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MOUNTAIN STAR RESOURCES LTD

GEOLOGICAL EVALUATION AND EXPLORATION POTENTIAL

of the

VERMONT PROJECT MINERAL CLAIMS

GOLDEN MINING DIVISION, BRITISH COLUMBIA

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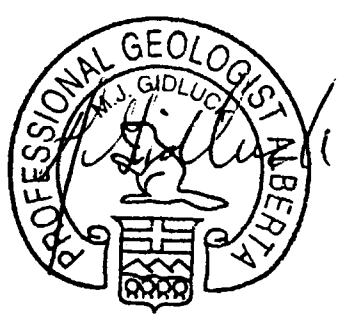
LETTER OF CONSENT

I hereby authorize the report titled "*Geological Evaluation and Exploration Potential of the Vermont Project Mineral Claims*", dated August 8, 1997 and written for Mountain Star Resources Ltd, to be used as a Qualifying Report on the Alberta Stock Exchange and as a source of information for Information Circulars and other documents pertaining to the claims referred to in this report.

Dated Calgary, Alberta, this 9th day of September, 1997.

Marcus J. Gidluck, P.Geol.



GEOLOGICAL EVALUATION AND EXPLORATION POTENTIAL

of the

VERMONT PROJECT MINERAL CLAIMS

located at

BOBBIE BURNS CREEK - VOWELL CREEK
GOLDEN MINING DIVISION, BRITISH COLUMBIA

NTS 82K/14,15 & 82N/3

August 8, 1997

Prepared for
MOUNTAIN STAR RESOURCES LTD
Calgary, Alberta

by
M.J.Gidluck, B.Sc., P.Geol.

SUMMARY

Geological Evaluation and Exploration Potential of the Vermont Project, Golden B.C.

History and Location

The Vermont Project is a large block of mining claims in the Northern Purcell Mountains of British Columbia assembled under the company name of Mountain Star Resources Ltd. The area was prospected in the late 1800's for gold and then explored in later years for lead, zinc and silver.

The property is comprised of recent mineral claims and old mining leases covering an 18 km stretch of rugged mountain terrain approximately 30 km south of Golden B.C. The land is divided into three main claim groups, each with its own exploration and development history; the VMT Claim Group in the south, the Ruth-Vermont Claim Group in the middle and the BB Claim Group in the northern two-thirds of the land package.

At the turn of the century a small stamp mill was set up at the north end of the property to treat gold from a number of mining leases in the area. A reclaimed lead-zinc-silver mine, the Ruth-Vermont Mine, with a sporadic and largely unsuccessful production history, is situated in the southern part of the property. With the advent of exploration for sedimentary exhalative (Sedex) deposits in the 1970's, the property was subjected to several years of regional surveys for shale-hosted lead-zinc deposits. This resulted in detail geological, geochemical and geophysical surveys in five areas on the property followed by several separate programs of exploratory diamond drilling in two of these areas. The Vermont Project still has considerable Sedex lead-zinc exploration potential as well as the opportunity to discover more gold-bearing quartz veins.

Geology

The property is located on a northwest trending assemblage of Upper Proterozoic marine sedimentary rocks belonging to the Horsethief Creek Group in the Windermere Supergroup. It occupies the core of the Purcell Anticlinorium which is locally deformed by small scale isoclinal folding and faulting. Detail mapping by various workers indicates that most of the property is located in the "Grit Division" of the lower portion of the Horsethief Creek Group. Lithologically it is composed of a series of interbedded gritty sandstones, black shales, pyritic slates and phyllites, limestones and calcareous sandstones and shales.

Mineralization and Conclusions

Approximately 35 drill holes and a number of trenches and surveys in separate programs, tested four showings of lead-zinc mineralization on the VMT Claim Group. The best of these is the LCP Zone, the most southerly showing on the property. Bedded galena and sphalerite produced grades of up to 3.43% Pb, 8.61% Zn and 3.39 oz/t Ag over a width of 14.5 ft. in one drill hole. This hole and four other similar drill and trench intersections at the same location appear to occur along the same stratigraphic interval, at the contact between black shales and an overlying tuffaceous schist. The LCP Zone is associated with a 500 m long Pb-Zn-Ag soil anomaly and is interpreted to occur on the eastern limb of a tight isoclinal syncline bounded on the north by a northwest trending fault.

A tentative structural model for this area has been constructed, however, more detailed mapping and a structural analysis is required in order to target the location of the permissive, lead-zinc bearing horizon for future drilling. Faulting may have caused considerable displacement to the mineralized horizon.

The Ruth-Vermont Mine dates back to the start of the century and since that time there has been a number of unsuccessful attempts to bring it into full production. In 1972 there were 291,384 tons of mineable ore reserves averaging 4.76% Pb, 5.65% Zn and 6.62 oz/t Ag with good prospects of increasing these reserves. A later study concluded that it would not be profitable to operate this mine when silver prices were below $8.00 an ounce. The workings have since been shut in and the site reclaimed.

Mineralization occurs as two distinct types in this orebody; vertically dipping quartz veins with galena, sphalerite, pyrite and scheelite and replacement deposits (manto) of pyrite, sphalerite, galena and locally arsenopyrite in black limestone beds overlying argillite. The veins may have been conduits for the mineralizing fluids and the replacement bodies may be final sulphide depositional sites. Other workers speculate these replacement deposits occur at the same stratigraphic level as one of the bedded lead-zinc horizons on the BB claims to the north. They also feel that the stratabound lead-zinc mineralization at Ruth-Vermont is similar to mineralization found in major shale-hosted lead-zinc deposits in other parts of the world (Dickie and Longe-1982).

Recent underground drilling in 1996 at Ruth-Vermont produced a 5.6 ft intersection assaying 2.08 oz/t Au with disseminated pyrite and arsenopyrite in replacement type lead-zinc mineralization hosted by a limy argillite bed. Historically, only a very limited number of gold analyses were conducted on this deposit so the quantity and distribution of gold associated with the orebody is not known. It may be related to a nearby, so far undetected, vein or the gold may be a distal facies associated with the lead-zinc manto deposits. In either case more systematic testing for gold is warranted at this location as well as at other bedded lead-zinc showings found on the property.

Seven significant lead-zinc-silver showings with galena and sphalerite conformable to bedding have been discovered in the following three areas on the BB Claim Group; Malachite Creek, Decision Creek and Crown Point areas. Most of the detailed surveys were done in the Malachite Creek area where 3 of the showings were tested with 11 drill holes in 1983. The best of these holes, at the Malachite Trenches showing, tested an IP anomaly coincident with the minerlization. It intcsected an 18 cm vein of high grade massive sulphides assaying 16.4% Pb, 16.7% Zn and 15.9 oz/t Ag overlying a lower grade section of stratabound lead-zinc mineralization. To date none of the showings or drill holes on this claim group have produced economic grades over mineable thicknesses.

All the major lead-zinc mineralization on the BB Claim Group occurs at one of three stratigraphic levels, each at a contact between shale and an overlying limestone in the lower Grit Division of the Horsethief Creek Group. Due to repetition from folding a previous operator calculated there is as much as 73 km of these prospective horizons on the property. Only about half of this strike length

had been prospected in 1982 leaving considerable exploration potential on the claims.

In addition to base metals, this claim group also has gold potential. Numerous auriferous quartz-carbonate veins on old mining leases are located both on and adjacent to the property. The veins have produced average grades as high as 0.76 oz/t Au from the Burns leases and 0.146 oz/t Au across a width of 2.2 ft from the Flying Dutchman leases. Apparently there has been no systematic exploration conducted for gold over this area since the turn of the century. As the gold bearing veins on both these leases have very similar characteristics, similar configuration and occur in the same host rocks, they provide the interveining and adjacent areas with considerable scope for the discovery of a more extensive gold system.

The Vermont Project property exhibits two principal requirements for shale hosted lead-zinc deposits; favourable lithologies of carbonaceous, iron rich, limy shales within a Proterozoic sedimentary sequence and the occurrence of numerous stratabound lead-zinc showings within these units. The presence of substantial thicknesses of bedded lead-zinc-silver "ore" at one of these stratigraphic levels in the Ruth-Vermont Mine, further strengthens the potential for finding an economic shale hosted lead-zinc deposit in this area. In addition, thin section work identified mafic volcanic alteration minerals in association with black shales and lead-zinc mineralization (Bottrill et al - 1983). This is another positive feature indicating alteration and sulphides may be diagenetic resulting from a sea-floor geothermal system associated with a Sedex environment.

Recommendations

Further exploration is warranted on this extensive land package both for shale-hosted lead-zinc deposits and gold vein systems. A two phase program is recommended involving an initial phase of detail mapping and prospecting in selected areas, namely the LCP Zone, Southern Ruth-Vermont claims and Decision Creek area, as well as more regional prospecting, mapping and soil geochem along approximately 35 km of strike length in the prospective shale units on the BB Claims. This work is estimated to cost approximately $215,000.

A second phase of diamond drilling is recommended to test the results from the first phase. The program should commence in the LCP Zone area of the VMT claims (the thickest shale seqence and highest Sedex potential so far) where three holes should be targeted by projecting known mineralized beds based on structural modelling. Two holes should also be drilled on a southern extension of the LCP Zone and the lead-zinc-silver soil anomaly.

Finally two holes are proposed to be drilled from the surface at the Ruth-Vermont Mine to test for a deep Sedex source to the lead-zinc-silver manto mineralization. It is hoped these holes can bracket the 1996 gold intersection at the same time, however, if this is not possible two more short holes will be required to explore for additional gold intersections. The drilling program is estimated to cost $385,000 and the total proposed budget for the first year of the Vermont Project is $600,000.

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1.0 INTRODUCTION

At the request of Mr. Gordon Dixon, President of Mountain Star Resources Ltd., the writer was contracted to conduct a geological evaluation on the mineral claims recently assembled into one land package under the company name of Mountain Star Resources Ltd. This evaluation was based on a review of all the various reports and documents available in the company's offices in Calgary, reports and maps available at MineQuest Exploration Associates Ltd offices in Vancouver, selected published references and selected assessment reports copied from the B.C. Mineral Resources Branch files. A property examination by the writer was conducted on the eastern portion of the VMT claim block on June 28 and on a small portion of the northern BB claims on July 4, 1997. Due to the lack of road access, rugged terrain and persistent snow cover at that time of the year, much of the claim group was not examined during these visits.

2.0 PROPERTY

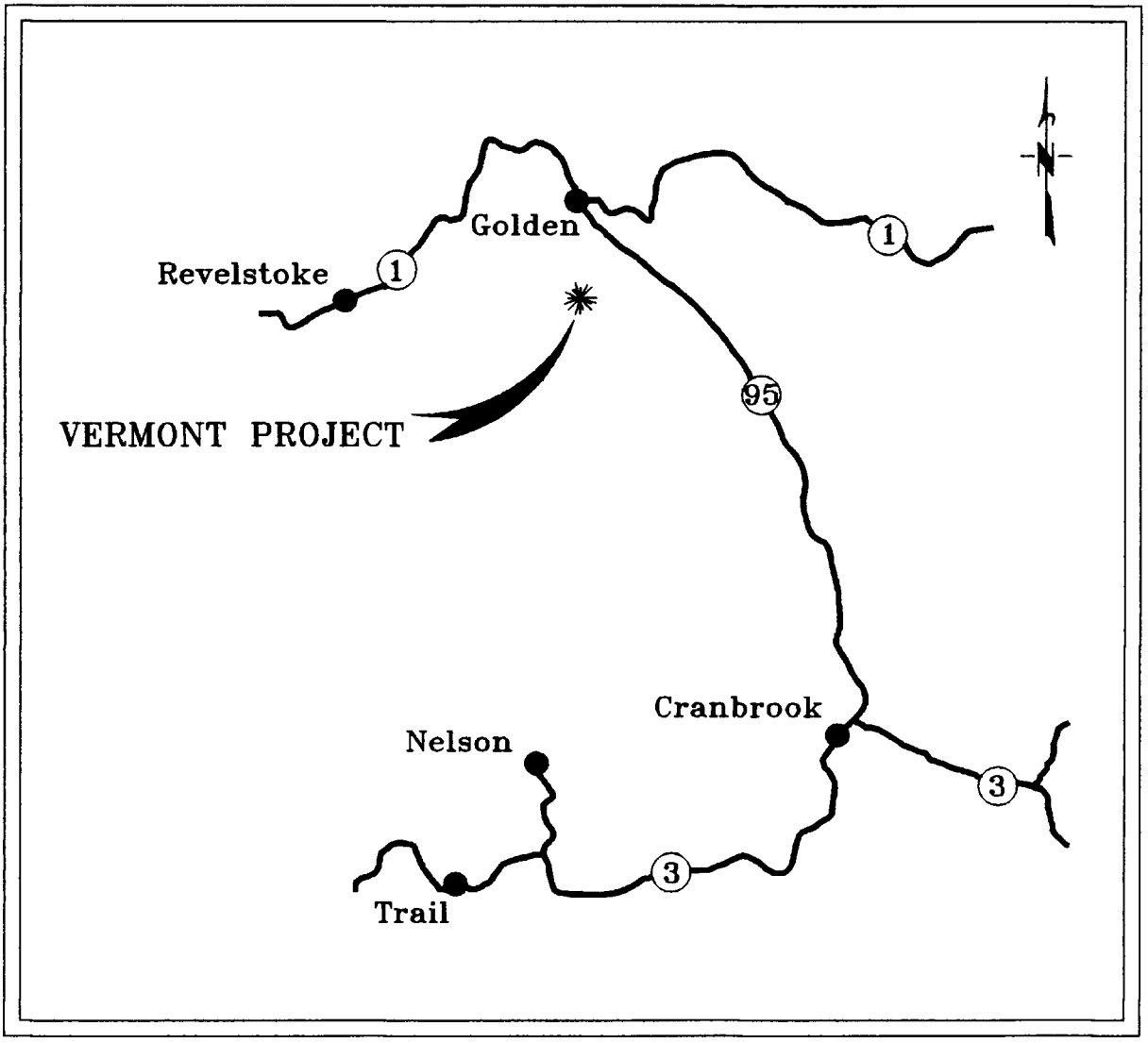
2.1 Location and Access

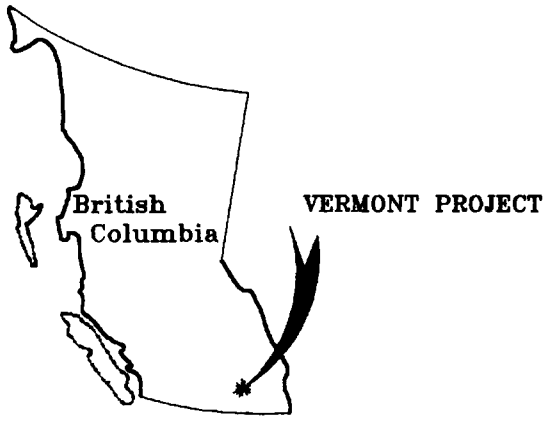
The Vermont Project is a northwest oriented group of mineral dispositions located in the head waters of Bobbie Burns, Malachite and Vermont Creeks on the eastern slopes of the northern Purcell Mountains. The centre of the claims is located approximately 30 km south of Golden and 27 km west-southwest of the town of Parson, British Columbia, in the Columbia River valley (Figure 1). The entire property lies within NTS quadrants 82N/3 and 82K/14,15.

The southern part of the property, west of Vowell Creek, is accessible from a network of well maintained logging roads west of Highway #95 at Parson. Old logging and mining roads up the slopes from Vermont and Crystal Creeks provide access by 4-wheel drive and foot to the main areas of interest on the VMT and Ruth-Vermont claim blocks.

The northern two thirds of the property is not accessible by vehicle. An unused logging road branching north off the main road system at the 40 km post, is negotiable by standard vehicle for a distance of 8.2 km up Bobbie Burns Creek. The boundary of the northern BB claims, however, is another 14 km upstream from this point. An old mining road, constructed in 1966 along Bobbie Burns Creek, is grown over in many places and eroded beyond use for 4 wheel drive vehicles. An ATV trail utilizing the old road bed appears to be partially maintained by hunters to a point about 1 km east of the property boundary.

The best access to this area and other high elevations on the property is by helicopter based out of the town of Golden. Accommodation and helicopter charter may also be available on a seasonal basis, from the Bobbie Burns Ski Lodge (tel 250-348-2226) located on the Vowell Creek logging road at the 57 km post, adjacent to the VMT claims.





0 50 100km

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VERMONT PROJECT

LOCATION MAP

To Accompany Report: 1997 Vermont Project	REVISION author/drafter/date				N.T.S. 82K, 82N	Figure 1
File Name D:\MQ\FIGURE1.DWG	ORIGINAL author/drafter/date	RVL	EAR	Aug 97		

Elevations on the property vary from about 5000 ft to 9300 ft above sea level, although, much of the property is situated above treeline at about 7500 ft in this region. Snow generally remains on a large portion of the claims until mid July and permanent snow and ice occur in ice fields on the BB-1, BB-10 and VMT- 2 claims .

2.2 Mineral Dispositions and Status

The property is a large, 18 km long block of mineral claims and mining leases which are either owned outright or optioned to Mountain Star Resources Ltd. of Calgary, Alberta (Figure 2). The property is comprised of 34 mineral dispositions made up of 218 whole or partial (fractions) claim units covering a total of approximately 3474 hectares (Table 1 below).The land package is made up of three major claim groups, the VMT group in the south, the Ruth-Vermont group in the middle and the BB group which occupies the northern two-thirds of the property. Each claim group has a slightly different exploration and ownership history which is described below (Exploration History).

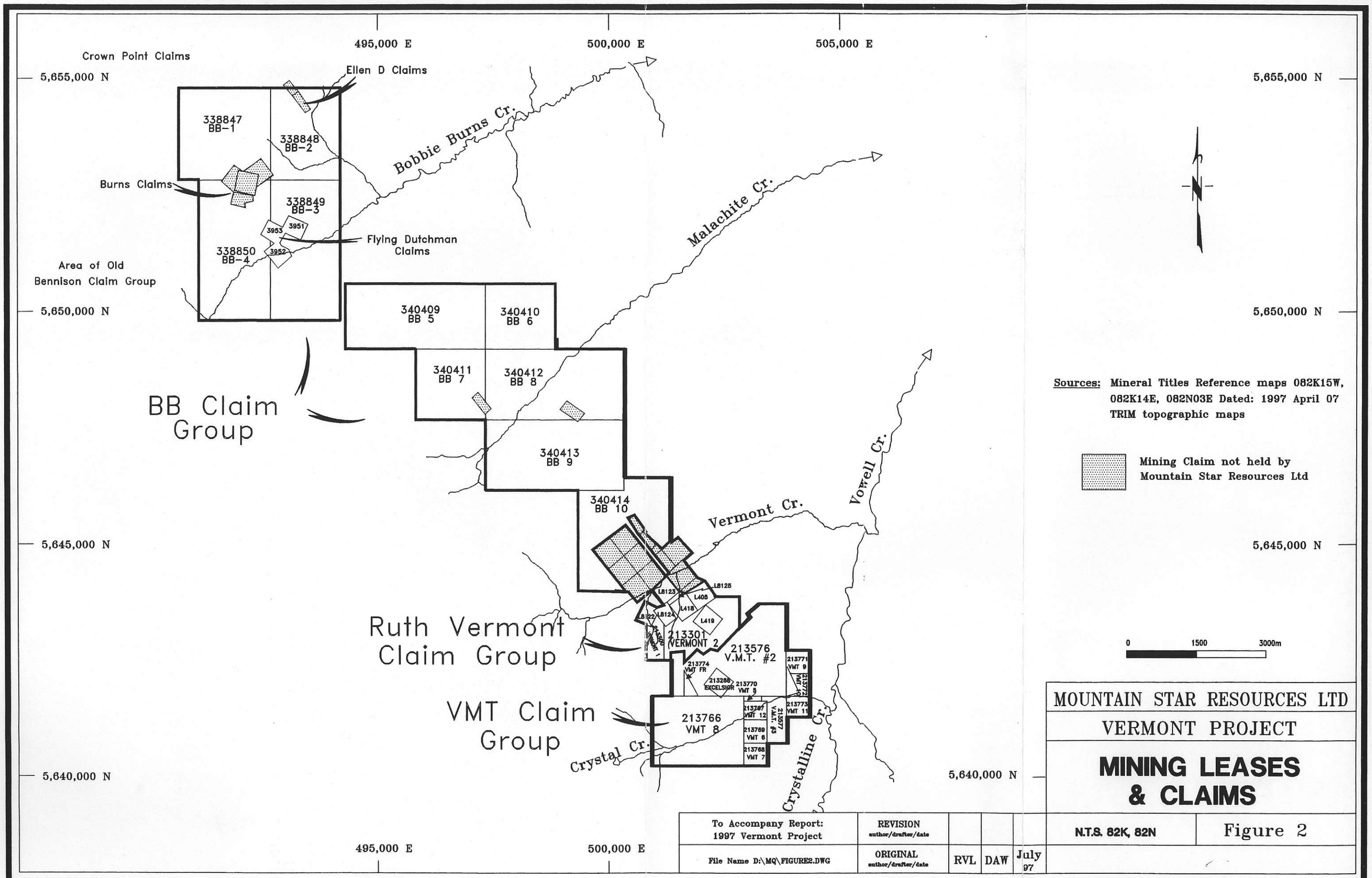
The Mineral claim records and documents are on file at the Government Agent office at 606 North Street, Box 39, Golden B.C., V0A 1H0, tel. 250- 344-7550, fax. 250-344-7553. A title search was conducted on the property dispositions by the Assistant Gold Commissioner in Golden on July 4, 1997 and the results, which were faxed to the writer, are incorporated into the following Mineral Claims Status List (Table 1).

3. REGIONAL GEOLOGY

The Vermont Property is underlain by a thick sequence of Hadrynian marine sedimentary rocks exposed in the core of the northwest trending Purcell Anticlinorium, on the west side of the Rocky Mountain Trench (Figure 3). The anticline is deformed by subsequent thrust faulting and folding parallel to the structural axis (Okulitch and Woodsworth - 1977; Kubli and Simony - 1994).

The majority of lithologies exposed on the property belong to the Horsethief Creek Group, a subdivision of the Windermere Supergroup of Hadrynian age (Table 2). The Horsethief Creek Group is composed of four general divisions which are not easily separable; a lower Grit Division of turbidite sandstones and shales, a deep water Slate Division, a shallow water Carbonate Division and an Upper Clastic Division of shales, sandstone and carbonate deposited during a marine transgression (Evans - 1933; Young et al - 1973).

Conformably underlying the Horsethief Creek are diamictic conglomerates of the Toby Formation derived from subaqueous slides and debris flows. These rocks have been mapped in the Bugaboo Creek valley 20 km to the southeast of the property (Reesor - 1973).



Sources: Mineral Titles Reference maps 082K15W, 082K14E, 082N03E Dated: 1997 April 07
TRIM topographic maps

Mining Claim not held by Mountain Star Resources Ltd

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VERMONT PROJECT

MINING LEASES & CLAIMS

To Accompany Report: 1997 Vermont Project	REVISION author/drafter/date				N.T.S. 82K, 82N	Figure 2
File Name D:\MQ\FIGURE2.DWG	ORIGINAL author/drafter/date	RVL	DAW	July 97		

TABLE 1

Mineral Claims Status of the Vermont Project, Golden Mining Division, B.C.

