1998 GEOLOGICAL and GEOCHEMICAL ASSESSMENT REPORT ON THE THUNDERHEAD 1-24 CLAIMS

Quartz Claims 094015

Thunderhead 1-12 YB 80957-968
Thunderhead 13-24 YB 81375-386

February 22, 1999

Mayo Mining District
N.T.S. 105N/08

Latitude: 63°18' North
Longitude: 132°10' West

Owner: Viceroy Exploration (Canada), Inc.

Author: Carl M. Schulze

Date of work: June - August 1998

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $ 10,200.

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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SUMMARY

The Thunderhead Property, consisting of the THUNDERHEAD 1-24 Claims, is located 145 kilometers north of Ross River, Yukon, just north of Fairweather Lake. It is located within a thick sequence of Lower to Mid – Paleozoic Selwyn Basin shallow marine shelf to off-shelf sediments north of the Tintina Trench. This sequence was emplaced along the margins of the ancient North American Platform from Late Precambrian to Triassic time. In the Fairweather Lake area the lowest members of this sequence belong to the Late Precambrian to Early Cambrian Hyland Group, consisting of coarse clastic, frequently calcareous sediments, and lesser thinly bedded shale, argillite, phyllite, and minor limestone. Extensive sequences of Devonian – Mississippian Earn Group shale and chert-pebble conglomerate with lesser Road River Group, primarily Steel Formation, calcareous siltstone to mudstone extend WNW across the area. Quartz monzonitic to monzonitic intrusive units belonging to the Mid – Cretaceous Tombstone Plutonic Suite have been emplaced into Selwyn Basin sediments.

The Thunderhead property is underlain by a small quartz-monzonite stock emplaced within a small unit of Hyland Group limestone and calcareous thin to medium bedded sediments. The latter have been interpreted by the GSC as lying along the south side of a major regional south dipping thrust fault separating these sediments from a package of Road River Group sediments to the north.

Two major mineralized settings occur: copper enriched endoskarn and exoskarn mineralization along the margins of the stock, and copper enriched quartz-arsenopyrite veining with minor base metal enrichment peripheral to the stock. Mineralized occurrences are abundant, but of limited extent. Vein mineralization shows moderate silver enrichment, to 54.2 gpt Ag, and gold enrichment to 1.29 gpt Au: however, most values returned are sub-economic. Fairly narrow vein mineralization is somewhat more "evolved"; however, high copper values and fairly low gold values suggest the mineralogical setting near the stock is unfavourable for development of high grade gold deposits.

Exploration in 1998 indicates that relative abundances of mineralized occurrences, primarily vein occurrences, decreases rapidly with increasing distance from the stock. Sufficient work has been done to determine that it is unlikely that significant mineralized occurrences exist outside of the claim block and immediate explored area.

Exploration in 1999 should concentrate on traversing, involving geological mapping, prospecting and systematic soil sampling across the western extension of the major thrust fault. If no significant results are obtained, no further exploration is recommended, and the claims should be allowed to lapse.

CHAPTER 1: INTRODUCTION

1.1 Introductory Statement

The Thunderhead Property consists of 24 contiguous quartz mining claims (Thunderhead 1-24) covering a 5 square kilometer area within NTS Sheet 105N/08, in the Mayo Mining District (Figure 1).

The 1998 exploration program involved geological mapping and rock sampling, with silt sampling along drainages roughly one kilometre to the north.

1.2 Location and Access

The Thunderhead Property is located roughly 145 kilometers north of Ross River, Yukon Territory, and roughly 180 kilometers east of Mayo, Yukon. The property is centered at 63°18' North latitude, 132°10' West longitude on NTS Map Sheet 105N/08.

Access is by helicopter from a base camp located at Fairweather Lake roughly ten kilometers to the south. Accommodations are available at Swan Lake Lodge thirty-five kilometers to the northwest.

1.3 Physiography and Vegetation

The property overlies a prominent east-northeast trending ridge attaining 5,350 feet in elevation, with moderate to steep terrain, and abundant outcrop and talus. Alpine vegetation covers much of the property, with sub-alpine taiga covering lower elevations. Surrounding terrain is of moderate relief, covered by typical northern boreal forest.

1.4 Regional Exploration History and Competitor Activity

Little significant exploration has occurred in the vicinity of the Thunderhead property. Treadwell Yukon CL reported finding a lead-silver "lode" in the area in 1929. The HUGO Claims were staked in 1967 roughly seven kilometers to the southwest to cover a gossan with a high zinc geochemical signature. No mineralization was found. The "Dog" Occurrence located fifteen kilometers to the east, found by the GSC in 1984, is reported to contain Earn Group shale intruded by Cretaceous dykes and cut by barite veins.

1.5 Property Exploration History

Quartz-arsenopyrite veins with lesser chalcopyrite and base metal mineralization were discovered during reconnaissance traversing in June 1997. A soil sampling and preliminary geological mapping and prospecting traverse was then conducted. The THUNDERHEAD 1-12 Claims were staked to cover mineralized vein occurrences. Following the return of favourable gold values from soil sampling to the south, the THUNDERHEAD 13-24 Claims were added.

In 1998, geological mapping was performed across the Thunderhead 13-24 Claims, as well as limited rock sampling. A detailed silt sampling traverse was conducted roughly one kilometre north of the property.

