

84-1167-13124

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT

VULCAN 5, 6, 7 CLAIMS

Fort Steele Mining Division

Dewar Creek Area

N.T.S. 82F/9 & 82F/16

Lat: 49° 44' 30"

Long: 116° 22' 30"

OWNER

Cominco Ltd.

Kootenay Exploration
1051 Industrial Road #2
Cranbrook, B.C.
VIC 4K7

Work Performed during June to July, 1947

Report By:

P. Klewchuk
Geologist

Under the Supervision of:

D. Anderson
Project Geologist

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,124

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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT
VULCAN 5, 6 & 7 MINERAL CLAIMS
Fort Steele Mining Division

1.00 GENERAL STATEMENT

This report outlines the results of a diamond drill hole program consisting of 2 holes on the Vulcan 5 mineral claim, 1 hole on the Vulcan 6 mineral claim and 1 hole on the Vulcan 7 mineral claim.

The work was performed between June 13, 1984 and July 14, 1984.

Total expenditures related to the diamond drilling program amounted to \$66,857.36.

It is requested that \$66,600. be applied as follows:

Vulcan 4 (18 units)	at \$100/unit - 1 year -	\$ 1,800
	at \$200/unit - 4 years -	14,400
Vulcan 5 (12 units)	at \$100/unit - 1 year -	1,200
	at \$200/unit - 4 years -	9,600
Vulcan 6 (18 units)	at \$100/unit - 1 year -	1,800
	at \$200/unit - 4 years -	14,400
Vulcan 7 (6 units)	at \$100/unit - 1 year -	600
	at \$200/unit - 4 years -	4,800
Vulcan 8 (20 units)	at \$100/unit - 3 years -	6,000
	at \$200/unit - 3 years -	12,000
		<u>\$66,600</u>

It is requested that \$257.36 be credited to Cominco P.A.C. account.

2.00 INTRODUCTION

2.10 Status of Ownership

The Vulcan 5, 6 and 7 mineral claims are 100% Cominco owned.

2.20 Location and Access

The Vulcan 5, 6 and 7 mineral claims are located 30 km northwest of Kimberley, B.C. Access to the drilling sites is via the St. Mary logging road, the Dewar Creek logging road, and short bulldozer roads.

The area of the 4 drill holes is centered approximately at latitude $49^{\circ} 44' 30''$ and longitude $116^{\circ} 22' 30''$. Elevation of the drill hole collars ranges from 1,140m to 1,530m.

2.30 General Character of the Area

The topography on the Vulcan claims in the area of the drilling program is moderate to steep. Elevation ranges from 1,100m in the St. Mary River valley bottom to over 2,500m at some mountain peaks. Parts of the area have been logged; timber consists primarily of larch, fir, pine and cedar.

3.00 DIAMOND DRILLING

Four holes were drilled from surface to test electromagnetic conductors. Vu-84-1 was drilled to a depth of 123.3m, Vu-84-2 to 122.3m, Vu-84-3 to 117.1m and Vu-84-4 to 147.0m. Core size in all holes is NQ. Rocks intersected by drilling are fine grained siliceous metasediments of the Helikian Aldridge Formation and intrusive gabbroic masses interpreted to be sills. Aldridge Formation lithologies present in the core are quartzitic wacke, wacke and subwacke. The sediments range in thickness from laminated to medium bedded. A metamorphic alteration is evident throughout much of the core and is manifested by development of biotite and silicification. Very narrow zones of graphite are present in the core. Minor sulfides, commonly pyrrhotite and pyrite but also arsenopyrite, sphalerite and galena occur locally. Intervals analyzed in one hole, Vu-84-4, are included with the drill log. No sulphides of economic grade were intersected.

The drill program was under the direction of P. Klewchuk and supervised by D. Anderson.

Three Sperry Sun Single Shot orientation survey tests were taken. Details are included in the drill logs. The core is stored at the Kootenay Exploration office in Cranbrook.

4.00 CONCLUSIONS

Four diamond drill holes, Vu-84-1, 2, 3 and 4, drilled on the Vulcan 5 - 7 mineral claims, intersected metasedimentary rocks of the Aldridge Formation as well as intrusive gabbro. No sulfide of economic grade/thickness was cored.

EXHIBIT "A"
STATEMENT OF EXPENDITURES
DIAMOND DRILLING - VULCAN 5,6,7 CLAIMS
Fort Steele Mining Division

Diamond Drilling - Indirect

Salaries (Field)

P. Klewchuk - Geologist - 20 days @ \$229/day \$ 4,580.00

Salaries (Office)

P. Klewchuk - Geologist - 2 days @ \$229/day 458.00

Mobilization - Demobilization

Hendersons Heavy Hauling (1973) Ltd. 2,811.89

Road Access and Drill Move

Cominco Ltd. - Kimberley - Bulldozer 840.00

Bearcat Contracting Ltd. - Fort Steele, B.C. 12,079.00

Bear Lumber Ltd. - Cranbrook, B.C. 385.00

FOSTER, Red - Kimberley, B.C. 210.00

Other

Supplies - Core boxes, mud, explosives etc. 1,289.23

Transportation - 4x4 Truck 15 days @ \$40/day 600.00

Sandor Rental - Compressor 160.50

Geochem Analyses 539.60

Diamond Drilling - Direct \$23,953.22

Longyear Canada Inc., 721 Aldford Avenue
Annacis Industrial Estate, New Westminster, B.C.
V3M 5P5 \$42,904.14

Total Expenditures - Indirect - \$23,953.22

Total Expenditures - Direct - \$42,904.14

\$66,857.36

P. Klewchuk
P. KLEWCHUK, Geologist

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

AUTHOR'S QUALIFICATIONS

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

I am employed by Cominco Ltd. as a geologist active in minerals exploration.

I am a graduate of the University of British Columbia with a degree of Bachelor of Science and a graduate of the University of Calgary with a degree of Master of Science.

I have been continuously engaged in geology and mineral exploration for 13 years.

I am a member of the Geological Association of Canada.