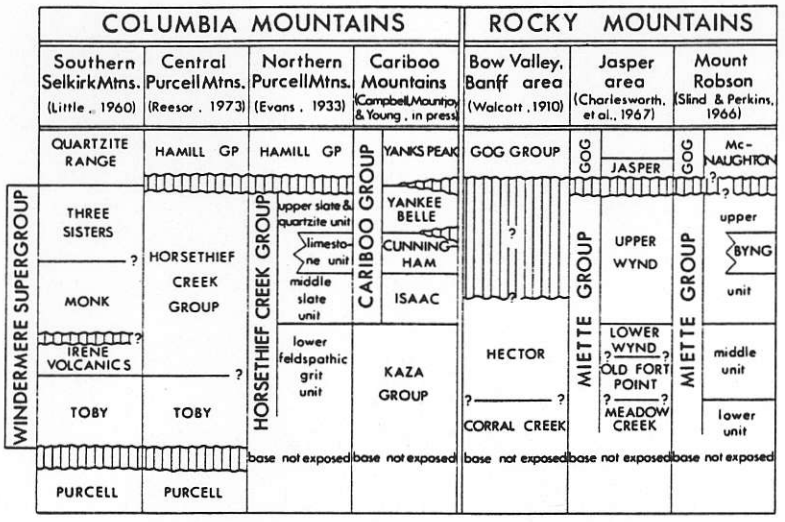
NAME	NUMBER	UNIT	TYPE	AREA	DUE DATE	OWNER
BB Claim Group						
BB-1	338847	16	Claims	256	Aug.13,1997	Mountain Star Res. Ltd.
BB-2	338848	12	Claims	192	Aug.13,1998	Mountain Star Res. Ltd.
BB-3	338849	18	Claims	288	Aug.13,1997	Mountain Star Res. Ltd.
BB-4	338850	18	Claims	288	Aug.13,1997	Mountain Star Res. Ltd.
BB-5	340409	18	Claims	288	Sep. 24,1997	Mountain Star Res. Ltd.
BB-6	340410	6	Claims	96	Sep. 24,1997	Mountain Star Res. Ltd.
BB-7	340411	6	Claims	96	Sep. 24,1997	Mountain Star Res. Ltd.
BB-8	340412	18	Claims	288	Sep. 24,1997	Mountain Star Res. Ltd.
BB-9	340413	18	Claims	288	Sep. 24,1997	Mountain Star Res. Ltd.
BB-10	340414	20	Claims	320	Sep. 24,1997	Mountain Star Res. Ltd.
Bryan	3951	1	Mining Lease 97	16	Apr. 17, 1998	Gordon F. Dixon
Lincoln	3952	1	Mining Lease 97	18	Apr. 17, 1998	Gordon F. Dixon
Lucky Jack	3953	1	Mining Lease 97	16	Apr. 17, 1998	Gordon F. Dixon
Ruth - Vermont Claim Group						
Vermont 1	213300	3	Claims	48	Apr, 3, 2005	Mountain Star Res. Ltd.
Vermont 2	213301	12	Claims	192	Apr. 3, 2005	Mountain Star Res. Ltd.
Cleopatra	L 8122	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
Vermont	L 8123	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
Sheba	L 8124	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
Ruth Fr.	L 8125	Fract.	Mining Lease 95	8	Aug. 21, 1997	Mountain Star Res. Ltd.
Ruth	L 418	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
Minnie	L 419	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
Charlotte	L 405	1	Mining Lease 95	16	Aug. 21, 1997	Mountain Star Res. Ltd.
VMT Claim Group						
VMT 2	213576	20	Claims	320	Sep. 15, 1997	Mountain Star Res. Ltd.
VMT 3	213577	2	Claims	32	Sep. 15, 1997	Mountain Star Res. Ltd.
VMT 5	213770	1	Claims	16	Sep. 12, 1997	Mountain Star Res. Ltd.
VMT 6	213769	1	Claims	16	Sep. 15, 1997	Mountain Star Res. Ltd.
VMT 7	213768	1	Claims	16	Sep. 15. 1997	Mountain Star Res. Ltd.
VMT 8	213766	12	Claims	192	Sep. 15, 1997	Mountain Star Res. Ltd.
VMT 9	213771	1	Claims	16	Sep. 14, 1997	Mountain Star Res. Ltd.
VMT 10	213772	1	Claims	16	Sep. 14, 1997	Mountain Star Res. Ltd.
VMT 11	213773	1	Claims	16	Sep. 14, 1997	Mountain Star Res. Ltd.
VMT 12	213767	1	Claims	16	Sep. 15, 1997	Mountain Star Res. Ltd.
VMT Fr..	213774	Fract.	Claims	8	Sep. 15, 1997	Mountain Star Res. Ltd.
-	213268	1	Revert Crown Gr.	16	Apr. 26, 1998	Mrs. Campeau
		218		**3,474**		

Overlying the Horsethief Creek Group in the Purcell Mountains is the Lower Cambrian Hamill Group which occurs to the northeast of the property. This Group is largely comprised of quartzites, slates, phyllites and schists and is probably in sharp, unconformable contact with the Horsethief Creek Group (Reesor - 1973).

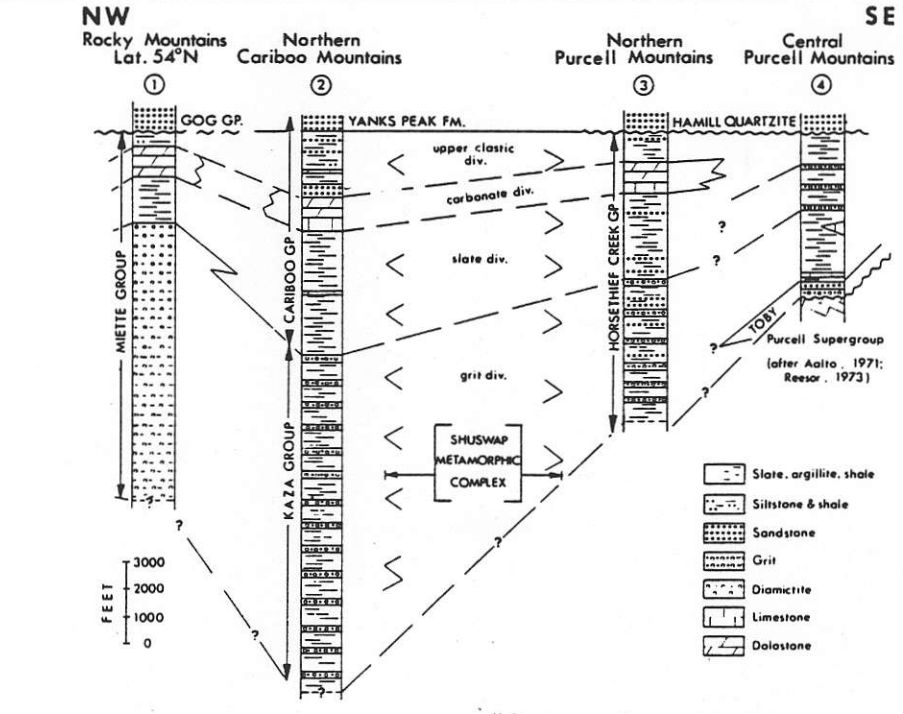
TABLE 2

Stratigraphic Nomenclature and Cross-section of the Windermere Supergroup

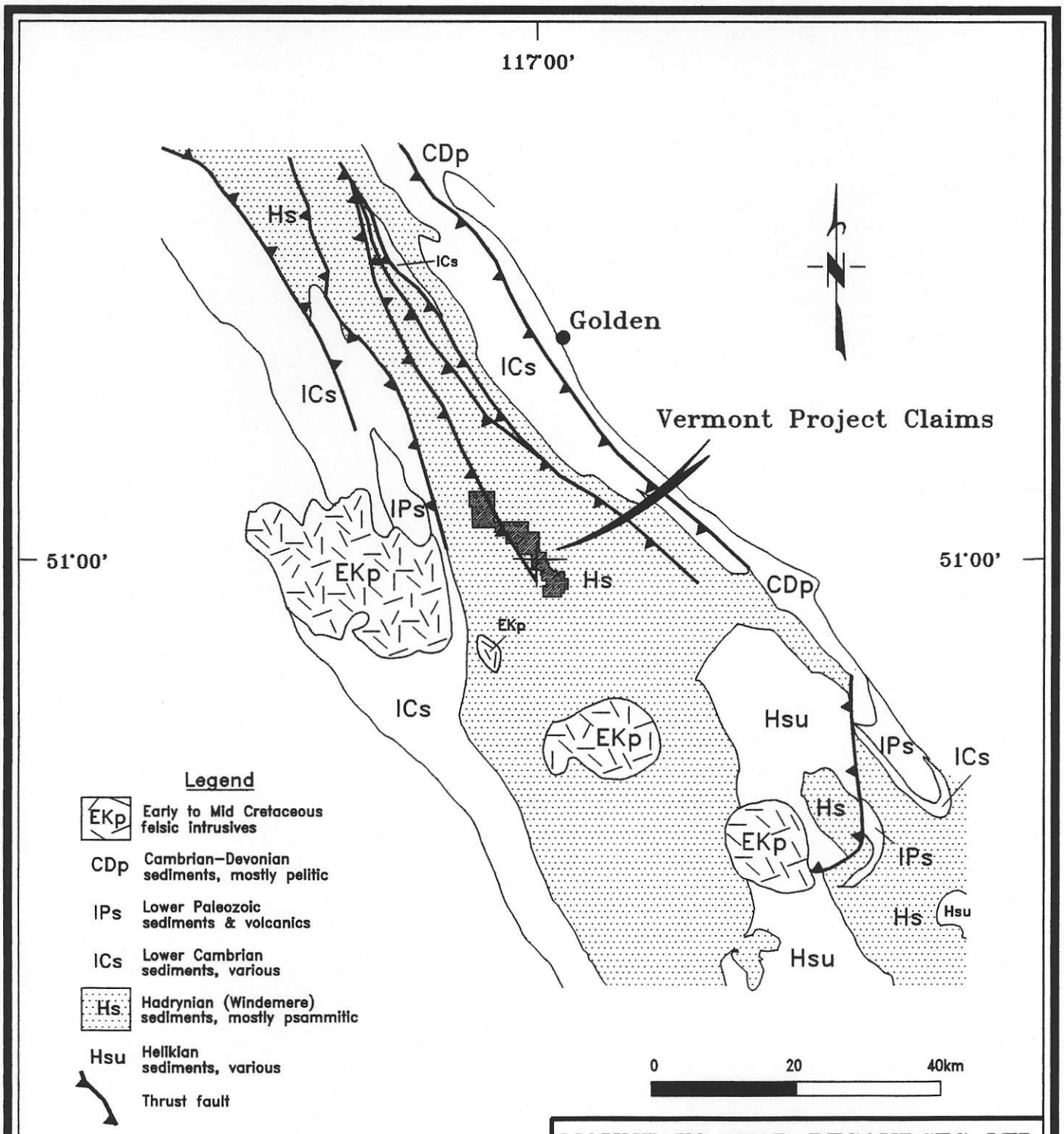
(extract from Young et al - 1973)



Current stratigraphic nomenclature & correlations of the Windermere Supergroup



Regional stratigraphic cross-section of the Windermere Supergroup



Source: Simplified from Okulitch & Woodsworth (GSC O.F. 481)

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VERMONT PROJECT

REGIONAL GEOLOGY

To Accompany Report: 1997 Vermont Project	REVISION author/drafter/date				N.T.S. 82K, 82N	Figure 3
File Name D:\MQ\VMT1.DWG	ORIGINAL author/drafter/date	RVL	EAR	Aug 97		

4.0 EXPLORATION HISTORY

4.1 The Spillimacheen District

Many of the mineral occurrences and existing mining leases (original Crown Grants) on and adjacent to the present BB and Ruth-Vermont claim groups were first worked during the later years of the nineteenth century. A second phase of activity took place between 1920 and 1940. Most of this work was directed towards small scale mining and prospecting for gold and silver in quartz veins, however, lead and zinc was mentioned in many of these occurrences and occasionally copper as well.

A further attempt at mining lead-zinc-silver veins took place at the old Ruth-Vermont mine between 1965 and 1973. Then from the mid 1960's to the early 1980's, a variety of more extensive modern exploration surveys looking for stratiform lead-zinc-silver were conducted over different claim groupings within the boundaries of the present property package.

Government mapping in this district is quite limited and regional in nature. The few maps that exist over this area, at best, only show rocks of the Horsethief Group occuring on the property. None of these maps show any detail of the divisions within this group (Reesor - 1973, Wheeler - 1962, Okulitch and Woodsworth -1977, Price and Mountjoy - 1979).

4.2 VMT Claim Gronp

The first evidence of exploration in this area is from incomplete records which indicate that between 1965 and 1973 Mr. R. Renn, from Calgary, did a limited amount of geological mapping, biogeochemistry and trenching, and drilled at least 7 or 8 diamond drill holes on the property. Apparently core recovery was poor and no cores, core descriptions or hole locations are available (BCDM - AR # 6257 and #6744).

In 1974 to 1977 Medesto Exploration Ltd. conducted geochemical soil sampling, geological mapping, trenching and drilled three diamond drill holes in 1975 and two in 1977 to test the geochemical anomalies. The best intersection obtained in 1975 was in DDH 75-1 where 8 ft. of lead- zinc-silver mineralization was encountered. The best in 1977 was in DDH 77-3 were a similar zone 14.5 ft wide was intersected. Trenching 80 ft south of DDH 77-3 sampled a zone 24 ft.wide indicating possible thickening to the south (BCDM - AR #6744).

In 1979 Norcen Energy Resources conducted a widespread exploration program over a strike length of about 25 km from Vermont Creek in the north to Warren Creek (off the VMT claims) in the south. Part of their program included soil geochemistry, geological mapping, trenching and diamond drilling on the VMT claim group (BCDM - AR # 8140 and #8154). Most of this work was done on the north and east slopes of Crystal Creek in the south eastern corner of the property where they drilled 12 holes in 1979 and another 7 holes in 1980. The best intersection was located on the same zone as encountered by DDH 77-3, the

Medesto trenches and coincident soil anomalies, however, they concluded the drilling did not obtain any zones of "significance" (Smith et al - 1980).

Bluesky Oil & Gas Ltd. obtained the property in 1981. They conducted more geological mapping, soil geochemistry and drilled another 4 holes in areas of known mineralization and previous drilling at the southeastern end of the VMT group. They encountered significant massive and disseminated mineralization and their best intersection was, again, in the Medesto-Norcen zone (LCP Zone).They recommended further work in 1982 to include; more standard surveys as well as drilling and an exploration adit to test the mineralized zone above (Nolin - 1981).

After the claims expired in 1989 and 1990, the VMT claims were staked over this ground by MineQuest Exploration Associates Ltd of Vancouver, B.C. Between 1990 and 1994 they conducted geological mapping, minor soil sampling and compiled all the previous exploration data (Longe - 1993).

The claims were optioned to Mountain Star Resources Ltd. in August of 1996 who then conducted a one line test survey of transient EM and gravity at the north end of the claim group.

4.3 Ruth - Vermont Claim Group

Lead-zinc-silver mineralization was discovered on the property in 1893 and a 150 tons of hand sorted ore was shipped from the Ruth Mine in 1896. The Galena Syndicate from London, England, held the property until the early 1960's and completed several hundred feet of underground development prior to 1930. Rio Canadian studied the property in 1956 and 1957 (Manning - 1972).

The property was optioned to Columbia River Mines in 1965 who conducted 2,300 feet of underground development on the 5750 and 6000 Levels, drilled approximately 40,000 feet of diamond drill core and shipped a load of high grade ore to the smelter at Trail .

In 1969 the property was optioned to Copperline Mines Ltd. who brought the Ruth-Vermont mine into full production and from 1970 to 1971 they milled 94,469 tons of ore. The mine was then shut down from 1971 to 1973 due to low metal prices (Longe - 1997).

During this period L.J.Manning and Associates Ltd from Vancouver B.C. conducted a feasibility study on the mining leases (Manning - 1972). The study concluded that there was 291,384 tons of mineable ore reserves remaining in the the mine. They stated the opportunity was good for increasing ore reserves and recommended that a more favourable smelter contract be obtained before starting up the operation again. An independent geological report, included with the study, indicates an excellant potential for finding more replacement ore in the immediate area (Tough - 1972).

Consolidated Columbia Mines Ltd. took over the operation in 1973 and shipped 26,975 tons of concentrate to the Cominco's smelter in Trail, B.C. In 1974 the mine facilities suffered extensive damage from snowslides. There was a short lived attempt to bring the mine back into production in 1981.

The Manning Feasibility Study was updated in 1982 (Foreman - 1982) and concluded the economics of the Ruth-Vermont Mine was dependant upon the price of silver. The mine lay derelict until 1994 when all the buildings and machinery were removed from the property, the surface sites reclaimed and underground openings sealed (Morrow - 1995).

In 1996 data from the archived mine records was compiled and the stratigraphy correlated by MineQuest Exploration Associates Ltd. A three hole underground diamond drill program was conducted to test for a Sedex lead-zinc deposit below the workings and to verify a high gold assay reported in mine archives. No evidence for Sedex mineralization was found in the one hole that penetrated the "Target Shale", however, another hole did intersect 5.6 ft of gold mineralization. MineQuest concluded further underground drilling and sampling of the mine tailings was required to evaluate the gold potential. The workings were once again sealed and the access road reclaimed after this program was completed (Cukor - 1996).

4.4 BB Claim Group

Although there are a number of old mining leases within the perimeter of the BB claim group which are not part of the Vermont Project, their histories are included here as the showings significantly impinge on the economic potential of this property. At the time of writing, only the Flying Dutchman claims were optioned by Mountain Star Resources Ltd.

4.4.1 Old Claims within the BB Claim Group Boundary

Gold and silver mineralization was first discovered in the early 1880's at the north end of the claim group in the headwaters of Bobbie Burns Creek on the old Burns, Flying Dutchman and Crown Point claims. In the late 1880's and early 1890's trenching on the Burns and tunneling on the Flying Dutchman was conducted to sample narrow, auriferous quartz veins and a stamp mill was set up on the Burns claims in 1891 (Howe - 1966). No apparent work was filed for assessment in this area until the 1980's.

In 1898 an adit was driven on an auriferous quartz vein on the Ellen D claims along the northern boundary of the property.

In 1981 the two adits on the Flying Dutchman claims were sampled by K.B. Larson who concluded this showing might have potential if more ore shoots could be found (Larsen - 1981). C. Dearin sampled the same veins in1982. He noted these veins have never been thoroughly mapped, trenched or drilled (Dearin - 1982) and in 1996 reported that the gold potential here is high (Dearin - 1996).

4.4.2 Old Claims in the Malachite Creek Basin

Additional old trenches and an adit are situated in the Malachite Creek basin in the central part of the property where gold vein prospecting was also conducted in the early 1900's.

4.4.3 Old Claims Adjacent to the BB Claim Group

In the 1890's several adits were driven on claims west of the claim group (Bennison claims) where a significant gold deposit was rumoured to occur in a 32 ft wide gold bearing quartz vein. Very little data, however, is available on this prospect (Dearin - 1991).

Mineralization found on the the Crown Point claims at about the same time, just northwest of the claims, consists mainly of replacement lead-zinc mineralization in limestone and quartz veins with minor gold values (Dearin - 1982).

In 1917 an adit was driven into a wide quartz-carbonate vein containing a 17 inch wide massive chalcopyrite seam northeast of the property on Copper Creek. A one ton sample at that time averaged 11.92% Cu (Dearin - 1982).

4.4.4 Recent Exploration on the BB Claim Group

In 1980 First Nuclear Corporation conducted reconnaissance geological mapping, prospecting and geochemical surveys over the entire BB claim group and the surrounding area. This program indicated the western highland portion of the property to be the most prospective for lead-zinc-silver. In 1981 mapping, prospecting and rock geochem concentrated on these highland areas and stratabound lead and zinc mineralization was found associated with carbonate horizons on four areas within the property (Brophy and Slater - 1981).

In 1982 Samim Canada Ltd. optioned the property and engaged MineQuest to followup in these areas of interest and conduct further mapping, prospecting and sampling.This work reported 6 showings of conformable lead-zinc mineralization on the present property, all ocurring at one of three stratigraphic levels near a shale - limestone contact. They concluded the Ruth-Vermont deposit to the south may also occur at one of these levels thus adding potential to this horizon on the BB claims. They recommended more mapping, prospecting, IP - EM surveys and drilling on the Malachite showings (Dickie and Longe - 1982).

In 1983 Samim conducted a follow-up program including geological mapping, IP surveys, soil sampling and 11 holes of diamond drilling on the Malachite Creek detail area in the southern part of the claim group.Though no economic deposits were located they confirmed the presence of highly altered and mineralized black shales on the surface. IP anomalies in black shales with associated soil geochem anomalies remain to be explored in the Carbonate Mountain area.

Samim concluded that various features of these lead-zinc showings are indicative of possible nearby bedded Sedex mineralization. They recommended more mapping, geochem and IP surveying as well as diamond drilling. They concluded the property remains one of considerable merit but recognized that a long term program of further work is required if a deposit is to be found (Bottrill et al - 1983).

5.0 DETAIL GEOLOGY

5.1 VMT Claim Group

Reconnaissance style geological mapping was conducted over large land holdings in this area by Norcen and Bluesky Oil & Gas between 1979 and 1982. It was not until 1992 and 1993, however, that mapping by MineQuest (Figure 8) established the first detailed stratigraphic sequence of lithologies (below) on the VMT claims. All these units are believed to be within the Grit Division (Table 2) of the lower Horsethief Creek Group.

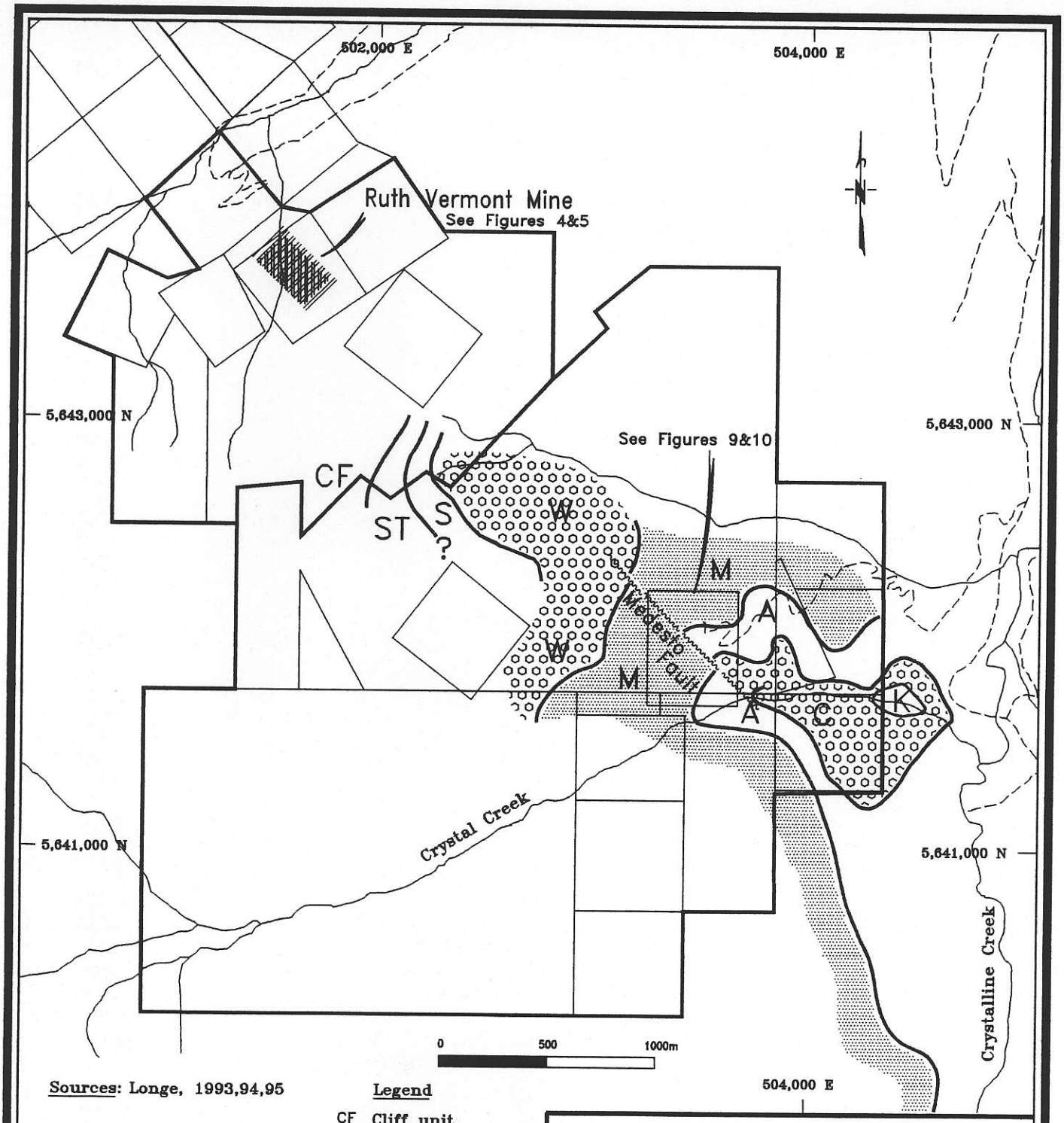
5.1.1 Stratigraphic Sequence - in decending order (Longe - 1994)

Unit W	Whitebark Grit - white quartz grit with micaceous cleavage
Unit M	Schists - brown weathering ankeritic and tuffaceous appearing micaceous schists interbedded with grey argillite. - base of unit is host to sulphide occurrences.
Unit A	Argillte - grey or buff weathering argillite composed of thin turbidite beds with abundant disseminated pyrite.
Unit C	Cedar Grit - white quartz grit with mieaceous cleavage and occassional beds of quartz pebble conglomerate.

The stratigraphic thickness of the shale units, A and M, in this area appear to be approximately 300 m thick (Longe - 1993).

5.1.2 Structure

These pelitic units occur on a shallow dipping, north plunging anticlinorium which is deformed locally by tight isoclinal folds and faults where bedding is near vertical. Typically there is a well developed axial plane cleavage striking 140° and dipping from 70° to 90° at these localities. A major northwest striking, northeasterly dipping fault zone, the Medesto Fault, appears to separate the LCP Zone from the other mineralized zones on the VMT claims (Figures 8, 9 and 10). MineQuest has interpreted this to be a northeasterly dipping, reverse fault which may have caused considerable displacement to a single mineralized horizon (Unit M) on this part of the property (Longe - 1994).