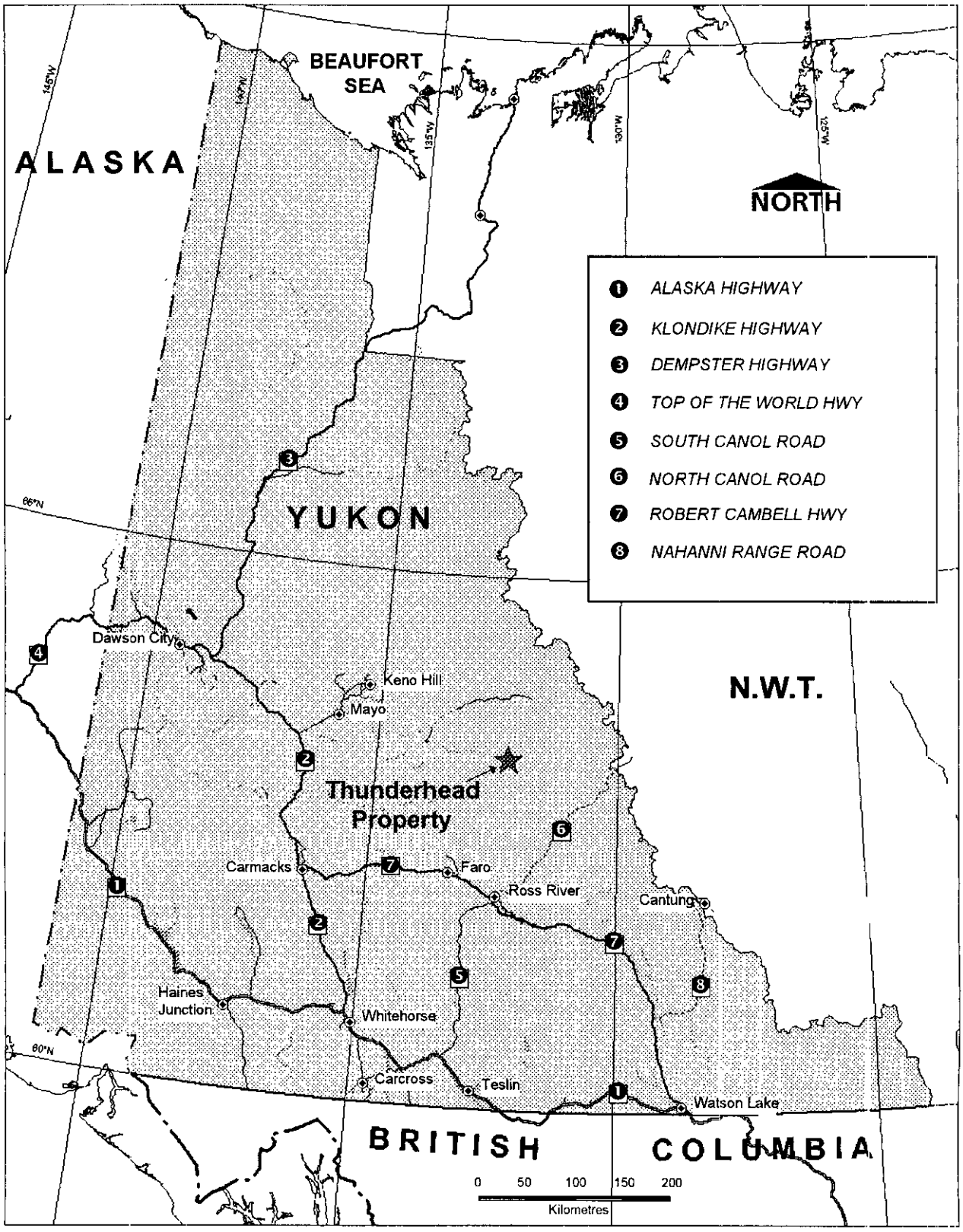

FIGURE 1: GENERAL LOCATION MAP

Table 1 below lists detailed claim status, including assessment status and expiry dates. Figure 2 is a Claim Location Map showing recorded claim locations.

Table 1: Status of Thunderhead Claims after 1998 filing				
Claim Name	**Grant No.**	**Number of Claims**	**Owner**	**New Expiry Date**
Thunderhead 001-004 009 013-016	YB80957-960 YB80965 YB81375-378	9	Viceroy Exploration (Canada), Inc.	September 2, 2002
Thunderhead 005-008 010-012 017-024	YB80961-964 YB80966-968 YB81379-386	15	Viceroy Exploration (Canada), Inc.	September 2, 2003

1.6 Work Program

In 1998, geological mapping of the property was undertaken, as well as rock sampling (6 samples) and silt sampling (15 samples).

1.6.1 Sample Preparation and Assay Procedure

All samples were shipped and analyzed by Chemex Labs of North Vancouver, B.C. Soil samples were dried and sieved to – 80 mesh, and rock samples were crushed and pulverized to – 150 mesh. All samples were subject to 30g fire assay for gold with an atomic absorption finish, and also analyzed by 32 element ICP scan. Mercury was analyzed using a 10 ppb detection limit. Rejects are retained at Chemex Labs for one year. All sample locations have been tied into UTM co-ordinates and have been plotted. A sample database in Microsoft Excel format is included and can be interfaced with Autocad Map or MapInfo software programs.

1.6.2 Personnel

All applicable assessment work was done by Carl Schulze, Senior Exploration Geologist; Gordon MacIntosh, Geologist; and Stephen Gower, Consulting Geologist.

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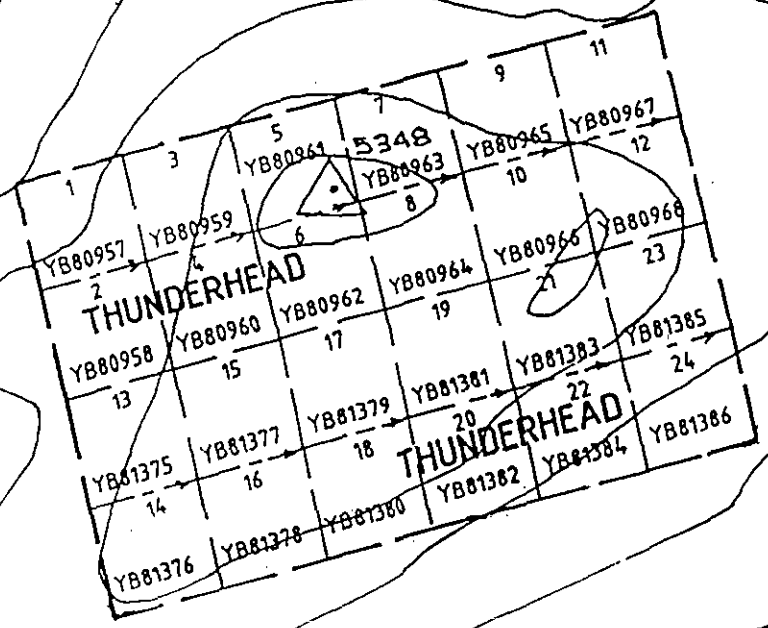


