

[ARIS11A]

# Geological Survey Branch Assessment Report Indexing System



#### ARIS Summary Report

Regional Geologist Cranbrook			Date Approved: 2005.07.28				Off Confid	2005 11 19		
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ASSESSMENT RE	PORT: 27689			Mining Divisi	ion(s): Fo	ort Steele				
Property Name:	Auzi									
Location:	NAD 27	Latitude:	49 26 25	Longitude:	116 00 42	UTM:	11	5476652	571652	
	NAD 83	Latitude:	49 26 25	Longitude:	116 00 46	UTM:	11	5476870	571569	
	NTS:	082F08E								
	BCGS:	082F050								
Camp: 001	Purcell Belt	(Sullivan)								
Claim(s):	Auzi 1-2									
• •										
Operator(s):	Klewchuck	k, Daniel Retor								
Autioi (s).	Newchuk,	r elei								
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## ASSESSMENT REPORT



Moyie River (Noke Creek) Area

## FORT STEELE MINING DIVISION

TRIM MAP 82F.050

UTM 5476900N 572000E



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## 1.00 INTRODUCTION

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#### 1.10 Location and Access

The Auzi claims are located approximately 17 kilometers west-southwest of Cranbrook, B.C. in the Fort Steele Mining Division (Figure 1). The claims cover part of the ridge between Noke and Negro Creeks, southeast flowing tributaries of the Moyie river. The property is centered approximately at UTM coordinates 5476900N, 572000E (Figure 2), on TRIM map 82F.050.

Access to the property is via good logging roads up the Moyie River and Noke Creek.

1.20 Property

The Auzi property includes two 2-post claims staked in the name of Daniel Klewchuk of Kimberley, B.C. (Figure 2).

#### 1.30 Physiography

The Auzi claims occur west of the Rocky Mountain Trench, within the Moyie Range of the Purcell Mountains. They straddle a glacially rounded ridge between Noke and Negro Creeks, southeast flowing tributaries of the Moyie River. Elevations on the property range from about 1610 to 1750 meters and forest cover consists mainly of pine with minor larch and fir.

1.40 History of Previous Exploration

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Southeast flowing tributaries of the Moyie River have historically been worked for placer gold. Negro and Noke Creeks, which drain the Auzi claims, both carry placer gold. The search for lode gold sources to the placers has occurred intermittently over many years. In the mid-1980's Cominco Ltd. held this ground as part of their larger 'Noke' claim block in the Moyie River -Perry Creek area. Within the past 20 years junior companies such as Chapleau resources Ltd., Abitibi Mining Ltd. and Klondike Gold Corp. have conducted small exploration projects near the Auzi claims.

In 1988 and 1999 programs of prospecting, geological mapping, rock geochemistry and ground EM geophysics were conducted by the author on the Zau claims, part of which are now the Auzi claims (see Klewchuk, 1998; AR 25,771 and 2000, AR 26,156. Within the past three years, Ruby Red Resources Inc. has explored their adjacent 'Eddy' claim block to the south.





#### 1.50 Purpose of Survey

Previous geophysical work on the Auzi (then Zau) claims in 1998 and 1999 established northeast trending anomalous responses. Many of the gold-bearing structures in the district have this orientation. In 2005, one day was spent prospecting and mapping the Auzi claims, looking mainly for evidence of alteration that might be related to gold mineralization.

#### 2.00 GEOLOGY

2.10 Regional Geology

Mapping by Reesor (1981), Hoy and Diakow (1982) and Hoy (1984) has developed a good understanding of the geology and structure of the Cranbrook area of southeastern British Columbia. This area, which includes the Auzi claims, is part of the Purcell Anticlinorium, a geological sub-province which lies between the Rocky Mountain Thrust and Fold Belt to the east and the Kootenay Arc to the west.

The mesoproterozoic Purcell Supergroup which occurs within the core of the anticlinorium includes up to 11 kilometers of dominantly fine-grained clastic and carbonate rocks.

The Auzi claims are underlain by part of the lowermost unit of the Purcell Supergroup, namely the Aldridge Formation, which is a thick succession of predominantly impure quartzites and siltstones of turbidite affinity. These rocks are intruded by a series of gabbro to diorite composition sills and dikes called the Moyie Intrusions.

In a broad regional manner, structure of the Cranbrook area is dominated by a series of NNE oriented faults, at least some of which are believed to have been active during sedimentation in the Precambrian and thus have locally modified the type, distribution and thickness of late Proterozoic and Paleozoic rocks (Leech, 1958; Lis and Price, 1976).

The Auzi claims sit within an area of increased structural complexity which is more or less centered on the three prominent placer gold streams in the Cranbrook area, namely Perry Creek and the Moyie and Wild Horse Rivers. A series of NNE to NE oriented shear zones and a series of east to NE oriented transverse faults create the structurally complex, block-faulted area within which the placer gold occurs.

Cretaceous intrusions of granodiorite to syenite composition are scattered through the general area of placer gold occurrence near Cranbrook. These young rocks may be the eastern limit of the Nelson Batholith complex. Some of the syenite and quartz monzonite stocks carry appreciable pyrite, pyrrhotite and chalcopyrite and tend to be associated with anomalous gold.