Sources: Longe, 1993,94,95

Legend

CF	Cliff unit
ST	Siltsone
S	Unit S, argillite
W	Whitebark Grit
M	Unit M shales
A	Unit A shales
C	Cedar Grit
K	Gneiss
– – –	Road

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VERMONT PROJECT

VMT & RUTH VERMONT CLAIMS

GEOLOGY & MINE WORKINGS

To Accompany Report 1997 Vermont Project	REVISION author/drafter/date				N.T.S. 82K, 82N	Figure 8
File Name D:\MQ\FIGURE8.DWG	ORIGINAL author/drafter/date	RVL	EAR	July 97		

5.2 BB Claim Group

Reconnaissance scale mapping and prospecting was conducted over portions of this property by First Nuclear Corporation (F.N.C.) in 1980 and then more detailed mapping and other surveys concentrated on specific areas of interest established in 1981 (Brophy and Slater - 1981). In 1982 MineQuest directed their program specifically towards correlating the stratigraphy in this area with the many occurrences of mineralized beds found by F.N.C. They classified the sedimentary sequence into 7 alternating coarse and fine grained stratigraphic units designated Units A to G (Figure 6). Like the lithologies on the VMT claims, the strata on the BB claims occur in the lower Horsethief Creek Group.

5.2.1 Stratigraphic Sequence - in decending order (Dickie and Longe - 1982).

Unit G	Sandstone and Grit - thickly bedded; laminated shales at bottom
Unit F	Calcareous Sandstone - bedded siltstone and shale in lower half
Unit E	Calcareous Sandstone - no shale
Unit D	Siltstone and Shale - regularly interbedded
Unit C	Sandstone and Grit - thickly bedded
Unit B	Shale - strongly foliated with crenulated bedding
Unit A	Sandstone and Grit - some clastic limestone and phyllitic shale

The seven units above have been identified and traced discontinuosly throughout the length of the BB property but because of their potential for hosting base metal deposits the finer grained units were studied in more detail. The black shales in this sequence contain considerable siderite (up to 25%) and variable amounts of pyrite (up to 10%). Black fine grained pyritic limestones occur in each of the shale units and pinch out laterally into black shales or calcareous siltstones.

Stratabound lead-zinc mineralization occurs in the limy beds within the following three shale units; Unit B at Crown Point (and possibly Ruth-Vermont), Unit D at Crown Point, Decision Creek and Malachite Creek and Unit F at Crown Point, Decision Creek and Malachite Creek (Dickie and Longe - 1982). The individual thickness of each of these shale units is about 80 metres and no significant thickness changes in the shales have been mapped on the BB claim group to date.

5.2.2 Structure

The lithologies described above comprise the centre of the broad northwest trending Purcell Anticlinorium which exposes the oldest strata in the creek valleys. This major structure, in turn, is further complicated by a series of smaller scale folds and north or northeast striking faults perpendicular to the fold axes.There is a strongly developed vertical foliation parallel to their axial planes.

490,000 E

495,000 E

500,000 E

5,655,000 N

5,650,000 N

Crown Point Area

Decision Creek Area

Carbonate Mountain Area

Malachite Creek Area

Bobbie Burns Cr.

Malachite Cr.

Crown Point Trenches

Crown Point Adit

TJ

Cliff

Decision

Burns

Malachite Adit

Malachite Ridge

Malachite Trenches

83-9

83-10,-11

83-8

83-6,-7

83-4,-5

83-1,-2

83-3

SR

See Figure 7

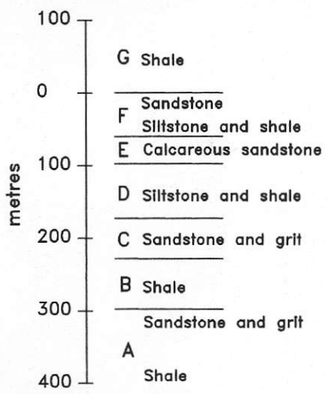
Legend

- Trench
- Adit
- Mineral Showing
- Diamond Drill Hole

Sources: Dickie & Longe, 1982
Bottrill et al, 1983
Dearin, 1991

0 1000 2000m

Stratigraphic Column



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BB CLAIMS

GEOLOGY & MINERAL SHOWINGS

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File Name D:\MQ\FIGURE6.DWG	ORIGINAL author/drafter/date	RVL	EAR	July 97		

6.0 MINERAL SHOWINGS AND DRILL INTERSECTIONS

6.1 VMT Claim Group

The principal zones of interest on this group are the four areas illustrated by the four clusters of drilling and trenching activity (Figure 9) located on the VMT 2 and 3 claims. An approximate total of 35 diamond drill holes were drilled to undercut or test extensions of lead-zinc mineralization found in trenches on the surface. Most of the drill holes and trenches are shown on Figure 9, however, it should be noted that in the public and private reports available, there is considerable conflicting evidence on the location and orientation of many of the drill holes. As most of these sites have long since deteriorated and can not be confirmed in the field, the locations shown on Figure 9, in many instances, are a "best estimate".

The most southerly and most significant area of interest is the LCP Zone (Figure 9) where the best drill intersection on the property was obtained in DDH 77-3. This hole cut 14.5 ft of 3.43% Pb, 8.61% Zn and 3.39 oz/t Ag. Two other drill holes, 79-8 and 81-3, at this location also intersected 6.9 ft and 5.4 ft, respectively, of similar lead-zinc-silver values (Longe - Feb 1992)

Trenching 80 ft south of these holes in Trench 77-3, apparently revealed the zone to be 24 ft wide averaging 4.8% Pb, 5.4% Zn and 4.7 oz/t Ag indicating possible thickening to the south (Pelzer - 1978). The writer was unable to locate this particular trench. There was evidence of ground sluffing due to recent logging road construction immediately up slope from the suspected location so this trench is probably covered. The LCP Zone is also associated with a series of generally northwest trending, coincident lead-zinc-silver soil anomalies (Figure 10) found by Norcen in 1979 (Smith - 1980). These anomalies extend over a distance of about 500 metres and include the other mineralized zones on the claim group(below).

Separating the two main groups of soil anomalies is the prominent northwest striking Medesto fault which dips steeply to the east and can be seen in several outcrops. Other workers have speculated that there may be other subsiduary faults and minor folds but more detailed mapping and structural analysis is required before additional structures can be reasonably incorporated into the geological interpretation of this area. Based on a preliminary structural model, MineQuest hypothesized that the Pb-Zn-Ag mineralization in the LCP Zone dips gently at about 20° to the northwest.They feel the geochemical anomalies may represent "leakage" from a deeper source rather than from subcropping sulphide beds (Longe - 1994).

Another zone of surface mineralization, approximately 200 metres northeast of the LCP Zone, was tested by 8 drill holes between 1975 to 1981 with little apparent success (Figure 9). Numerous holes in the 1975 and 1977 drill campaigns reported drilling problems and

503,250 E

503,750 E

Note: Both absolute and relative locations of drill holes are uncertain. Locations recorded in some reports agree neither with each other nor with the limited number of field observations which have been possible. Some of the locations shown above have been observed, others inferred.

Unlocated drill hole: 83-6

80-02
80-3
75-1
77-1
75-2
80-1
79-6
97-MG-05
79-7
75-3 ?
80-4
79-5
97-MG-04a,b
80-5
80-6
81-4
TR 75-3
TR 80-4 ?
TR 80-3 ?
5,642,000 N
Unit M (shists)
Unit A (shales)
97-MG-03
97-MG-01
97-MG-02
83-1
80-7
79-10
81-3
83-2
LCP Zone
79-4
79-9
77-3
79-12
79-1
79-3
79-8
79-2
TR 77-3
81-2
83-5
83-4
83-3
Unit C (grit)
Medesto Fault
81-1
Unit A (shales)
79-11

0 75 150m

Source: B.C. Assessment Reports
#8154, #12,071
G. Nolin, 1981

Legend

- 75-3 • Diamond Drill Hole
- Trench
- ⊕ Grab Sample Site, Gidluck, 1997
- ■ Legal Corner Post
- --- Road

503,750 E

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	EAR	
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CENTRAL VMT CLAIMS

DRILL HOLES & TRENCHES

N.T.S. 82K, 82N

Figure 9

503,250 E

503,750 E

5,642,000 N

Unit M (shists)

Unit A (shales)

Unit M (shists)

Medesto Fault

LCP Zone

Unit C (grit)

Unit A (shales)

0 75 150m

Source: B.C. Assessment Reports
#8154, #12,071
G. Nolin, 1981

Legend

ZINC: 200–300 ppm; 400–500 ppm; 500–600 ppm

LEAD: 100–200 ppm; 400–500 ppm; 500–1000 ppm

SILVER: 20–30 ppm; 30–40 ppm; 50–100 ppm

Road

503,750 E

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CENTRAL VMT CLAIMS

SOIL GEOCHEMICAL ANOMALIES

N.T.S. 82K, 82N

Figure 10

poor core recovery. DDH 75-3 did mention anomalous cuttings in the range of 3% Pb and 7% Zn associated with quartz vein material (Pelzer - 1978). A massive lense of highly weathered siderite, sphalerite, galena and pyrite(?) assaying 7.3% Pb, 8.3% Zn, 5.7 oz/t (189 ppm) Ag and 990 ppb Au was sampled by the writer (97-MG-04B) in old Trench 75-3 at this showing (Appendices A and B). The prominent cleavage (bedding?) dips to the northeast and accordingly all the holes were angled to the southwest. There is evidence, however, of subvertical to steep westerly structures in the form of faulting and associated quartz veining within the zone of mineralization. It is the writer's opinion there is a reasonable chance these structures may be controlling the orientation of the mineralized zone and hence the holes may have drilled "down dip" and missed the sulphides on the surface. A rather puzzling statement in the report (Pelzer - 1978) indicates that 45.5 ft of chip sampling in a trench just "east" of DDH 75-3 produced values as high as 6.61% Pb, 4.84% Zn and 5.16 oz/t Ag, however, this hole appears to plot east of the trench referred to above and no mineralization was observed by the writer east of the drill holes at this location.

NB

The third area of interest is located about 300 m north of the LCP Zone where three holes where drilled to test a small exposure of lead-zinc mineralization in quartz veins (Figure 9). A grab sample in 1980 from this location produced 2.96% Pb, 5.60% Zn, 2.38 oz/t Ag and 0.01 oz/t Au (Smith - 1980), however, drilling failed to encounter these grades at depth. Again the holes were drilled westerly with the exception of the first hole, DDH 75-2, which was abandoned due to stuck drill rods and poor core recovery.This showing also has a coincident lead-zinc soil anomaly on both the Medesto and Norcen surveys.

The fourth and most northerly area of interest is 500 m to the north of the LCP Zone (Figure 9) where DDH 75-1 intersected disseminated galena and sphalerite in a reported massive limestone assaying 2.17% Pb, 5.6% Zn and 2.4 oz/t Ag over a length of 8 ft. This hole was apparently drilled on a Medesto soil geochem anomaly (Pelzer - 1978). The 1979 Norcen soil survey (Figure 10) does not appear to go that far north.

Another potential area of interest occurs near the northwest boundary of the VMT 2 claim where prospecting in 1983 located two massive argentiferous galena and boulangerite veins each over one foot in width. Grab samples are reported from these veins with values as high as 44.5% Pb, 2.63% Zn, 44.3 oz/t Ag, 0.18 oz/t Au, 12.6 Sb and 1.07% Cu (Nolin et al - 1983). There is no indication of followup work in this area nor could the exact location of these showings be found in the records.

NB

The same report indicates 6 diamond drill holes where drilled in 1983 in conjunction with combined SP, magnetic and gravity surveys condueted over a large land package that covered more than the VMT Claim Group. Apparently though, no significant widths of mineralization were encountered in this program as the best width obtained, in DDH. 83-1, was 0.25 m of 1.41 oz/t Ag, 0.42% Pb and .005% Zn (Nolin et al - 1983).

6.2 BB Claim Group

The BB Claim Group is comprised of two types of mineral dispositions with two different exploration histories; isolated mining leases worked in the late 1800's for gold and silver and large mineral claim groupings which were explored in a more systematic fashion in the 1980's for stratiform lead-zinc mineralization.

6.2.1 Old Gold Claims

Gold and silver mineralization was first discovered at the north end of the claim group in the headwaters of Bobbie Burns Creek. The principal old workings were located on the old Burns claims (L776, 777, 1002, and 1982, not held by Mountain Star Resources), Flying Dutchman claims (L3951- 3953), Ellen D claims (L1114-1115, also not held by Mountain Star) and Crown Point claims (L6650- 6656 and L11630-11635) which are just off the present property (Figures 2 and 6).

Trenching was conducted on the Burns claims to sample and mine a series of narrow, conformable quartz veins containing pyrite, galena and arsenopyrite in schistose slates. A secondary, smaller set of cross-cutting veins contains more mineralization and visible gold. A stamp mill was set up on the Burns claims in 1891 and 70 tons of "ore" grading 0.752 oz/t Au gold from the Burns trenches was run through the mill. Apparently as much as 300 tons of ore was transported by wagon to the mill during this period (Howe - 1966). Very few records of this work are available and no apparent assessment work was filed in this area until the 1980's.

Gold showings on the Flying Dutchman claims were discovered in the 1880's when two adits were driven on separate quartz veins but little information is available on this old work. Howe (1966) states that these workings appear to be on the same system of veins as those on the Burns claims, one kilometre to the northwest. He also reported values of 1.9 oz/t Au and 0.62 oz/t Au from several samples taken by earlier workers in the adits. Apparently several other adits were also driven in this area during the same period of activity but their location and relevant information has disappeared with time (Dearin - 1982).

In 1981 K.B. Larsen sampled the two adits on the Flying Dutchman claims and obtained values of up to 0.20 oz/t Au across 3.4 ft of vein in the lower adit which he concluded might have potential if more ore shoots could be found (Larsen - 1981). As at the Burns claims, two sets of steeply dipping quartz veins, one striking northwest and dipping west and the other striking northeast dipping north, with brown siderite and "poddy" pyrite occur in flat lying schistose slates. C. Dearin sampled the same veins in 1982 and obtained an average grade of 0.146 oz/t Au and 0.04 oz/t Ag across 2.2 ft over a strike length of 56 ft in the lower adit (Dearin - 1982). He only obtained trace gold in the upper adit. He noted these veins

never been mapped, trenched or drilled. In 1996 he again reported that only a minor amount of geological work had been carried out in this rugged terrain and that its gold potential is considered to be high (Dearin - 1996).

In 1898 a short adit was driven on a 6 ft wide quartz vein carrying auriferous pyrite on the Ellen D claims which straddle the northern boundary of the property. No report of any subsequent work on this vein could be found.

Several trenches and an adit also exist in the Malachite Creek basin in the central part of the property where gold vein prospecting was conducted in the early 1900's (Dearin - 1996). No other information could be found on this early work.

6.2.2 BB Claims

First Nuclear Corporation (F.N.C.) conducted widespread reconnaissance geological mapping, prospecting and regional geochemical surveys in 1980, some of it over the present BB Claim Group. They concluded that the western highland portion, within the Purcell Anticlinorium of the Horsethief Creek Group, to be the most prospective for lead-zinc-silver. In 1981 further work in this area revealed stratabound lead and zinc mineralization associated with carbonate units in the basal half of this stratigraphic succession. The following four broad areas of interest (Figure 6) were identified within the present property configuration (Brophy and Slater - 1981).

6.2.2.1 Malachite Creek Area

This area is situated in the headwaters of the Malachite Creek basin on the south side of the main creek on the BB- 8 and 9 claims. Numerous occurrences of stratabound galena and sphalerite, some with conformable quartz veining, in limestones and sandy carbonates enclosed by black laminated slates, were reported over a length of one kilometre. Mineralized strata ranged from 0.3 to 9.0 m in thickness and individual samples assayed as high as 6.1% Pb, 6.3% Zn and 5.8 oz/t Ag. Average grades were about 1.83% combined Pb-Zn over an interval of 0.9 m (Brophy and Slater - 1981).

MineQuest in 1982 continued exploring the property for Samim, with the emphasis directed towards finding stratabound lead-zinc mineralization. As a result they prospected and further enhanced the following three F.N.C. showings in the Malachite Creek area (Figure 7). At the Malachite Ridge and Malachite Adit showings, high grade bedded galena and sphalerite mineralization was traced over a strike length of 200 metres in black limestone beds in stratigraphic Unit F. At the Malachite Trench showing, galena and sphalerite are disseminated in limestone and dolostone near the top of stratigraphic Unit D. The mineralized section averaged 4-5% combined Pb-Zn over intervals of 1-2 metres. The carbonate lithologies, which contain the lead and zinc, were traced over a distance of 1.5 km but the mineralization was only observed in the trenches (Dickie and Longe - 1982).

480,000 E

500,000 E

5,647,000 N

Malachite Creek

Malachite Adit

Malachite Ridge

Malachite Trenches

83-9

83-10,-11

83-8

83-6,-7

83-4,-5

83-1

83-2

83-3

SR

C

D

E

F

G

Stratigraphic Column

metres

100 — G Shale

0 — F Sandstone
Siltstone and shale

100 — E Calcareous sandstone

D Siltstone and shale

200 — C Sandstone and grit

B Shale

300 — Sandstone and grit

A Shale

400

Legend

- Trench
- Adit
- Mineral Showing
- Diamond Drill Hole

Sources: Dickie & Longe, 1982
Bottrill et al, 1983

0 300 600m

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MALACHITE CREEK AREA

DRILL HOLES & MINERAL SHOWINGS

N.T.S. 82K, 82N

Figure 7

To Accompany Report: 1997 Vermont Project	REVISION author/drafter/date				
File Name D:\MQ\FIGURE7.DWG	ORIGINAL author/drafter/date	RVL	EAR	July 97	

A follow-up program in 1983 by Samim included geological mapping, IP surveys, soil sampling, 493 metres of diamond drilling and a petrographic study. This work developed an additional showing, the SR Showing, where trenching revealed massive stratabound galena and minor pyrite mineralization lying within tightly folded Unit F shales.

Eleven holes were drilled on the grid, three of which tested the SR Showing (Figure 7). Only sideritic shales with anomalous zinc, however, were encountered at this location. Due to complex folding all three holes are interpreted to have only tested the footwall of the massive galena showing on the surface (Bottrill et al - 1983).

Five holes were drilled at the Malachite Trenches showing (Figure 7). The best of these, DDH 83-6, tested an IP anomaly and encountered a narrow vein of high grade massive sulphides assaying 16.4% Pb, 16.7% Zn and 15.9 oz/t Ag over 18 cm overlying a lower grade section of stratabound mineralization. The other four holes at this showing, however, only returned minor or insignificant mineralization.

The remaining three holes in the program tested the Malachite Adit Showing (Figure 7) but failed to encounter the bedded sphalerite observed on the surface. One of these holes, DDH 83-10, intersected a massive arsenopyrite vein with minor lead-zinc values. Another hole, DDH 83-11, cut 2.47% Pb, 5.05% Zn and 0.5 oz/t Ag over a narrow section of 25 cm. Though no economic deposits were located during the drilling Samim did confirm the presence of highly altered and mineralized black shales on the surface (Bottrill et al- 1983).

The petrographic study analysed 37 thin sections and 7 polish sections from mineralized showings and drill core. Samples from the Adit Showing clearly displayed banded sphalerite, galena and chalcopyrite parallel to bedding indicating "sedimentary hosted lead-zinc mineralization". Samples from drill holes and the Adit Showing displayed pyrite bands in arsenopyrite replaced by sphalerite, galena and chalcopyrite with accessory tetrahedrite and argentite. The interpretation is that the silver is "clearly late and intimately associated with galena and the remobilisation of Pb, Cu, Ag and S" (Bottrill et al - 1983).

Rock referred to in the field as green "quartzite" was identified in thin section as highly altered mafic volcanics. It contains phenocrysts, probably after olivine, of serpentine and chlorite with opaques and calcite, quartz and muscovite, probably after calcium feldspar.

Samim concluded that various features of these lead-zinc showings, especially in the Malachite Detail area, are indicative of possible nearby bedded mineralization of the Sedex type. They recommended considerably more mapping, geochem and IP surveying as well as diamond drilling including possible pattern drilling over favourable stratigraphy and alteration sequences. Their final conclusion was that the property remains one of considerable merit but recognized that a long term program of further work is required if a deposit is to be found (Bottrill et al - 1983).

6.2.2.2 Carbonate Mountain Area

The second area of interest discovered by F.N.C., occurs on the north slope of Carbonate Mountain on the BB-5 claim. Here they discovered fine grained, low grade mineralization (>1% Pb-Zn) in orange weathering dolostone extending over a strike length of one kilometre. Another old adit, one drill hole and trenching by earlier unknown prospectors were also reported in this area (Brophy and Slater - 1981) but their exact location is presently unknown. MineQuest's work in 1982 did not find any additional occurrences but did produce several soil geochemical anomalies which they recommended for further investigation (Dickie and Longe - 1982). In 1983 Samim located IP anomalies in black shales with associated soil geochem anomalies.These remain to be explored.

6.2.2.3 Decision Creek Area

The third area of interest is located at Decision Creek on parts of the BB 1, 3 and 4 claims, which also includes the old Burns and Flying Dutchman mining leases. Here mineralized float extends over an area of one kilometre. Disseminated galena and sphalerite occur in the matrix of a sandy dolostone with assays as high as 4.8% Pb, 4.4% Zn, 1.2 oz/t Ag and .04 oz/t Au. Of interest at this locality is the high tenor of gold and silver in many of the carbonate samples, even in the samples with low base metal values (Brophy and Slater - 1981).

MineQuest correlated these sulphides with Unit F at the Decision Creek Showing, where mineralization was traced along strike for 250 metres, and in Unit D at the Burns Showing (Figure 6). The total sulphides in these calcareous sandstones is always less than 10% and they concluded this area had a low priority for lead-zinc exploration .

6.2.2.4 Crown Point Area

The fourth and most northerly area of interest is located on and west of the BB 1 claim, adjacent to the Crown Point leases. F.N.C. discovered mineralized carbonate float over an area of approximately one square kilometre just east of the Crown Point leases. They found mineralization concentrated in two northwest-southeast trending zones. The best occurrence consisted of disseminated galena and sphalerite in the matrix of a silty dolostone along a 10 metre length. Grades in this zone are generally low. The other occurrence was mineralized carbonate samples in morainal float, east of the first locality (Brophy and Slater-1981).

In 1982 MineQuest discovered 3 more mineralized occurrences in the Crown Point Area, the RB, TJ and Cliff showings (Figure 6). The RB and TJ are off the property but occur in strata directly on strike with the northwest corner of the BB 1 claim. The RB Showing contains bedded galena in limy beds over a stratigraphic thickness of 3.5 m in the upper portion of Unit B. The TJ Showing contains disseminated suphides and conformable thin veins of galena and sphalerite at the base of a limestone bed in limy shales, also in Unit B.

The Cliff Showing is situated just inside the property. It is a one metre thick horizon of galena and sphalerite at the limestone-siltstone contact in Unit D. Mineralization has been traced along strike for a distanee of 100 metres. Several other showings also occur near the Crown Point adits on unoptioned mining leases (Dickie and Longe - 1982).

6.3 Ruth - Vermont Mine

The underground workings lie on the southwest limb of a southeast plunging syncline (Fyles - 1966) comprised of a series of gently dipping argillites, limestones and grits belonging to the Grit Division of the Horsethief Creek Group sediments. These rocks are all cut by quartz veins. Argillite-limestone contacts are gradational and display well developed turbidite features. The grits range from coarse grained sandstones to pebble size conglomerates. Small scale folding and soft sediment deformation is common (Cukor and Longe - 1996).

Lead-zinc-silver mineralization occurs as two distinct types; a) a series of quartz veins with galena, sphalerite, pyrite and scheelite and b) stratabound replacement sulphides of pyrite, sphalerite, galena and arsenopyrite. Chalcopyrite, boulangerite and tetrahedrite have also been reported. The replacement type (manto deposits) occur where quartz veins, especially the Pine Tree Vein, cut the limestone beds.

There are two main veins of particular economic importance in the mine, the Pine Tree Vein and the Blacksmith Vein (Figure 4). The Pine Tree Vein has a surface trace of 2600 feet in a southeast direction and vertical extent of 500 feet. The average grade of this vein over a length of 1200 ft underground is 7.0% Pb, 6.06% Zn and 12.27 oz/t Ag across a width of 5.0 ft. The Blacksmith vein is parallel to the Pine Tree and also has a length of 2600 ft. Underground it averages 5.2% Pb, 3.1% Zn and 10 oz/t Ag across a width of 4.0 ft. During the course of underground drilling several more veins with similar grades and thicknesses were intersected (Tough - 1972).

A three hole underground diamond drill program in 1996 (Figures 4 and 5) was designed to accomplish two objectives; a) to test for an underlying, shale hosted lead-zinc deposit, possibly the source for vein and replacement mineralization and, b) to find additional gold mineralization associated with a single gold value obtained in previous drilling. A deep vertical hole, DDH 96-1, did encounter a shale unit below the mine grit units, however, it failed to find any evidence of Sedex type lead-zinc-silver mineralization.

On the other hand, DDH 96-3 intersected 5.6 ft of 2.08 oz/t Au in a section of limy argillite with replacement type disseminated pyrite, arsenopyrite and sphalerite and massive vein type galena (Cukor and Longe - 1997). This mineralization was found only a short distance away from a gold value of 0.54 oz/t Au over 4.5 ft obtained in an old hole drilled in 1968 (Figure 5). Apparently this is the best gold value available from only a few gold analyses registered in the old the mine records.