VICEROY
INTERNATIONAL EXPLORATION

THUNDERHEAD PROPERTY CLAIM
LOCATION MAP

DRAWN BY:		SCALE:	1/2 Mile:1"
DATA BY:	S.C.	NTS:	105N/8
DATE:	04/02/98	FIGURE:	2

CHAPTER 2: GEOLOGY

2.1 Regional Geology

The Thunderhead Property overlies a thick sequence of Lower to Mid – Paleozoic Selwyn Basin shallow marine shelf to off-shelf sediments north of the Tintina Trench. This sequence was emplaced along the margins of the ancient North American Platform from Late Precambrian to Triassic time (Table 2). In the Fairweather Lake area the lowest members of this sequence belong to the Late Precambrian to Early Cambrian Hyland Group, consisting of coarse clastic, frequently calcareous sediments as well as fine grained, frequently calcareous thinly bedded shale, argillite, phyllite, and minor limestone. Extensive sequences of Devonian – Mississippian Earn Group shale and chert-pebble conglomerate with lesser Road River Group, primarily Steel Formation, calcareous siltstone to mudstone extend WNW across the area. Fairly sizable units of Permian Mount Christie Formation siltstone, argillite and lesser dolostone, and Cambrian – Ordovician Rabbitkettle Formation calcareous sediments occur to the southeast (Figure 3). Younger sedimentary members than the Earn Group, including "Keno Hill Quartzite", and units of Carboniferous to Permian thin bedded limestone comprise upper members of the Selwyn Basin and occur north of the Fairweather Lake area.

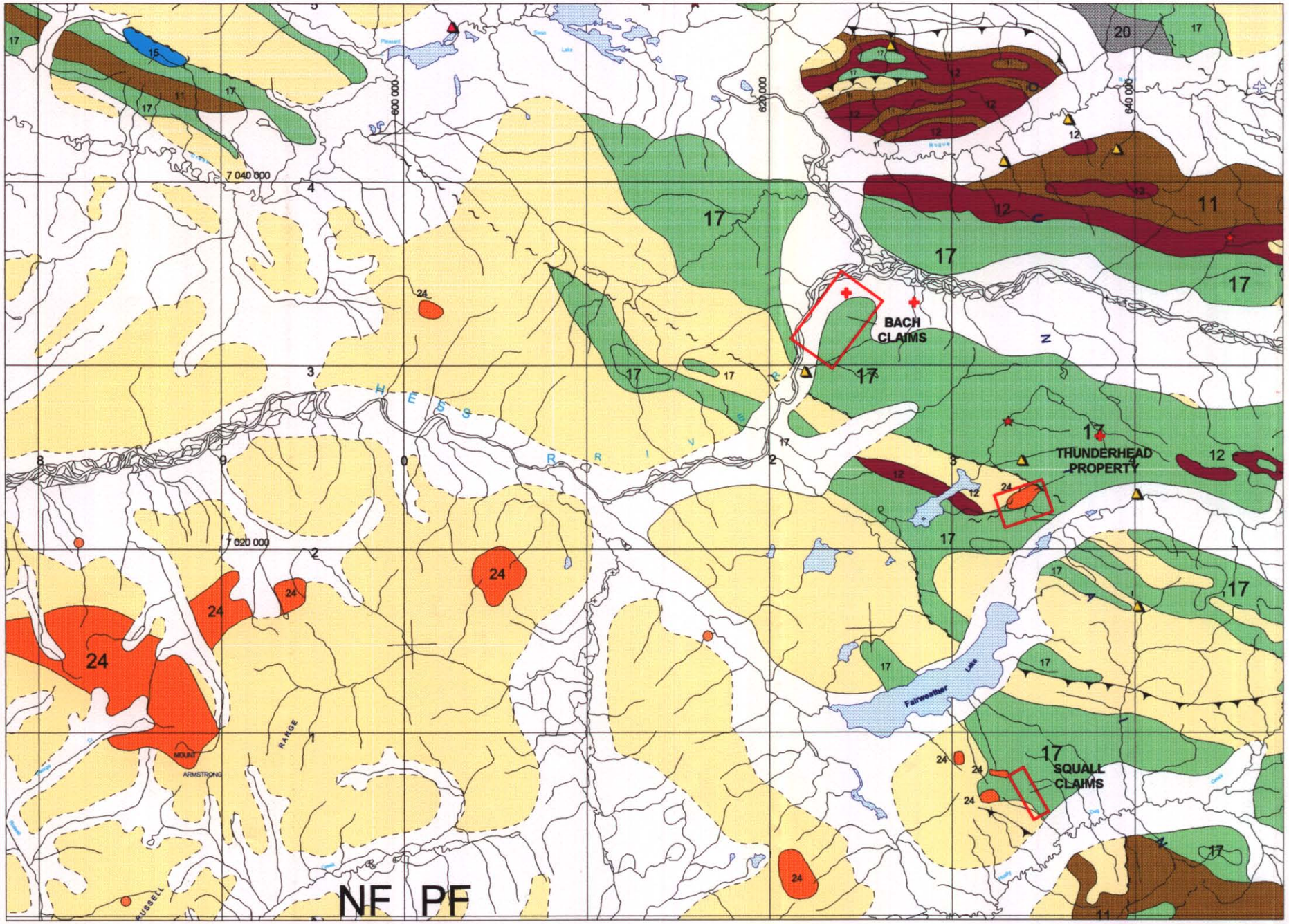
Quartz monzonitic to monzonitic intrusive units belonging to the Mid – Cretaceous Tombstone Plutonic Suite have been emplaced into Selwyn Basin sediments. The Tungsten Suite, extending along the Yukon – NWT Border, is regarded as part of the Tombstone Suite; together this is called the Tombstone-Tungsten Plutonic Suite. Several small Tombstone Suite stocks occur in the Thunderhead area.

2.2 Property Geology

The Thunderhead Property is underlain by a major regional south dipping thrust fault separating Road River Group shale and siltstone to the north, from Hyland Group calcareous siltstone and minor limestone to the south (Figure 4). A sub-unit of Road River Group argillite occurs within south-central areas. To the east, the Road River Group sediments lie in contact with Earn Group shale to the south; the latter underlies extreme south-east portions of the property. An elongated Tombstone Suite quartz-biotite monzonite stock has been emplaced within the Hyland Group sediments; a dyke extends south-east from this to a smaller stock. Attitudes of bedding and foliation are highly variable near the sock, but are generally east-southeast trending and moderately south dipping away from it. A fairly strong north-northwest trending lineament is illustrated by many drainages, and by a fault within Road River Group sediments in south-eastern areas.