P. Klewchuk

P. KLEWCHUK
Geologist

Report by: P. Klewchuk
P. KLEWCHUK
Geologist

Endorsed by: D. Anderson
D. ANDERSON, P.Eng.
Project Geologist

Approved by: John Hamilton
J.M. HAMILTON
Assistant Manager
Western District

Approved for
Release by: G. Harden
G. HARDEN, Manager
Exploration
Western District
Vancouver

xc: Mining Recorder (2 copies) ✓
Western District, Exploration
Kootenay Exploration

Drill Hole Record



Property **VULCAN** District _____ Hole No. **VU-84-1**
 Commenced **June 14, 1984** Location **Line 3000N** Tests at **122 m** Hor. Comp. _____
 Completed **June 17, 1984** Core Size **NQ** Corr. Dip **-45°** Vert. Comp. _____
 Co-ordinates _____ True Brg. **AZ 127°** Logged by **PK**
 Objective **Test EM Conductor** % Recov. **>99%** Date **July 9, 1984**

Claim **Vulcan 5**
 T Brg. **AZ 126°**
 Collar Dip **-45°**
 Elev. **~ 1230m**
 Length **123.2m**
 Hole No. _____ Sheet _____

Footage From To	Description	Sample No.	Length	Analysis
0 9.75m	Overburden, casing, no core			
9.75 55.40m	GABBRO			
	9.75m - 23.40m Light gray-green color, fine-med. grained. Gray quartz, white-light gray feldspar and light green amphibole (chloritized?) are present along with minor biotite and tourmaline. Narrow gray veinlets of quartz and quartz-calcite are fairly common.			
	A few zones of the gabbro are calcareous. Narrow crenulated veinlets of fine grain po occur within a 4 cm wide quartz vein at 11.75 m. at 80° to core axis.			
	23.40m - 24.80m Med. grained, spotted character, light gray-green color. Amphiboles and feldspars may be strongly altered here. Tourmaline as fine grains occurs disseminated and as very narrow veinlets.			
	24.8 - 27.5m Med. gray-green color; amphiboles appear to be altered to very light greenish chlorite. Fine-med. grained. Tourmaline is disseminated within the interval and occurs as discontinuous veinlets at ~30° to core axis from 27.2 to 27.5 m. Narrow quartz-calcite veinlets are present and the gabbro is locally calcareous.			

Drill Hole Record



Page 2

Property **VULCAN** District _____ Hole No. **VU-84-1**
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim _____
 T Brg. _____
 Collar Dip _____
 Elev. _____
 Length _____
 Hole No. _____ Sheet _____

Footage From To	Description	Sample No.	Length	Analysis
	GABBRO - Con't			
	27.5 - 35.9m Variably colored - generally a medium blue-gray-green. Fine-med. grained. Numerous narrow quartz-calcite veinlets are present and a weak calcareous character is common. This zone does not look much like a typical gabbro and is undoubtedly considerably altered. Tourmaline is disseminated through the rock and occurs locally as narrow, often somewhat irregular, veinlets.			
	At 34.25 m a 1 cm wide quartz-po vein occurs at 55° to core axis.			
	35.9 - 36.3m Fault zone - strongly sheared, foliated at 25° to core axis. Margins of the zone are chloritic. Mineralogy of the zone is predominantly quartz-calcite. General character of the gabbro below this shear zone is different but the change is a gradational one which starts well above the shear zone. The shear does not obviously juxtapose different phases of the gabbro.			

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-1
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim	T Brg.	Collar Dip	Elev.	Length
-------	--------	------------	-------	--------

Footage From To	Description	Sample No.	Length	Analysis
	GABBRO - Con't			
36.30 - 55.40m	Dark gray-green; medium-coarse grained. Dark green amphibole. Light gray-white feldspar and gray quartz predominate, with minor biotite and pyrrhotite. Foliation is locally present but there is no pervasive foliation present.			
	At 52.0 m a quartz-calcite vein 1-3 cm wide, occurs at 25-30° to core axis with included pyrrhotite.			
	At 52.7 m a 6 cm wide quartz vein at 85-90° to core axis contains a po vein up to 3 cm wide.			
55.40 - 80.40m	STRONGLY ALTERED METASEDIMENTS			
	Contact at 55.4 m is gradational over ~2 cm, at a high angle to the core axis - about 80°. Overall character is massive, with a variably mottled character common. Quartz, feldspar and biotite are the predominant minerals with fine-grained tourmaline a common constituent in minor amounts. Pyrrhotite is common as small irregular blebs throughout averaging 1-2%. Aggregates of pink garnets are present locally. Overall color is a whitish-bluish gray, texture is predominantly fine-grained, granular with a weak foliation at ~60° to core axis being common. Some compositional layering is apparent			

111401

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-1
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim	T Brg.	Collar Dip	Elev.	Length
-------	--------	------------	-------	--------

Footage From To	Description	Sample No.	Length	Analysis
	STRONGLY ALTERED METASEDIMENTS - Con't			
55.40 - 80.40m (con't)	- boundaries of these zones are gradational over 0.5-1.0 cm and they could be due to diffusion processes during metamorphism.			
	At about 72.1 the color becomes somewhat darker - more medium to dark blue-gray colored, reflecting an increased mafic content.			
	At 67.5 m - 67.9 m quartz-fp veining at ~30° to core axis contains irregular-appearing veins of po.			
	At 72.5 m a 3 cm wide quartz-fp vein at 45° to core axis contains minor po			
	At 75.2 a 2 cm wide quartz-fp-minor calcite vein is present at 20° to the core axis. Paralleling the quartz-fp vein are 2-3 mm wide dark blue-black veinlets of graphite and fine-grained pyrrhotite and argillite. Similar, narrower (0.5-1mm) veinlets occur immediately above and immediately below this quartz-fp vein, with irregular attitudes varying from 20° to 75° to the core axis.			