800 E

1,200 E

1,600 E

1300 XC—North

1600 XC—North

Mine North

True North

Blacksmith Vein

10,600 N

North Adit

6000 N. Drift

DDH 96-3

DDH 96-2

Ramp #1

6010 W. Sub Drift

Ramp #2

6010 E. Sub Drift

South Adit

Pinetree Vein

6000 S. Drift

DDH 96-1

Windlass Vein

See Figure 5

1000 XC—South

1400 XC—South

1725 XC—South

10,200 N

Sources: Mine archives (undated)
Cukor & Longe, 1997

0 100 200ft

0 20 40 60m

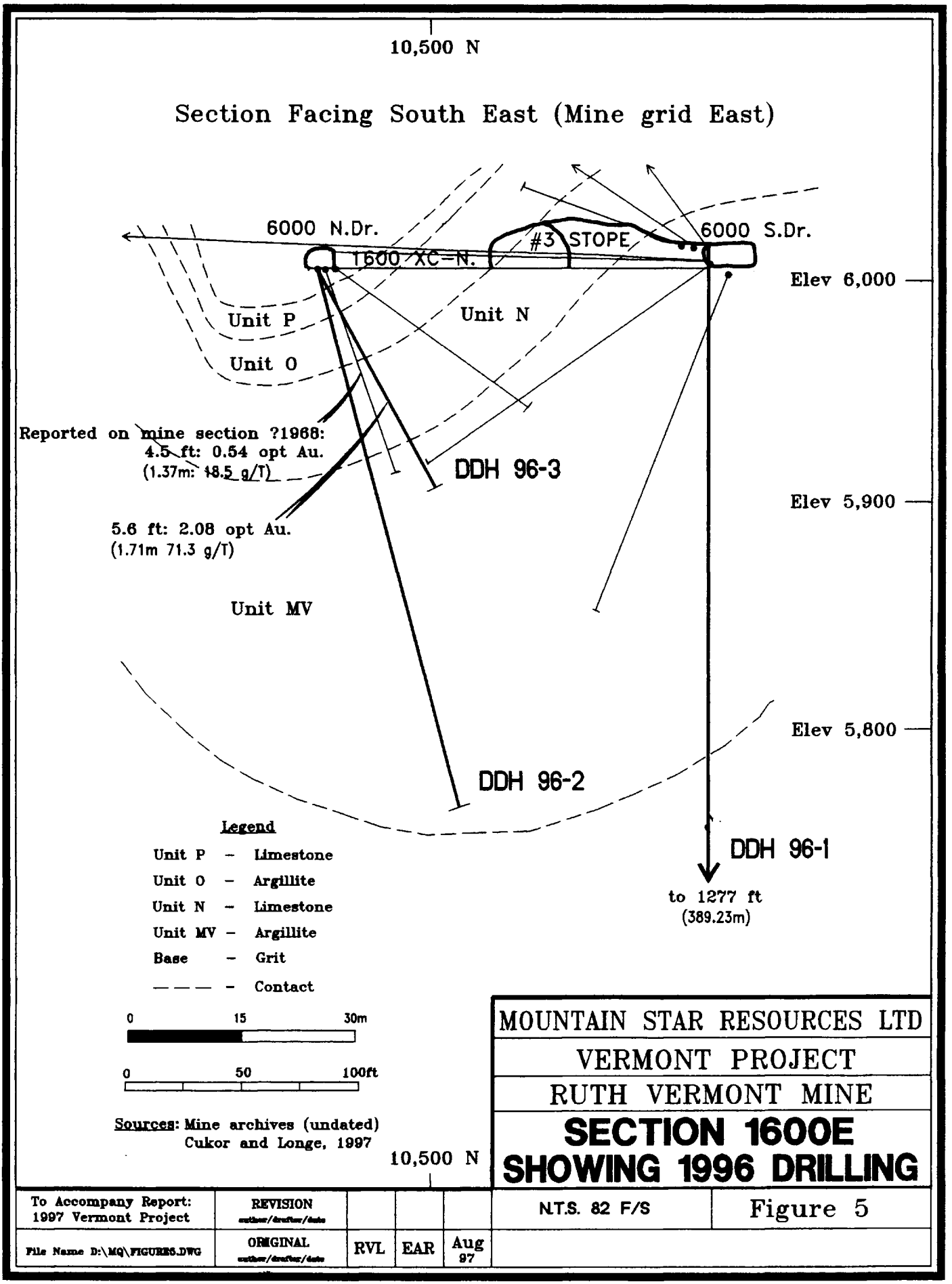
To Accompany Report: 1997 Vermont Project	REVISION author/drafter/date				N.T.S. 82 F/S — Figure 4
File Name D:\MQ\FIGURE4.DWG	ORIGINAL author/drafter/date	RVL	EAR	July 97	

MOUNTAIN STAR RESOURCES LTD

VERMONT PROJECT

RUTH VERMONT MINE

6000 LEVEL PLAN


10,500 N
Section Facing South East (Mine grid East)
6000 N.Dr.
1600 XC-N.
#3 STOPE
6000 S.Dr.
Elev 6,000
Unit P
Unit N
Unit O
Reported on mine section ?1968:
4.5 ft: 0.54 opt Au.
(1.37m: 18.5 g/T)
DDH 96-3
5.6 ft: 2.08 opt Au.
(1.71m 71.3 g/T)
Elev 5,900
Unit MV
Elev 5,800
DDH 96-2
DDH 96-1
to 1277 ft
(389.23m)
Legend
Unit P – Limestone
Unit O – Argillite
Unit N – Limestone
Unit MV – Argillite
Base – Grit
– – – – Contact
0 15 30m
0 50 100ft
Sources: Mine archives (undated)
Cukor and Longe, 1997
10,500 N
MOUNTAIN STAR RESOURCES LTD
VERMONT PROJECT
RUTH VERMONT MINE
SECTION 1600E
SHOWING 1996 DRILLING
To Accompany Report: 1997 Vermont Project
REVISION
N.T.S. 82 F/S
Figure 5
File Name D:\MQ\FIGURES.DWG
ORIGINAL
RVL
EAR
Aug 97

7.0 CONCLUSIONS

7.1 VMT Claim Group

Mapping on this claim group has identified five lithological units in the Grit Division of the Horsethief Creek Group. Two of these units comprise a thick section of argillites and phyllitic schists with limy and possible tuffaceous beds all sandwiched between two grit horizons. The grit units are evidence of tectonic instability, possibly at a rift margin which is the preferred depositional site for Sedex style mineralization (MacIntyre - 1990).

Shale hosted lead-zinc deposits typically occur stratigraphically above a thick sequence of turbidite sediments at a level where there is a tuffaceous component. The shale units within the Horsethief Creek sediments to the north, in the BB claim group, only attain thicknesses of about 80 metres. On the VMT group, however, the argillite and schist units together appear to be at least 300 metres thick suggesting a deeper water environment suitable for Sedex style mineralization.

Lead-zine mineralization has been found at four locations on the southern part of the claim group. The best of these is the LCP Zone where bedded galena and sphalerite in DDH 77-3 produced grades of up to 3.43% Pb, 8.61% Zn and 3.39 oz/t Ag over a width of 14.5 ft. This hole and four other similar drill and trench intersections at the same location appear to occur along the same stratigraphic interval, the contact between black shales-Unit A and overlying tuffaceous schist-Unit M.

The LCP Zone is interpreted to occur on the eastern limb of a tight isoclinal syncline bounded on the northeast by the northwest trending Medesto fault zone. The fault appears to separate the Pb-Zn geochemical soil anomalies into two groups and may have exerted considerable displacement to the mineralized horizon.

Although MineQuest has constructed a tentative structural model for the LCP Zone, more detailed mapping and structural analysis is required inorder to predict the location of the prospective lead-zinc horizon away from the showing. In the meantime MineQuest has proposed the LCP Zone plunges gently to the northwest, a direction in which there has been no trenching or drilling activity to date.

The writer as well as previous operators (Longe - Aug 1994), obtained anomalous gold (990 ppb Au) in a lead-zinc bearing lense immediately north of the LCP Zone. This additional precious metal potential further accentuates the priority that should be given to exploring the structure and mineralized strata at this location.

A significant gold value (0.18 oz/t Au), as well as base metal values, were reported in 1983 from two massive galena-boulangerite veins along the northwest boundary of the claim group (Nolin et al - 1983). Even though at the present time, the exact location is not known,

this area should be prospected in more detail to investigate the potential of these showings.

Although a relatively large number of drill holes (35?) have been put down in this area, they were drilled by a number of sporadic and unrelated programs over a period of nine years. A number of the early holes were unsuccessful due to caving and lost core. Most of the 1983 holes were drilled on the opposing (displaced?) side of the Medesto fault at the LCP Zone. Many of the other holes appear to have been drilled with little or no understanding of the geological constraints on the mineralization (ie. a wide range of hole orientations on the same showing). Maps of the same showing in different reports even show the same hole drilled in opposite directions further reducing the confidence level in the qaulity of the data and the degree to which the showings have actually been tested. The obvious conclusion is that there is a definite need to further correlate drill intersections and surface showings with the stratigraphy and structure in this area to ultimately decipher the controls on the lead-zinc-silver mineralization.

The claim group should be further explored for its Sedex lead-zinc potential both because of the nature of the sulphides found to date on the property and the stratigraphy within which they occur.

7.2 Ruth - Vermont Mine

The history of this property dates back to the start of the century and since that time there have been a number of unsuccessful attempts to bring the mine into full production. A feasibility study in 1972 indicated there was 291,384 tons of mineable ore reserves (after dilution) averaging 4.76% Pb, 5.65% Zn and 6.62 oz/t Ag with good prospects of increasing these reserves (Manning - 1972). A later study concluded that it would not be profitable to operate this mine when silver prices were below $8.00 an ounce (Foreman - 1982). The workings have since been shut in and the site reclaimed.

Mineralization occurs as two distinct types in this orebody; vertically dipping quartz veins containing galena, sphalerite, pyrite and scheelite and bedded replacement sulphides (manto deposit) of pyrite, sphalerite, galena, locally arsenopyrite and sometimes chalcopyrite, boulangerite and tetrahedrite. The veins are thought to have been the conduits through which the mineralizing fluids passed and the replacement bodies represent the final depositional sites in limestone beds immediatly overlying an argillite sequence. This bedded type of lead-zinc mineralization at Ruth-Vermont is very similar in hand specimen to mineralization found at major shale-hosted lead-zinc deposits in other parts of the world (Dickie and Longe - 1982).

From their work in both areas MineQuest has speculated that the replacement sulphides at

Ruth-Vermont appear to occur at the same stratigraphic level as Unit B, on the BB claims, which hosts other bedded lead-zinc occurrences to the north.

A recent underground exploration drill program cut a 5.6 ft intersection assaying 2.08 oz/t Au in a section of limy argillite with disseminated pyrite and arsenopyrite in replacement type mineralization. This intersection is adjacent to an isolated gold value in an old drill hole. The controls to the gold mineralization are not known at this time, however, one can speculate that the gold is related to a nearby vein, so far undetected. On the other hand the gold may be part of a distal mineralized facies associated with the lead-zinc manto deposits and warrant more systematic testing at this location as well as other lead-zinc showings found throughout the rest of the property. Further evidence for the manto theory is the anomalous gold values in the lead-zinc at Trench 75-3 on the VMT claims and at the north end of the BB claims where many of the lead-zinc samples contain a high tenor of gold.

7.3 BB Claim Group

Mapping has designated seven lithological units in the lower Grit Division of the Horsethief Creek Group of sediments, which although variable, are traceable throughout the length of the claim group. Considerable lateral variation within these units indicates the depositional environment was not constant in this area.

Seven significant lead-zinc-silver showings have been discovered on the claims but to date none have produced mineable grades and thickness.

Galena and sphalerite conformable to bedding at all these showings indicates primary stratigraphic control to the lead-zinc mineralization. All occur at one of three stratigraphic levels near the contact between shale and overlying limestone. Due to repetion from folding, MineQuest have calculated there is as much as 73 km of these three prospective stratigraphic horizons on the property. In 1982 they estimated that only about half of this strike length had been prospected leaving considerable exploration potential on the claims (Dickie and Longe - 1982).

The property exhibits two principal requirements for shale hosted lead-zinc deposits; favourable lithologies of carbonaceous, iron rich, limy shales within the sedimentary sequence and numerous stratabound lead-zinc showings within these units. The presence of substantial thicknesses of bedded lead-zinc mineralization at one of these stratigraphic levels in the Ruth-Vermont Mine to the south, further strengthens the potential for finding an economic shale hosted lead-zinc deposit in this area.

Thin section work by Samim (Bottrill et al - 1983) identified alteration minerals of mafic volcanic origin in association with black shales and lead-zinc mineralization. As this assemblage is conformable to bedding and not the predominant foliation cleavage (ie pre-deformational), the alteration and sulphide mineralization may be diagenetic resulting from

a sea-floor geothermal system associated with a Sedex depositional environment.

To date no significant thickness changes have been observed in the shale units on this claim group. An increase in thickness of black shales to hundreds of metres would indicate a low energy reducing basin considered to be a favourable environment for the formation of shale-hosted base metal deposits (MacIntyre - 1990). The discovery of such a basin in this area would provide a major Sedex exploration target and should continue to be searched for.

In addition to base metals, the northern half of this claim group has obvious gold potential exhibited by auriferous veins on the Flying Dutchman and nearby Burns and Bennison claims. These veins have produced average grades as high as 0.76 oz/t Au from the Burns claims and 0.146 oz/t Au across a width of 2.2 ft from the Flying Dutchman claims (Dearin - 1982). As gold bearing quartz-carbonate veins on both these claim groups have very similar characteristics, similar configuration and occur in the same host rocks, they provide the interveining (over a kilometre apart) and adjacent areas with considerable scope for the discovery of a much more extensive gold system. Although these showings have been examined by several geologists in the past couple of decades, no real exploration to exploit the gold potential in this area appears to have been conducted since the turn of the century.

8.0 RECOMMENDED PROGRAM

There is still exploration potential for the two principal commodity types of historic interest on this property, lead-zinc-silver and gold. The main lead-zinc-silver targets warranting further attention are; Sedex shale-hosted base metal deposits modelled after the Sullivan Mine orebody at Kimberly B.C. and additional manto replacement deposits similar to the Ruth-Vermont Mine. The latter deposit type may be genetically related to the former and hence the presence of bedded replacement mineralization at the Ruth-Vermont is thought to be one of the better indicators for potential Sedex deposits on the property.

The other commodity, gold, is also well worth looking for. Most of the early prospecting was for auriferous quartz-carbonate vein systems and the possible discovery of more gold is good, especially on the northern BB claims. Recent exploration has also encountered anomalous gold values (VMT and Decision Creek) and even ore grade gold values (Ruth-Vermont) with bedded replacement type lead-zinc mineralization indicating a spatial if not genetic association of these two metals on the property. Future exploration for lead-zinc in this area should always keep the possibility of accompanying gold values in mind and ensure that all laboratory work includes gold in the analytical package.

It is recommmended that the following two phase program be undertaken on the property as soon as possible;

8.1 Phase I:

8.1.1 VMT Claim Group

A program of detailed geological mapping with the emphasis on structural analysis centered over the LCP showing and expanded to include the other three showings to the north and the lead-zinc soil geochemical anomalies outlined by Norcen (1981). The principal object of this work would be to obtain more detailed structural and stratigraphic information inorder to determine the geological controls on the lead-zinc mineralization and further develop a structural model.

Tight topographic elevation control will be required for the detailed structural and stratigraphic mapping. It will be necessary to have an orthophoto made of the area with 1 to 2 metre contours and survey control points, especially in the area of the LCP Zone. A mapping grid will then be cut or refurbished and tied into the orthophoto.

This program should lead to a better prediction of likely drill targets whether the mineralization is strictly stratigraphic in nature or structurally controlled. At the same time additional evidence of basin thickening and synsedimentary faulting, (eg. clastic breccias, soft sediment deformation) should be looked for in order to target potential Sedex depositional sites.

The literature should be searched further for the exact location of the massive galena-boulangerite veins with anomalous gold values reported by Nolin (1983) along the northwest boundary of the VMT claims. Detailed prospecting and mapping, and possibly trenching if any zones of interest are discovered, should be conducted over this area.

8.1.2 Ruth-Vermont Claim Group

It is recommended geological mapping be conducted over this claim group where possible, (some areas unaccessable due to steep topography) as there appears to be no surface mapping to date. The program should concentrate on prospective strata and structures generated from the proposed work on the adjacent VMT claims. Again special attention should be given to possible indicators of shale-hosted base metal environments. In addition this work should also examine features relevant to the Ruth-Vermont ore body, such as surface projections of the mineralized Unit N/Unit M contact and projected extensions of the Pinetree, Blacksmith and Windlass lead-zinc-silver vein systems.

It would also be worth while to sample the remnant mine tailings stored on site. As no assaying for gold was conducted (or at least not presently available) on past production and drill core, positive results from this sampling could assist in determing the amount of gold associated with lead-zinc mineralization previously removed from the old workings. A high gold content in the old tailings might be economically recoverable in itself.

8.1.3 BB Claim Group

Further mapping, prospecting and selectively placed lines of geochemical soil sampling should be conducted over the remaining prospective strike length of Units B, D and F which have not been explored in detail to date. As with the other two claim groups this work should constantly explore for various indicators of a Sedex environment.

Detailed prospecting and mapping for gold is recommended at the north end of the claims in the Bobbie Burns basin. The area between and adjacent to the Flying Dutchman, Burns and Ellen D leases should be carefully prospected for any evidence of mineralization, quartz veining and shear zones with particular emphasis placed on northwest and northeast trending systems. All zones of interest should be sampled, trenched where warranted and geologically mapped.

8.2 Phase II

The second phase of exploration recommended here is a diamond drill program. All the drilling is proposed for south end of the project area where mapping to date has indicated a considerable thickening in the Hadrynian shale sequence.

Firstly, diamond drilling (3 holes) should be conducted on stratabound lead-zinc targets, potentially Sedex targets, projected from a new structural model (or a revised MineQuest model) resulting from Phase I work, adjacent to the LCP Zone area on the VMT claims. If the present model is not significantly changed the holes should test the interpreted northwesterly plunge of the LCP sulphide zone.

Secondly, two holes at approximately 75 to 100 m spacings should be drilled on the southeasterly extension of the LCP Zone and the Norcen geochemical anomalies. They should be targeted on a projected extension of the mineralized contact which, at this stage at least, is believed to be associated with the geochemical anomaly.

Thirdly, after geological mapping on the Ruth-Vermont claims has been completed, interpreted and correlated with the VMT geology (above), drilling (minimum of 2 holes) should be done to locate a possible Sedex source to the lead-zinc mineralization. Undoubtedly the steep topography in this area will restrict the availablity of drill sites on the surface and the holes may have to drilll extra footage to intersect the intended target zones. It is assumed at this time, that drilling from the surface will still be less expensive than reopening and reclosing the mine workings and drilling from underground setups, especially for the limited program proposed here.

Hopefully these holes can be placed to serve the additional objective of bracketing the previous gold drill intersections along strike as well as testing the Sedex model. If dual purpose holes are not possible due either to limited access on the surface or a structural configuration that does not allow one hole to test two targets, two separate additional holes will have to be drilled to explore the gold targets.

9.0 PROPOSED BUDGET

9.1 Phase I - Detail Mapping, Prospecting, Soil Sampling and Trenching

(Assumes 30 field, 40 comp. & prep. and 20 reporting days; 20 helicopter days)

Salaries	1 Project Geologist, 1 Field Geologist, 2 Assistants	$78,500
Helicopter	20 days x 2 hrs x $800	$32,000
Vehicles	1 4x4 truck, 2 ATVs	$5,000
Motel-Meals	4 men x 30 days x $80	$10,000
Mob- Demob	Vancouver-Golden-Vancouver	$1,000
Orthophoto	VMT-Ruth Vermont area	$15,000
Surveying	Line-cutting, orthophoto control points	$15,000
Blasting	Contractor wages, drill rental, powder	$5,000
Analyses	500 soils, 200 geochem rocks, 40 rock assays, 50 checks	$14,000
Environment	Baseline ground water study	$7,500
Supplies	Maps, photos, field supplies and equipment	$5,500
Shipping and Communication		$1,000
Drafting	100 hr x $46, paper, copying, binding	$6,000
Contingency	10%	$19,500
	Phase I Total	**$215,000**

9.2 Phase II - Diamond Drilling

(Assumes 1800 m core, 9 holes, 40 day program+ 20 days permitting and reporting)

Salaries	1 Proj.Geologist (50days), 1 Consult. Geologist (20days)	$42,000
Contractor	1800m x $100, bulldozer, water truck, mob-demob	$235,000
Access	Mob-demobilize bridge on Ruth-Vermont road	$10,000
Reclamation	Bulldozer, labour, seed, fertilizer	$9,000
Vehicle	Rental 4x4 truck, fuel	$4,000
Accomo	Geologist staying at drill camp	$3,000
Analyses	300 geochem, 80 assays	$7,500
Petrographic	Microscopic analysis (1996 core and Phase II core)	$2,500
Supplies	Maps, bags, equipment	$4,000
Shipping and Communications		$1,000
Drafting	100 hr x $46, paper, copy, binding	$6,000
Claim Fees	Filing and renewal fees	$10,000
Contingency	15%	$51,000
	Phase II Total	**$385,000**

TOTAL PROPOSED BUDGET **$600,000**

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CERTIFICATE OF QUALIFICATIONS

I, MARCUS J. GIDLUCK of the City of Calgary in the Province of Alberta do hereby certify:

1. I am a practising Geologist residing at 79 Woodglen Circle S.W., Calgary, Alberta.

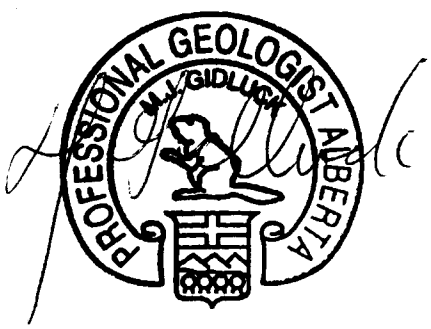
2. I have practised my profession continuously since graduating from the University of British Columbia, Vancouver B.C., with a B.Sc. in Geology in 1965.

3. I am a registered Professional Geologist with the Association of Professsional Engineers, Geologists and Geophysicists of Alberta, a registered Professional Engineer with the Association of Professional Engineers of Ontario, a Fellow of the Geological Association of Canada and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum.

4. I have not received nor do I expect to receive any interest, direct or indirect, in the property described in this report, nor do I own or expect to own any securities of Mountain Star Resources Ltd. or any of its affiliated companies.

5. This report is based on a review of selected published reports and all the company geological reports and maps made available in the offices of the Dixon Law Firm in Calgary, Alberta and MineQuest Exploration Associates Ltd. in Vancouver, B.C. as well as a two day examination of parts of the Vermont Project property in June and July 1997.

DATED AT CALGARY, ALBERTA THIS 15th DAY OF August, 1997.



Marcus J. Gidluck, B.Sc, P.Geol.

APPENDIX A

GEOLOGICAL DESCRIPTION OF SAMPLES - GIDLUCK, June 28, 1997

97-MG-01 Mineralized Deformed Quartz "Vein"

- Located up slope from LCP Showing on new logging road on north side of Crystal Creek.
- Highly weathered, gossanous sulphides of pyrite and possible sphalerite and fine grained galena in small quartz segregations in small crenulated folds.
- Quartz veins semi-conformable to fracture (bedding) cleavage, 120°/ 60-70°E, in grey sandstone grit.
- Prominent cross cleavage at 015°/80°S.

97-MG-02 Small Mineralized Deformed Quartz "Vein"

- Located 50 metres east of #01 on same road.
- Similar to above but smaller vein, highly weathered.
- In grey silty shales; same orientation as above.

97-MG-03 Highly Weathered Gossan In Fault Zone

- Located 50 metres east on new road then 50 metres north on old drill road.
- Prominent fault zone 5 m wide @ 170°/70-75°W.
- Highly weathered, spongy gossanous lense in fault zone, no fresh sulphides.
- No sample submitted to lab

97-MG-04A Weathered Sulphides in Quartz Boulder

- Located over DDH 80-4 (found original backsite) at Trench 75-3
- Some gossanous sulphides in massive white quartz; assume fresher than 04B(?)

97-MG-04B Weathered Sulphide Lense

- Crude channel sample across eastern sulphide lense in Trench 75-3 approx. 30m west of DDH 80-4.
- Zone of weathered massive sulphides; galena, sphalerite, pyrite adjacent to vertical, quartz filled fault zone.
- General cleavage dip is 60-70° to east but faulting appears vertical, maybe steeply west.
- Sulphide lense on west side of fault indicates probable down-drop to west.
- Mineralization appears to be associated with structure.

97-MG-05 Massive Quartz Vein

- Located in road bank below drill holes 75-2, 79-6 and 80-1.
- Massive white quartz vein material, orientation unknown but outcrops 15m up-slope.
- Appears barren.