TABLE 2: THUNDERHEAD PROPERTY STRATIGRAPHIC COLUMN

Age	Group	Formation (Lithology)	Geology Map Designation	Rock Code	Description
Mid-Cretaceous	Tombstone Plutonic Suite (Selwyn Plutonic Suite)	Monzonite, Quartz Monzonite coeval South Fork Volcanics	Kqm, Kg	QM, MO	Felsic to intermediate quartz monzonitic, monzonitic, to quartz dioritic intrusives. The name "Selwyn Suite" often applies to eastern portion of the suite. Anvil Intrusives and coeval South Fork Volcanics now considered part of Tombstone Suite; varying phases due to different fractionation states rather than a separate major intrusive event.
Devonian - Mississippian	Earn Group	Prevost Formation	DMp (Dme)	CH, ARG ARGG	Brown weathering shale, grey to grey-brown weathering chert-pebble conglomerate, dark grey-black chert-quartz sandstone.
Devonian	Earn Group	Portrait Lake Formation	Dp (Dme)	CH, ARG, ARGG	Argillite, chert, minor sandstone and conglomerate. Black siliceous argillite form lower member. May contain minor greywacke, siltstone and baritic horizons.
Ordovician-Early Devonian	Road River Group	Steel Formation	(OSDr)	SS	Weakly to moderately calcareous orange weathering mudstone to siltstone, often bioturbated reflecting oxygenated bottom water conditions. Baritic horizons often form distinctive upper members near top of formation.
Ordovician-Early Devonian	Road River Group	Duo Lake Formation	Osd (OSDr)	CH, SLT, ARG	Black argillite and massive to thick bedded chert, weathers bluish white, local tan limonitic weathering.
Cambrian - Early Ordovician		Rabbitkettle Formation	COr	LST, SLST	Buff-tan weathering thin-medium bedded limestone, lesser slate, quartzite, phyllite, limestone, local basalt flows, tuffs, breccias.
Late PreCambrian to Early Cambrian	Hyland Group	Narchilla Formation	Can (PrCh)	PHY, ARG	Maroon, brown, black, green thin bedded argillite, phyllite, siltstone. Lesser light brown weathering "grit" and sandstone. Minor limestone to sandy limestone.
Late PreCambrian to Early Cambrian	Hyland Group	Yusezyu Formation	Py (PrCh)	PHY, ARG	Variably calcareous siltstone, sandstone, conglomerate, locally calcareous "grits". Also abundant members comprised of phyllite, argillite, shale, lesser limestone. Calc-silicate altered members show pale green colouration suggesting actinolite alteration.



GEOLOGICAL LEGEND

CENOZOIC

Quaternary

26 — Unconsolidated glacial till, alluvium, stream deposits

MESOZOIC

Cretaceous

24 — Biotite granite, biotite quartz monzonite, syenite (predominantly Tombstone Suite)

PALEOZOIC

Permian

22 — Chert, cherty limestone, limestone (Takhandit Formation)

21 — Shale, thin bedded, brown siltstone, commonly limy (previously mapped as Cretaceous, probable older)

Upper Pennsylvanian to Permian

"27" — basalt flows, tuffs, slate, phyllite: minor limestone, chert, carbonaceous shale.

Carboniferous to Permian

20 — Thin bedded limestone, minor black shale, chert chert pebble conglomerate

Mississippian ?

19 — Kano Hill quartzite: Massive quartzite, minor slate phyllite, argillaceous quartzite

Devonian

18 — "Lower Schist", dark grey argillite, slate, phyllite commonly graphitic; minor phyllite, limy quartzite (probably Earn Group equivalent)

17 — EARN GROUP: Black shale, argillite, slate, black platy limestone, chert, quartzite, chert-pebble conglomerate (latter shown as circles)

16 — Felsic metavolcanics, quartz porphyry (part of lower schist?)

15 — Black platy limestone, commonly argillaceous, locally siliceous, interbedded chert

14 — Limestone, dark grey to brown, black, massive to thin bedded

13 — Limestone, dolomite: light grey to dark brownish grey

Ordovician - Silurian

12 — ROAD RIVER FORMATION: Interbedded black chert and argillit, minor quartzite, chert pebble conglomerate Steele Formation (siltstone) locally noted

RABBITKETTLE FORMATION

11 — Dolomite and limestone, minor blck platy argillaceous limestone and dolomite