111401

Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-1
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Footage From To	Description	Sample No.	Length	Analysis
	STRONGLY ALTERED MFTASEDIMENTS - Con't			
55.40 - 80.40m (con't)	At 77.3 and 80.0 m, 1 cm quartz-po veins occur at $\sim 80^\circ$ to core axis.			
	Contact at 80.4 m is gradational over 1 or 2 cm and occurs at about 80° to core axis.			
80.40 - 123.20m	GABBRO			
	Dark-med. gray, gray-green. Light-med. green amphiboles and white to light gray subhedral to anhedral feldspars characterize the gabbro. Gray quartz and biotite are also present. Texturally the gabbro is fine to med. grained, locally coarse grained and with a moderate to strong foliation at about 50° to core axis throughout the cored interval. Locally the foliation is quite strong and the rock has a gneissic character.			
	At 90.4 m a 1-3 cm wide po vein occurs at 35° to core axis.			
	At 90.75 m a 3 cm wide quartz vein at 70° to core axis has carbonate (calcite and dolomite) alteration associated with it for 10-15 cm above and below the quartz vein.			

811407

Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-1
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Footage From To	Description	Sample No.	Length	Analysis
	GABBRO - Con't			
80.4 - 123.20m	91.2 - 91.45 m - Irregular quartz veining to 6 cm wide with coarse blebs of po to 3x7 cm across. Disseminated-appearing po is present for ~ 15 cm both above and below the quartz veining.			
	At 92.4 m, 3 narrow po veinlets (0.5-1 mm wide) occur within a bleached, altered zone 4 cm wide.			
	A few other narrow (~ 0.5 -1.0 cm) quartz veins with po occur within the rest of the gabbro. These are usually at 45° to 80° to core axis. Po occurs within the quartz veins as veinlets & blebs.			
123.2m	END OF HOLE			
	Survey at 122.0 m Az 127° Dip -43.9°			

811411

Drill Hole Record



Property **VULCAN** District _____ Hole No. **VU-84-2**
 Commenced **June 17, 1984** Location **Line 2400N** Tests at **122m** Hor. Comp. **86.5m**
 Completed **June 18, 1984** Core Size **NQ** Corr. Dip **-45°** Vert. Comp. **86.5m**
 Co-ordinates _____ True Brg. **AZ 130°** Logged by **PK**
 Objective **Test EM Conductor** % Recov. **>99%** Date **July 11, 1984**

Claim **Vulcan 7**
 T Brg. **AZ 130°**
 Collar Dip **-45°**
 Elev. **1170m**
 Length **122.3m**
 Sheet No. _____

Footage From To	Description	Sample No.	Length	Analysis
0 - 20.1m	Overburden; casing; no core			
20.1 - 42.2m	ALDRIDGE FORMATION METASEDIMENTS Thin bedded to laminated, with a few medium thick beds. Med-dark blue-gray color, locally light gray or light blue-gray. Wacke, quartzitic wacke and subwacke compositions are present; a moderate alteration has affected all of the core and some silicification has occurred. Small (4 - 4 mm) biotite porphyroblasts are developed throughout. Bedding planes are typically sharp, indicating planar bedding, although a few examples of lensing of sandier layers are present. Pyrrhotite occurs within 2, 10 cm long zones, associated with an increased biotite content at 28.5 m and 40.9 m, as apparently disseminated grains. Po content is about 10 or 15% within these narrow zones. A few narrow, irregular qtz veins are present. One at 35.5 m is 1-1.5 cm wide and contains minor Pbs. Bedding angle: 20.3 m - 75°; 31.5 m - 65°; 36.5 m - 65°; 40.2 m - 70° Contact with underlying gabbro is in broken core but looks conformable with bedding.			

Drill Hole Record



Property **VULCAN** District _____ Hole No. **VU-84-2**
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim _____
 T Brg. _____
 Collar Dip _____
 Elev. _____
 Length _____
 Sheet No. _____

Footage From To	Description	Sample No.	Length	Analysis
42.2 - 68.8m	GABBRO At contact with overlying sed, gabbro is med-dark green, fine-grained and foliated at ~60° to core axis, essentially parallel to bedding. Grain size coarsens downward through med: grained to coarse grained, indicative of a large gabbro body, probably a sill. Mineralogy is green amphibole, light gray to white feldspar and gray quartz. Biotite is common through most of the gabbro and is locally abundant in narrow zones. Qtz veins and qtz-calcite veins from 1 mm to 10 cm wide are scattered through the gabbro, at attitudes from 30° to 70° to core axis. Irregular blebs and veinlets of po are associated with some qtz veins. Zones within the gabbro are weakly to moderately calcareous - locally associated with qtz-calcite veins, locally biotite-rich zones. A moderate foliation is present through most of the core but is not ubiquitous. The gabbro remains med-coarse grained down to the underlying metasediments.			
68.8 - 95.4m	STRONGLY ALTERED METASEDIMENTS Contact at 68.8 m is not distinct, but is somewhat gradational over 1 or 2 cm. Attitude of the contact appears to be about 60° or 70° to core axis.			

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-2
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis
68.8 - 95.4m	<p>STRONGLY ALTERED METASEDIMENTS - Con't</p> <p>Overall color is med. blue-gray, typically med. grained & foliated to a variable degree of intensity. Prominent attitude of foliation is about 60° to core axis.</p> <p>Qtz, feldspar and biotite predominate with chlorite present locally. Pyrrhotite occurs as irregular blebs disseminated through the core and within veinlets of quartz and qtz-calcite which are fairly common. Minor chalcopyrite is locally associated with the po. Arsenopyrite is present at a few localities; as small (1-3 mm) grain aggregates scattered through the core near 87.6 m and as larger grain aggregates (to ~6 mm across) along and associated with a small shear at 94.0 m. Minor cpy is associated with the aspy at a few spots.</p> <p>Pink garnets occur as irregular grain aggregates to ~1 cm diam. scattered through the metasediments. At 71.8 m a 3 cm wide shear zone at 30° to core axis contains graphite as very narrow (<0.5 mm) veinlets which appear discontinuous but interconnected.</p> <p>At 73.3 m a 30 cm length of core contains abundant pyrrhotite and graphite as an interconnected network of blotchy patches within the metasediments.</p>			

