

AR 98-109

Assessment Report:

Fall Brook "Glass Sands" Property

Three Mile Plains

Hants County, Nova Scotia

Exploration License #03235

Submitted by:

Joe Richman
Halifax, Nova Scotia

for:

October 9, 1998

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Summary

Joe Richman holds Exploration License #03235 for six claims in Three Mile Plains near Windsor, Hants County, Nova Scotia (see Fig. 1). The claim area encompasses Fall Brook and the nearby quarry with their exposures of the Horton Bluff Formation, including the high-silica "Glass Sands" unit.

The property has interest as a potential silica source and for possible mineral deposits in the Horton Bluff. Consequently, the exploration program has focused on delineating and testing the "Glass Sands" unit, and locating evidence of gold and/or other significant mineralization.

The results from 1997/98 were positive and encourage further work: more extensive testing of the high-silica unit, and continued prospecting for economic mineralization.

Introduction

Rock from the "Glass Sands" unit of the Horton Bluff Formation in the Hantsport area was used during the Depression to make glass (Calder et al, 1998). The course of the unit through the Windsor area was mapped by Moore and Ferguson (1986). That job was certainly made easier in the claim area by the exposures in the Fall Brook quarry which was opened in the late 1960's to supply material for the Windsor Causeway.

Despite these and later investigations of the "Glass Sands" and the surrounding Horton Bluff Formation, industry has generally been unaware of this accessible, high-silica source. Consequently, the licensee sampled the "Glass Sands" in order to have current analyses of the facies to offer interested industry representatives. In addition, he prospected for outcrops elsewhere on the property.

A gold occurrence in the claim area, reportedly from the basal conglomerate of the Horton Bluff, has been on record since early in the century (Fletcher and Faribault, 1909). Similarities between this basal facies and the rich South African Witwatersrand bankets has spurred a search for gold in the Horton Bluff Formation. The Fall Brook property offers an uncommon access to the Horton/Meguma contact and a compressed version of the entire Horton Bluff. The licensee has initiated prospecting for gold and related mineralization on the property.

Location and Access

The property in Three Mile Plains, Hants County, Nova Scotia is located southeast of Windsor and the Avon River (see Fig. 2). The claim area is on rising ground which has residences and a few working farms, but is predominantly wooded.

Three Mile Plains is 75 km from Halifax, a short hour's drive via the #102 and #101 Highways. Take exit 4 off Highway #102 (the Bicentennial Drive out of Halifax) for Highway #101 to Windsor and the Annapolis Valley. The St. Croix Exit off Highway 101 accesses Highway #1 headed west for Three Mile Plains and Martock Ski Hill. At a three-way junction the road splits, the northern leg going to Windsor, the southern leg (Windsor Back Road) toward Martock.

The claim area is to the southward of the Windsor Back Road. Fall Brook quarry is accessed by walking in from the Mountain Road which roughly parallels Fall Brook to the eastward or from the Town Road which runs back to the Windsor Reservoir on the western side of the Brook.

License Status

The Fall Brook property consists of six mineral claims held by Joe Richman of Halifax, Nova Scotia (see Fig. 1). This license may be described according to Nova Scotia's NTS-based map staking system, as follows:

<u>License #</u>	<u>Claim Map</u>	<u>Tract</u>	<u>Claims</u>	<u>Date of Issue</u>
03235	21A/16D - Windsor	67	FGHJKL	Oct. 9, 1997