#### 2.20 Property Geology

Geologic mapping of the Auzi claims was conducted at a scale of 1:2500 (Figure 3). Bedrock exposure on the claims is very limited and the only bedrock located on the claims is in the central northern portion, straddling the subtle ridge which the claims are approximately centered on.

#### Stratigraphy

Observed bedrock on the Auzi claims is entirely of the Middle Aldridge Formation and includes medium gray colored, variably rusty-weathering thin, medium and rarely thick bedded, finegrained siliceous rocks ranging from argillites to quartzites, with medium thickness turbidites predominating. The Middle Aldridge Formation is about 2100 meters thick (in the Sullivan Mine area, and thickening southward) and includes periodic inter-turbidite intervals of thin bedded, rusty-weathering argillites, some of which form finely laminated marker beds that are time stratigraphic units and which can be correlated over great distances within the Aldridge basin and equivalent stratigraphy in the United States. One of these marker beds is present within the small area of exposed bedrock on the Auzi claims (Figure 3). This marker bed, named the 'Moyie Marker', is located stratigraphically about 800 meters above the lower-middle Aldridge contact and about 1300 meters below the middle-upper Aldridge contact.

#### Structure

Bedding just north of the Auzi claims is generally northeast-striking with moderate northwest dips. On the Auzi claims, bedding is less regular due to local folding and faulting. Bedding attitudes range from NNE striking with steep and shallow west dips to easterly striking with moderate north dips. A WNW striking fault is inferred within the southwestern portion of the exposed bedrock. It follows a prominent small draw with bedding on both sides evidently folded; apparent drag folding on the south side of the fault supports a north side down sense of motion.

A moderately strong VLF-EM anomaly, traced in 1999 on what are now the Auzi claims, crosses the property at an azimuth of about 050° and for a strike length of at least 750 meters. The VLF-EM data, which is reproduced on Figure 3, is almost certainly reflecting a structure in bedrock. This NE orientation is common for faults within the district which are associated with gold mineralization and the alteration seen in float and in bedrock on the property could be related to this structure.

#### Alteration

Below the area of bedrock exposure on the Auzi claims, float includes angular blocks of argillic, sericitic and silicic altered siltstones. Some thin quartz vein breccia is evident, with crosscutting, irregular and lensey white to pink-orange (limonitic) quartz veins. Quartz veins noted within bedrock strike both NE, with moderate SE dip, and NW, with shallow to steep south to SE dips. Some thin quartz veins are pitted or vuggy and strongly limonitic, probably due to oxidized pyrite.



#### 3.00 CONCLUSIONS

Although bedrock exposure on the Auzi claims is quite limited, the bedrock which is exposed displays considerable structural complexity and alteration, both of which may be related to gold mineralization -associated faults. Quartz veins which strike both NE and NW are approximately parallel to district-wide structural breaks. Observed alteration, which includes argillic, sericitic, silicic and pyritic alteration, is probably related to local buried fault structures and reflects hydrothermal activity which could be related to gold mineralization.

#### 4.00 REFERENCES

- Hoy, T., 1984. Geology of the Cranbrook sheet and Sullivan Mine area. NTS 82G/12, 82F/9. BC MEMPR Preliminary Map No. 54.
- Hoy, T., and Diakow, L, 1982.Geology of the Moyie Lake area. BC MEMPR Preliminary Map No. 49.
- Klewchuk, P., 1998. Assessment report on VLF-EM geophysics, Zau claims, Fort Steele Mining Division. BC MEMPR Assessment Report # 25,771.
- Klewchuk, P., 2000. Assessment report on geological mapping, rock geochemistry and VLF-EM geophysics, Zau claims, Fort Steele Mining Division. BC MEMPR Assessment Report # 26,156.

Leech, G.B., 1958. Fernie Map-Area, West-half, British Columbia. Geol. Surv. Can. Paper 58-10, 40pp.

- Lis, M.G., and Price, R., 1976. Large scale block faulting during deposition of the Windermere Supergroup (Hadrynian) in southeastern British Columbia. Geol. Surv. Can. Paper 76-1A p. 135-136
- Reesor, J.E., 1981. Geology of the Grassy Mountain Map Sheet. NTS 82F/8. Geol. Surv. Can. Open File 820.

#### 5.00 STATEMENT OF EXPENDITURES

Field work (1 day) and report (1 day); 2 days @ \$350.00/day	\$700.00
4X4 truck 1 day @ \$75.00/day	75.00
VLF-EM rental 1 day @ \$30/day	30.00

Total expenditure

\$805.00

# 7.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk, certify that:

- 1. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.
- 2. I am a graduate geologist with a B.Sc. degree (1969) from the University of British Columbia and an M.Sc. degree (1972) from the University of Calgary.
- 3. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
- 4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 29 years.
- 5. I have been employed by major mining companies and provincial government geologicaldepartments.

Dated at Kimberley, British Columbia, this 25th day of March, 2005.

![](_page_10_Picture_9.jpeg)