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. Sheet

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-2
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis
68.8 - 95.4m	<p>STRONGLY ALTERED METASEDIMENTS - Con't</p> <p>One fracture which cuts the zone contains graphite on slicken sided surfaces as well as fine-grained pyrite. Minor tourmaline occurs here also as fine-grained dark brown needles, typically proximal to narrow po-bearing qtz veins.</p> <p>At 91.2 m a 30 cm wide qtz vein with minor calcite contains irregular blotchy masses of fine-grained black or very dark brown tourmaline crystals. Immediately below the qtz vein at 91.5m is a 10cm zone of med. blue-gray material containing coarse blebs of pyrrhotite (to 2 cm across). A 1 cm wide calcite vein at 60° to core axis underlies this po-rich zone. The calcite vein contains an irregular veinlet of fine grain black tourmaline. "Disseminated" po with blebs to 2 mm across occurs below the calcite vein.</p> <p>At 91.8 m a 6 mm wide vein of pyrrhotite occurs within a narrow calcareous zone within the metasediments.</p> <p>94.2 m to 95.4 m appears to be a contact zone with the underlying gabbro. A stronger foliation at 35°-40° to core axis is present with a series of sheared qtz and qtz-calcite veins parallel to the foliation. Pyrrhotite is a common associate of numerous of the qtz veins.</p>			

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. Sheet

Scale
Colour Plot
& Date

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-2
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. 111 Sheet

Footage From	To	Description	Sample No.	Length	Analysis
95.4	122.3m	GABBRO Somewhat variable in character; fine, med & coarse grained. Color varies from a pale, dull gray-green to a dark green-black color.			
95.4	107.3m	Dark green to blackish green. Med.-coarse grained, contains biotite as well as amphibole, feldspar and qtz. A weak foliation is locally present at 55°-60° to core axis. A few narrow qtz-calcite veinlets are present. Occasional sheared qtz veins at ~35° to core axis, 1-3 cm wide, occur with minor po, very minor cpy and aspy. Minor po & very minor aspy & cpy are also found disseminated through the core. The po & cpy occur as small grain aggregates of usually <1 mm diam. whereas aspy is typically 1-2 mm diam.			
107.3	108.3m	Fault contact at 107.3 m; coarse-grained gabbro above is in contact with fine-grained med. green colored strongly foliated gabbro below. Contact is at 60° to core axis, flattens to 30° within a few cm. Narrow, discontinuous en echelon qtz-calcite veins are present in the foliated gabbro. Fine grain size gradually coarsens toward 108.3 m.			

Scale
Colour Plot
& Date

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-2
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim
T Brg.
Collar Dip
Elev.
Length

Footage From	To	Description	Sample No.	Length	Analysis
95.4	122.3m	GABBRO - Con't			
108.3	110.3m	Med. grained, dark to med. gray-green colored, weakly foliated at 55°-60° to core axis. A few qtz-calcite veinlets are present.			
110.3	113.7m	Med. grained, pale gray-green colored. Weak foliation locally at ~50° to core axis. A few calcite-qtz veinlets present. At 112.2 m a 4 cm wide calcite-qtz vein contains minor fine grain black tourmaline.			
113.7	122.3m	Med-coarse grained, med-dark gray-green color. No obvious foliation present. Very few calcite-qtz veinlets are present. Hole ends in med-coarse grained gabbro.			
122.3m		END OF HOLE			
		Survey at 122m Az 124° Dip -44°			

Drill Hole Record



Property	VULCAN	District		Hole No.	VU-84-3
Commenced	June 19, 1984	Location	Line 2000N	Tests at	---
Completed	June 20, 1984	Core Size	NQ	Corr. Dip	-45°
Co-ordinates				True Brg.	Az 120°
Objective	Test EM Conductor			% Recov.	>99%
				Hor. Comp.	
				Vert. Comp.	
				Logged by	PK
				Date	Oct. 1984

Claim	Vulcon 6
T Brg.	Az 120°
Collar Dip	-45°
Elev.	1140m
Length	117.1m
Hole No.	VU-84-3
Sheet	

Footage From	To	Description	Sample No.	Length	Analysis
0	12.5m	Casing - no core			
		GABBRO			
12.5	31.5m	Variably fine & med. grained. Med-coarse grained from 12.5m to 14.0m but still is not very thick because o/c occurs immediately to west of drill site. Gray-green color, with a homogeneous granular texture. A few qtz veins are present, up to 4cm wide, with black tourmaline needles present locally in the qtz. Gabbro texture is more irregular near the contact at 31.5m with a flow (?) foliation evident, subparallel to the contact which is at 75° to core axis. Numerous irregular calcite veinlets occur in the lower most 1m of gabbro. At 15.0 a very narrow foliated zone about 0.5cm wide at 55° to core axis contains minor graphite.			
		METASEDIMENTS			
31.5	35.5m	Strong alteration is present. Metaseds vary in character from distinctly laminated to massive, silicious, mottled. Original lithology was probably QcW & W.			
		A few qtz veins are present; one at 32.6m at 35° to core axis, 8cm wide, with light yellow calcite and dolomite, one at 33.85m at 50° to core axis, 2cm wide, with a narrow central band of black tourmaline needles. Minor tourmaline needles occur in the sediments, notably near 32.3m. Minor reddish ZnS occurs at 32.9m - few disseminated crystal aggregates, irregular in shape, 1-3mm diam. Small specks of a yellowish carbonate - dolomite(?) are disseminated through much of the interval. Contact at 35.6m is at ~85° to core axis.			