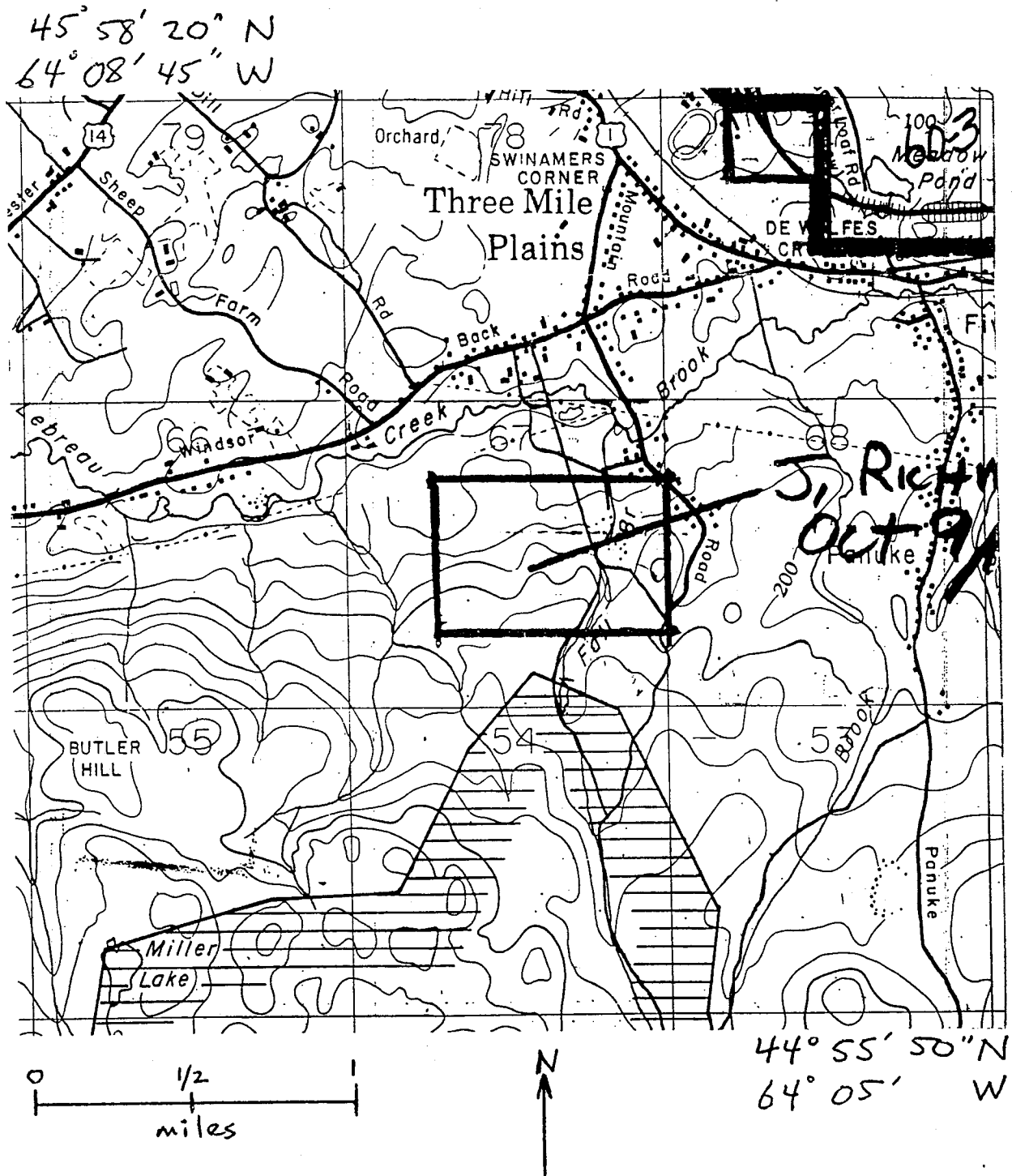


Fig. 1: Fall Brook "Glass Sands" Property
Reference Map 21A/16D 67 FGHJKL

Exploration Lic. #03235 Oct. 9, 1997
Scale: 2" = 1 mile

Regional Geology

The Windsor map area exhibits the congruence of thick metamorphic sections, igneous batholith and economically important sedimentary rocks. The Cambro-Ordovician Meguma Group slates and metaquartzites were intruded by Devonian granites and subsequently overlain, unconformably, by the Mississippian continental Horton Bluff and Cheverie Formations of the Horton Group, and the mostly marine evaporates of the Windsor Group (Bell 1929 and 1960, Crosby 1962). Collectively, they form the southern margin of the Minas Basin which was one of the depocentres of the extensive Maritimes Basin (Calder et al 1998).

The recognition of important mineralization in the area, beginning with the mining of gypsum outcrops early in the nineteenth century, encouraged study of the regional geology by prominent observers (Bell 1929). Fletcher and Faribault published a map of the Windsor area in 1909 which remains a good guide to the distribution of the major rock groups. They identified the northeast trending folds of the basement Goldenville and Halifax Formations which had resulted from the Acadian Orogeny and are associated with historic gold mining activity in the eastern part of the map area (Malcolm 1929, Martel and Gibling 1995). Bell incorporated much of the previous work in his identification of the type sections for the Windsor and Horton Groups which lie within the region (Bell 1929 and 1960).

