

BC Geological Survey Assessment Report 31371

## PHYSICAL EXPLORATION WORK

Assessment Report for Freedom Claim 570706

Nanaimo Mining Division NTS Map 92F/11W

Located:

22 miles west of Courtenay, BC

49 37' 46 north - 125 18' 11 west Elevation: 33338 ft.

Owner / Operator : Gary M. Thorsen Author of the Report: Gary M. Thorsen

Friday 18 December 2009



# **TABLE OF CONTENTS**

INTRODUCTION	2
TRANSACTION EVENT	3
REPORT OF PHYSICAL WORK With an itemized cost statement, authors qualifi	4-6 cations and work done.
FIELD WORK	7
CONCLUSION	8
APPENDIX	9

### **ILLUSTRATIONS**

Fig.1- Index Map and General Geology

Fig.2- Freedom Claim Group Location

Fig.3- Claim Group MTO Map

Fig.4- Topo Map 92F-11

Fig.5- Google Earth Map of claim area

## **PHOTOS**

- **#1-3** Cu/Magnetite mineralization below falls, sample site far below falls author Gary Thorsen inspecting a malachite stained float boulder.
- #4 Headwaters of Eric Creek looking east to logged area (top centre) of Freedom Claim 570706.
- #5 Quartz veined outcrop below waterfall, in gorge behind yellow leaves on photo # 4.

## INTRODUCTION

The Freedom claim 570706 centres on a point 22 miles from Courtenay, BC., and is on the top of a 3338 ft. Mountain on the west side of the Cruickshank River canyon. (Lat.49 37' 46 north and 125 18' 11 west), From the Island Hwy. At Courtenay, the property is reached via the public Lake Trail road to Comox lake, thence by the private Timber West Logging road along the north shore of Comox Lake and up the west side of the Cruickshank river for a distance of about 22 miles.

The claims are owned and operated by Gary M. Thorsen of Union Bay BC. There are several showings around the claim group. Mainly copper minerals with pyrite, with assays as high as 3,000 ppm Cu. Some areas have been logged several years ago and there are new roads being built with a small amount of logging taking place, allowing better access to new areas to prospect.

There are several drainage basins flowing from both steep slopes that drain into Eric Creek to the north and Reese Creek to the south. The area has heavy underbrush and steep treed slopes which impedes on foot access, however this disadvantage is largly compensated by good primary access to the general network of local logging roads.

During the average field season, approximately early May to late October, the showings can be reached with a four wheel drive motor vehicle due to the steep loose gravel roads. Prellminary reconnaissance with conventional prospecting, water geochemical, water course pH testing and field work were done on this Freedom Group Claim. The work was accomplished at various times between May 30 th. and October 4 th. 2009.

The total area prospected on Tenure 570706 is approximately 125 hectares, by logging roads and on foot.

Field work described in this report has been principally directed towards the exploration inside and around the claim group Tenures 570706 and 580600 to prospect for economic mineralization associated with the quartz-diorite intrusion in that area. (see illustration Fig. 3)

The units in the claim 570706 run in a north-south line and include one of the Carey Lakes to the west, while the units in claim 580600 covers most of the Eric Creek valley, in a east-west direction. (see Fig. 4)



### REPORT OF PHYSICAL EXPLORATION AND DEVELOPMENT Section 15 - Mineral Tenure Act Regulation

1. Event number(	s):	2. Tenure number(s):		3. Type of Claim:
4410328		570706		☑ Mineral ☑ Placer
4. Recorded hold	θΓ			
Name: Gary M. Thorsen		Address: PO Box 8 (5429 South Island Hwy )		
Phone: (250) 335-0467	Email: gmthorsen	@yahoo.com	Union Bay,BC V0R-3B0	
5. Operator				
Name:     Same as above       Phone:     Email:		Address:		
6 Report Author		<u></u>		
Name: Same as above		Address:		
Phone:	Email:			
7. Qualifications/e	experience of v	workers:	1	
Leif Thorsen (son) age: prospecting and explora Gary Thorsen age:66, 3	31, 5 yr. BA degree tion trips over the y 7 years Mineral Exp	e in Business Communications with rears since he was 7 yrs. of age. H ploration, Advanced Prospecting c	Earth Sciences /Geology. He has accompanies is very knowledgeable in mineral identification our cess and taught North Island College Mineral College Mineral	ed me on several n and associations. I I.D and Prospecting.