Drill Hole Record



Property	VULCAN	District		Hole No.	VU-84-3
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	
				Hor. Comp.	
				Vert. Comp.	
				Logged by	
				Date	

Claim	
T Brg.	
Collar Dip	
Elev.	
Length	
Hole No.	VU-84-3
Sheet	

Footage From	To	Description	Sample No.	Length	Analysis
35.5	38.2m	GABBRO			
		Fine-grained, dark green, more black near contacts - biotite is present there. A few very narrow calcite veinlets are present. Otherwise, texture is quite homogeneous. Core is broken at 38.2m but contact with underlying metaseds appears to be at 65-70° to core axis.			
		METASEDIMENTS			
38.2m	103.0m	Light-med. blue-gray colored, laminated, thin & med. bedded. The thicker, more qtz rich beds are typically mottled with a more massive character. Composition varies from argillite in thin beds and laminations to QcW or QW in some of the med. thick beds. Metamorphic effects quite strong; chlorite and biotite are common as alteration minerals. Qtz & calcite veining are scattered through the interval; Q.V. range up to 5cm wide, calcite veins are a few mm max. thickness. Po & less commonly Py are associated with some of the Q.V. Minor amounts of graphite are present at a number of localities.			
		At 46.2m a 1mm wide py veinlet occurs at 15° to bedding, associated with a discontinuous, narrow qtz vein (to 5mm wide).			
		At 42.9m a dark argillaceous clast is present; 1cm thick, width of core (covers 1/4 of core), occurring in a 3cm thick QcW bed. Small scale wavy bedding is present in the 25cm below here, indicating some current activity.			

Drill Hole Record



Property	VULCAN	District		Hole No.	YU-84-3
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	
T. Brg.	
Collar Dip	
Elev.	
Length	

Footage From To	Description	Sample No.	Length	Analysis				
38.2 - 103.0m	<p>METASEDIMENTS - Con't</p> <p>At 92.2m a 2mm wide ZnS-qtz vein occurs at about 80° to core axis, about 25° to bedding. ZnS is reddish-brown, med. grained. Minor fine grained po is also present.</p> <p>From 86.0m to 88.1 much of the bedding is slightly disrupted; wavy bedding, lensey character & a few apparent isoclinal folds are evident.</p> <p>From 100.3m - 103.0m contact effect of the underlying gabbro is evident by brownish oxidation, yellowish bleaching along fractures. Core is slightly more broken in this interval.</p> <p>Contact at 103.0m is at 75° to core axis, indicating the underlying gabbro is probably a sill. Bedding within the interval varies from 65° to 80° to core axis.</p>							
103.0 - 117.1m	<p>GABBRO</p> <p>Med. gray-green color, med. grained. Amphibole appears largely altered to chlorite. Gray plagioclase, brown biotite and locally bluish-gray qtz are evident. Numerous fractures are present, varying from 45° to 10° to core axis with flatter attitudes most common.</p> <p>A few qtz veins are also present; near 104.3m, at 10-20° to core axis, 2cm wide, and at 109.5, 1cm wide associated with shearing, at 35° to core axis.</p>							
117.1m	END OF HOLE							

Scale
Colour Plot
& Date

Drill Hole Record



Property	VULCAN	District		Hole No.	VU-84-4
Commenced	June 30, 1984	Location	Line 3800N	Tests at	146.3m
Completed	July 1, 1984	Core Size	NQ	Corr. Dip	-45°
Co-ordinates				True Brg.	Az 115°
Objective	TEST HLEM CONDUCTOR			% Recov.	~99%
				Hor. Comp.	
				Vert. Comp.	
				Logged by	PK
				Date	Sept. 1984

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No.

Footage From To	Description	Sample No.	Length	Analysis
0 - 2.13m	Casing: no core recovered			
2.13- 30.90m	<p>WACKE AND QUARTZITIC WACKE</p> <p>Thin and med. bedded to laminated generally med. gray colored; numerous fractures are rusty-oxidized from surface weathering. Local rounded, elongate rip-up clasts and small-scale ripple cross laminations indicate some current activity. Minor slumping is indicated by deformed, folded beds in the manner of soft sediment deformation at 8.1 m.</p> <p>Near 28.7 m a few elongated clasts occur oriented at low angles to bedding i.e. not parallel.</p> <p>Moderate metamorphic effects are evident throughout; small biotite grains are present and near 17.5m a concretionary texture may be due to metamorphism.</p> <p>A few Qtz veins are present, up to 5cm wide, most 2cm wide; typically at high angles to the core axis, a few parallel to bedding, a few parallel to the core axis. Minor sulphides including pyrite, arsenopyrite & galena occur locally in these Q.V. Bedding is at 50-65° to core axis.</p>			
30.90- 43.30m	<p>GABBRO</p> <p>30.9 - 40.0m Gray-green colored, med. grained, moderately foliated at 60° to core axis. Chloritic amphibole and biotite comprise a dominant mafic component, minor po is disseminated throughout. Qtz veining & stronger foliation or shearing is</p>			

B1-447

Scale
Colour Plot
& Date

Drill Hole Record



Property	VULCAN	District		Hole No.	VU-84-4
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	
				Hor. Comp.	
				Vert. Comp.	
				Logged by	
				Date	

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No.

Footage From To	Description	Sample No.	Length	Analysis
30.90- 43.30m	<p>GABBRO - Con't</p> <p>30.9 - 40.0m-present in the upper meter of this zone. Minor Aspy is locally present. (con't)</p> <p>At 33.5m a 10cm long zone of metasediments occurs, laminated, with bedding at 30° to core axis.</p> <p>40.0 - 43.3m-Biotite-rich zone. "Contact" near 40.0m is gradational with hornblende decreasing downward & biotite increasing. Foliation is more evident, probably a reflection of the different mineralogy. Minor po & aspy are locally present. The entire zone is moderately calcareous. Qtz-calcite veins near 41.9m are about 1cm wide, somewhat irregular, have minor brecciation associated with them. This biotite-rich zone may be a meta sediment but the gradational change from overlying amphibole-bearing gabbro & local phases of more granular texture with feldspars & amphibole present indicate that this is a biotitic phase of the gabbro.</p>			
43.30- 81.00m	<p>WACKE AND SUBWACKE - minor ARGILLITE and QUARTZITIC WACKE</p> <p>Thin bedded to laminated, gray to blue-gray in color. Most beds, laminations have sharp planar bedding contacts but many are irregular on a small scale, showing evidence of current activity. Locally ripple cross laminations, small rip-up clasts and small-scale wavy bedding are evident. Po & py are common as very minor constituents, occurring locally as v. small irregular veinlets. Near 46.3m one such irregular po veinlet carries v. minor Pbs & Cpy.</p>			