APPENDIX B

To : **BRIGHT STAR VENTURES CORP.**
1020, 833 - 4th Avenue S.W.
Calgary, Alberta

ATTN : Gordon Dixon

File No : **3 9 2 8 3**
Date : July 15, 1997
Samples : Rock
Project :
P.O.#

Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	Au ppb	Ag ppm	Cu ppm.	Pb ppm	Zn ppm
"Geochemical Analysis"					
970MG - 01	5	< 0.1	< 1	43	33
970MG - 02	6	< 0.1	< 1	32	366
970MG - 04A	16	3.0	52	1633	680
970MG - 04B	990	189.0	224	>10000	>10000
970MG - 05	10	0.5	< 1	250	330

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To : **BRIGHT STAR VENTURES CORP.**
1020, 833 - 4th Avenue S.W.
Calgary, Alberta

ATTN : Gordon Dixon

File No : **3 9 2 8 3**
Date : July 15, 1997
Samples : Rock
Project :
P.O.#

Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	Pb %	Zn %
"Assay Analysis"		
970MG-04B	7.30	8.30

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

APPENDIX I

DRILL LOGS

MINEQUEST EXPLORATION ASSOCIATES LTD.

HOLE NO DDH 96-1

DRILL LOG - CORE

CLAIM BLOCK CODE:	VMR		
NTS:	82K15	UTM:	
CLAIM NAME:	L8215 L418		
LOCATION - GRID NAME:			MINE GRID
GRID N:	10350N	GRID E:	1600E
SECTION	1600E	ELEV:	6000 LEVEL
AZIM:	--	LENGTH:	
DIP:	- 90	CASING LEFT	NO
CORE SIZE:		MQ	
CORE STORAGE:		ON SITE	

SURVEY

DEPTH	AZIM	DIP	DEPTH	AZIM.	DIP
		----- NONE ------			

DRILLING CO:	ADVANCED DRILLING
STARTED:	OCTOBER 5, 1996
COMPLETED:	OCTOBER 19, 1996
PURPOSE	SEDEX STATIGRAPHY
CORE RECOVERY:	GOOD
LOGGED BY:	K. NORTHCOTE
DATE LOGGED:	OCT. 5 TO OCT. 19
ASSAYED BY:	BONDAR-CLEGG
LAB REPORT NOS.:	

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
DDH 96-01 H 1,277 FT (389 23 M)				COORDINATES : 10+350N, 1+600E (1600E CROSS SECTION) AZIMUTH : ------		INCLINATION : - 90 (vertical)		DATE STARTED OCTOBER 5, 1996 DATE STOPPED OCTOBER 19, 1997
0 00 / 0.00	187 50 / 55.63	UNIT MV ARGILLITE						
3 00 / 0 91	3 50 / 1 07	Rubble - fill	-	-	Broken vein	Pyrite sp (GA)	-	
3 50 / 1 07	6 50 / 1 98	Argilite	45 deg CA	Massive	-	-	-	Massive, locally thin interbeds
6 50 / 1 98	25 00 / 7 62	Argilite	50 deg to 55 deg/CA	Weak parallel to bedding	-	-	Disseminated pyrite 1 - 2 %	Bedding locally consicuous at 40 deg CA Pyrite crystals, Syngenetic v. wear fracturing - almost solid core
25 00 / 7 62	26 00 / 7 92	Argilite	--	--	Veinlets (Fracture coatings)	-	-	Broken interval with thin siliceous coatings
26 00 / 7 92	57 00 / 17 37	Silty Argilite	60 deg CA	v. weak fracturing	Sparse (Fracture coating)	-	Disseminated pyrite 1 - 2 %	
57 00 / 17 37	57 80 / 17 62	Silty Argilite	^--	v. weak fracturing	-	-	Disseminated Pyrite approx 10%	More abundantly disseminated Pyrite @ contact with mineralized vein
57 80 / 17 62	77 00 / 23 47	Silty Argilite and vein mineralized	60 deg/CA	Broken	Vein approx. parallel to CA (V) Quartz (carbonate)	String patchy py pb sp	disseminated py 5 - 10%	Vein width? Half core Mineral vein extends beyond core, py crystal at vein margin, finer clusters within vein, less conspicuous crystals. Late white quartz cuts across main vein Two generations late quartz less mineralized Vein trends out of core into wall at base of interval. Few thin living interbeds @ 74 ft. NOTE UV lamped - several patches / flecks of blue white fluorescence. Run AU + 34 (Drilling additive also fluoresces)
77 00 / 23.47	85 00 / 25 91	Argilite thin laminated Gradational, light grey silty.	approx. 45 - 50 deg/CA	Fractures filled with Quartz - mineralization	Varied Cuts bedding approx. 40 - 45 deg/CA vugs nail head carbonate	py pb Sp	py varied to 10% coarse and fine	cut by numerous thin veins 1/8" to 1 1/2" cutting at varied angles across bedding - varied. Course and fine py in veins and in wall rock
85.50 / 26 06	92 00 / 28.04	Argilite thin laminated Gradational, light grey silty.	approx. 45 - 50 deg/CA	v. weak fractures	Wide spaced 6" to 24" 1/4" - 1" wide	py (traces of pb / sp)	py 3 - 5%	Decrease in mineralization. Decrease in qtz - carbonate (dol) veining
92 00 / 28 04	97 00 / 29.57	Argilite banded / laminated dark / light	approx. 45 - 50 deg/CA	v. weak fractures	Varied Irregular cuts in bedding	py (pb / sp)	py 3 - 5%	Light bands no reaction to cold acid.
97 00 / 29.57	100 00 / 30.48	Argilite banded / laminated dark / light	approx. 50 - 60 deg/CA	v. weak fractures	Wide scattered irregular veinlets 1/16 to 1/4"	py	py 3 - 5%	Narrow qtz (carbonate (dol)) weak reaction - powder

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
100 00 30 48	105 00 32 00	Argillite banded / laminated dark / light	approx 50 - 60 deg/CA	v. weak fractures	Wide spaced qtz / car v. weak off across bedding	py pb sp	py 5 - 6 %	Vein @ 101 1" - 1 5" 45 deg/CA Vein @ 103 4 5" - 5" 50 deg/CA Vein @ 103 5 0.25 - 0.5 50 deg/CA Mineralization - 104.3 0.5" 50 deg/CA
105 00 32 00	119 00 36 27	Argillite banded / laminated dark / light Sharp boundaries 0 25 - 1 0" laminate Gradational 114 - 119'	approx 50 - 60 deg/CA	v. weak fractures	Wide spaced qtz / car	General weak py pb sp	py 2 - loc 5%	Vein @ 106 - 106.75 swarm carbonate v. weak effect Vein @ 112 5 2 - 2 5 " qtz / (carbonate) py pb (sp) 114 5 0 5 - 1 py pb (sp) 118 0.25 - 0 5 qtz carbonate py pb (sp) 118.5 0.5 qtz carbonate
119 00 36 27	130.00 39 62	Argillite laminated gradational, becoming	approx. 40 deg/CA	Weak cleavage parallel to bedding	cuts bedding @ RT <'s @ 60 deg/CA	General weak py pb sp	py 1-2% local 5% associated veinlets	Veinlets widely scattered, few clusters 0.25 - 0.5" @ 127' weak py 4" - 4.5"
130 00 39 62	132.00 40.23	Silty argillite, thin argillite with thicker silty laminate bands	approx. 60 deg/CA	v. weak fracturing	qtz / (weak carbonate)	x	py coarse crystals 1-2%	Some rounded silty clasts? Vein @ 132 3" non mineralize
132 00 40 23	144 00 43 89	argillite, local thin interbed silty laminate	Massive loc 65 deg/CA	v. weak fracturing Few slip surfaces 144 slip surface approx. 40 deg/CA	qtz 132 6 weak carbonate qtz 140 weak carbonate qtz 142 weak carbonate	x py pb (sp) (cpy ?)	py 1 - 2%	132 6 qtz v 4" 45 deg/CA non mineralized, weak carbonate at margins 138.0 qtz weak carbonate 3" @ 65 deg/CA v minor py 140.0 qtz with minor carbonate at margins. Disseminated 142 qtz with minor car, mineralized py / pb / cpy ?
144 00 43 89	164 00 49 99	argillite more conspicuous silty laminations	40 - 55 deg/CA	v. weak fractures	few narrow veinlets 1/8" to 1/2"	py pb in some veins	py 1% loc 3%	Two generations qtz / (carbonate) veins Few narrow veinlets 155 5" 3" @ 45 deg/CA cuts bedding Strong mineralized py pb Not assayed. Too narrow!! 159' 7" length butting into core py. Late, cutting earlier
164 00 49 99	182 50 55 63	argillite / local siltstone thin bedded laminate locally graded Increases from interval 144 - 164	55 deg/CA	Narrow slip surfaces @ 174 5' @ 75 deg/CA	qtz / carbonate veinlets, widely scattered	py (pb) (sp) (cpy)	py 1% increasing to 8 - 10% @ 173' conc on bedding planes	Widely scattered qtz / (carbonate) veinlets cut bedding at varied attitudes Few well mineralized py, pb, cpy, sp
182 50 55 63	403.50 122.99	UNIT L GRIT						
182 50 55 63	184 00 56.08	Fine sandstone Argillaceous	^_	^_	qtz vuggy 183.7 80 - 85 deg/CA	v. weak py	py coarse crystal clusters	
184.00 56 08	199.50 60.81	Interbedded argillaceous sandstone and "grits" Showing variations in "sand" size and argillaceous content. Locally grades to pebble conglomerate Locally conspicuous blue qtz eyes.	60 deg/CA @ 192 ft.	v. weak fractured massive	qtz some vuggy 184 qtz, vuggy approx. 4" @ 85 deg/CA 185 qtz 0.5" @ 20 deg/CA 189 qtz, vuggy 3.5" @ 80 deg ? CA additional 1/2 - 1"	 - CG pb not sampled CG sp not sampled weak py, trace sp	py	184 - 188 Grading from Argillaceous sandstone to grit qtz pebbles to 1/2 inch. Elongate in preferred orientation. 188 - 191.5 argillaceous sandstone 191.5 - 192.2 interlaminated shale 192 2 - 194 Coarse sandstone 194 - 196 Coarse sandstone 196 - 199.5 grit
199 50 60 81	201 50 61.42	Argillite, laminated light silty with v. fine sandy laminate	50 deg/CA	Cleavage visible on broken ends of core	qtz 3/4" @ 50 deg/CA @ 200 ' parallel to Bedding	py (pb)	4 - 5% py following bedding	
201 50 61.42	215.00 65 53	grit argillaceous	?	Cleavage visible on broken ends of core	qtz 60 deg/CA 6" thick qtz @ 40 deg/CA 0.5" thick	sp pb (sp) py	py coarse 1 to 2%	202 5 - 203 qtz vein; 6" @ 60 deg/CA. Cluster of coarse sp crystals. Vuggy 204 - 212 5 (13) Non mineralized white qtz veins 1/8" to 1-1/2" thick. All @ 40 - 50 deg/CA 214' qtz 1-1/2" thick @ 25 deg/CA Non-mineralized

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
215 00	224 00	grit with	50 deg/CA	Cleavage visible on	qtz vein 1/4"	–	Fine disseminated	qtz pebbles with distinct bluish tint Ovoid Preferred orientation, Sandy interbeds @ 215, 219
65 53	68.28	finer sandy interbeds Pebbles approx 1/4"	opposite to vein	broken ends of core small fault approx. 1/8" offsets qtz vein @ 219 approx. 1" offset	@ 45 deg/CA		py 1% +/-	Small fault Reverse 20 deg/CA approx. 1" offset. Small lensoids gouge.
224 00	238 00	gr	approx	Cleavage on broken	qtz vein	N/A	Fine disseminated	qtz (carbonate) 2" @ 25 deg/CA coincides with small slip
68 28	72 54	interbeds Pebbles approx. 1/4" to 1/16" in finer sections		ends of core approx 55 deg/CA	2" @ 25 deg/CA		py 1% +/-	surface. NM
		approx 30 deg/CA thin sandy layers (sparse)			qtz vein 30 deg/CA 14" wide	Weak mineralization to nil py		qtz (carbonate) 14" wide Assay - AU +34
					qtz vein 35 deg/CA 2" wide @ 235.5	weak to nil py		226 - 229 finer grit interbed
					qtz / carbonate vein	–		qtz / carbonate vein @ 238' @ 35 deg/CA, 1" wide, non-mineralized
238 00	256 50	Grit with finer interbeds medium to coarse sandstone,	@ 70 deg/CA	Cleavage weak @ 70 deg/CA	see remarks	non-mineralization	py 1 - 2 %	239 - 241 Finer grained interval
72 54	78 18	argillite conspicuous blue qtz pebbles						243.5 - 246 Finer grained interval
								250 - 253 5 Finer grained interval @ 246 - 3" wide silicified @ 40 deg/CA
								239 7 - 242' 5 qtz veins 0 5 - 1" wide @ 40 to 70 deg/CA
								252 5 approx 10" wide v. weak mineralization (252 - 254 GEO AU +34)
					qtz / carbonate eff HCL powder	(py) (pb)		255.5 qtz vein 0.5" @ 50 deg/CA
256 50	275.00	Grit with 'finer' interbeds	@ 50 deg/CA	Cleavage weak	qtz / (carbonate) 6"	–	py 1 - 2%	256 5 - 257 qtz vein 6" wide @ 50 deg/CA. Non-mineralized. Vugs
78 18	83.82							257 5 - 261 'Finer' coarse to medium argillite SS becoming coarser towards base of interval
		medium / coarse sandstone argillaceous		@ approx. 50 deg/CA	@ 50 deg/CA		slightly more	
					qtz / (carbonate) (3) @50 deg/CA	–	abundant in finer intervals	261 - 274 7 Coarse Grit
								274.7 - 276 'Finer' interval
					not parallel			259 - 259 5 (3) qtz veins approx. 0.5" each Each @ 50 deg/CA but intersect
					qtz / (carbonate) (7)	(pb)		261 - 265.5 (7) 1/8" to 1/2" @ 40 deg/CA. Traces of pb / sp
					1/8 - 1/2" @ 40 deg/CA	(sp)		267 - 267.5 qtz 6" wide @ 60 deg/CA. Non-mineralized
					qtz / (carbonate) 6" @ 60 deg/CA - 267'	–		268.5' argillaceous inclusion
								270.5 - 273.5 (8) 1/4" to 1/2" @ 50 - 60 deg/CA. Barren
256 50	275.00	cont'd			qtz / (carbonate) (8) 1/4 - 1/2" @ 50 - 60 deg/CA	–		274 - Two intersecting. Each 21" wide. Barren. 70 deg and 30 deg/CA
78 18	83 82							
		@ 275 - coarser / fine contact / bedding	@ 50 deg/CA @ 275'		qtz / (carbonate) (2) intersecting each 1" @ 30 deg and 70 deg/CA @ 274	–		NOTE: qtz / (carbonate) veinlets thi's interval not sampled for assay - Barren to traces pb / sp
275.00	296.00							3 - 4 < 1" argillaceous inclusions Approximately 15 qtz stringers this interval 1/8 - 1/2", minor carbonate, not mineralized.
83 82	90.22	Grit conspicuous blue qtz pebbles, interbeds of medium - coarse sandstone / siliceous interbeds	approx. 50 deg/CA	v weak cleavage approx. 60 deg/CA	Small veins 30 - 75 deg/CA	Nil	py 1% Fine / medium crystals	276 - 278 Coarse - sandy interval
								290 6" Siliceous medium - coarse sandy interval
								291 - 294 Grit has more siliceous appearance (less argillaceous matrix)
296.00	317.00							298 - 309 (15) qtz / carbonate veinlets, non-mineralized, carbonate is calcite.
		Grit, conspicuous	approx. 40/60 deg/CA	Foliation	(15) qtz (carbonate)	–	py	311 - 312.5 Medium grained argillaceous and lighter sandstone with darker 'finer' sandstone interbeds.
90 22	96.62	blue qtz pebbles interbeds of medium-coarse sandstone		@ 30 deg/CA (weak cleavage)	1/4 - 1/2" approx. 30 deg/CA		approx. 1-2% fine / medium	argillite

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
		lighter colour less argillaceous, more siliceous.			approx. 70 deg/CA (young)			
317 00 / 96 62	334 00 / 101 80	qtz vein system locally shows irregular shres of wall rock +/- parallel to CA. Few short intervals / diffuse partings silicified Grit / sandstone	–	Massive	qtz vein system wider then drill core	v. weak py	py	317 - 334 'qtz' (carbonate) vein massive white v. weak mineralized. Apparently +/- parallel to CA. May be only a few inches wide running approx. parallel to CA - possibly thicker :: Geochem AU +34 NOTE: Assay interval 314 - 339 AU +34 in 5' assay intervals
334 00 / 101 80	339 00 / 103.33	qtz Grit with few 'finer' medium to coarse sandstone	approx. 45 deg/CA	Cleavage @ 75 deg/CA visible on broken core ends	qtz silicified. some veining	–	py v. fine / wide scattered medium crystals 1-2%	337.5 - 339 Partially silicified with slightly diffuse margin vein 1.5" @ 50 deg/CA. Accompanied by two veinlets 1/8 to 1/4" wide below larger vein. [included in interval of qtz veins 314 - 319]
339 00 / 103 33	343 50 / 104.70	Sandstone argillaceous fine grained medium gray Speckled with medium grey soft. Grains (lithic fragments?)	–	–	–	–	py < 1% loc 3% fin	Has a speckled appearance - sampled for TS.
343 50 / 104 70	354 50 / 108 05	Sandstone, medium to coarse Few blue qtz eyes interbedded with grit @ 346.5 - 354.5	approx. 45 deg/CA Foliation approx. 20 deg/CA	Weak approx. parallel to CA	Two small veins @ 346.5 and 348 approx. 1" @ 45 deg/CA 349' 2" qtz (carbonate) @ 45 deg/CA	Barren	sparse py approx. 1% fine / medium	343.5 - 346.5 Sandstone 346.5 - 345 Grit 345 2" thin argillaceous layer @ 45 deg/CA
354 50 / 108 05	375 00 / 114.30	Coarse Grit 354.5 - 357.8 Loc grit shale 1/2" speckled unit 357.8 - 364 grit / Grit 364 -	@ 70 deg/CA	–	(4) small veins varied attitude 1/4 - 1/2" thick one convoluted	Trace sp	sparse to 1-2% in Grit	
375 00 / 114 30	384 00 / 117 04	qtz veins, massive white. Near continuous with irregular screens of shale and grit / Grit.		Sticken surfaces in	qtz (carbonate)	v. weak	py in shale to 5% coarse	Silicified inclusions with ghost-like outlines. UV lamped disseminated blue / white fluorescence and regular patterns NOTE; Sample interval 374 - 384 AU +34
384 00 / 117 04	385 50 / 117.50	Grit / loc Grit Fairly uniform light grey		–	–	–	py fine to medium 1-2%	Pale cream - brown mineral fluoresces blue / white
385 50 / 117.50	394 00 / 120.09	Grit / coarse sandstone interbeds Few v. narrow beds argillaceous.	approx. 60 deg/CA	–	(5) veins 1/8 - 1/4" @ 50 - 60 deg/CA	py	py (med) 1-2% loc 5% associated with veins	
394 00 / 120 09	397.00 / 121.01	Sandstone speckled medium grained in a v. fine matrix (lithic grains ?)		–	–	–	py medium/ coarse < 1%	Sedimentary rock with a pseudoporphyritic. Same as sample from 342.5 for TS.
		396.5 - 396.7 laminated argillite	approx. 50-60 deg/CA	–	qtz/ (calc) 1/4" parallel to bedding	–	py medium/ coarse 1%	
397 00 / 121.01	403 50 / 122.99	Sandstone medium / coarse Light coloured	approx. 60 deg/CA	–	qtz 1/2" 45 deg/CA	–	py traces	
403.50 / 122.99	499.00 / 152.10	**UNIT K ARGILLITE "TARGET SHALE"**						
403 50 / 122.99	405 50 / 123.60	argillite thinly laminated with siltstone / fine sandstone	approx. 65 deg/CA	Foliation @ 25 deg/CA pattern of	sparse qtz (carbonate) veins 1/2" @ deg/CA	–	py (coarse) 1 - 2 %	NO EVIDENCE OF MASSIVE SULFIDES NOTE: Two 5' intervals sampled for AU +34 404' to 414'
405 50 / 123 60	406 50 / 123.90	Grit as for grit unit above			qtz approx. 45 deg/CA 1/2" thick	–	py weak fine / medium disseminated	
406 50 / 123.90	439 00 / 133.81	argillite thinly laminated with siltstone / fine sandstone	50 - 60 deg/CA	Cleavage inconspicuous	Widely scattered thin 1/8 - 1/4" qtz (carbonate) veinlets	–	py, fine	Some graded beds. Non calcareous

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
439.00 / 133.81	459.00 / 139.90	argilite thinly laminated with silty argilite lighter siltstone few lighter bands argilite siltstone to v. fine sandstone	50 - 55 deg/CA 60 deg/CA	Foliation @ 20 deg/CA @ 20 deg/CA	442 - remarks 443.5 - remarks 446 remarks Yellow tan mineral with qtz. Weak reaction cold HCL when powdered	py weak	py scattered medium / coarse 1 - 2 %	Noncalcareous locally v weak graded bedding 442 - (3) 1/8 - 1/2" @ 45-50 deg/CA in tight cluster. qtz / (carbonate) 443.5 - 2" @ 70 deg/CA 446 - 1/4" @ 75 deg/CA sample TS. No Fluorescence NOTE: 444 - 449 5' interval argilite . sampled for AU +3
459.00 / 139.90	473.50 / 144.32	Laminated argilite with varied abundance interbed siltstone One or other locally predominate	approx 65 deg to CA	Foliation 20 - 25 deg/CA (Weak cleavage) 464 Small shear zone	qtz (carbonate) 2" @ approx. 60 deg/CA @ 459.2	py in wall rock associated veins	py weak medium coarse loc 2-3% associated vein	Laminate range in thickness from 1/8" - 2"
473.50 / 144.32	476.00 / 145.08	Laminated argilite / argilite siltstone cut by mineralized qtz veins	approx 65 deg/CA	Foliation 20 deg to CA Weak cleavage	qtz veins see remarks	py sp pb	py fine to medium associated with veins	473.5 - 474 qtz vein 6" @ 55 deg/CA 474.5 0.5" qtz / (carbonate) @ 70 deg/CA 474.5 approx 12" qtz / (carbonate) @ 15 deg/CA Irregular loc parallel to CA PYRITE V141722 SAMPLED FOR ASSAY pb zn AU ag CU
476.00 / 145.08	484.00 / 147.52	Laminated argilite argillaceous siltstone	approx 55 deg/CA approx 60 deg/CA	foliation 20 deg/CA (weak cleavage)	see remarks	Traces py	py sparse, scattered coarse	Varied abundance argilite vs silty argilite. Poorly developed graded bedding locally 481.5 - 483 qtz (carbonate) veins (5) size 1/8" to 6" @ 40, 45, 60, 70 deg 60 deg/CA Sides of widest vein not parallel to
484.00 / 147.52	486.25 / 148.21	Limey argilite siltstone Grading to fine limey sandstone Lime ends about 3" above base of sandy bed	approx 60 deg/CA	v weak foliation	–	–	py traces coarse at top	
486.25 / 148.21	499.00 / 152.10	3" noncalcareous sandstone at top Laminated argilite / silty argilite. Bottom 6" sandstone	60 / 65 deg/CA	v weak foliation @ 15 deg/CA	494 qtz (carbonate)	–	py weak fine / medium	494 (3) veins, 1/4 to 1/2" (+), approx 60 deg/CA SAMPLE 489 - 494 AU +34
499.00 / 152.10	1277.00 / 389.23	UNIT J GRIT						
499.00 / 152.10	514.00 / 156.67	Interbedded gradational medium and coarse sandstone grading into and out of Grit. Few more argillaceous intervals Shale interbed @ 504.5'	@ 50 deg	Incipient foliation	qtz @ 503.5 3/4" @ 25 deg/CA @ 504.5 - skims core thickness? @ 507 1/4" 45 deg/CA @ 509 Irregular @ 511 1/4" 20 deg/CA @ 512 approx 1/5" @ 45 deg/CA Intersecting 1/4" @ 20 deg/CA	– – – – –	py sparse	Grit has locally conspicuous blue qtz pebbles
514.00 / 156.67	534.00 / 162.76	Interbedded Grit Medium Sandstone	@ 60 deg/CA @ 70 deg/CA @ 65 deg/CA	Weak foliation visible on bedding and broken core ends	516.5 - 517.5 qtz Massive @ 15 deg/CA approx. 3" wide 524 qtz skims edge of core see remarks	– – –	py weak Fine / medium	Medium sandstone 521.5 - 526 becoming coarser grained towards base of interval. Medium / coarse sandstone 530 - 534 525 - 528.5 (5) qtz veinlets spaced approx. 1" apart 1/2" to 2" Barren varied orientations.
534.00 / 162.76	540.00 / 164.59	Coarse sandstone grading to grit cut by qtz veins.	@ 50 deg/CA	Weak foliation approx. 15 deg/CA	See Remarks 534, 535	py (pb)	py traces sparse fine to medium	Shows both gradational and sharp contacts between coarse sandstone and grit units. 534 - qtz 2" @ 45 deg/CA py fracture controlled and clusters. 535 - 538 qtz 1" @ 15 deg/CA weak disseminated py clusters ends @ 538' @ 45 deg/CA NOTE: Sample 534 - 539 qtz veins and grits wall rock Au +34 because of v. weak mineralization