NEW WORK (as required under Section 15 of the MTA Regulation; see Information Updates 8 and 25 for further details)

8. Actual dates work was	done:	9. Tenure number(s) of claim(s) on which this work was done:
May 30 to June 3, 2009 = 5 days June 7-11= 5 daysJune 23-25 = July 1,2= 2 daysAug. 11-13= 3 d	3 days aysOct.1-4= 4 days	570706
Detailed written description equipment, machinery, labor here (if more space is requi- ** Attach a 1:10,000 scale	on of the work act purers, as applicabl ired, use the supple map accurately s	<b>ivity:</b> state what was done and how it was done, and the results. Mention e. The cost statement (#18 on page 2) must correspond to what is stated ementary section on page 3 or attach additional sheets) showing the locations of the work sites.**
What work was done?	May 30 to June 3, 200 Br. CKR 8000 and alo gossans, and alteratio small to medium sized June 7-11 and 23-25 I July 1 to Oct. 4, I pros body of quartz dionite	99 -Conventional prospecting was done in the south portion of the claim around the knoll above ng Br. 550, 560, 500, and along the ridge NE to Br. 564D. Leif and I were looking for veins, in minerals. There are contacts between the volcanics and intrusive quartz diorite with several I quartz veins. There are not very many outcrops due to trees and ground cover. prospected the area on foot above Br. 570 and the right fork 571 to the steep drop off. pected the north-west of the claim to the end of Br. 572 and 573. There is a highly magnetic with several rusty de-composed gossan veins in the area.
How was the work done?	The prospecting was the out-crops looking f At the ends of Branch' at the outcrops of the	done by driving the branch logging roads for access, then on foot through the bush and around for mineralization. Mainly any pathfinder elements, alteration minerals and any quartz veins. 's 572 and 573, I used long ropes to repel down the steep eroded gully mountain sides to look quartz diorite.
What were the results?	Other than my main di 2,000 ppm Cu to 3,000	scovery area with oxidized veins of chalcopyrite and pyrite with several assays in the high 0, I could't find any other significant new mineralized areas.
11. Dimensions of work d	one:	12. Amount of material excavated and tested or processed:
(Is the work site marked?)	NO	(metric units)
	2	

4.



### REPORT OF PHYSICAL EXPLORATION AND DEVELOPMENT Section 15 - Mineral Tenure Act Regulation



### NEW WORK (continued)

13. Geographic location of work sites; GPS coordin	ates; how would someone get to where the work was done;
from the nearest town:	
From Courtenay, BC.Canada by four wheel drive vehicle with a hand Comox Lake logging road, on the north side of Comox Lake. Cross the Cruickshank River at the yellow call sign at 19 km. Cross the bridge a steep road (CRK 8000A) and follow that up steep switchbacks, stayin top. I would recommend stopping at the Timber West Logging office a map for this area.	held VLF radio with the logging truck frequency, follow Lake Trail road west to the le bridge near the hydro dam and follow the logging road to the bridge over the ind turn right heading north, and follow that branch road to Km 10 and turn left up a g on the main road as there are several dead end short spur roads on the way to the at the start of the Comox Lake logging road and getting a copy of the logging road
16. Are photographs of work sites attached? (Y/N)	Yes
17. Was Notice of work filed? (Y/N)	No If YES, Permit Number:

### COST STATEMENT

18. Expense(s) (complete either hourly rate	Total Hours OR	Hourty	Daily Bato	Total(s)
l abour cont: (anacifi time)	# UI UAYS		Nate	
Leir Inorsen (assistant)	5 days		\$80.00	\$400.00
Gary Thorsen ( owner)	21 days		\$80.00	\$1,680.00
Equipment & Machinery cost: (specify type)				
NONE				
Lodaina / Food:	Davs	Rate	(s)	······································
FOOD	21		\$8.60	\$180.60
Other: (specify)				·····
	19 Total costs of	work from above.		\$2 260 60
	13. TOTAL COSTS OF A	WOLK HOIL ADOVE:		φ2,200.00

20. Transportation/travel (specify type)	Days	Rate(s)	Total(s) (\$)
2001 Dodge Dakota Sport 3.7 liter V-6	21	\$4.38	\$92.00
	21. Transportation/t	ravel, maximum 20% of value in 19:	\$92.00
	22. Total costs of w	ork (add 19 and 21):	\$2,352.60
	23. Amount claimed	for assessment credit on claims:	\$2,311.00

/

18 Dec Date

Signature of Recorded Holder / Agent

2/3



#### REPORT OF PHYSICAL EXPLORATION AND DEVELOPMENT Section 15 - Mineral Tenure Act Regulation

SUPPLEMENTARY SECTION (use this section if more space is required)

ivent number(s):	4410328	
<u> </u>		
K. an		
Sam M	"I (norsen)	18 hbc . 2009
Şignatur	e of Recorded Holder / Agent	Date

#### Important:

This report must be submitted within 30 days of the date the exploration and development work was registered in the Mineral Titles Online system.