B1-447



Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage From To	Description	Sample No.	Length	Analysis
43.30-81.00m	<p>WACKE AND SUBWACKE - minor ARGILLITE and QUARTZITIC WACKE - Con't</p> <p>Narrow qtz & more rarely, qtz-calcite veinlets, occur throughout the interval, usually at high angles to the core axis, sub-parallel to bedding. A few thicker Q.V., up to 15cm, cut the bedding at $\sim 45^\circ$. These contain py, po & v. minor cpy.</p> <p>At 53.5m Py, PbS and v. minor cpy occur along an apparent unconformable contact - an elongate clast or ripple cross-laminated lens sits over the mineralized horizon.</p> <p>At 67.5m a 2cm wide bedding-parallel band/bed is dark gray in color, blotchy in texture, comprised of graphite, pyrite, qtz blebs & v. minor calcite.</p> <p>At 74.4m a 1.5cm wide zone, largely of broken core, contains graohite which displays bedding-parallel slickenside surfaces. Evidence of metamorphism is not great in this interval; the sediments appear to be only slightly altered. V. small (fine-grained) porphyroblasts of biotite are present locally. Minor folding, usually restricted to narrow zones within the bedding, may be tectonic or soft sediment deformation. Core angle is about $70^\circ-80^\circ$ throughout.</p>			



Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage From To	Description	Sample No.	Length	Analysis
81.00- 82.70m	<p>GABBRO</p> <p>Moderately foliated assemblage of chlorite, qtz, biotite, feldspar & minor calcite. Dark green color, speckled, foliated texture. Foliation occurs at $\sim 65^\circ$ to core axis.</p>			
82.70- 93.00m	<p>WACKE AND SUBWACKE</p> <p>Medium, thin bedded & laminated. Med. to dark gray & blue-gray. Locally finely laminated & quite commonly crenulated.</p> <p>Tectonic disturbance is evident with numerous en-écheleon (healed) fractures at $\sim 60^\circ$ to core axis.</p>			

Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Main No.	Sheet
82.70- 93.00m	<p><u>WACKE AND SUBWACKE - Con't</u></p> <p>Bedding is distorted in this tectonically disturbed zone from 84.5m to 88.0m. A few pygmatic qtz veins 2-4mm wide, occur near 85.0m.</p> <p>At 86.6m a 1 cm wide irregular qtz-calcite vein cuts across the core at 40° to core axis and also cuts a series of en-echelon healed fractures.</p> <p>At 91.45m a 5cm length of core is dark blue-gray, hard & dense; probably a siliceous zone. Base of this interval, at 93.0m, is a 4cm zone of contorted, finely laminated subwacke with included veinlets of pyrite. Bedding attitude is at 65-70° to core axis.</p>										
93.00-93.40m	<p><u>Altered, silicified METASEDIMENTS</u></p> <p>Med-dark blue-gray colored, fine-grained, hard, presumably silicified. Bleaching is common in the lower 50cm with gray and pale green coloration along healed fracture zones. Very narrow qtz veinlets are scattered through the interval, locally with minor pyrite.</p>										
94.40-96.90m	<p><u>BIOTITIC METASEDIMENTS</u> sampled for geochemical analysis</p> <p>Foliated dull brown-green color, fine-grained. Predominantly biotite (locally chloritic), quartz, feldspar, minor pyrrhotite, very minor arsenopyrite as fine-grained crystals and minor calcite. Texture is fine-grained, moderately foliated. Quartz & biotite are the main minerals & the qtz appears to be sedimentary grains; biotite, feldspar & pyrrhotite form a</p>										

Drill Hole Record

Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Main No.	Sheet
94.40- 96.90m	<p><u>BIOTITIC METASEDIMENTS - Con't</u></p> <p>matrix which is foliated around the qtz grains. The entire zone is weakly calcareous.</p>										
96.90- 97.25m	<p><u>0.35m QUARTZ VEIN</u> sampled for geochemical analysis</p> <p>Foliated white qtz vein with abundant pyrrhotite, v. minor cov, and pink and v. pale greenish feldspars (?) common in the lower 10cm.</p> <p>Biotite occurs as v. narrow veinlets in a reticulate network around elongate masses of quartz & qtz-feldspar.</p>										
97.25- 97.55m	<p><u>BIOTITIC METASEDIMENTS</u> sampled for geochemical analysis</p> <p>Similar to interval 94.4 - 96.9m but with a central 10cm zone of massive, foliated pyrrhotite containing irregular rounded pods of qtz-calcite & v. minor cov.</p> <p>The biotitic metasediments adjacent to the pyrrhotite are quite strongly foliated at ~60° to the core axis.</p>										
97.55- 99.80m	<p><u>SILICEOUS METASEDIMENTS</u> sampled for geochemical analysis</p> <p>Light to med. gray color, foliated, mottled, very siliceous.</p> <p>The upper 30cm contains abundant biotite and minor chlorite in sedimentary (?) laminations &</p>										