Moore and Ferguson's 1986 map extended to the Windsor area the stratigraphic interpretation of Ferguson's 1983 Hantsport area map. They use the "Glass Sands" unit of the Upper Horton Bluff Formation as a marker bed for the Formation in the region. They tracked it in a wide arc running westerly from Five Mile Plains around Upper Falmouth and northerly into the South Mountain/Hantsport area, inferring a number of faults to explain troublesome sections.

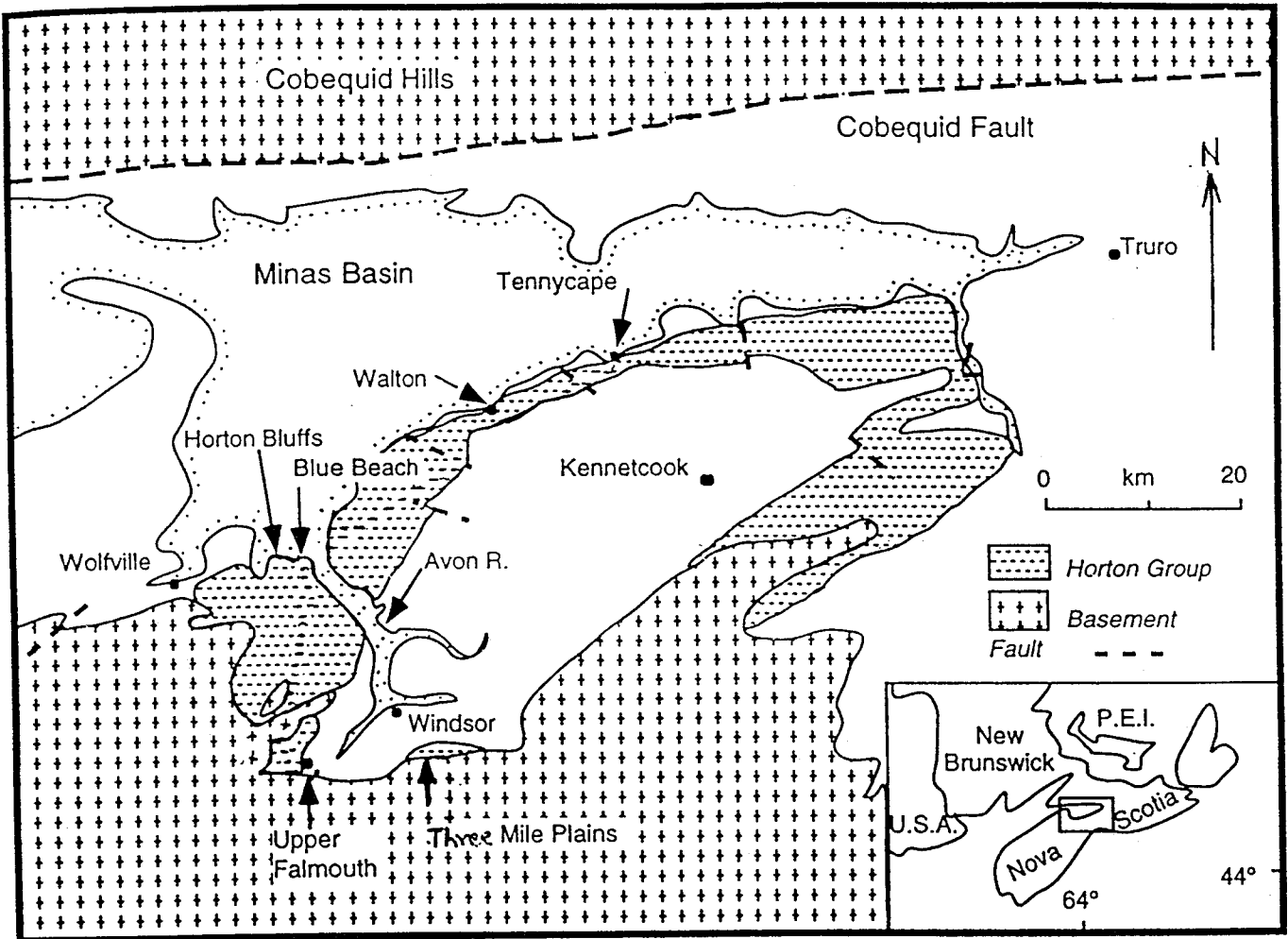


Fig. 2: Regional Geology Map (from Martel and Gibling, 1995)

Local Geology

The western part of the claim area is wooded with limited outcrop. Most of the float is highly metamorphosed Goldenville Formation quartzites. The nearby (and possibly underlying) granite intrusion has well "cooked" the Meguma (Province of N. S. Aero-mag 1998). A northeasterly trending anticline has been mapped immediately to the southward of the major falls above the quarry (Fletcher and Faribault 1909, Moore and Ferguson 1986).