Interval feet	to	to feet	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
metres	*to*	*metres*							
647 50 *195 83*		647 50 *197 36*	grit to top of interbed dark with argillaceous matrix from there on 'clast supported' less argillaceous few narrow finer sandy interbeds	approx. 50 deg/CA	–	qtz (carbonate) @ 646 3/4" @ 10 deg/CA slightly diffuse margins	barren	pyrite sparse fine	Grit to approx. 1/4" conspicuous blue quartz grit
647 50 *197 36*		655 50 *199 80*	alternating sequences of graded graded beds from fine at top to gradually coarser to Grit sharp bedding boundary between base of Grit to fine underlying sandstone	approx. 60 deg/CA	weak cleavage approx. 80 deg/CA? locally visible	qtz (carbonate) @ 650 1/2" wide 75 deg/CA vuggy @ 650 wide approx. 20 deg/CA runs approx. 12" @ 652 1/2" wide approx. 25 deg/CA carbonate	barren barren barren	pyrite sparse fine to medium	[Pipe dope fluoresces blue / white]
655 50 *199 80*		661 00 *201 47*	predominantly Grit alternating coarse and finer grit <1/4" to 1.0". Few short finer intervals of coarse 55 / grit & argillaceous partings	approx. 70 deg/CA	–	656 qtz 1/2" @ 35° CA few small diffuse qtz vein 658.5 1/4" @ 10 deg/CA 659 2" @ 50 deg/CA	barren barren trace py	pyrite sparse fine / med	Interval ends in thin argillite partings in coarse argillaceous 59 / grit few small diffuse quartz veinlets in Grit not recorded
661 00 *201 47*		680 50 *207.42*	Grit / coarse grit fairly uniform interval grits approx. 1/4" conspicuous blue quartz. Darker bands indicate >argillaceous content	approx. 60 deg/CA	weak foliation on broken core ends	few narrow 1/8" - 1/4" qtz veinlets	trace pry (pb)	traces fine py	
680 50 *207 42*		704 00 *214 58*	Grit matrix supported interbeds more argillaceous matrix and/or finer grits grading to coarse grits	approx. 60 deg/CA	weak foliation approximately parallel to CA? 15 deg to CA	691 qtz / carbonate 1/4" approx. 20 –	–	fine pyrite slightly coarser and more ABD in argillite	Angular / lensoidal shale fragments "rip-up clasts" @ 684, 687, 688, 698 incorporated in Grit Vein more calcareous than most to this point @ 691'.
704 00 *214 58*		717.00 *218.54*	Grit to "coarse sandstone" interbeds locally more argillaceous (darker) of interval Grading to Grit at base. Finer argillite 55 714 - 715.	–	foliation / cleavage 10 deg to 15 deg to CA	704' qtz 3" approx. 50 deg/CA	–	traces fine py	Non calcareous conspicuous blue quartz grits to approx. 1/4" Bruce noted disseminated arsenopyrite in argillite 55 / Grit 716-717 above brecciated vein Note: Arsenopyrite in wall rock above vein system, v. fine disseminated arsenopyrite could easily be missed. If this interval carries values, similar intervals above should be RECHECKED!!!!! Finer argillaceous ssndstones.
717.00 *218.54*		719.00 *219.15*	more abundantly argillaceous cut by brecciated quartz	–	broken veined by qtz / carbonate	717 qtz / carbonate breccia at top	arseno pyrite "v. patchy"	pyrite 2-3% arsenopyrite 6 - 8% loc	Disseminated arsenopyrite in argillaceous 55 / Grit and in argillite. Also fracture controlled in quartz / carbonate vein
719.00 *219 15*		722.00 *220.07*	quartz (carbonate) contains irregular screens / masses of argillaceous wall rock	–	–	Massive 719 - 722	arsenopyrite pyrite mainly in argillaceous screens	arsenopyrite pyrite in argillaceous screens in qtz	Less abundantly mineralized than wall rock. Arsenopyrite occurs within argillite
722.00 *220.07*		724.00 *220.68*	fine / medium argillaceous sandstone minor Grit	approx. 50 deg/CA	weak foliation approx. 20 deg/CA	qtz @ 724 1/4" @ approx. 80 CA			Material in quartz
724 00 *220.68*		728.00 *221.89*	medium to coarse argillaceous sandstone	approx. 80 CA?	–	qtz 2-1/2" @ 45 deg/CA @ 726' carbonate	–	disseminated py poss arseno in small amounts @ 727'	727' some fine disseminated arseno
728.00 *221.89*		736.00 *224.33*	Grit with interbeds fine / medium and coarse sandstone, argillaceous small	–	–	–	–	disseminated py weak in finer inter beds	Arsenopyrite not noted in finer interbeds or in argillite laminae. Conspicuous blue qtz to 7-1/4"

Interval feet	to	to feet	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
metres	*to*	*metres*							
736.00		750.00	Grit fairly uniform coarse	--	-	(5) qtz veinlets < 1/8" to 1/4" @ varied attitude	traces cpy in wall rock adjacent to veinlet @ 744	v. weak disseminated py disseminated py in rip ups	argillite rip ups @ 743 and 745
224.33		*228.60*	with pebbles to 1/2" conspicuous blue and white qtz.						
750.00		755.00	finer grit with interbed finer sandstone interbeds 751 - 752	approx. 60 deg/CA	foliation @ 15 deg	qtz 752 approx. 5" @ 60 deg/CA qtz 754 approx. 2-1/2" @ 30 deg/CA	traces of py black smear	trace fine py	carbonate and sericite associated with qtz veins
228.60		*230.12*							
755.00		759.00	dense siliceous zone	--	-	756.5 qtz / carbonate 2" thick @ 50 deg/CA	disseminated py at vein marg	-	Silicified zone cut by quartz vein @ 756.5'. Drusy / Vuggy fractures
230.12		*231.34*	at top becoming argillaceous at bottom 1.5'			(2) smaller			
759.00		769.00	impure quartzite pale	-	foliation	768 qtz 1/4" @ 80 deg/CA	-	weak disseminated py	Few narrow vuggy open fractures
231.34		*234.39*	argillaceous matrix fine / medium grained few darker argillaceous patches / saddles on core short interval '(1') Grit near base of int.		approx. 25 deg/CA				
769.00		791.00	alternating fairly thick	approx. 50 deg/CA	foliation	qtz 1/4" @ 772 @ 60° CA	-	v. sparse	-
234.39		*241.10*	sequences of gradation from fine / medium argillaceous sandstone through coarser sandstone grading into grit conglomerate cycles 10 to 15'		approx. 20 -25 deg/CA			fine py	
791.00		826.00	Grit / med / coarse 55	-	foliation	qtz vein 791.3 1/2" @ 35 deg/CA	-	v. sparse	Shows strong foliation / cleavage. Fractures filled with drusy qtz. Drusy crushed zones
241.10		*251.76*	showing varied abundance of disseminated grit scattered thin argillaceous laminae		@ 30 deg/CA cleavage 30 deg/CA	qtz vein 807 1/4" @ 25 deg/CA		fine py	locally siliceous
826.00		844.00	interbedded sequences	approx. 30 deg/CA	foliation @ 20 deg/CA	qtz 929/5 12" @ 80 deg/CA local contorted qtz 841.5 1/2" contorted	py	traces fine py	Local crushed intervals
251.76		*257.25*	of fine argillaceous sandstone generally grading through medium to coarser less argillaceous 55 into grit with varied abundance and size of grit. thin argillaceous laminae rip-up clasts		local crushed intervals approx. 35 deg/CA				
844.00		862.00	interbedded Grit and	-	foliation	qtz 844.3 1" @ 50 deg/CA qtz 845' diffuse 1-1/2" @ 45 deg/CA qtz @ 85 deg 2" 70 deg/CA vuggy	minor coarse py py	-	-
257.25		*262.74*	medium to coarse grained 55 where grit become sparser 55 light to med grey siliceous 855 becomes darker, grit more conspicuous		20 deg/CA				
862.00		871.00	approx. 4' of Grit poorly sorted	approx. 60 deg/CA	foliation 30 deg/CA	qtz 1/2" @ 869.5 30 deg/CA 869.5 30 deg/CA 869.5 - 871 approx. 8 1/8" qtz stringers various orientations	-	Traces fine-med py	Generally becomes finer, darker toward bottom of interval, but with thin qtz veinlets. More abundant py near shale clasts cleaves along foliation
262.74		*265.48*	matrix supported weakly argillaceous matrix followed by coarse - medium sandstone with argillaceous matrix shale rip-up clasts '(?) at						
871.00		874.50	Grit, crackled,	-	foliation 40 deg/CA	qtz 1/2" @ 872 65 deg/CA	coarse pry	traces fine-med py	Blue qtz eyes visible even in silicified material
265.48		*266.55*	filled with qtz at top of interval grit to 1/4" - more siliceous than 862'						Sample 871-873 broken, qtz filled zone, including py rearing vein - Au + '34

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
874 50 / 266 55	894 00 / 272 49	medium-coarse sandstone weakly argillaceous matrix, a few shale / silty rip-up clasts grades gradually into matrix supported Grit poorly sorted with grit up to 1/4" foliated	–	foliation 30-35 deg/CA	874 5-879 approx. qtz veinlets up to 1/4" thick irregular approx. 75 deg to CA qtz '879' < 1" irregular, diffuse, some carbonate, sericite qtz '1" @ 882 approx 80 deg/CA, v. diffuse qtz 1/2" @ 884 30 deg/CA qtz '2" @ 884.5 diffuse crackle filling qtz '2-1/2" @ 886 40 deg/CA small vugs qtz 889.5 irregular stringers to 1/4" qtz '2" @ 892 3 75 deg/CA vugs, minor carbonate	– – – – – – –	traces fine-med py sparse med-coarse py 891' = 1% fine-med disseminated py	py more abundant in "rip-up clasts" Minor carbonate in veins reacts with cold HCL only when powdered py becoming slightly more abundant toward base of interval 889-894 Carbonate forms "nails head" crystals in open spaces. Also described up hole AT ?
894 00 / 272 49	914 00 / 278 59	coarse sandstone at top of interval grades into grit over approx 2' foliated argillaceous matrix poorly sorted, grit to 1/4"	–	foliation argillaceous 20-35 deg/CA ERR 5" or "7" folds indicated by some veins	qtz '1/4" @ 895, 85 deg/CA qtz '1/2" @ 898 diffuse qtz /1 4" @ 901' approx. 35 deg/CA (deformed) qtz '1/2" @ 903' 90 deg/CA minor vugs, carbonate qtz '1/4" @ 905 30 deg/CA qtz '1/4+1/2" @ 907 90 deg/CA two veinlets with minor carbonate 907-909 4 1/8-3/8" qtz veinlets approx. 35 deg CA deformed 909 5 2 1/4" veinlets one with minor carbonate 85 deg/CA and 30 deg/CA	py, pb, sp – – – – – –	sparse med-coarse py – – – – –	py becomes sparser toward bottom of interval A few shale rip-up clasts present in this interval Several diffuse, discontinuous veinlets or qtz "sweats" are not described as veins. Veins at approx. 30 deg/CA follow foliation planes – – Crosscutting relationship indicates the carbonate bearing 85 deg/CA vein is later

Interval feet	to	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
914 00	to	920 00						
278 59	*280 42*	Grit foliated, argillaceous matrix, poorly sorted, grit to '1/2 " thin interbeds of fine-med sandstone	approx. 50 deg/CA	foliation 25-35 deg/CA	qtz '1/2" @ 915.5 85 deg/CA vuggy	sparse fine-med py	–	
					qtz '1" @ 918 65 deg/CA vuggy	–	–	–
					qtz '1/4" @ 918' 90 deg. CA, mino	–	–	grit has variable argillaceous matrix (i.e., lighter and darker sections)
920 00	934 00	fine-med sandstone	approx. 50 deg/CA	foliation 30 deg/CA = cleavage	qtz '1/4" @ 922 80 deg/CA minor	py, med-coarse	traces of fine py locally approx. '1%	Blue qtz eyes which characterize the coarser rocks up hole are present, but rare
280 42	*284 68*	med grey colour (greywacke) argillaceous or slaty partings along foliation - argillaceous matrix			qtz '1/4" @ 925 80 deg/CA minor	–	–	A few shale rip-up clasts Rock appears siliceous in places, but retains medium grey colour and slaty partings
					qtz '1/8-1/4" @ '924-934, all in 30 deg/CA (ll foliation)			
934 00	944 00	med-coarse sandstone	–	foliation 35 deg/CA = cleavage	qtz '2" @ 935 5 approx. 35 deg/CA ll foliation	(GA)	sparse fine-med py, locally approx. '2% near	Irregular black argillite or slate inclusions probably present shale rip-up clasts
284 68	*287.73*	poorly sorted with some grit-size clasts medium gray colour (greywacke) weakly '(7) argillaceous matrix - parts along foliation			qtz '2" @ 937 60 deg/CA buggy, v. minor carbonate	–	veins possible trace chalco @ '937'	py concentrated on foliation planes
					qtz '1/4 @ 937.5 approx. 60 deg/CA. two irregular veinlets, minor carbonate	–	–	934-939 sampled Au+34 V141734 includes several small qtz veins.
					qtz '3/4" @ '938.5 80 deg/CA minor carbonate	–	–	939-942 contains most the "rip-up clasts" and few qtz veins
					qtz '1/4" @ 939 approx. 45 deg/CA irregular	–	–	–
					935-944 qtz '(3) 1/8-1/4" 35 deg. CA '(ll foliation)	–	–	–
944 00	951 50	coarse sandstone to Grit poorly sorted grit up to '1/4" foliation, argillaceous matrix, thin interbeds of med grained sandstone	approx. '50 deg/CA? (value)	foliation 30 deg/CA	qtz '1/4" @ 945 30 deg/CA	–	trace fine-med py	Blue qtz eyes still present
287.73	*290.02*				qtz '1/2" @ 946 90 deg/CA	–	locally approx. 2% @ '948 near vein	Shale clast C? at '951' occupies '2-3" of the core, but sides not parallel ^– doesn't look like bedding
951 50	959 00	coarse sandstone to Grit poorly sorted grit to '1/4" foliated, less argillaceous matrix than previous section	not detectable	foliation 40 deg/CA	qtz '1/4" @ '953 80 deg/CA	–	trace of fine-med py enhedral up to '2% either side of vein '6" @ 958	–
290.02	*292.30*							

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
959.00 292.30	964.00 293.83	coarse-med sandstone foliated little argillaceous matrix	not detectable	foliation 40-50 deg/CA	qtz '(15) '1/8-3/8" @ 959-960.5 qtz '(2) '1/8-1/4 irregular disp. pinched 961-963	–	Trace of fine-med py enhedral up to '3% 959-960.5	Rip-up clasts argillite, irregular but generally deformed and dragged along foliation planes @ 962.5-964. quartz postdates the argillite clasts + deformation of argillite
964.00 293.83	974.00 296.88	coarse-med sandstone foliated small amount of argillaceous matrix	not detectable	foliation 45-50 deg/CA	qtz '1" wide '8-shaped open space drilling enhedral '(crystals) '964-967.5 '10 deg to qtz '1" irregular '80 deg/CA @ 968 qtz '1/8-1/4 open space filling '10 deg/CA @ 968 qtz '1" irregular @ '969.5 qtz '(2) '1/4-1/2" @ '973, 65 deg/CA	–	Trace of py fine-med 968-969	More foliation, fracturing again more pronounced '969-974
974.00 296.88	979.00 298.40	coarse sandstone poorly sorted up to 10% '1/8-1/4" grit	–	well developed foliation '40 deg/CA	qtz '1/8" 30 deg/CA @ 976.5	–	few fine disseminated blue qtz eyes 1/4" '975-977	
979.00 298.40	983.00 299.62	grit poorly sorted to poorly sorted coarse sandstone argillaceous matrix	– –	– foliation '25-40 deg/CA	–	– –	– –	Rip-up clasts of argillite sheared along foliation @ '979-982.5 blue qtz eyes throughout section disseminated occasionally
983.00 299.62	988.50 301.29	grit poorly sorted	–	foliation 35 deg/CA	qtz '(4) '1/8" to 1/4" attitude qtz '1/4" '60 deg/CA @ 984 qtz '1/8" 15 deg/CA @ 984.5-985 open space filling qtz '1/8" '30 deg/CA @ 985 qtz '3/8" 35 deg/CA @ 986.5 qtz '1/4" irregular attitude due to offsetting	–	disseminated fine py < 1%	Occasional blue qtz eyes Note: '15 deg/CA qtz vein offsets '30 deg/CA qtz vein intersection each other at approx. '50 deg
988.50 301.29	1006.00 306.63	v. poorly sorted grit matrix more argillite	–	foliation 40-50 deg/CA	qtz '(3) '1.8" 80 deg/CA @ 990.5	–	med-coarse enhedral crystals If py to '5 deg In '3" wide band @ 990	Many argillaceous rip-up clasts
1006.00 306.63	1011.50 308.31	grit poorly sorted with qtz and white del clasts up to 3/8" dia	vague 70 deg/CA ?	poorly developed foliation approx. '25 deg/CA	qtz '1/2" '70 deg/CA @ 1007	–	rare fine crystal of py	argillite band '(10" along CA) approx. '30 deg/CA contacts to grit . Blue qtz eyes '1/4" dia @ 1010

Interval feet / metres	to	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
1011 50 308 31		1019 00 310 59	coarse sand-stone to grit gradational changes top + bottom to grit	–	foliation mod-moderate-well developed '40 deg/CA	qtz '(2) '1/8-1/4" 80 deg/CA @ 1012 qtz '(2) '1/8" 80 deg/CA @ 1016 qtz '1/8" '80 deg/CA @ 1017	–	fine-med py as enhedral crystals and as deformed crystals (one observed with intruding qtz crystal papilization- appears to favour foliation planes up to '3% @ 1013-1014 fine py < '1% disseminated, along foliation @ 1016-1018	Muscovite in shear planes 1013-1014 band or rip-up clast of argilite
1019 00 310 59		1023.00 311 81	grit	–	foliation decreasing from top of section 35 deg CA	qtz '(4) 1/8" 35 deg/CA @ '10-14" intervals @1019-1022	–	odd speck of py '(fine enhedral crystals)	Blue qtz eyes from '1020-1023.
1023 00 311 81		1034 50 315 32	coarse-med grained sand-stone	vague '30 deg to CA? '(not coincidental to foliation attitude)	poorly-mod developed foliation '30 deg to CA	qtz '1/8-1/4"40 deg/CA @ 1027.5 qtz '(carbonate?) v. weakly reactive with HCL) '1/8" 80 deg/CA @ 1030 qtz to '1/8" '30 deg/CA @ 1032 qtz '(3) '1/8" 40 deg/CA @ 1033-1034	– py med-coarse enhedral	– pry med-coarse enhedral	pyritization concentrated around the vein, some by crystals occur right within vein, but at no greater concentration than in the immediately adjacent wall rock
1034.50 315 32		1038.50 316.53	fine grit '1/8" clasts few grains '1/4" mod sorted	vague '30 deg CA? '(again not coincidental to foliation)	poorly de-developed foliation 30 deg/CA	qtz-carbonate? '3/8" 70 deg/CA @ 1038	–	pry med deformed crystals	pyritization concentrated '4" either side of vein, no py within vein
1038.50 316.53		1045.50 318.67	coarse sand-stone mod-poorly sorted with clasts to '1/8"	–	poorly de-developed foliation 40 deg/CA	qtz '(-carbonate) '(2) 1/4" @ 1038.5 70 deg/CA qtz '3/8" 70 deg/CA @ 1041 qtz-carbonate '(3) '1/8" 70 deg/CA @ 1042 qtz '1/8" 40 deg/CA @ 1042.5 qtz-carbonate '1/8" 75 deg/CA @ 1045	– – –	pry med-fine disseminated up to '3% minor disseminated py 3" either side med deformed vein & wall rock 3" either side	Pyritization restricted to a '1' section with most of pyritization in 6"

Interval feet / metres	to	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
1045 50 *318 67*		1049 50 *319 89*	med grained poorly sorted grit	contact to sandstone 30 deg/CA	v weak foliation '40 deg/CA	–	–	–	A v. few blue qtz eyes
1049 50 *319 89*		1054 50 *321 41*	argillaceous / sandstone mixed	contact irregular	foliation highly irregular (shearing)	–	–	sev py coarse crystals @ 1050 showing shear-strain deformation	Mismtch on core tube recovered "3" 10" of core, core misshapen, rounded
1054 50 *321 41*		1060 50 *323 24*	v coarse grained sand-stone, poorly sorted	–	foliation poorly developed 30 deg/CA	qtz-carbonate "1/8" 80 deg/CA @ 1056	–	sev dry crystals either side of vein	Dark gray qtz grains making up the coarse material
1060 50 *323 24*		1066.00 *324.92*	med grained sandstone well sorted	fairly distinct 20 deg/CA	foliation poorly developed except at top "18" of section 40 deg/CA	qtz-carbonate "1/4" 80 deg/CA @ 1063.5 qtz-carbonate "1/4" 75 deg/CA @ 1066	–		–
1066 00 *324.92*		1073 00 *327.05*	V coarse grained sandstone & grit poorly sorted	–	weak foliation 35 deg/CA	qtz "(?) 1/8-1/2" irregular, 2" apart approx 80 deg. CA @ 1070.5 qtz-carbonate "1/4" 35 deg/CA @ 1072	–	–	Development of muscovite infoliations, chlorite ? clasts up to 1/4" dia
1073 00 *327 05*		1079 00 *328 88*	med grained sand-stone fairly well sorted, med-grey in colour / some dark grey qtz clasts clastic material up to "1/8"	–	mod developed foliation 30 deg CA contact with grit above 10 deg/CA	qtz "1/4-1/2" 50 deg/CA @ 1077.5 qtz-"3/4" 80 deg/CA @ 1078.5 qtz crystals coarse, vein slightly drusy	–	fine grained disseminated << 1% py through section pref in foliations, med grained disseminated py @ 1078-1079	

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
1079 00 328 88	1090 50 332 38	grit	–	v weak foliation approx. 40 deg/CA	qtz-carbonate '1/2-3/4" 70 deg/CA @ 1080 qtz '(5) 1/8-1/4" 40 deg/CA @ 1080-1081 qtz-carbonate '1/4" 85 deg/CA @ 1082 qtz '(3) 1/4" 30 deg/CA @ 1082.5 qtz '4" 10 deg/CA @ 1083 qtz '1/4" 30 deg/CA @ 1083.5 qtz-carbonate '3" development of shickensides on one vein ... '35 deg/CA qtz-carbonate vein '3/4" 80 deg/CA @ 1086 qtz-carbonate '1/4" '(2) 70 deg/CA @ 1089.5	– py, pb enhedral +/- 1% of qtz vein ud.	fine-med enhederal py '6" either side of qtz vein fine grained disseminated pry <1% – 6" either side of vein med grained enhedral py	Top if section again ground slightly '(loss '1/4-1/2") Tri-directional open space filling qtz veining 1) 15 deg/CA 55 deg 2) 30 deg/CA 55 deg 70 3) 80 deg/CA 40 deg Piece of core taken for office '1081.5-1083 Rock surrounding vein is barren '(too little mineralization + too small vein to sample) Core may have been ground at 1084 slightly '(loss approx. 1/2")
1090 50 332 38	1104 00 336 50	med-coarse grained sandstone grading to a basal grit	–	foliation '25 deg/CA varies from mod-poor development	qtz-carbonate '1/4" 70 deg/CA @ 1091	–	py disseminated fine-med grained enhedral @ 1089-1091 py infolations @1099-1101	Start of rhythmic bedding-top of sections start with fine-med sandstone '+/- argillite "rip-up clasts" and ending with a relatively short gradational section of grit
1104 00 336 50	1112.50 339.09	new sandstone grading-coarse grading to basal grit	–	foliation quite poorly de-developed throughout section	qtz-carbonate 1" 70 deg/CA @ 1104.5 qtz-carbonate 1/8-1/4" 75 deg/CA @ 1109		py med grained in top 5" of section py fine grained 6" either side of vein @ 1109	Rhythmically bedded unit similar to above argillite sections '(2) at top 18" of section - irregular "rip-up clasts"
1112 50 339 09	1126.50 343.36	med sandstone grading-coarse. sandstone ending with fine grained grit with basal coarse grained poorly sorted sandstone justi-positioned / argillite	–	upper contact 10 deg/CA in argillaceous	qtz-carbonate 1/2" 10 deg/CA @ 1112.5	–	disseminated py in foliations @ 1114.5 for 6"	argillite at upper contact may or may not be "rip-up clasts" taken sheared '(contact attitude) close to bedding attitudes measured earlier in hole, however, basal argillite suggests either "rip-up clast" theory or juxtaposition during shearing metamorphism