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage From To	Description	Sample No.	Length	Analysis
97.55-99.80m	SILICEOUS METASEDIMENTS - Con't as veinlet-like boundaries to nodular white masses of qtz & possible feldspar Irregular veinlets of po & minor cpy occur locally, as do small concentrations of arsenopyrite crystals.			
99.80-101.30m	BIOTITIC METASEDIMENTS sampled for geochemical analysis Fine-grained, brown colored, foliated, weakly calcareous. Biotite is finer grained than in previous biotitic intervals and the foliation is less uniform here, with irregular qtz-rich lensey bands parallel to foliation common. Minor calcite occurs with the qtz. PbS, ZnS, pō & Aspy occur in minor amounts. PbS & ZnS occur as narrow irregular veinlets & as fine grains associated with lensey qtz bands & very fine ZnS is locally disseminated in the biotitic metaseds. Po occurs as v. small irreg. veinlets & Aspy occurs as discrete fine-grained crystals. A grayishwhite metamorphic mineral with stubby elongate crystals is common; growing at random orientations across the foliation.			
101.30-107.30m	WACKE AND SUBWACKE, minor QUARTZITIC WACKE Primarily thin bedded, some laminations. Med.-dark blue-gray colored. Evidence of tectonic disturbance is present through most of this interval with near-ubiquitous closely spaced healed fractures cutting and slightly offsetting the bedding. Locally thin beds & lams are folded by this shearing. Much of the interval is moderately to strongly altered with light gray bleaching & probable silicification occurring adjacent to narrow healed fractures. A few			

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage From To	Description	Sample No.	Length	Analysis
101.30-107.30m	WACKE AND SUBWACKE, minor QUARTZITIC WACKE - Con't qtz veins are present, varying from 1-2mm to 6cm wide; locally they carry irregular pods & veinlets of pyrrhotite. At 103m very minor PbS occurs in a qtz vein. Narrow irregular veinlets & bedding-parallel disseminations of pyrrhotite are fairly common through the interval. Occasional discrete crystals of arsenopyrite occur locally. 106.55-107.3m Scattered bedding-parallel "veinlets" & disseminations of fine grained PbS & ZnS are present, along with irregular, cross-cutting veinlets. Bedding attitude, where not disturbed by shearing, is at 75-80° to core axis. Sampled for geochemical analysis from 106.2 to 107.3m.			
107.30-107.90m	BIOTITIC METASEDIMENTS (65%) and WACKE (35%) sampled for geochemical analysis. Biotitic metaseds are med-dark brown, foliated with lenses & layers of granular qtz distributed through the zone. Very minor ZnS & Aspy are locally present. Wacke is med. blue-gray, predominantly laminated.			
107.90-114.50m	WACKE, minor SUBWACKE sampled to 111.9m for geochemical analysis Med. blue-gray colored. Thin-bedded and laminated although bedding is generally indistinct. Tectonic deformation has resulted in numerous (healed) fractures cutting bedding planes & offsetting them slightly. Locally minor folding and contorted laminations are present.			

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage From To	Description	Sample No.	Length	Analysis
107.90-114.50m	<p>WACKE, minor SUBWACKE - Con't</p> <p>Po is fairly common as very small veinlets, usually quite irregular & cross-cutting bedding. ZnS & PbS occur as fine grained bedding-parallel bands & lenses & in veinlets which cross-cut bedding. ZnS is more abundant than PbS, both are fairly minor but are concentrated in zones. Below 112.9m the intensity of foliation/shearing and associated alteration is increased. Moderate foliation at $\sim 45^\circ$ to core axis occurs with pale gray-green bleaching. Minor qtz veining occurs, along with narrow, irregular po veinlets. Bedding planes occur at $70-80^\circ$ to core axis within this entire interval.</p>			
114.50-120.70m	<p>WACKE, minor SUBWACKE and QUARTZITIC WACKE sampled from 115.9 to 117.8m for geochem. analysis. Bedding is generally more indistinct in this interval; locally the sediments have a massive character. Med-dark blue-gray color. Some bedding/lamination planes are sharp but most are somewhat indistinct although an obvious banding is present through most of the interval. Where the seds are more massive, usually a fabric of elongate blebs of biotite grain aggregates with minor po is present, roughly parallel to the bedding/banding.</p> <p>Minor ZnS & v. minor PbS are present as fine-grained irregular veinlets & as laminations & discontinuous laminations parallel to bedding.</p>			

21-407

Drill Hole Record



Property	VULCAN	District	Hole No.	VU-84-4
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage From To	Description	Sample No.	Length	Analysis
120.70-147.00m	<p>WACKE and QUARTZITIC WACKE, minor SUBWACKE</p> <p>Predominantly thin bedded & laminated; a few zones are more massive-looking & beds here may be of med. thickness. Light to dark gray, commonly color-banded. Evidence of tectonic deformation is common with numerous healed fractures slightly offsetting beds or laminations, crenulated laminations & minor qtz & qtz-calcite veins. Fine-grained black tourmaline needles are present in minor amounts through much of the interval. Minor ZnS occurs locally, eg. within a 5mm wide qtz vein at 120.7m. Pyrrhotite & less commonly pyrite, occur as small veinlets - po typically in association with small qtz veins & py typically along fracture surfaces.</p> <p>Alteration is common in the interval, with more qtz-rich beds most strongly affected. These are bleached & appear to be silicified.</p> <p>Near 130.4m a 30cm zone is biotitic, chloritic, & calcareous - may be a mafic sill, subsequently altered, or a mafic-rich metasediment (other biotitic argillites are not altered in this manner).</p> <p>At 137.7m a 10cm zone is quite strongly contorted. Bedding angle is commonly at $75-85^\circ$ to core axis.</p> <p style="text-align: center;"><i>(Magnetic interference suspected)</i></p>			
147.00m	<p>END OF HOLE</p> <p>Survey at 146.3m Az 204° Dip -33.5°</p>			