Several hundred meters of the northerly coursing Fall Brook lie in the eastern part of the property, displaying lengthy stretches of outcrop of the Goldenville, Horton Bluff and Cheverie Formations. Since 1970, the adjacent quarry has exposed the stratigraphic sequence from the Meguma/Horton contact to the Cheverie of the Upper Horton.

Nevertheless, the interpretation of the Meguma/Horton contact and of the Lower Horton Group Horton Bluff rocks in the area remains in dispute (see Figs. 3 and 4). An historic reading that is upheld by some describes the contact as a fault zone overlain by Middle and Upper Members of the Horton Bluff (von Bitter and Moore 1992). A second view sees the contact as an unconformity with a compressed version of the entire Horton Bluff overlying the Goldenville (Calder et al 1998).

Faribault mentions gold recovered from a sample taken near the contact of the Carboniferous and whin rocks on Fall Brook (Faribault 1899). A decade later, he and Fletcher record "Gold Conglomerate" at Fall Brook on their map of the Windsor area (Fletcher and Faribault 1909). A number of interbedded conglomerates of varying thickness and character occur throughout the Horton Bluff exposed on the property.

Previous Work

In 1980 Saarberg-Interplan Canada Ltd. drilled three holes north of the "Glass Sands" property as part of an extensive uranium exploration program in the Windsor area. The claim area is believed to be devoid of uranium (Saarberg-Interplan 1980). The drill logs do offer insights into the local lithology and illustrate the variability of the stratigraphy at the margin of the depositional Basin.

A raw sample of the "Glass Sands" facies taken in 1997 from the Fall Brook quarry tested out at 95.10% SiO₂ and 0.13% Fe₂O₃.

No records of gold in the claim area have been found other than Fletcher and Faribault's 1899 and 1909 mentions.

1997/98 Work Performed

The current work program has had two foci: the "Glass Sands" as a silica source material and gold that is presumed to be in a conglomerate of the Horton Bluff.

Regarding silica, it was deemed necessary to establish the quality and quantity of the target facies. A sample taken in the fall of 1997 from the "Glass Sands" unit in the Fall Brook quarry was analyzed for its suitability for glass manufacture by the Minerals Engineering Centre at DalTech under the direction of Cyril Cole. The sample was re-configured to imitate the grain sizes of a typical glass sand (see Appendix I). Further testing is needed to establish the best means to beneficiate the material to the level required for clear glass.

The licensee has also prospected parts of the property in the effort to develop a plan of the deposit to the westward of the existing quarry. Although no outcrops have yet been located, "Glass Sands" float were found in a shallow bowl 350 m west of the Town Road (see Fig. 3).

As a consequence of information from Ron Mills, a geologist with the Nova Scotia Department of Natural Resources, in the spring of 1998 the licensee began prospecting in the claim area for the source of the historic gold occurrence in the Horton Bluff. Subsequently, visible gold was found on a piece of presumed "Glass Sands" float in Fall Brook (see Fig. 4). An assay performed by the Minerals Engineering Center on the "Glass Sands" sample that had previously been tested for silica failed to detect any gold.