Interval		to		Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
feet	to	feet								
metres	to	*metres*								
1126 50		1135 00								
				coarse-med grained	–	–	qtz-carbonate 1/8" 65 deg/CA @ 1129.5	–	med-coarse disseminated py up to 2%	Blue qtz eyes @ 1131
343 36		*345 95*		sandstone						
							qtz-carbonate 1/4-3/4" irregular < 70 deg/CA @ 1134.5		@ 1124.5-1125.5	Start of rhythmic bedding in section above.
									pry med up to 3% 6" either side of 1134.5 veins	
1135 00		1188 50					qtz-carbonate veins 75-85 deg/CA '(1) 3/8" @ 1146	–	py occasional fine grained crystals '(rare) through sec	Blue qtz eyes @ 1142-1144
345 95		*362 25*		grit predominantly high grit to matrix ratio; unit fairly uniform. clasts	–	foliation poorly to mod formed				
				very in colour			qtz vein 1/8-1/4" 15 deg/CA @ 1146.5		py disseminated close to	
				from v. dark			Series of qtz-carbonate veinlets 1/2-1/4" 40-50 deg/CA:		1%	Blue qtz eyes @ 1115.5 and again @ 1160 and 1169.5-1170.5
				grey qtz to pre-			(1) @ 1138; (2) @ 1137.5; (1) @ 1137.5;			
				dominantly med			(1) at 1139; (1) at 1139.5; (2) @ 1140;		1" sec @ 1146	
				grey qtz-clear qtz			(1) at 1141; (2) at 1141.5; (1) @ 1142;			
				and white chertz			(1) @ at 1143; (2) @ 1144; (1) @ 1145.5		py 6" sec disseminated	
				qtz and occasion-			(1) @ 1148; (2) @ 1149; (1) @ 1149.5;			
				ally blue qtz eyes.			(3) @ 1150; (3) @ 1150.5; (1) @ 1153;		argillite < 1% @ 1153.5	
							(1) @ 1154; (2) @ 1154.5; (1) @ 1155.5;			
							(1) @ 1157; (1) @ 1160; (2) @ 1160.5;		disseminated 8" sec py	
							(1) @ 1161; (2) @ 1163; (1) @ 1165;			
							(1) @ 1166; (1) @ 1168		fine-med approx. 1%	
							qtz-carbonate vein 3/4" 80 deg/CA @ 1156		@ 1168	
							qtz vein 3" wide '(true width) 15 deg/CA			
							@ 1158-1159			
							qtz 1/2" drusy 45 deg/CA @ 1152.5			
							qtz-carbonate 1/4" @ 1171 80 deg/CA			
							qtz veins 1/8-1/4" 40-50 deg/CA:			
							(1) @ 1174; (1) @ 1174.5			
							(2) @ 1175; (1) @ 1176;			
							(1) 1180; (1) @ 1185.5; (1) @ 1187.5			

Interval		to		Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
feet	to	feet								
metres		*metres*								
1188 50		1201 00								
				med grained	–	foliation in short	qtz-veinlet 1/8" 40 deg/CA @ 1184.5	–	disseminated fine grained	
362 25		*366 08*		sandstone-fairly		section of med			py 1187-1192	
							qtz 1/2" drusy cryptocrystalline 80 deg			
				coarse grit -melange		grained sandstone	CA @ 1188.5		coarse grain py	
				unit showing much		35 deg/CA	qtz 1/8" @ 50 deg/CA ittey @		6" section @	
				deformation and			1192		1188 5 approx. 1%	
				juxtapositioning						
				of the rock types					3" section @	
									1197 5 and 6"	
									section @ 1199	
1201 00		1209 00		med grained	–	foliation poorly	qtz 1/8" 30 deg/CA @ 1204.5	–	–	1209 core slightly ground loss < 1/2"
366 06		*368.50*		sandstone coarser		developed				
				towards end of						
				section						
1209 00		1215 50		grit	–	–	qtz-carbonate 80 deg/CA @ 1112	–	–	4.5' of core recovered, loss @ 1213-1214
368 50		*370.48*								
							qtz-carbonate 1/8" 80 deg/CA @			
1215 50		1224 50					1215.5			
				grit poorly	In capping	peak foliation	qtz-carbonate 1" 80 deg/CA @	–	py 6" sec fine	Episode in foliations
370.48		*373.23*					1216 cryptocrystalline.			
				sorted capped	sandstone approx.	50 deg/CA	drusy		med @ 1215.5	
				by med grained	15 deg/CA				and 6" fine-coarse	1219 core rounded at start of run '(no perceptible loss)
				sandstone						
1224 50		1235.50					qtz-carbonate 1/4" 80 deg/CA @			
				rhythmic bed of	–	foliation mod	1224.5 drusy	–	py 6" section	Epidotization infoliations:
373 23		*376.58*		med grained		developed			fine-med enhedral	1224 core ground loss up to 1/2"
							qtz-carbonate 1/8" 70 deg/CA @			
				sandstone '(top)		40 deg/CA	1229		disseminated qtz @ 1224.5	1229 core ground loss < 1/2"
				to grit med-coarse					py fine-coarse <	1234 core ground loss < 1/2"
				grained sandstone,					6" @ 1229	
				poorly sorted '(most						
				of section) / a basal						
				sandy grit						
1235 50		1252 00					qtz-carbonate 3/4" 80 deg/CA @			
				rhythmic bedded	–	foliation v	1237	–	py 3" either	1239 core ground loss < 1"
376 58		*381.61*		unit standby / 5' of		weakly formed in			side of vein @	1244 core ground loss < 1/2"
							qtz-carbonate 3/8" 70 deg/CA @			
				med grained sand-		sandstone mod-	1245.5		1237 disseminated fine	1259 rip-up clast of argillite
				stone grading to		moderately developed			ground < 1%	
				fairly coarse grained		in grit 70 deg/CA	qtz veinlets 1/8-1/4" 70 deg/CA:			
							(1) 1/2" @ 1246.5; (4) @ 1248, (1)			
				grit			@ 1249 5;			
							(1) @ 1250; (01) @ 1252			
							qtz-carbonate 80 deg/CA 1/2" @			
							1250.5			

Interval feet / metres	to	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
1252.00		1262.00				qtz-carbonate 1/4" 75 deg/CA @ 1152.5	–		Rip-up clasts of argilite @ 1261
381.61		384.66	rhythmic bed / v small (2') cap of coarse grained grit sandstone followed by fairly coarse (1/4" clasts) grit	–	poorly-moderately developed foliation 70 deg/CA				core ground 1254 loss < 1/4" core ground 1259 loss < 1/2"
1262.00		1277.00	meta grit	–	poorly moderately developed 70 deg/CA	qtz- 3/4" 80 deg/CA @ 1262	–	disseminated py 1262-1264.5 (see sec above)	Rip-up clasts of pyritised argilite @ 1269-1277'
384.66		389.23	grit clasts v. indistinct						Core Ground.
						qtz-carbonate 1/2" 80 deg/CA drusy @ 1273		disseminated py 1274-1275.5 med grained enhedral < 1%	1262-1264 rec: 1' 10"
									1264-1269 rec: 4' 9"
						qtz 1/8"			1269-1274 rec: 4' 9"
1277.00			End of Hole						1274-1277 rec: 2' 2"
389.23									

MINEQUEST EXPLORATION ASSOCIATES LTD.

HOLE NO DDH 96-2

DRILL LOG - CORE

CLAIM BLOCK CODE:	VMR		
NTS:	82K15	**UTM:**	
CLAIM NAME:		L8215 L418	
LOCATION - GRID NAME:			MINE GRID
GRID N:	10550N	**GRID E:**	1600E
SECTION	1600E	**ELEV:**	6000 LEVEL
AZIM:	225 DEG.	**LENGTH:**	
DIP:	- 75	**CASING LEFT?**	NO
CORE SIZE:		MQ	
CORE STORAGE:		ON SITE WITH PORTION IN PARSON, BC	

SURVEY

DEPTH	AZIM	DIP	DEPTH	AZIM.	DIP
		NONE --			

DRILLING CO:	ADVANCED DRILLING
STARTED:	OCTOBER 20, 1996
COMPLETED:	OCTOBER 21, 1996
PURPOSE	TO REPEAT GOLD INTERSECTION
CORE RECOVERY:	GOOD
LOGGED BY:	D. CUKOR
DATE LOGGED:	OCT. 20 TO OCT. 21
ASSAYED BY:	BONDAR-CLEGG
LAB REPORT NOS.:	

DDH 96-02 LENGTH : 248 FT. (75.59 M)

COORDINATES. 10+550N, 1+600E (1600E CROSS SECTION)
AZIMUTH: 225 DEG INCLINATION: -75

STARTED: OCTOBER 20, 1996
STOPPED: OCTOBER 21, 1996

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
0 00 0 00	38 00 11.58	**UNIT O ARGILLITE**						
3 00 0 91	17 00 5 18	"turbidites sequence" argillite	70 deg/CA distinct	50 deg/CA foliated strongely developed	qtz - broken rounded pebbles @ 4.5'	sp, pb 2% combined	disseminated py med - coarse enhedral some preference towards bedding	6 - 8 Heavily foliated, broken 10 - 12 Heavily foliated, broken
17 00 5 18	27 50 8.38	"turbidites sequence" argillite with ankerite porphyroblasts	75 deg/CA distinct	40 - 50 deg/CA foliation moderate weak	qtz-carbonate 1/4" 25 deg/CA @ 17.5 - 18.5	–	disseminated py med-coarse enhedral again some preference to bedding	19.5 - 22 Soft sediment deformation inc. crenulated laminate 24 - 24.5 Soft sediment deformation - slight
27 50 8 38	36 50 11 13	"turbidites sequence" argillite with ankerite porphyroblasts much more indistinct laminae colour/textural, grain size variation than above	85 deg/CA	40 deg/CA foliation moderately developed	–	–	same as above less py	
36 50 11 13	38.00 11.58	massive argillite to thinly bedded argillite	85 deg/CA	–	qtz carbonate 1/4" @ 15 deg/CA	–	disseminated medium-coarse enhedral at top of section	
38 00 11 58	68 50 20 88	**UNIT N LIMESTONE**						
38 00 11 58	68 50 20.88	limestone mainly	irregular laminae	60 deg/CA foliation moderately developed	calcite 1/4" 50 deg/CA @ 38.5	–	py fine grained massive - mesh textured in calcite laminae @ 55.5	Irregularly laminated to thinly bedded with lighter coloured more calcite fraction grading to more argillite laminae
					1/8 - 1/4 carbonate-sp sp vein 15 deg/CA @ 57 - 57.5	sp	fine grain py minor disseminated ground vein @ 57.5 disseminated fine grained py replacement of more calcite laminae and coarse disseminated py through section	Soft sediment deformation calcific (light coloured) to marly (dark grey) laminae, deformation includes lode casts, crenulated folding and liquid escape traces @ 58.5 - 65.

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
68.50 / 20.88	248.00 / 75.59	UNIT MV ARGILLITE						
68.50 / 20.88	75.50 / 23.01	marly argilite with laminae of limey sediments	not distinct 70 deg/CA	moderately developed approx. 60 deg/CA	-	-	disseminated med-coarse grained py through whole section bands of py along laminae @ 69, @ 71 replacement mineralization @ 71.5 - 73.5 py; med grained py, med grained sp restricted primarily to more calcific; laminae pb fine grained - med grained disseminated, 2 laminae 1/4" @ 72 with 40% (sp & pb)	Sample V141773 6" replacement (?) diagenetic (?) Sample V141774 4" (40% pb) replacement pb + py Sample V141775 2" replacement sp & pb 1 ^ 2 laminae Sample V141776 8" replacement pb & py approx 4% Sample V141777 8" higher grade than section above approx. 10% Sample V141778 1' section diagenetic (?) py Sample V141779 8' section of replacement pb and mostly py approx 5% Sample V141780 4" section of diagenetic (?) py
75.50 / 23.01	95.00 / 28.96	argilite, v. faint turbidites sequence	85 deg/CA laminations faint, generally	60 deg/CA foliation quite well developed	qtz vein 8"- drusy cryptocrystalline @ 84.5 80 deg/CA(?)	sp coarse grained 2% >< minor pb	py, med-coarse along granulated laminae and as dissemination "diagenetic"	Overturned bedding (?)
95.00 / 28.96	174.00 / 53.04	argilite, enkerite porphyroblasts	80 - 5 deg/CA faint thick laminae to thin beds	50 - 55 deg/CA foliation quite well developed	qtz-carbonate 1/2" 35 deg/CA @ 96.5 qtz-carbonate 1/4 - 1/2" 20 deg/CA @ 124 qtz-carbonate 1/4" 30 deg/CA @ 135 qtz-carbonate 1/2" 25 deg/CA @ 143 qtz-carbonate 1/2" 25 deg/CA @ 159 qtz-carbonate 1/4" 70 deg/CA @ 165	-	dis py coarse grained in section py in bedding at top 5' of section py disappears almost completely 149 - end of section	Hairline veinlets of qtz +/- carbonate (does not fizz), but cannot powder mineral-veinlets too thin; Veinlets parallel to foliation. Hairline to 18" veinlets qtz 20 deg/CA in addition to ones parallel to foliation above @ 119 - 140 Soft sed deformation 6" section @ 127 Soft sed deformation 6" section lighter coloured, slightly coarser. 168 - 174 Few laminae of lighter coloured material start to show up - gradation to turbidites sequence below.
174.00 / 53.04	192.50 / 58.67	turbidites sequence argilite	80 deg/CA laminae	60 deg/CA foliation well developed	hairline veining 50 deg/CA throughout section	-	rare coarse grained py cube coarse	Slump features 175 - 176, soft sed def 184 - 192.5
192.50 / 58.67	197.50 / 60.20	turbidites sequence art transition - distinct thickening of laminae to beds	75 deg/CA laminae	60 deg/CA foliation moderately developed	qtz-carbonate 25 deg/CA @ 194	-	med grained disseminated py	Soft sed def

Interval		to	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
feet *metres*	to	feet *metres*							
197 50 *60 20*		221 00 *67 36*	turbidites sequence ankerite porphyroblasts	75 deg/CA laminae	55 deg/CA foliation well developed	qtz 1" 80 deg/CA @ 203 pinetree splay?	–	v. rare med or coarse py disseminated	213 - 218 Core grained, round loss 4" 218 - 223 Core grained, round loss 2" 223 - 228 recover 100% 228 - 283 loss 1.2" 233 - 248 recovery 100%
						qtz 6" 80 deg/CA @ 216.5 another splay	minor sp	minor disseminated py either side of vein 6"	
						qtz 2" vein (somewhat ground up) another splay?			Sample V141785 3" py alteration above vein Sample V141786 6" qtz vein Sample V141787 4" alteration below Sample V141788 6" py alteration above Sample V141789 2" qtz vein Sample V141790 4" py alteration below
221 00 *67 36*		224 00 *68.28*	fine grained sandstone with rip up clasts of argillite entrained within foliation planes		approx. 45 deg/CA foliation weakly developed	–	–	–	v. muddy sandstone - poorly sorted.
224 00 *68 28*		230 00 *70 10*	turbidites sequence argillite, ankerite porphyroblasts	70 deg/CA faint - moderate	60 deg/CA moderately developed foliation	–	–	disseminated py increasing at end of section	
230 00 *70 10*		248 00 *75 59*	turbidites sequence argillite; much less ankerite & smaller porphyroblasts than above better developed laminations	70 deg/CA	55 deg/CA foliation moderately to well developed	qtz 70 deg/CA 5" @ 230	py coarse - medium	py med. either side of vein	
248 00 *75 59*			End of Hole						

MINEQUEST EXPLORATION ASSOCIATES LTD.

HOLE NO DDH 96-3

DRILL LOG - CORE

CLAIM BLOCK CODE:	VMR		
NTS:	82K15	UTM:	
CLAIM NAME:	L8215 L418		
LOCATION - GRID NAME:		MINE GRID	
GRID N:	10550N	GRID E:	1600E
SECTION	1600E	ELEV:	6000 LEVEL
AZIM:	225 DEG	LENGTH:	
DIP:	- 60	CASING LEFT	NO
CORE SIZE:		MQ	
CORE STORAGE:	ON SITE WITH PORTION IN PARSON & VANCOUVER, BC		

SURVEY

DEPTH	AZIM	DIP	DEPTH	AZIM.	DIP
		-- NONE --			

DRILLING CO:	ADVANCED DRILLING
STARTED:	OCTOBER 22, 1996
COMPLETED:	OCTOBER 22, 1996
PURPOSE	TO REPEAT GOLD INTERSECTION
CORE RECOVERY:	GOOD
LOGGED BY:	D. CUKOR
DATE LOGGED:	OCT. 22
ASSAYED BY:	BONDAR-CLEGG
LAB REPORT NOS.:	

Interval feet / metres	to feet / metres	Lithology	Bedding	Structure	Vein	Sulphides in Veins	Sulphides in Sediments	Remarks
DDH 86-03	LENGTH 60 FT (18.29 M)	COORDINATES 10+550N, 1+600E (1600E CROSS SECTION) AZIMUTH 225 DEG.		INCLINATION -60 DEG.				
0.00 0.00	59.00 11.89	UNIT O ARGILLITE						
1.00 0.30	32.50 9.91	banded argillite v. dark grey to medium grey bands 1/16" to 1-1/2" turbidites sequence marly with lighter coloured bands more limey	70 deg/CA rock cleavage along bedding	poorly to moderately developed 50 deg/CA	qtz - cryptocrystalline drusy 1-1/2" piece recovered (probably whole vein) @ 5.5	–	coarse to med. anhedral py developed preferentially along bedding up to 10% in local bands, sections up to 2% notable bands: (1) 70 deg/CA @ 13 (2) 70 deg/CA @ 19 (1) 70 deg/CA @ 20.5 (1) 70 deg/CA @ 21.5 (3) 70 deg/CA @ 27	8-12 argillite marly, 6" sections of limestone @ 8', 6" section of limestone @ 9.5' Both sections of limestone veined with carbonate (mostly calcite) approx. 15 deg/CA 1 - 4 Ankerite porphyroblasts 15 - 18 hairline fine calcite veinlets approx. 15 deg/CA Soft sediment deformation crenulated laminae - calcite light coloured @ 16, another @ 18. Ankerite porphyroblasts 19 - 32.5 ankerite porphyroblasts Soft sediment deformation @ 27, @ 28, @ 29, and @ 30.
32.50 9.91	39.00 11.89	massive argillite "schist"	faint bedding 70 deg/CA	moderately developed 40 deg/CA	qtz - carbonate 1/4" 75 deg/CA @ 38.5	–	minor py in section restricted to bedding planes (3) @ 33 (1) @ 35 (1) @ 36.5	Ankerite 32.5 - 37 Soft Sed deformation 38 - 39
39.00 11.89	80.50 24.54	UNIT N LIMESTONE						
39.00 11.89	80.50 24.54	limestone banded showing soft sediment deformation, mineralized "replacement type"	variable approx. 60 deg/CA	–	calcite veining: Irregular 1/4" @ 39 - 40 (2) calcite - sp 60 deg/CA 1/2" wide @ 45.5 sp-pb almost massive with 20% calcite & limestone	sp 30% coarse pb 20% coarse grained @ 35	anhedral dis medium-coarse grained py @ 40 - 44 replacement type med. grained dis py 4" section @ 43.5 up to 15% py replacement type med - fine grained dis (massive along bedding planes) in 1/8 - 1/4" laminations 1.5' section @ 44 - 45.5 py anhedral, med grained (probably allogenetic) @ 56 - 57, preferentially along lamination planes.	Soft sed. deformation 41 - 42 Soft sed. deformation @ 44 (3" section) crenulated lamination, lode cast (right way up) @ 47.5 (3" section crenulated lamination, lode cast - (right way up) @ 48 - 51 crenulated laminations - thick and thin @ 52-57
65.00 16.76	80.00 18.29	MINERALIZATION			calcite "sweat" Irregular 10 deg/CA?		arsono py dis replacement thin lath-like crystals 6" sections @ 65	
						sp - calcite py, pb irregular 1" splayed vein @ 67.5 sp - calcite veinlet 1/8 - 1/2" @ 83.5	arsono py dis lath-like up to 50% @ 67 - 80 (last 8 of section mineralization decreases dramatically)	Soft sediment deformation @ 63.5 - 65, @ 66 - 67, @ 69 - 71, @ 76 - 78.
					calcite sweat	pb massive	py following	

APPENDIX II

LIST OF SAMPLES COLLECTED

APPENDIX II

LIST OF SAMPLES COLLECTED

Sample No.	DDH	Interval From (ft)	Interval To (ft)	Interval Length (ft)	Interval From (m)	Interval To (m)	Interval Length (m)	Sampled by:	Current Location
V141751	96-1	956.50	959.00	2.50	291.54	292.30	0.76200	D.C.	Bondar Clegg Lab
V141752	96-1	959.00	960.50	1.50	292.30	292.76	0.45720	D.C.	Bondar Clegg Lab
V141753	96-1	989.00	992.00	3.00	301.45	302.36	0.91440	D.C.	Bondar Clegg Lab
V141754	96-1	992.00	996.00	4.00	302.36	303.58	1.21920	D.C.	Bondar Clegg Lab
V141755	96-1	996.00	999.00	3.00	303.58	304.50	0.91440	D.C.	Bondar Clegg Lab
V141756	96-1	1054.00	1057.00	3.00	321.26	322.17	0.91440	D.C.	Bondar Clegg Lab
V141757	96-1	1057.50	1060.50	3.00	322.33	323.24	0.91440	D.C.	Bondar Clegg Lab
V141758	96-1	1060.50	1064.00	3.50	323.24	324.31	1.06680	D.C.	Bondar Clegg Lab
V141759	96-3	5.25	5.75	0.50	1.60	1.75	0.15240	D.C.	Bondar Clegg Lab
V141760	96-3	13.00	14.50	1.50	3.96	4.42	0.45720	D.C.	Bondar Clegg Lab
V141761	96-3	18.50	19.00	0.50	5.64	5.79	0.15240	D.C.	Bondar Clegg Lab
V141762	96-3	21.00	22.00	1.00	6.40	6.71	0.30480	D.C.	Bondar Clegg Lab
V141763	96-3	30.50	31.50	1.00	9.30	9.60	0.30480	D.C.	Bondar Clegg Lab
V141764	96-2	3.75	4.25	0.50	1.14	1.30	0.15240	D.C.	Bondar Clegg Lab
V141765	96-2	4.25	4.75	0.50	1.30	1.45	0.15240	D.C.	Bondar Clegg Lab
V141766	96-2	16.50	17.00	0.50	5.03	5.18	0.15240	D.C.	Bondar Clegg Lab
V141767	96-2	17.00	17.50	0.50	5.18	5.33	0.15240	D.C.	Bondar Clegg Lab
V141768	96-2	17.50	18.50	1.00	5.33	5.64	0.30480	D.C.	Bondar Clegg Lab
V141769	96-2	34.00	35.00	1.00	10.36	10.67	0.30480	D.C.	Bondar Clegg Lab
V141770	96-2	54.75	55.25	0.50	16.69	16.84	0.15240	D.C.	Bondar Clegg Lab
V141771	96-2	56.50	57.50	1.00	17.22	17.53	0.30480	D.C.	Bondar Clegg Lab
V141772	96-2	59.00	59.50	0.50	17.98	18.14	0.15240	D.C.	Bondar Clegg Lab
V141773	96-2	71.00	71.50	0.50	21.64	21.79	0.15240	D.C.	Bondar Clegg Lab
V141774	96-2	71.50	71.75	0.25	21.79	21.87	0.07620	D.C.	Bondar Clegg Lab
V141775	96-2	71.75	72.00	0.25	21.87	21.95	0.07620	D.C.	Bondar Clegg Lab
V141776	96-2	72.00	72.50	0.50	21.95	22.10	0.15240	D.C.	Bondar Clegg Lab
V141777	96-2	72.50	73.50	1.00	22.10	22.40	0.30480	D.C.	Bondar Clegg Lab
V141778	96-2	73.50	74.50	1.00	22.40	22.71	0.30480	D.C.	Bondar Clegg Lab
V141779	96-2	74.90	75.00	0.90	22.71	22.86	0.15240	D.C.	Bondar Clegg Lab
V141780	96-2	75.00	75.50	0.50	22.86	23.01	0.15240	D.C.	Bondar Clegg Lab
V141781	96-2	83.50	84.50	1.00	25.45	25.76	0.30480	D.C.	Bondar Clegg Lab
V141782	96-2	84.50	85.00	0.50	25.76	25.91	0.15240	D.C.	Bondar Clegg Lab
V141783	96-2	85.00	85.50	0.50	25.91	26.06	0.15240	D.C.	Bondar Clegg Lab
V141784	96-2	202.75	203.25	0.50	61.80	61.95	0.15240	D.C.	Bondar Clegg Lab
V141785	96-2	216.00	216.50	0.50	65.84	65.99	0.15240	D.C.	Bondar Clegg Lab
V141786	96-2	216.50	217.00	0.50	65.99	66.14	0.15240	D.C.	Bondar Clegg Lab
V141787	96-2	217.00	217.25	0.25	66.14	66.22	0.07620	D.C.	Bondar Clegg Lab
V141788	96-2	218.50	218.90	0.40	66.60	66.72	0.12192	D.C.	Bondar Clegg Lab
V141789	96-2	218.90	219.10	0.20	66.72	66.78	0.06096	D.C.	Bondar Clegg Lab
V141790	96-2	219.10	219.50	0.40	66.78	66.90	0.12192	D.C.	Bondar Clegg Lab
V141791	96-2	229.50	230.00	0.50	69.95	70.10	0.15240	D.C.	Bondar Clegg Lab
V141792	96-2	230.00	230.50	0.50	70.10	70.26	0.15240	D.C.	Bondar Clegg Lab
V141793	96-2	230.50	231.00	0.50	70.26	70.41	0.15240	D.C.	Bondar Clegg Lab
V141851	96-3	38.10	39.70	1.60	11.61	12.10	0.48768	D.C.	Bondar Clegg Lab
V141852	96-3	39.70	43.00	3.30	12.10	13.11	1.00584	D.C.	Bondar Clegg Lab
V141853	96-3	43.00	44.20	1.20	13.11	13.47	0.36576	D.C.	Bondar Clegg Lab
V141854	96-3	44.20	45.20	1.00	13.47	13.78	0.30480	D.C.	Bondar Clegg Lab
V141855	96-3	45.20	45.70	0.50	13.78	13.93	0.15240	D.C.	Bondar Clegg Lab

APPENDIX III

LABORATORY REPORTS

Bondar Clegg
Inchcape Testing Services

Certificate of Analysis

MINEQUEST EXPLORATION ASSOCIATES LTD.
MR. ROBERT LONGE/D.LUKOR
#715 - 475 HOWE STREET
VANCOUVER, B.C.
V7W 1J5

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Tel: (604) 985-0681, Fax: (604) 985-1071

Bondar Clegg
Inchcape Testing Services

Certificate of Analysis

L NT: MINEQUEST EXPLORATION ASSOCIATES LTD. PROJECT: VMR

EPORT: V96-01953.4 (COMPLETE) DATE PRINTED: 22-NOV-96 PAGE 1

A LE / L ER	ELEMENT UNITS	AuGrav PPM	AgGrav PPM	Pb PCT	Zn PCT
4 1141777		<0.17	96.0	2.72	3.86
4 1141779		0.40	54.4	1.74	2.06
4 V141782		<0.17	6.7	0.14	3.74
4 V141792		<0.17			

Bondar-Clegg & Company Ltd.
130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, Canada
Tel: (604) 985-0681, Fax: (604) 985-1071

Registered Assayer, Province of British Columbia

Bondar Clegg
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: ENT: MINEQUEST EXPLORATION ASSOCIATES LTD. PROJECT: VMR

:EPORT: V96-01953.4 (COMPLETE) DATE PRINTED: 22-NOV-96 PAGE 2

NDARD / ME	ELEMENT / UNITS	AuGrav PPM	AgGrav PPM	Pb PCT	Zn PCT
B	Base Metal Ref.	-	-	8.23	2.96
	ber of Analyses	-	-	1	1
	lean Value	-	-	8.230	2.956
S	tandard Deviation	-	-	-	-
	epted Value	-	-	8.28	3.04
A	SYNTHETIC STD	3.26	15.3	-	-
	ber of Analyses	1	1	-	-
	n Value	3.260	15.30	-	-
	tandard Deviation	-	-	-	-
A	cepted Value	3.43	17.1	-	-

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Certificate of Analysis

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD. PROJECT: VMR

REPORT: V96-01953.4 (COMPLETE) DATE PRINTED: 22-NOV-96 PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	AuGrav PPM	AgGrav PPM	Pb PCT	Zn PCT
1777		<0.17	96.0	2.72	3.86
Duplicate				2.79	3.89

Bondar-Clegg & Company Ltd.
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Registered Assayer, Province of British Columbia

Bondar Clegg
Inchcape Testing Services

Geochemical
Lab
Report

MINEQUEST EXPLORATION ASSOCIATES LTD.
MR. ROBERT LONGE/D.LUKOR
#715 - 475 HOWE STREET
VANCOUVER, B.C.
V7W 1J5

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

REPORT: V96-01947.0 (COMPLETE)

REFERENCE:

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.