10 — Varicoloured slate

9 — Quartzite, slate, phyllite, limestone

LATE PRECAMBRIAN - EARLY CAMBRIAN

HYLAND GROUP: phyllite, lesser calcareous phyllite, limestone, quartzite

0 5 10

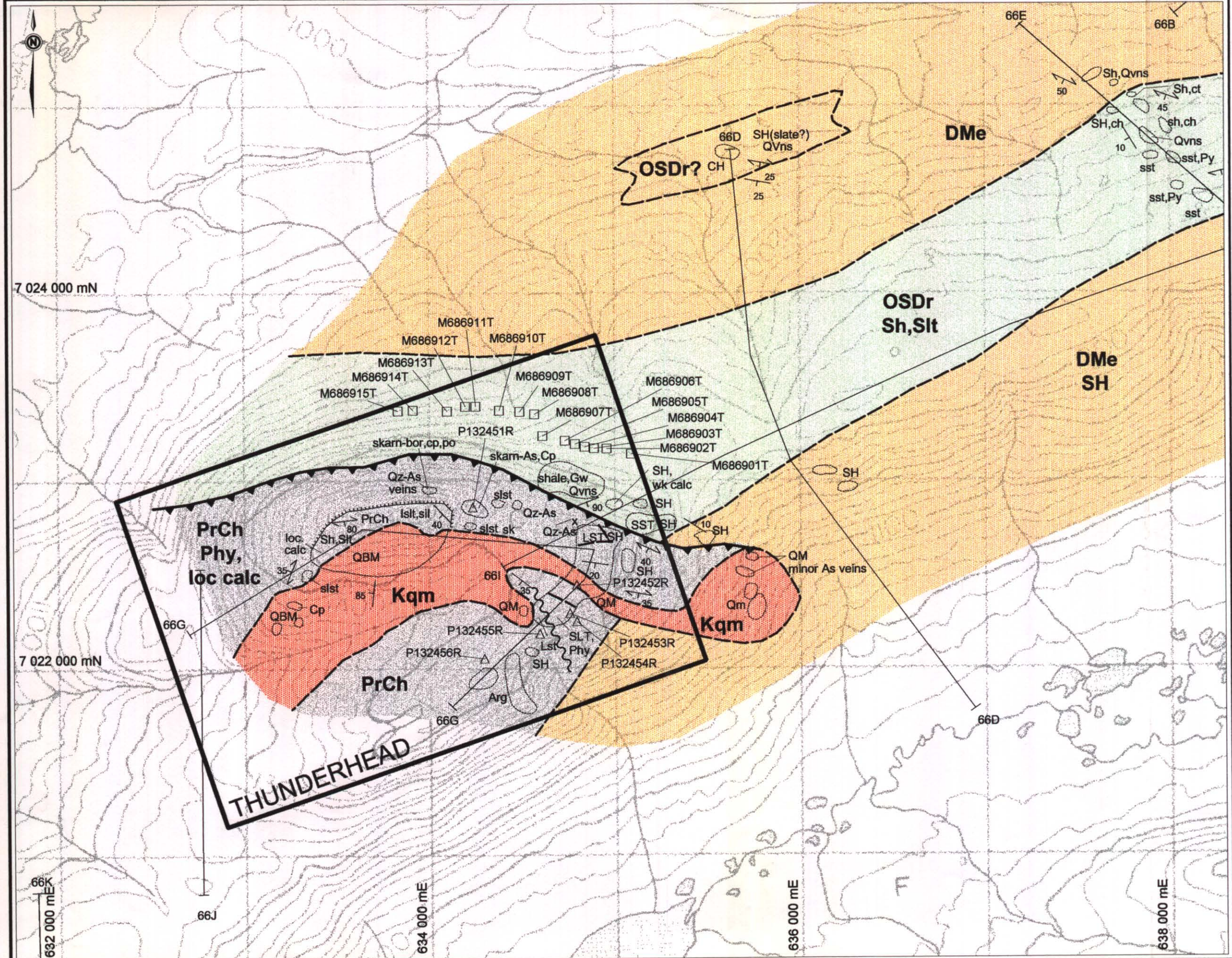
Kilometres

VICEROY RESOURCE CORPORATION

THUNDERHEAD PROPERTY
REGIONAL GEOLOGIC SETTING

	DATE: Apr. 98	NTS: 105/N
	SCALE: 1: 250,000	FIGURE NO:

094015



LEGEND

MESOZOIC

CRETACEOUS - TOMBSTONE PLUTONIC SUITE (Kqm)

Quartz monzonite (QM), Altered Quartz Monzonite (AQM), Quartz-feldspar porphyritic monzonite (QFP), Diorite (Dr).

PALEOZOIC

DEVONIAN to MISSISSIPPIAN - EARN GROUP (Dme)

Thin bedded phyllite (Phy), commonly graphitic (GPhy), lesser calcareous siltstone (Slt), sandstone (SST) and shale (SH).

Phyllite, siliceous shale, siltstone.

Chert pebble conglomerate (CPC), lesser greywacke (Gw), sandstone.

ORDOVICIAN to EARLY DEVONIAN - ROAD RIVER GROUP (OSDr)

STEEL FORMATION - Orange weathering, grey-green mudstone (Mst) to siltstone.

DUO LAKE FORMATION - Chert, minor black shale, siltstone, argillite (ARG).

DUO LAKE FORMATION - Shale, siltstone, minor chert.

MENZIE CREEK FORMATION (Mv) - Andesite (And), basalt (Ba), often vesicular, calcareous.

PROTEROZOIC

LATE HADRYNIAN - EARLY CAMBRIAN
HYLAND GROUP (PrCh), YUSEZYU FORMATION

Grey limestone to silty limestone.

Phyllite, locally calcareous, argillite (ARG), shale, siltstone.

"Grit" units; coarse clastic sediments, including quartz pebble conglomerate (QPC), quartzite (QZTE), sandstone.

SYMBOLS

- Strike and dip of bedding
- Strike and dip of foliation
- Area of outcrop or rubble
- Geologic contact
- Limit of alteration zone
- Fault
- Thrust fault (inferred), teeth indicate dip direction
- Cliff
- Soil traverse line
- Silt sample
- Soil sample
- Rock sample

ABBREVIATIONS

abnt	Abundant	graph	Graphite
AQM	Altered quartz monzonite	hem	Hematite
Arg	Argillite	hfels	Hornfels zone
argl	Argillic alteration	lim	Limonite
Ag	Silver	Po	Pyrrhotite
As	Arsenopyrite	Py	Pyrite
Au	Gold	QFP	Quartz-feldspar porphyritic
bor	Bornite	QV	Quartz vein
brec	Brecciated	Qz	Quartz
calc-sil	Calc-silicate alteration	rcrop	Rubblecrop
carb	Carbonate	scor	Scorodite
Cp	Chalcopyrite	sil	Silicified
Fe seep	Iron seep	slst	silty limestone
fcrte	Ferricrete	stwk	Stockwork zone
FP	Feldspar Porphyritic	o/c	Outcrop

0 1 km

VICEROY EXPLORATION (CANADA), INC.

THUNDERHEAD PROPERTY
(Target 66)

094015 (YUKON REGIONAL PROJECT)

COMPILATION MAP

DRAWN BY: CS, TL	DATE: Feb.99	NTS: 105N/8
UTM, NAD27, ZONE 8	SCALE: 1:20,000	FIGURE NO: 4

CHAPTER 3: MINERALIZATION

3.1 Property Mineralization

Several mineralogical settings, all spatially related to the quartz-monzonitic stock, occur within the property. Composite grab sampling of endoskarn mineralization, consisting of disseminated to semi-massive chalcopyrite returning up to 0.60% Cu, occurs within western parts of the stock. Fine grained actinolite alteration within the calcareous sediments suggests retrograde skarn development. Pyrrhotite-chalcopyrite with minor bornite exoskarn mineralization, returning up to 0.52% copper from composite grab samples, has been noted along eastern margins of the stock. Quartz-arsenopyrite veins occur peripherally to the stock and are particularly abundant within Hyland Group calcareous sediments along western intrusive margins and within a zone 100 to 300 metres east of the stock within Hyland Group sediments. Although these generally range from 0.1-0.3 meters in width, wider veins to at least 1.0 meters in width occur east of the stock, and vein rubblecrop material suggests wider veins. Composite grab sampling returned values to 1.23% Cu, 49.6 gpt Ag, and 240 ppb Au from these veins, suggesting the presence of tetrahedrite. Minor intrusive hosted quartz-arsenopyrite veins occur within the small stock to the south-east. Gold values across the property were disappointing; the highest value returned is 1.2 gpt Au from an isolated float sample of quartz-arsenopyrite vein material. Mineralization is primarily hosted within Hyland Group coarse clastic sediments. Sporadic elevated gold values were returned from soil sampling across the Thunderhead 13-24 claims. Follow-up work is required to determine the source of these anomalies.