Scale
Colour Print
& Date

Drill Hole Record

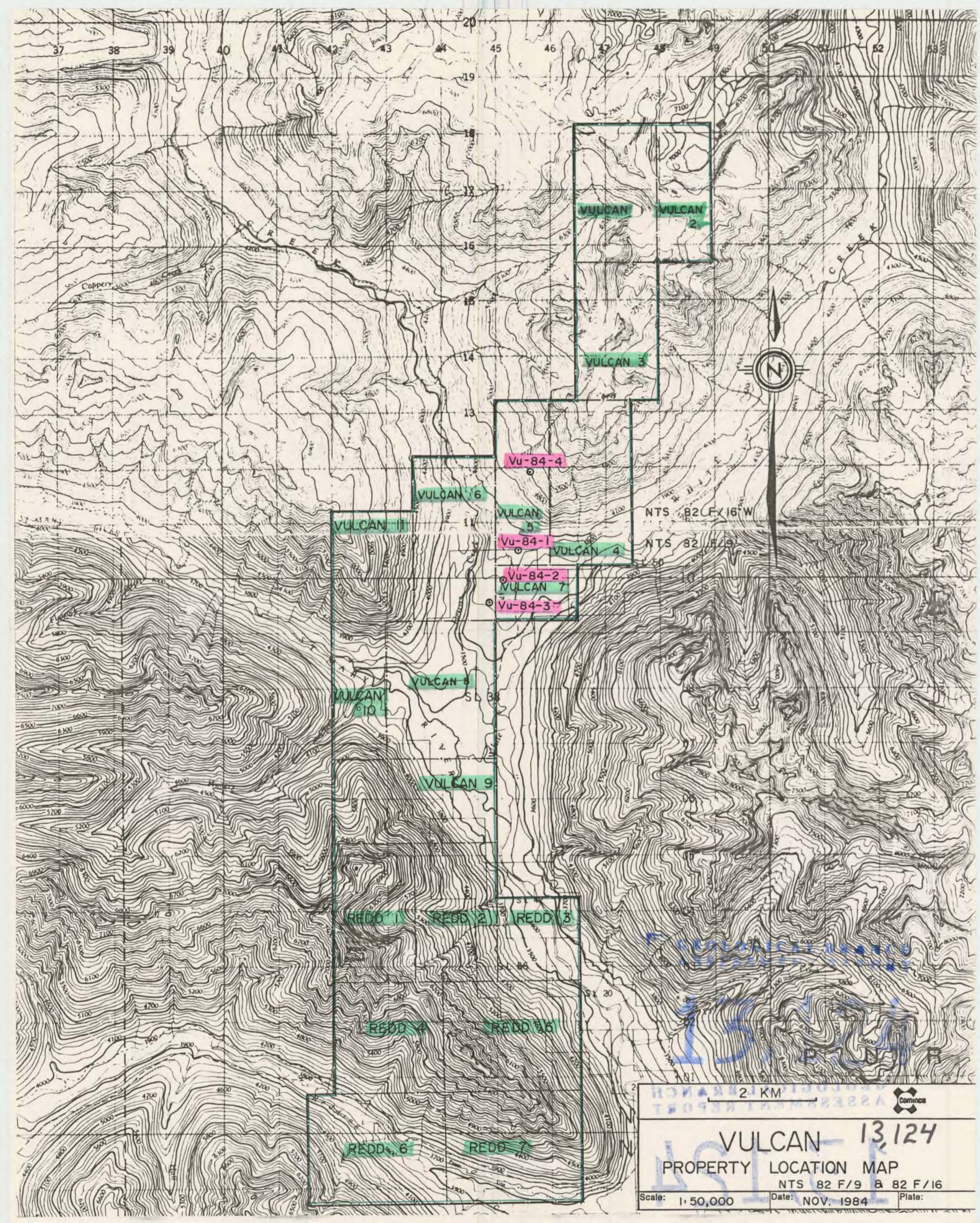


Property **VULCAN** District _____ Hole No. **VU-84-4**
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brq. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim
Y Brq.
Collar Dip
Elev.
Length
Hole No.
Sheet

GEOCHEMICAL ANALYSES

Footage From To	Description	DRILL INTERVAL		Cu	Pb	Zn	Fe	Ag	Hg	As	Sample No.	Length	Analysis					
		From	To(meters)	%	%	%	%	PPM	PPB	%								
		94.4	95.7	.01	.00	.02	12.2	<.4	<10	.02								
		95.7	96.9	.01	.00	.03	11.9	<.4	<10	.02								
		96.9	97.2	.07	.00	.00	9.9	<.4	<10	.02								
		97.2	97.5	.03	.00	.03	18.5	<.4	<10	.01								
		97.5	98.6	.01	.00	.01	2.79	<.4	<10	.00								
		98.6	99.8	.00	.00	.02	2.17	<.4	<10	.01								
		99.8	100.2	.00	.00	.05	11.1	<.4	<10	.03								
		100.2	100.7	.00	.48	.23	10.5	12.9	<10	.06								
		100.7	101.3	.00	.04	.06	9.3	.9	<10	.05								
		106.2	106.6	.01	.05	.04	3.73	<.4	<10	.00								
		106.6	107.3	.00	.36	.43	2.96	2.2	<10	.00								
		107.3	107.9	.00	.05	.08	8.9	1.2	<10	.03								
		107.9	108.4	.00	.15	.44	3.96	2	<10	.01								
		108.4	109.3	.00	.12	.17	3.21	.5	<10	.00								
		109.3	109.6	.00	.02	.07	3.5	<.4	<10	.00								
		109.6	110.6	.01	.04	.05	3.48	<.4	<10	.00								
		110.6	111.4	.01	.18	.01	2.37	2.7	<10	.01								
		111.4	111.9	.00	.02	.02	2.51	<.4	<10	.01								
		115.9	116.5	.00	.04	.17	2.08	.4	<10	.00								
		116.5	117.2	.00	.18	.53	2.4	1.2	<10	.00								
		117.2	117.8	.00	.02	.16	2.78	<.4	10	.00								



VULCAN 1

VULCAN 2

VULCAN 3

Vu-84-4

VULCAN 6

VULCAN 5

Vu-84-1

VULCAN 4

Vu-84-2

VULCAN 7

Vu-84-3

VULCAN 11

VULCAN 8

VULCAN 10

VULCAN 9

REDD 1

REDD 2

REDD 3

REDD 4

REDD 5

REDD 6

REDD 7



2 KM



VULCAN 13,124
PROPERTY LOCATION MAP
NTS 82 F/9 & 82 F/16

Scale: 1:50,000

Date: NOV. 1984

Plate: