<u>Veins and Dykes</u> - late differentiates, evident as veins and dykes which appear to occur randomly throughout the property having no preferred orientation. They may be either concordant or discordant and, compositionally, range from felsites, and micro-granodiorites to various quartz-rich rocks. They may range in width from a few centimetres to tens of metres and in general consist of quartz + muscovite, + orthoclase, + epidote, + garnet, with accessory minerals which may include magnetite, pyrite, chalcopyrite, and molybdenite. Frequently a thin envelope of alteration, of kaolin and/or chloritized-epidotized rock, can be recognized in association with these late intrusives.

The grade or metamorphism to which most of the rocks of the area have been elevated may be classified as mid-range garnet-amphibolite facies, based on the mineralogy observed which includes quartz, biotite, hornblende and garnet. deQuadros has commented that the granodiorite, with its similar mineralogy, may be an anatectic equivalent of the sediments but the origin of the late quartz rich veins has not been defined with certainty. Some particular attention was paid to alteration because of the clues which this might afford with regard to the possible high level porphyry system environment. Unfortunately the alteration observed was relatively restricted and erratic. Some chloritization of biotite is evident throughout the property and films of epidote are present on many fracture surfaces. As mentioned above, kaolinization is evident in rocks close to the quartz veins. There appears to be no definable zonal arrangement to the alteration.

Mineralization observed includes scattered occurrences of pyrite in the biotite gneisses which are not considered to be of any economic significance. The significant mineralization is the association of pyrite-molybdenite, sometimes with chalcopyrite, in quartz veins. The extent locally of these quartz masses and the degree of concentration of molybdenite in association with them is in places quite spectacular and the possibility remains that a stockwork of such quartz veins may be developed in and around the showings. A lack of exposure prevents extensive mapping of this at the present.

GEOCHEMISTRY Soils one poorly dependent B or C horizon was sampled mean surface of ground.

Concentrations of molybdenum and copper in soils over the more westerly and northwesterly parts of the property, essentially in the area of the original four Ash claims (Ash 9-12 inclusive) and extending beyond the limits of these claims to the northwestern part of the Ash claim 1 are strongly anomalous. These anomalous values confirm the indications of above background concentration of these metals detected in regional silt sampling programs carried out by Rio Tinto Exploration and others in earlier years. The highest values occur in the area of the presently known showings of molybdenite in quartz with normal dispersion downslope from these. The actual area of these strong anomalies does extend slightly beyond the mapped main showing but is thought in general to

7

SAWYER CONSULTANTS INC. _

be reflecting the same style of mineralization in relatively restricted source areas at surface. The profile sampling which was carried out in general confirmed the validity of these anomalies as reflecting immediately underlying bedrock geology. In one profile sample location, in a swamp, the results of the profiling, as would be expected in this environment, showed the highest values, being near surface. In the other locations the reverse was true.

Towards the end of the program, while the IP surveys were in progress, the writer extended the area of the geochemical soil sampling off the grid and essentially just beyond the property limits to the northwest and again a zone of anomalous values in molybdenum was detected, although due to the limited extent of this additional sampling it was not completely defined. Study of the topography in the area indicates that the source of these anomalous amounts of molybdenum in these most northwesterly lines cannot be the mineralization in the known showings on the Ash claims, and the most likely source is the rocks occupying the higher ridges to the northwest. Limited observations of geology during this extended geochemical sampling indicated alteration in granodioritic and intrusive rocks and a generally higher sulphide content, predominantly pyrite. This data is in our opinion important and is a clear indication that the extent of the permissive area for porphyry molybdenum mineralization in the vicinity of the Ash claims has not been fully defined. Additional sampling to close off the area of these anomalous values would be desirable.

GEOPHYSICS

For detail and data on the geophysical work carried out by Peter E. Walcott & Associates, the reader is referred to the report dated November 1979 by Peter E. Walcott, P. Eng., on "A Magnetic and Induced Polarization Survey, Ash Claims, Princeton area, British Columbia." The work completed and the results are briefly discussed below.

Magnetometer Survey

The principal object of this survey was to provide, if possible, some aid in differentiation of various rock types to assist in mapping in overburden covered areas. Unfortunately, the survey proved of little assistance in this regard and although the appearance of the contoured map is different in the most northeasterly part of the grid this is attributed, by Walcott, primarily to the fact that there is an increase in the density of the readings in this area. In general, readings exhibit locally steep gradients suggesting shallow overburden for the most of the area, except in the valley bottoms.