Exploration in 1998 focussed primarily on detailed surface mapping and limited rock sampling across Road River Group sediments in south-eastern areas. Weakly elevated gold values with high arsenic and antimony values were returned from veins within both sedimentary and intrusive rock. A value of 40 ppb Au, with > 1% arsenic and 12 ppm antimony was returned from an intrusive hosted quartz-arsenopyrite vein. Sampling of moderately silicified, weakly pyritic and arsenical limonitic sandstone to siltstone returned values exceeding 1% arsenic and up to 40 ppm antimony. Silt sampling north of the property returned values to 35 ppb Au with 720 ppm arsenic, suggesting similar vein sources along the north flank of the hill underlying the property.

3.2 Geochemistry

Assay results from rock sampling suggest the presence of two mineralogical regimes: a copper enriched endoskarn and exoskarn mineralized setting, and a silver enriched quartz-arsenopyrite vein setting. Rock sampling results of skarn material show that copper enrichment is associated with strongly elevated bismuth and arsenic values, and moderately elevated tungsten, antimony, and base metal values. Vein material returned very high arsenic and bismuth values (to 2490 ppm Bi), strongly elevated antimony values (boulangerite?), copper values to 1.23%, and tungsten values to 690 ppm W, and moderately elevated mercury values to 450 ppb. Sampling of skarn material returned low gold values to 60 ppb, whereas elevated values to 1.29 gpt Au. Silver values to 54.2 gpt Ag were returned from vein material, usually associated with high copper values; skarn material returned weakly anomalous silver values to 10.4 gpt Ag.

Results of soil sampling returned a similar pathfinder signature with elevated gold values. Numerous sporadic elevated gold values to 205 ppb Au were returned from a traverse conducted across the stock and Hyland Group sediments to the south. Strongly elevated bismuth, arsenic, antimony and mercury values to 7 ppm Hg are associated with elevated gold values, suggesting a vein source for many of the anomalies. Follow-up work in 1998 revealed similar veining with metallogenic signatures influencing soil anomalies within eastern areas of Thunderhead 13-24.

3.3 Geologic Model for Mineralization and Alteration

A simple geologic model for mineral emplacement may be developed for the Thunderhead property. A small Cretaceous stock was emplaced within reactive Hyland Group stratigraphy. Base metal and arsenic enriched hydrothermal fluids, and possibly hydromagmatic fluids extended into marginal areas of the stock, creating the base metal enriched endoskarn as well as exoskarn mineralization within the reactive sediments. Vein mineralization was developed from fluid movement along available open spaces created by buckling of sedimentary strata during intrusive emplacement. Vein mineralization appears to be slightly more "evolved", indicating vein formation may have post-dated skarn formation, possibly as a result of a separate, later pulse of fluid movement.

CHAPTER FOUR: CONCLUSIONS

The Thunderhead Property overlies a thick sequence of Lower to Mid – Paleozoic Selwyn Basin shallow marine shelf to off-shelf sediments north of the Tintina Trench. This sequence was emplaced along the margins of the ancient North American Platform from Late Precambrian to Triassic time. In the Fairweather Lake area the lowest members of this sequence belong to the Late Precambrian to Early Cambrian Hyland Group consisting of coarse clastic, frequently calcareous sediments, and lesser thinly bedded shale, argillite, phyllite, and minor limestone. Extensive sequences of Devonian – Mississippian Earn Group shale and chert-pebble conglomerate with lesser Road River Group, primarily Steel Formation calcareous siltstone to mudstone extend WNW across the area. Quartz monzonitic to monzonitic intrusive units belonging to the Mid – Cretaceous Tombstone Plutonic Suite (91 Ma) have been emplaced into Selwyn Basin sediments.

The Thunderhead property is underlain by a small quartz-monzonite stock emplaced within a small unit of Hyland Group limestone and calcareous thin to medium bedded sediments. The latter have been interpreted by the GSC as occurring along the south side of a major regional east-west trending, south dipping thrust fault separating these sediments from a package of Road River Group sediments to the north.

Two major mineralized settings occur: copper enriched endoskarn and exoskarn mineralization along the margins of the stock, and copper enriched quartz-arsenopyrite veining with minor base metal enrichment. Mineralized occurrences are abundant, but of limited extent. Both settings have strong bismuth, antimony, and moderate mercury signatures. Vein mineralization shows moderate silver enrichment, to 54.2 gpt Au, and gold enrichment to 1.29 gpt Au; however, most values returned are sub-economic. Fairly narrow vein mineralization is somewhat more "evolved"; however, high copper values and fairly low gold values suggest proximal mineralization to the stock has low potential to host high grade gold deposits.

Exploration in 1998 indicates that soil anomalies within the Thunderhead 13-24 Claims were caused by narrow weakly auriferous quartz-arsenopyrite veins. Anomalous coincident gold-arsenic values from silt sampling north of the property suggest similar sources along the north flank of the hill underlying the property. The periodicity of mineralized occurrences, primarily vein showings, decreases with distance from the stock. It is unlikely that significant mineralized occurrences underlie lower elevations with substantial till cover outside of the property.

CHAPTER FIVE: RECOMMENDATIONS

To date, all mineralized occurrences on the Thunderhead property are of limited extent and return sub-economic gold values. Significantly larger occurrences than any found to date are necessary for potential economic viability. Traversing in 1998 involving geological mapping and rock sampling across the Thunderhead 13-24 Claims, and involving detailed silt sampling one kilometre north of the property was sufficient to determine that very limited potential for significant mineralization occurs proximal to the stock.

Limited traversing involving systematic B-horizon soil sampling, geological mapping and prospecting across the western extension of the major thrust fault is recommended. If these traverses fail to return significant results, the claims should be allowed to lapse.

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STATEMENT OF QUALIFICATIONS

I, Carl Schulze, of the City of Whitehorse, Yukon Territory, Canada, do hereby certify that:

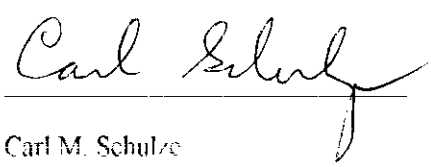
I have held the position of Senior Exploration Geologist with Viceroy Exploration (Canada), Inc. since its 1998 inception and with Viceroy International Exploration Inc. since 1996.

I graduated from Lakehead University with a Bachelor of Science Degree in Geology in 1984.