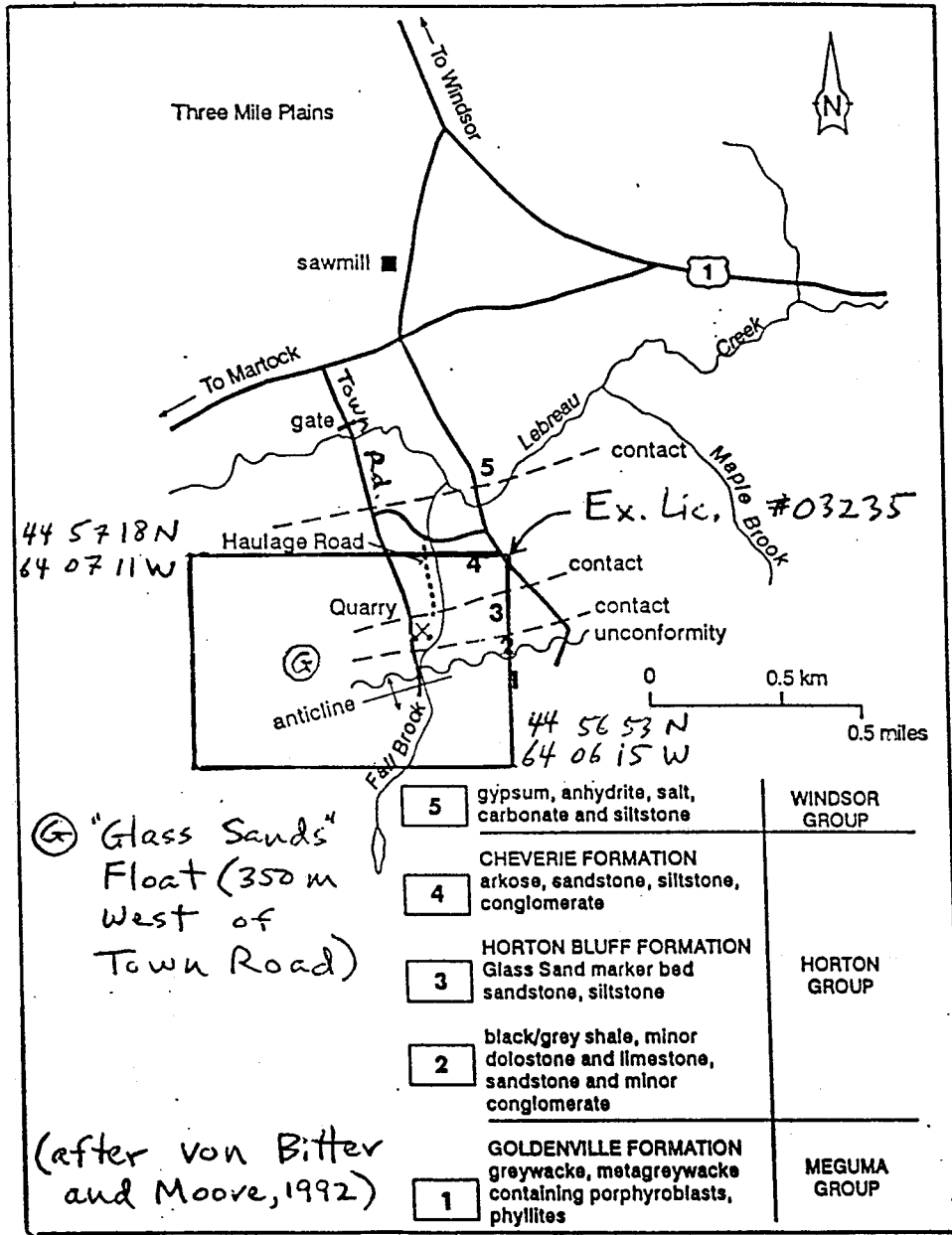


Fig. 3: License #03235, "Glass Sands" Float Location Map (from Caller et al, 1998)

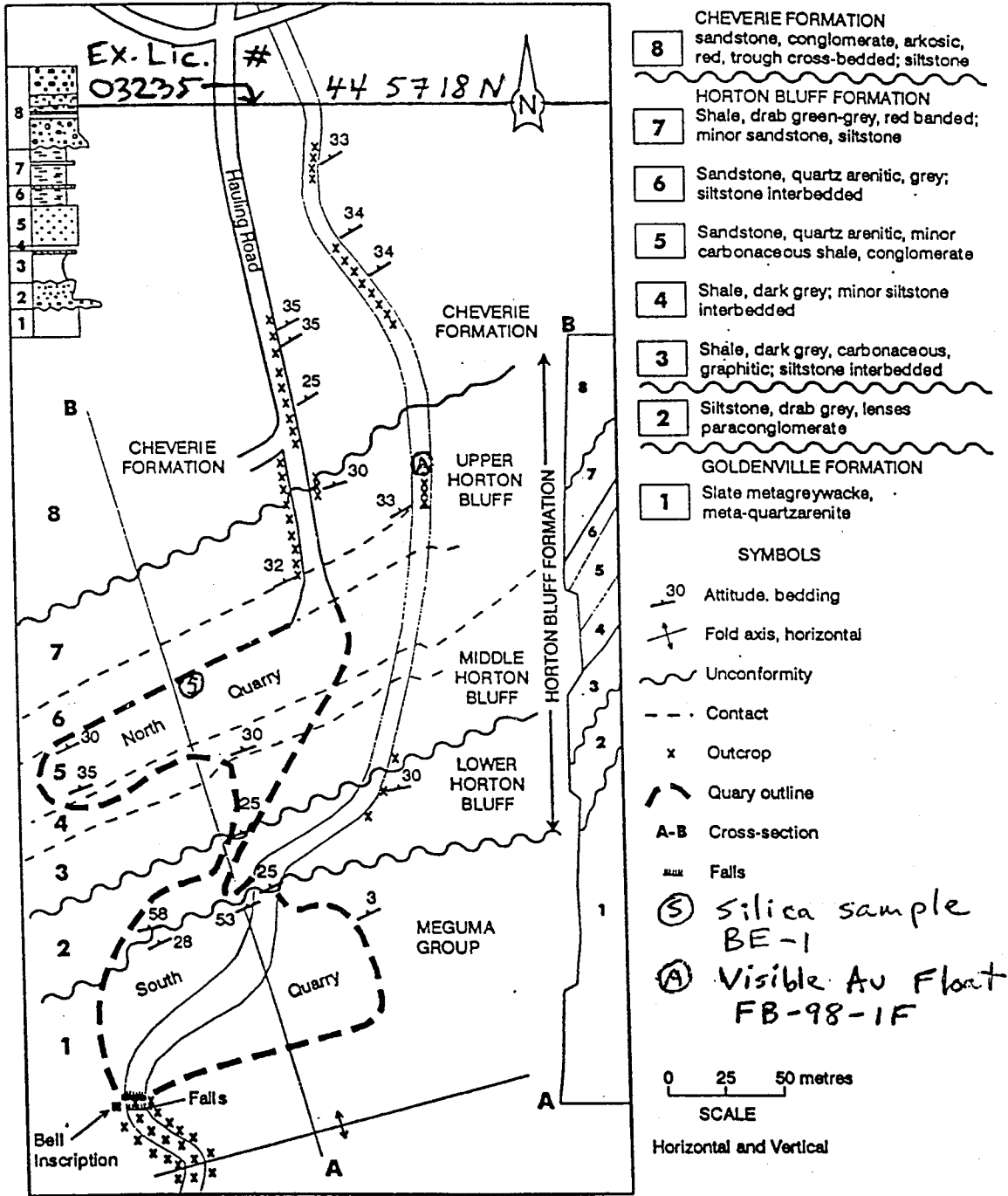


Fig. 4: Fall Brook and Quarry, Float and Silica Sample Locations Map [Detail] (from Caller et al, 1998)

Conclusions and Recommendations

The analysis of the sample of the "Glass Sands" unit from Fall Brook quarry verifies the high silica and low iron content of the facies. The quarry exposure and accessibility are advantageous for developing the deposit, while the need for crushing the sandstone in comparison to using silica sand is a cost factor. More extensive sampling and analysis, including beneficiation trials to remove the iron are logical next steps. As well, determination of the overburden depths to the westward of the quarry and Town Road are necessary to assess the deposit within the claim area.

The discovery of visible gold on an Upper Horton Bluff float rock from Fall Brook has encouraged the effort to locate valuable mineralization on the property. More rigorous prospecting of float and outcroppings is obviously necessary. In conjunction with work being carried out in neighbouring claim areas, this will contribute to the development of a site-specific rationale for a gold deposit in the Horton Bluff Formation.

October 8, 1998
Halifax, Nova Scotia



Joe Richman
Licensee

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Author's Qualifications

The author/licensee, Joe Richman, has been prospecting in Nova Scotia for five years for dimension stone, industrial minerals and precious metals. He has done compilation research for a major N. S. exploration company.

Appendix I

"Glass Sands" Sample Analyses Report
(page 17)



MINERALS ENGINEERING CENTRE

Technical University
of Nova Scotia

P.O. Box 1000
Halifax, Nova Scotia
B3J 2X4

Tel: (902) 420-7675
Fax: (902) 425-1037

30 October, 1997

Mr. Joe Richman
2013 Creighton St., Apt 2B
Halifax, N.S.,
B3K 3R3

Re: Results of size analysis submitted sample.

Sample: BE-1 (crushed to minus 1.0 mm)

Size (mm)	% wt.
+0.5	31.51
-0.5+0.25	21.28
-0.25+0.15	24.92
-0.15+0.106	7.25
-0.106	15.04

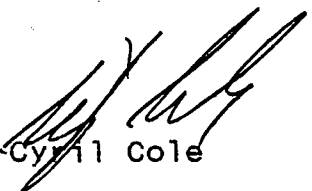
Re: Results of heavy liquid separation.

A sample of the -1.0+0.106 mm material was used for heavy liquid separation, containing 1/4 of the -1.0 +0.5 mm fraction.

heavy minerals 0.28%

Re: Results of analysis.

Sample	% Fe ₂ O ₃
BE-1 (-1.0+0.106) Head	0.092
BE-1 (-1.0+0.106) Float	0.075


Cyril Cole

STATEMENT OF ASSESSMENT WORK EXPENDITURES

(N.B. Complete as necessary to substantiate the total claimed)

RE: EXPLORATION LICENCE NO. 03235 DATE OF ISSUE Oct. 9 19 97

REC'D

TYPE OF WORK **AMOUNT SPENT**

1. Prospecting	<u>11.5</u> days	<u>1150.</u>
2. Geological mapping	_____ days	_____
3. Trenching/Stripping/Refilling	_____ m ²	_____
4. Assaying & whole rock analysis	<u>1</u> #	<u>13.</u>
5. Other laboratory	_____ #	_____
6. Grid: a) Linecutting	_____ km	_____
b) Picket setting	_____ km	_____
c) Flagging	_____ km	_____
7. Geophysical Surveys:		
Airborne: a) EM	_____ km	_____
b) Mag or Grad	_____ km	_____
c) Radiometric	_____ km	_____
d) Combination	_____ km	_____
e) Other	_____ km	_____
8. Geophysical Surveys:		
Ground: a) EM	_____ km	_____
b) Seismic Soundings	_____ #	_____
c) Magnetic/telluric	_____ km	_____
d) IP/Resistivity	_____ km	_____
e) Gravity	_____ km	_____
f) Other	_____ km	_____
9. Geochemical Surveys:		
a) Lake, stream, spring (seds/water)	_____ samples	_____
b) Rock/core/chips	_____ samples	_____
c) Soil/Overburden	_____ samples	_____
d) Gas Method	_____ samples	_____
e) Biogeochemistry	_____ samples	_____
f) Sample Collection	_____ days	_____
g) Other	_____	_____
10. Drilling:		
a) Diamond (#holes/m)	<u>/</u> m	_____
b) Percussion (#hole/m)	<u>/</u> m	_____
c) Rotary (#hole/m)	<u>/</u> m	_____
d) Auger (#holes/m)	<u>/</u> m	_____
e) Reverse circulation (#holes/m)	<u>/</u> m	_____
f) Logging, supervision etc.	<u>/</u> days	_____
g) Sealing (# holes)	_____	_____
11. Other: (describe)		
<u>AR preparation</u>	<u>5</u> days	<u>500.</u>
<u>Research</u>	<u>9.5</u> days	<u>950.</u>
<u>mileage @ 20</u>	<u>520</u> km	<u>104.</u>
	SUBTOTAL	2717

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OVERHEAD COSTS

12. Secretarial Services	_____	_____
13. Drafting Services	_____	_____
14. Office Expenses (rent, heat, light etc.)	_____	_____
15. Field Supplies	_____	<u>15.</u>
16. Compensation Paid to Landowners	_____	<u>10.</u>
17. Legal Fees	_____	_____
18. Other (describe)	_____	_____
	SUBTOTAL	25.
	TOTAL	2742

I hereby certify that the above information is true and correct and that it has not before been submitted for assessment work credit.

As Licensee I am duly authorized to make this certification.
 (Position in Company or Licensee)

DATED AT Halifax in the Province of Nova Scotia
 this 8 day of Oct 19 98.

Name and Address of Licensee: JOE RICHMAN
2013 Craighton St., 2-B, Halifax, N.S. B3K3R3

Signature [Signature]