Induced Polarization Survey

The survey was read using McPhar equipment in a dipole-dipole array initially, and for most of the survey, with a 75 metre dipole. The initial lines

SAWYER CONSULTANTS INC. _

read, 3N and 4N, over the main showings failed to give any pronounced response with the above array however a moderately anomalous zone was detected on n=1 and n=2 separations in a swampy area to the west of the showing on line 4. In order to try to ascertain the probable source of the anomaly in the swamp area, a smaller dipole, 25 metres, was used over the main showings. A very weak response was obtained on the first separation over the showings and the best readings on subsequent separations migrated westwards to correspond with the results from the initial work using the 75 metre dipole. Walcott has interpreted this as meaning that the responses obtained are related to the main showing and thus have molybdenum sulphide mineralization as a probable causative source. Extension of the survey to the north defined a moderately anomalous area of similar characteristics. It is assumed therefore that this anomalous zone has a similar source, i.e. molybdenum sulphide mineralization. The location of this anomalous IP zone is west of the main geochemical anomaly which, as described above, appears tp be directly related to the known surface showings.

A second anomalous IP effect was detected further east, around 10E to 12E, across lines 3N to 6N, corresponding to some geochemical copper/molybdenum highs.

CONCLUSIONS

The following conclusions are drawn from the work completed, which is described in brief in the foregoing report.

(1) Molybdenite and minor copper mineralization occurs in association with quartz veins and quartz intrusions which cut gneissic rocks of the Eagle Granodiorite Complex, in the northwestern part of the Ash Claims Group.

(2) The most prominent geochemical anomalies are related to the known surface showings, which in places are quite spectacular, and the pattern of these anomalous values, both in copper and in molybdenum, fairly accurately reflect the limited extent of the known showings.

(3) Other anomalous values in molybdenum in soils have been detected at the extreme northwestern part of the property and beyond the property boundary This zone of anomalous molybdenum values has not been completely defined and will require further work to establish its limits and significance.

(4) The source of the anomalous molybdenum in these most northwesterly soils cannot be the known showings on the Ash claims, because of considerations of topography and drainage. The most likely source for these anomalous values is the rocks occupying the higher ridge to the northwest of the property.

SAWYER CONSULTANTS INC.

9

This report may not be reproduced in whole or in part without the written permission of Sawyer Consultants Inc.

(5) Limited geological observation in the area of these geochemical values suggest an increase in the amount of alteration in the granodiorite gneisses and other rocks and an increase in general sulphide content.

(6) The magnetic survey was of little use in adding to our knowledge with regard to the mineralization and as an aid to mapping.

(7) The IP survey results were in one sense disappointing in that the amplitude of the responses obtained was low. However the weak responses obtained are thought to be due to the same type of mineralization that is exposed in the main showings, i.e. predominantly molybenite mineralization in quartz which, because of its physical characteristics, would not be expected to give a strong response.

(8) The anomalous zone indicated by the IP survey to the west and northwest of the main showings and geochemically anomalous zones is probably caused by molybdenite mineralization in quartz veins er a quartz vein stockwork and as such may be part of a general porphyry molybdenum system.

(9) Some further exploration more fully to investigate this possibility is warranted, but is perhaps better carried out by a group whose resources are more oriented towards primary exploration.

RECOMMENDATIONS

The decision has already been made by Canadian Natural Resources Ltd. not to carry out further exploration on the Ash claims. While the writer has no quarrel with this decision, which reflects the priorities of Canadian Natural Resources Ltd., we would recommend some further exploration more fully to investigate the molybdenum mineralization in the Ash claims area and the area to the northwest of this property. As a first stage, a limited amount of drilling on the IP anomaly zone would serve to verify the conclusions reached above with regard to its source and to establish some indication of the tenor of mineralization which might be expected.

Unless the results of this work are entirely negative, further geochemical prospecting and mapping more completely to define the zone of anomalous molybdenum values in soils detected by the writer at the end of the season should be carried out. Later, further IP surveying over this zone, if warranted, would be desirable and interpretation of the results of such a survey would be able to take advantage of the information gained by the sub-surface investigation of the already indicated anomaly on the Ash claims, suggested above.

SAWYER CONSULTANTS INC.

11 . Respectfully submitted, SAWYER CONSULTANTS INC. Sawyef . P. Eng. F

SAWYER CONSULTANTS INC.

4

the exercise of Causer Consultante Inc.