I have been continually active in mineral exploration since 1984.

I supervised the exploration program and performed part of the work described in this report.

I am currently president of the Yukon Chamber of Mines and a member of the Yukon Prospectors' Association.



Carl M. Schulze
Senior Geologist
Viceroy Exploration (Canada) Inc.

APPENDIX 1

APPLICABLE EXPENDITURES FOR ASSESSMENT CREDITS

Thunderhead Property Expenditures	
Description	**Expenditure**
Labor	$ 1,280
Camp costs (including mob/demob)	6,000
Helicopter	2,631
Geochemical Analyses	420
Total	**$10,331**

APPENDIX 2

ROCK ASSAY RESULTS

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

VICEROY EXPLORATION (CANADA), INC

20 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

A9826518

Comments: ATTN: RICK DIMENT

CERTIFICATE A9826518

(OGN) - VICEROY EXPLORATION (CANADA), INC.

Project: 4340-03
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 9-AUG-98.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	122	Geochem ring to approx 150 mesh
226	122	0-3 Kg crush and split
3202	122	Rock - save entire reject
229	122	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	122	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
100	0	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2118	122	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	122	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	122	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	122	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	122	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	122	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	122	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	122	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	122	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	122	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	122	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	122	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	122	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
20	122	Hg ppb: HNO3-HCl digestion	AAS-FLAMELESS	10	100000
2132	122	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	122	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	122	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	122	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	122	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	122	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	122	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	122	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	122	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	122	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	122	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	122	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	122	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	122	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	122	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	122	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	122	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	122	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

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VICEROY EXPLORATION (CANADA), INC
20 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

Project: 4340-03
Comments: ATTN: RICK DIMENT

Certificate: 09-AUG-96
Invoice No. : I9826518
P.O. Number :
Account : OON

CERTIFICATE OF ANALYSIS A9826518

SAMPLE	PREP CODE		Au ppb PA+AA	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %
P132036R	205	226																			
P132037R	205	226																			
P132038R	205	226																			
P132039R	205	226																			
P132040R	205	226																			
P132041R	205	226																			
P132042R	205	226																			
P132043R	205	226																			
P132044R	205	226																			
P132045R	205	226																			
P132046R	205	226																			
P132047R	205	226																			
P132048R	205	226																			
P132049R	205	226																			
P132050R	205	226																			
P132051R	205	226																			
P132052R	205	226																			
P132053R	205	226																			
P132054R	205	226																			
P132055R	205	226																			
P132056R	205	226																			
P132057R	205	226																			
P132058R	205	226																			
P132059R	205	226																			
P132060R	205	226																			
P132061R	205	226																			
P132445R	205	226																			
P132446R	205	226																			
P132447R	205	226																			
P132448R	205	226																			
P132449R	205	226																			
P132450R	205	226																			
P132451R	205	226	15	-----	2.0	0.24	>10000	< 10	< 0.5	30	0.26	< 0.5	13	57	591	12.90	< 10	10	0.02	< 10	0.21
P132452R	205	226	40	-----	0.6	1.12	>10000	130	< 0.5	4	0.03	< 0.5	13	40	179	3.69	< 10	< 10	0.26	10	0.47
P132453R	205	226	< 5	-----	0.6	1.36	34	130	< 0.5	< 2	3.73	1.5	4	14	54	1.62	< 10	30	0.01	< 10	1.33
P132454R	205	226	< 5	-----	0.8	1.30	10	300	< 0.5	< 2	1.29	< 0.5	5	13	89	2.67	< 10	10	0.01	< 10	0.96

CERTIFICATION: Stewart Buchler

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VICEROY EXPLORATION (CANADA), INC

20 MACDONALD RD.
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Y1A 4L2

Project : 4340-03
Comments: ATTN: RICK DIMENT

Certificate: 09-AUG-98
Invoice No. : 19826518
P.O. Number :
Account : OQN

CERTIFICATE OF ANALYSIS A9826518

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
P132036R	205	226															
P132037R	205	226															
P132038R	205	226															
P132039R	205	226															
P132040R	205	226															
P132041R	205	226															
P132042R	205	226															
P132043R	205	226															
P132044R	205	226															
P132045R	205	226															
P132046R	205	226															
P132047R	205	226															
P132048R	205	226															
P132049R	205	226															
P132050R	205	226															
P132051R	205	226															
P132052R	205	226															
P132053R	205	226															
P132054R	205	226															
P132351R	205	226															
P132352R	205	226															
P132353R	205	226															
P132354R	205	226															
P132355R	205	226															
P132356R	205	226															
P132357R	205	226															
P132358R	205	226															
P132359R	205	226															
P132360R	205	226															
P132361R	205	226															
P132445R	205	226															
P132446R	205	226															
P132447R	205	226															
P132448R	205	226															
P132449R	205	226															
P132450R	205	226															
P132451R	205	226	75	3	< 0.01	5	560	62	40	< 1	17	< 0.01	< 10	< 10	3	290	28
P132452R	205	226	160	< 1	< 0.01	33	210	28	12	1	10	< 0.01	< 10	< 10	7	< 10	26
P132453R	205	226	455	< 1	0.01	27	250	4	2	< 1	619	0.03	< 10	< 10	8	10	214
P132454R	205	226	275	< 1	0.01	32	200	4	< 2	< 1	552	0.03	< 10	< 10	8	< 10	60

CERTIFICATION: Stuart Bichler

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VICEROY EXPLORATION (CANADA), INC

20 MACDONALD RD.
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Y1A 4L2

Project : 4340-03
Comments: ATTN: RICK DIMENT

Page N : 4-A
Total P : 4
Certificate: 09-AUG-98
Invoice No. : 19826518
P.O. Number :
Account : OQN

CERTIFICATE OF ANALYSIS A9826518

SAMPLE	PREP CODE		Au ppb FA+AA	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %
P132455R	205	226	15	-----	3.8	0.77	36	760	0.5	< 2	0.16	1.0	1	118	89	0.95	< 10	20	0.28	10	0.09
P132456R	205	226	< 5	-----	4.6	0.95	10	630	< 0.5	< 2	0.19	1.0	3	89	42	1.87	< 10	30	0.18	< 10	0.36

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VICEROY EXPLORATION (CANADA), INC

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Project : 4340-03
Comments: ATTN: RICK DIMENT

Page : 4-B
Total P : 4
Certificate Date: 09-AUG-95
Invoice No. : 19826518
P.O. Number :
Account : OQN

CERTIFICATE OF ANALYSIS A9826518

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
P132455R	205 226	30	4	0.01	6	1200	12	2	1	152	< 0.01	< 10	< 10	52	< 10	38
P132456R	205 226	110	1	0.01	40	330	12	4	2	47	0.01	< 10	< 10	114	< 10	176

CERTIFICATION:

APPENDIX 3

SILT ASSAY RESULTS

Chemex Labs Ltd.