This report may be submitted to any Service BC Government Agent or Mineral Titles Branch Office, or you can mail the report directly to:

Mineral Titles Branch Ministry of Energy, Mines and Petroleum Resources 300 - 865 Hornby Street Vancouver, BC V6Z 2G3

### FIELD WORK

The writer and his son Leif Thorsen made their first visit to the property on May 30, 2009 visually prospecting all the logging roads, new and old in the claim area by Dodge Dakota Sport 4x4 pick -up. Leif and his wife reside in Seattle, Washington. Leif has University geology and has accompanied me on several prospecting trips over the years, from north- western BC, Barkerville, and several times on Vancouver Island. Vancouver Island trips included the rugged west-coast on the north end, from Raft Cove (south of Cape Scott) to Lippy Point near Winter Harbour.

Field work included mapping of vein exposures and showings with reconnaissance prospecting, water course sampling for pH and Heavy Metals with test strips. Most significant water courses were followed up even in very steep sections and the rocks and boulders were observed for type and geology changes.

Geological mapping of bedrock exposures included observations in regard to rock-type, alteration, mineralization, and structural attitudes. General and detailed features of the geology and mineralization mapped within the claim are contained in 1:10,000 scale MTO maps of Physical Exploration in the Appendix.

### **CONCLUSION**

The present geological and geochemical evidence that the local copper mineralization preferentially occurs within volcanic rocks and more specifically, within shear and fracture zones cutting them. This apparent tendency, however, does not rule out the possibility that zones of disseminated copper mineralization may occur in altered volcanic rocks flanking the local intrusive stock.

From my observations of the mineralization in outcrop showings and lower pH's, along with elevated arsenic, mercury, and manganese samples as "pathfinder" elements, the 279 ppm to 3,000 ppm copper results inmy earlier assays, would be good indicators that a deposit may be in the area.

Geochemical patterns within the areas provide substantive evidence of their presence and tracing some patterns to their source would prove to be a challenge. The terrain itself is a challenge for all but a mountain goat.

I have located four main "Target" areas that I plan to explore further with the forthcoming season, as soon as the snow melts in the high country. One target is to continue to trace a 680 ppm Au and high arsenic result in a water course, and to expand on two areas of high Cu up to 10,000 ppm that I discovered. Another has elevated mercury, arsenic, Cu, and Au Regional Geochemical results.

APPENDIX

2





## **GENERAL GEOLOGY**

The Carey Lakes section of the Forbidden Plateau map 92F-11 is principally underlain by basaltic lava of the Upper Trlassic Vancouver Group, Karmutsen formation of flows, pillow breccias, aquagene tuff, and some thin sedimentary layers. The unit is intruded by a granodiorite stock that resembles a sock in shape and is about 6 km. from heel to toe, with the top (3 km. wide) bordering a fault of the Crulckshank River about  $\frac{1}{2}$  km. North of the confluence with Eric Creek. Which flows from its source at Faith Lake to the west, to the east and into the Crulckshank River. (see the coloured Geology map illustration #3).

The general course of the Cruickshank River has been determined by a north-south trending fault that extends from Mt. Joan in the south to Mt. Alexandra to the north.

There are also bodies of quartz dlorite thought to be related to the Late Eocene to Early Oligocene Mount Washington intrusive Suite (Massey, N., Personal communication).

Alteration consists of malachite, limonite, chlorite, epidote, and silica. With significant minerals being found include chalcopyrite, pyrite, chalcocite, bornite, zinc and magnetite. Mineralization is found around the contact zone with the volcanics and within the granodiorite stock related to the Jura-Cretaceous system of the Vancouver Island Intrusives.

There are three main showings and one minor occurrence in the general area of my claims, They are Faith Copper, Minfile # 092F 241, Faith Lake Rim, Minfile # 092F 240 to the west, and Heather, Minfile # 092F 278 to the north-east. There is no previous knowledge of prospecting, staking, or minerals found within my claim group.

There are several areas of outcropping in the area and surrounding steep hillsides, with varying sizes of water courses within the "Drainage Basins". The local geology varies from mainly greenstone volcanics to several contacts with the quartz-diorite, granodiorite intrusive stock. Some areas have several feet of glacial till and debris filling the spaces of the host rock and creating tall bluffs of the compacted composite material.







Moedon # 1 Claim Lot. 49° 37'46.09'' N Long. 125° 18' 11.55 W Elevation 3338 ft.

North

Fig.5













ADDAR P.I. MI DII