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212 Brooksbank Ave., North Vancouver
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To: VICEROY EXPLORATION (CANADA), INC

20 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

A9822352

Comments: ATTN: RICK DIMENT

CERTIFICATE A9822352

(OQN) - VICEROY EXPLORATION (CANADA), INC. *

Project: YUKON REGIONAL
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 28-JUN-98.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	128	Dry, sieve to -80 mesh
202	128	save reject
229	128	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	127	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	128	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	128	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	128	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	128	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	128	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	128	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	128	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	128	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	128	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	128	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	128	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	128	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	128	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
20	128	Hg ppb: HNO3-HCl digestion	AAS-FLAMELESS	10	100000
2132	128	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	128	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	128	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	128	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	128	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	128	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	128	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	128	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	128	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	128	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	128	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	128	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	128	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	128	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	128	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	128	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	128	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	128	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

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To: VICEROY EXPLORATION (CANADA), INC

20 MACDONALD RD.
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Y1A 4L2

Project : YUKON REGIONAL
Comments: ATTN: RICK DIMENT

Certificate Date: 28-JUN-98
Invoice No. :I9822352
P.O. Number :
Account :OQN

CERTIFICATE OF ANALYSIS A9822352

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm
M686901T	201 202	< 5	1.0	0.95	30	190	0.5	< 2	0.11	< 0.5	20	10	16	3.89	< 10	110	0.05	< 10	0.11	1280
M686902T	201 202	< 5	2.0	1.25	84	590	2.0	< 2	0.16	0.5	179	10	35	3.55	< 10	100	0.07	10	0.11	6930
M686903T	201 202	< 5	0.8	0.91	54	200	0.5	< 2	0.11	< 0.5	6	10	25	1.81	< 10	110	0.09	10	0.18	145
M686904T	201 202	5	1.2	1.20	44	280	0.5	< 2	0.11	< 0.5	9	14	39	2.70	< 10	170	0.12	10	0.23	270
M686905T	201 202	10	2.2	1.24	140	370	1.0	< 2	0.15	< 0.5	11	13	42	2.98	< 10	210	0.14	20	0.21	460
M686906T	201 202	< 5	0.8	1.11	92	170	0.5	< 2	0.22	< 0.5	6	10	22	2.02	< 10	90	0.09	30	0.16	140
M686907T	201 202	5	1.4	0.95	404	180	1.0	< 2	0.42	2.5	23	10	76	3.27	< 10	100	0.08	40	0.25	1235

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Y1A 4L2

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Invoice No. : I9822352
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SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
M686901T	201	202	< 1	< 0.01	13	1050	38	< 2	3	17	< 0.01	< 10	< 10	20	< 10	62
M686902T	201	202	< 1	< 0.01	20	1410	98	6	5	34	< 0.01	< 10	< 10	15	< 10	90
M686903T	201	202	2	< 0.01	17	800	18	4	3	20	< 0.01	< 10	< 10	20	< 10	82
M686904T	201	202	3	< 0.01	25	890	18	< 2	4	26	< 0.01	< 10	< 10	30	< 10	128
M686905T	201	202	2	< 0.01	28	910	58	8	4	34	< 0.01	< 10	< 10	27	< 10	138
M686906T	201	202	1	< 0.01	14	860	22	< 2	3	27	< 0.01	< 10	< 10	16	< 10	58
M686907T	201	202	2	< 0.01	34	1070	82	10	3	80	< 0.01	< 10	< 10	20	< 10	158

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SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm
M686908T	201	202	< 5	0.8	1.11	292	200	1.0	< 2	1.02	1.5	12	10	55	2.80	< 10	100	0.09	20	0.33	530
M686909T	201	202	< 5	< 0.2	0.75	108	100	0.5	< 2	0.69	< 0.5	12	7	29	2.45	< 10	30	0.08	50	0.23	305
M686910T	201	202	< 5	0.8	0.90	36	120	0.5	< 2	1.14	< 0.5	11	7	35	2.06	< 10	80	0.05	20	0.15	1125
M686911T	201	202	< 5	1.2	1.63	246	220	1.0	< 2	0.29	1.5	70	16	42	3.80	< 10	80	0.11	50	0.27	5730
M686912T	201	202	5	1.0	1.32	550	140	0.5	< 2	0.26	0.5	10	16	49	2.91	< 10	50	0.11	50	0.35	265
M686913T	201	202	< 5	1.0	1.47	118	170	0.5	< 2	1.24	2.0	12	14	46	2.60	< 10	80	0.09	20	0.46	560
M686914T	201	202	15	1.0	2.03	1130	240	1.0	8	0.93	2.0	22	22	193	3.98	< 10	60	0.14	30	0.65	720
M686915T	201	202	35	1.6	1.38	720	180	1.0	6	0.88	2.5	16	13	87	2.76	< 10	60	0.10	30	0.34	735

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Page Number :3-B
Total Pages :4
Certificate Date: 28-JUN-98
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Account :OQN

CERTIFICATE OF ANALYSIS A9822352

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
M686908T	201 202	1	< 0.01	31	990	46	6	3	114	< 0.01	< 10	< 10	18	< 10	166
M686909T	201 202	< 1	< 0.01	19	580	22	2	3	65	< 0.01	< 10	< 10	10	< 10	84
M686910T	201 202	1	< 0.01	19	1090	36	2	3	71	< 0.01	< 10	< 10	11	< 10	76
M686911T	201 202	2	< 0.01	24	1370	74	4	3	49	< 0.01	< 10	< 10	28	< 10	114
M686912T	201 202	2	< 0.01	19	950	64	6	2	70	< 0.01	< 10	< 10	30	< 10	104
M686913T	201 202	1	< 0.01	24	980	46	2	3	96	< 0.01	< 10	< 10	24	< 10	194
M686914T	201 202	3	0.01	34	1020	74	2	4	104	0.02	< 10	< 10	47	< 10	202
M686915T	201 202	3	< 0.01	21	890	90	2	2	78	< 0.01	< 10	< 10	25	< 10	160

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