SUBMITTED BY: UNKNOWN

PROJECT: VMR

DATE PRINTED: 20-NOV-96

	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
1	Au30	Gold	37	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
2	AuRewl	Gold Reweighs	4	5 PPB	FIRE ASSAY	
3	AuGrav	Grav. Gold Overlimit	3	0.17 PPM	FIRE ASSAY	FIRE ASSAY
4	Ag	Silver	37	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
5	AgOL	Silver,semiquant.	0	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
6	Cu	Copper	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
7	CuOL	Copper, semiquant	1	0.1 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
8	Pb	Lead	37	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
9	Zn	Zinc	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
10	ZnOL	Zinc, semiquant	7	0.1 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
11	Mo	Molybdenum	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
12	Ni	Nickel	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
13	Co	Cobalt	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
14	Cd	Cadmium	37	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
15	Bi	Bismuth	37	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
16	As	Arsenic	37	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
17	Sb	Antimony	37	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
18	Fe	Iron	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
19	Mn	Manganese	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
20	Te	Tellurium	37	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
21	Ba	Barium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
22	Cr	Chromium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
23	V	Vanadium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
24	Sn	Tin	37	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
25	W	Tungsten	37	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
26	La	Lanthanum	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
27	Al	Aluminum	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
28	Mg	Magnesium	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
29	Ca	Calcium	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
30	Na	Sodium	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
31	K	Potassium	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
32	Sr	Strontium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
33	Y	Yttrium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
34	Ga	Gallium	37	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
35	Li	Lithium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
36	Nb	Niobium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
37	Sc	Scandium	37	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
38	Ta	Tantalum	37	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
39	Ti	Titanium	37	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
40	Zr	Zirconium	37	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	37	2 -150	37	CRUSH ONLY	3
				PULVERIZATION	3
				CRUSH/SPLIT & PULV.	34

REMARKS: ZINC AND ARSENIC CONCENTRATION >1% WILL ENHANCE
TUNGSTEN AND CADMIUM RESULTS RESPECTIVELY.
THEREFORE, TUNGSTEN AND CADMIUM RESULTS WOULD
BE GREATER THAN TRUE VALUES. THANK YOU, TSH

REPORT COPIES TO: MR. ROBERT LONGE/D.LUKOR

INVOICE TO: MR. ROBERT LONGE/D.LUKOR

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01947.0 (COMPLETE)

PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	AuRew1 PPB	AuGrav PPM	Ag PPM	AgOL PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
Y-141851		23			2.3		59		17	49		2	43	27	<0.2	<5	216	25	4.13	1464	<10	41	32	7	<20	<20	6	0.62	1.70	4.71	0.04	0.30
Y-141852		32			0.3		14		39	28		<1	19	9	<0.2	<5	122	<5	1.86	1376	<10	24	12	4	<20	<20	7	0.39	1.04	>10.00	0.02	0.20
Y-141853		815	720		8.3		1999		6366	>10000	4.7	<1	14	6	336.9	<5	1826	>2000	5.47	2855	<10	19	40	4	<20	<270	3	0.29	0.89	5.17	0.01	0.15
Y-141854		1550	1622		1.5		25		204	730		<1	14	2	7.0	14	6129	35	>10.00	1388	12	8	59	7	27	<20	15	0.23	0.25	1.72	0.01	0.12
Y-141855		790	1013		20.3		>10000	1.0	>10000	>10000	9.1	<1	4	8	669.6	<5	2277	>2000	4.96	1703	<10	21	50	4	<20	<741	2	0.33	0.93	3.58	0.02	0.17
Y-141856		346	377		9.4		67		2768	626		<1	25	9	5.8	<5	1021	117	3.80	4781	<10	32	27	5	<20	<20	7	0.48	1.17	9.79	0.03	0.26
Y-141857		13			<0.2		10		21	43		<1	6	3	0.2	<5	63	<5	0.80	921	<10	15	5	2	<20	<20	9	0.24	0.49	>10.00	0.02	0.12
Y-141858		14			<0.2		45		125	530		<1	12	6	3.9	<5	78	62	1.07	778	<10	13	8	2	<20	<20	9	0.21	0.42	>10.00	0.01	0.11
Y-141859		2536			5.1		1249		4167	>10000	>15.0	<1	2	2	>2000	<5	152	>2000	1.16	1744	<10	9	17	2	36	>2000	2	0.13	0.31	7.13	<.01	0.06
Y-141860		<5			<0.2		11		17	172		<1	9	4	1.0	<5	35	5	0.98	568	<10	12	6	2	<20	<20	8	0.18	0.64	>10.00	0.01	0.10
Y-141861		10			<0.2		36		103	3109		<1	10	4	25.3	<5	28	50	0.89	607	<10	17	5	2	<20	<20	8	0.27	0.63	>10.00	0.02	0.13
Y-141862		147			<0.2		10		31	42		<1	13	6	<0.2	<5	326	9	1.18	668	<10	18	8	2	<20	<20	7	0.27	0.74	>10.00	0.02	0.14
Y-141863		>10000		55.00	1.5		61		662	132		3	10	2	<67.0	15	>10000	188	>10.00	1149	<10	12	13	2	28	<20	3	0.14	0.19	>10.00	<.01	0.07
Y-141864		723			0.6		8		273	1413		<1	7	4	10.6	<5	1765	45	1.40	2435	<10	13	7	2	<20	<20	8	0.20	0.41	>10.00	0.01	0.10
Y-141865		>10000		140.30	50.1		608		3613	9419		3	8	<1	<268.3	23	>10000	433	>10.00	717	<10	8	23	4	41	38	14	0.12	0.06	2.56	<.01	0.06
Y-141866		>10000		49.54	82.2		1133		4643	5817		2	10	4	<40.8	19	>10000	639	7.87	632	<10	8	24	5	26	29	18	0.11	0.10	1.67	<.01	0.06
Y-141867		3305			1.4		11		248	49		<1	9	4	<0.2	<5	6701	7	1.63	1047	<10	13	6	2	<20	<20	10	0.14	0.61	>10.00	0.01	0.08
Y-141868		715			1.1		13		101	28		<1	14	6	1.5	<5	1992	13	5.72	3872	<10	9	10	4	<20	<20	9	0.10	0.83	>10.00	<.01	0.06
Y-141869		2100			2.9		47		2150	7173		4	17	3	57.3	21	5632	534	>10.00	2710	<10	9	15	2	35	26	2	0.11	0.37	7.60	<.01	0.06
Y-141870		2523			4.1		46		2486	>10000	3.4	<1	21	5	212.3	8	4612	824	8.75	2297	<10	11	19	3	<20	<146	2	0.13	0.48	4.13	<.01	0.07
Y-141871		169			1.4		61		959	715		<1	13	5	4.8	<5	445	287	2.10	1299	<10	11	6	2	<20	<20	6	0.14	0.91	>10.00	<.01	0.07
Y-141872		51			12.0		2347		8122	>10000	3.9	<1	8	7	264.6	<5	268	>2000	1.46	1116	<10	8	6	1	<20	<199	6	0.10	0.56	>10.00	<.01	0.05
Y-141873		24			0.3		10		31	99		<1	10	5	0.4	<5	65	10	1.07	771	<10	9	5	1	<20	<20	8	0.12	0.66	>10.00	<.01	0.06
Y-141874		15			0.8		21		14	91		<1	25	11	0.3	<5	74	7	2.10	617	<10	15	6	3	<20	<20	5	0.19	1.16	>10.00	0.01	0.11
Y-141875		6			1.9		30		38	107		<1	15	6	0.4	<5	35	24	1.43	795	<10	12	5	2	<20	<20	6	0.16	0.86	>10.00	0.01	0.09
Y-141876		18			0.7		26		15	37		<1	44	18	<0.2	<5	106	8	3.44	539	<10	19	8	3	<20	<20	2	0.24	1.52	4.81	0.01	0.13
Y-141877		59			111.1		260		>10000	>10000	2.8	<1	16	4	202.9	6	271	118	3.81	2762	<10	12	47	2	230	<105	<1	0.14	0.91	1.97	<.01	0.08
Y-141878		6			3.7		10		1039	210		<1	10	4	1.7	<5	28	5	1.38	1758	<10	8	4	2	<20	<20	7	0.10	0.87	>10.00	<.01	0.06
Y-141879A		28			0.5		18		23	29		<1	20	7	<0.2	<5	70	6	1.71	1236	<10	15	7	2	<20	<20	6	0.17	0.82	>10.00	0.01	0.09
Y-141879		8			0.6		17		55	61		<1	30	13	0.3	<5	74	8	3.13	1677	<10	18	13	3	<20	<20	3	0.24	1.59	7.86	0.01	0.13

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01947.0 (COMPLETE)

PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
Y-141851		120	4	<2	1	<1	<5	<10	<.01	3
Y-141852		329	6	<2	1	<1	<5	<10	<.01	1
Y-141853		135	2	<2	<1	<1	<5	<10	<.01	2
Y-141854		39	<1	<2	<1	1	<5	<10	<.01	2
Y-141855		84	2	<2	<1	<1	<5	<10	<.01	2
Y-141856		222	3	<2	1	<1	<5	<10	<.01	2
Y-141857		551	5	<2	<1	<1	<5	<10	<.01	1
Y-141858		708	3	<2	<1	<1	<5	<10	<.01	1
Y-141859		166	1	4	<1	<1	<5	<10	<.01	2
Y-141860		501	5	<2	<1	<1	<5	<10	<.01	1
Y-141861		581	7	<2	<1	<1	<5	<10	<.01	2
Y-141862		552	5	<2	<1	<1	<5	<10	<.01	2
Y-141863		315	3	<2	<1	1	<5	<10	<.01	<1
Y-141864		549	4	<2	<1	<1	<5	<10	<.01	2
Y-141865		64	<1	<2	<1	2	<5	<10	<.01	<1
Y-141866		58	<1	7	<1	<1	<5	<10	<.01	2
Y-141867		545	5	<2	<1	<1	<5	<10	<.01	2
Y-141868		353	4	<2	<1	2	<5	<10	<.01	2
Y-141869		158	1	<2	<1	<1	<5	<10	<.01	2
Y-141870		95	1	<2	<1	<1	<5	<10	<.01	2
Y-141871		387	5	<2	<1	<1	<5	<10	<.01	2
Y-141872		398	4	<2	<1	<1	<5	<10	<.01	2
Y-141873		549	6	<2	<1	<1	<5	<10	<.01	2
Y-141874		259	5	<2	<1	<1	<5	<10	<.01	2
Y-141875		415	6	<2	<1	<1	<5	<10	<.01	1
Y-141876		95	3	<2	<1	<1	<5	<10	<.01	1
Y-141877		44	2	<2	<1	<1	<5	<10	<.01	2
Y-141878		448	8	<2	<1	<1	<5	<10	<.01	1
Y-141879A		356	5	<2	<1	<1	<5	<10	<.01	2
Y-141879		162	4	<2	<1	<1	<5	<10	<.01	2

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Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01947.0 (COMPLETE)

PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	AuRew1 PPB	AuGrav PPM	Ag PPM	AgOL PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
Y-141880		12			0.2		30		12	30		<1	36	13	<0.2	<5	81	8	3.47	1182	<10	23	7	3	<20	<20	3	0.32	1.64	4.78	0.02	0.16
Y-141881		18			0.3		45		14	46		1	53	26	<0.2	7	115	<5	5.58	1020	<10	21	14	4	<20	<20	2	0.28	1.73	2.61	0.02	0.15
Y-141882		16			0.6		34		8	18		<1	43	14	<0.2	<5	178	12	3.80	1190	<10	25	10	4	<20	<20	3	0.34	1.46	2.51	0.02	0.18
Y-141883		18			<0.2		12		11	23		<1	38	15	<0.2	<5	127	<5	3.88	2104	<10	19	12	3	<20	<20	2	0.24	1.95	4.24	0.01	0.13
Y-141884		186			159.8		135		>10000	>10000	1.7	2	25	5	116.3	8	1079	203	6.30	489	<10	4	116	2	64	<210	<1	0.07	0.29	0.70	<.01	0.03
Y-141885		77			28.8		211		6459	2234		<1	25	8	18.4	6	446	148	5.64	6850	<10	13	26	4	<20	<20	3	0.20	2.28	5.71	<.01	0.10
Y-141886		9			0.2		36		13	35		<1	48	15	<0.2	7	86	7	4.47	1700	<10	25	14	5	<20	<20	3	0.35	1.96	2.55	0.03	0.16

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Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.

REPORT: V96-01947.0 (COMPLETE)

PROJECT: VMR

DATE PRINTED: 20-NOV-96 PAGE 28

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
Y-141880		93	3	<2	<1	<1	<5	<10	<.01	<1
Y-141881		58	2	<2	<1	<1	<5	<10	<.01	1
Y-141882		70	2	<2	<1	<1	<5	<10	<.01	1
Y-141883		76	3	<2	<1	<1	<5	<10	<.01	<1
Y-141884		24	<1	<2	<1	<1	<5	<10	<.01	<1
Y-141885		136	5	<2	<1	<1	<5	<10	<.01	2
Y-141886		58	2	<2	<1	<1	<5	<10	<.01	1

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Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
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PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 3A

STANDARD NAME	ELEMENT UNITS	Au30 PPB	AuRew1 PPB	AuGrav PPM	Ag PPM	AgOL PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
ANALYTICAL BLANK		<5	-	-	<0.2	-	<1	-	3	1	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	4	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01
ANALYTICAL BLANK		5	-	-	<0.2	-	<1	-	<2	<1	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01
Number of Analyses		2	-	-	2	-	2	-	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value		4	-	-	0.1	-	0.5	-	2	0.9	-	0.5	0.5	0.5	0.1	3	3	3	0.005	2	5	0.5	0.5	0.5	10	10	0.5	.005	.005	0.005	.005	.005
Standard Deviation		2	-	-	-	-	-	-	1	0.6	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	5	0.005	0.2	.005	1	<.01	2	1	<.001	1	1	1	0.1	2	5	5	0.05	1	.01	.01	1	1	.01	0.005	.01	<.01	<.01	<.0001	<.01	<.01
Garnet Standard		204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		206	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 6		-	-	-	0.4	-	128	-	15	139	-	2	130	32	<0.2	5	151	<5	7.19	1553	<10	5	186	46	<20	<20	<1	1.77	2.89	4.13	0.01	0.04
Number of Analyses		-	-	-	1	-	1	-	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	-	-	0.4	-	128	-	15	139	-	2	130	32	0.1	5	151	3	7.19	1553	5	5	186	46	10	10	0.5	1.77	2.89	4.13	0.01	0.04
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	0.2	0.2	140	0.01	13	140	0.01	4	135	35	0.1	1	145	1	6.50	1450	-	6	170	50	5	12	-	1.80	2.70	4.00	0.01	0.04
Garnet Standard		1515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		1515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5		-	-	-	0.9	-	79	-	45	86	-	<1	32	16	<0.2	<5	10	<5	4.15	723	<10	164	45	113	<20	<20	7	2.96	1.98	1.05	0.05	0.29
Number of Analyses		-	-	-	1	-	1	-	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	-	-	0.9	-	79	-	45	86	-	0.5	32	16	0.1	3	10	3	4.15	723	5	164	45	113	10	10	7	2.96	1.98	1.05	0.05	0.29
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	0.7	0.7	90	.009	11	80	0.008	2	40	18	0.1	1	8	1	4.74	720	0.2	200	54	133	4	2	5	3.09	1.83	1.08	0.06	0.32

STANDARD NAME	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
ANALYTICAL BLANK		<1	<1	<2	<1	<1	<5	<10	<.01	<1
ANALYTICAL BLANK		<1	<1	<2	<1	<1	<5	<10	<.01	<1
Number of Analyses		2	2	2	2	2	2	2	2	2
Mean Value		0.5	0.5	1	0.5	0.5	3	5	.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		.01	.01	.01	.01	.01	.01	.01	<.01	.01
Garnet Standard		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 6		70	3	<2	16	1	7	<10	<.01	5
Number of Analyses		1	1	1	1	1	1	1	1	1
Mean Value		70	3	1	16	1	7	5	.005	5
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		70	3	-	24	2	6	1	.003	5
Garnet Standard		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5		38	6	6	20	<1	8	<10	0.19	9
Number of Analyses		1	1	1	1	1	1	1	1	1
Mean Value		38	6	6	20	0.5	8	5	0.19	9
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		39	9	4	-	1	18	1	-	9

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Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01947.0 (COMPLETE)

PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 4A

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	AuRew1 PPB	AuGrav PPM	Ag PPM	AgOL PPM	Cu PPM	CuOL PCT	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
Y-141858		14			<0.2		45		125	530		<1	12	6	3.9	<5	78	62	1.07	778	<10	13	8	2	<20	<20	9	0.21	0.42	>10.00	0.01	0.11
Duplicate		18			<0.2		37		123	488		<1	11	6	3.7	<5	77	55	1.00	731	<10	11	7	2	<20	<20	8	0.18	0.41	>10.00	0.01	0.09
Y-141875		6			1.9		30		38	107		<1	15	6	0.4	<5	35	24	1.43	795	<10	12	5	2	<20	<20	6	0.16	0.86	>10.00	0.01	0.09
Duplicate					1.6		28		39	102		<1	16	7	0.6	<5	38	21	1.47	790	<10	12	5	2	<20	<20	6	0.15	0.85	>10.00	0.01	0.08
Y-141879		8			0.6		17		55	61		<1	30	13	0.3	<5	74	8	3.13	1677	<10	18	13	3	<20	<20	3	0.24	1.59	7.86	0.01	0.13
Duplicate		8																														
Y-141884		186			159.8		135		>10000	>10000	1.7	2	25	5	116.3	8	1079	203	6.30	489	<10	4	116	2	64	<210	<1	0.07	0.29	0.70	<.01	0.03
Prep Duplicate		169																														

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Geochemical
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Report

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
Y-141858		708	3	<2	<1	<1	<5	<10	<.01	1
Duplicate		628	3	<2	<1	<1	<5	<10	<.01	1
Y-141875		415	6	<2	<1	<1	<5	<10	<.01	1
Duplicate		413	6	<2	<1	<1	<5	<10	<.01	2
Y-141879		162	4	<2	<1	<1	<5	<10	<.01	2
Duplicate										
Y-141884		24	<1	<2	<1	<1	<5	<10	<.01	<1
Prep Duplicate										

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Geochemical
Lab
Report

MINEQUEST EXPLORATION ASSOCIATES LTD.
MR. ROBERT LONGE/D.LUKOR
#715 - 475 HOWE STREET
VANCOUVER. B.C.
V7W 1J5

Bondar-Clegg & Company Ltd., 130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, (604) 985-0681

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

REPORT: V96-01953.0 (COMPLETE)

REFERENCE:

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.

SUBMITTED BY: UNKNOWN

PROJECT: VMR

DATE PRINTED: 20-NOV-96

	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
1	Au30	Gold	19	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
2	Ag	Silver	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
3	Cu	Copper	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
4	Pb	Lead	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
5	Zn	Zinc	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
6	ZnOL	Zinc, semiquant	8	0.1 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
7	Mo	Molybdenum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
8	Ni	Nickel	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
9	Co	Cobalt	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
10	Cd	Cadmium	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
11	Bi	Bismuth	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
12	As	Arsenic	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
13	Sb	Antimony	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
14	Fe	Iron	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
15	Mn	Manganese	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
16	Te	Tellurium	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
17	Ba	Barium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
18	Cr	Chromium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
19	V	Vanadium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
20	Sn	Tin	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
21	W	Tungsten	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
22	La	Lanthanum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
23	Al	Aluminum	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
24	Mg	Magnesium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
25	Ca	Calcium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
26	Na	Sodium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
27	K	Potassium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
28	Sr	Strontium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
29	Y	Yttrium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
30	Ga	Gallium	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
31	Li	Lithium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
32	Nb	Niobium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
33	Sc	Scandium	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
34	Ta	Tantalum	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
35	Ti	Titanium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
36	Zr	Zirconium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	19	4 AS RECEIVED	19	CRUSH/SPLIT & PULV.	19

REMARKS: ZINC CONCENTRATION >1% WILL ENHANCE TUNGSTEN
RESULTS. THEREFORE, TUNGSTEN CONCENTRATION
WOULD BE GREATER THAN TRUE VALUE.
THANK YOU, RRD

REPORT COPIES TO: MR. ROBERT LONGE/D.LUKOR

INVOICE TO: MR. ROBERT LONGE/D.LUKOR

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.

REPORT: V96-01953.0 (COMPLETE)

PROJECT: VMR

DATE PRINTED: 20-NOV-96 PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
V141764		6	1.9	36	1105	>10000	1.1	4	10	1	84.1	<5	23	<5	<0.01	144	<10	28	572	<1	<20	<20	<1	0.14	0.08	0.19	<.01	0.04	7	<1	<2	<1	<1	<5	<10	<.01
V141767		39	0.6	76	16	56		1	42	12	<0.2	<5	313	6	<0.01	1284	<10	66	79	18	<20	<20	2	2.04	1.43	4.20	0.07	0.77	173	4	7	4	<1	<5	12	<.01
V141770		391	2.1	17	173	73		<1	50	18	<0.2	<5	2042	33	<0.01	1169	31	5	18	<1	<20	<20	<1	0.08	0.27	>10.00	<.01	0.07	386	<1	9	<1	<1	<5	78	<.01
V141771		548	0.3	19	28	>10000	1.9	<1	<1	1	105.8	<5	1491	12	1.11	4348	<10	10	13	<1	<20	<20	1	0.13	0.38	>10.00	<.01	0.07	538	<1	<2	<1	<1	<5	<10	<.01
V141772		8	1.1	17	19	82		<1	19	7	0.3	<5	53	8	<0.01	299	<10	19	8	2	<20	<20	2	0.30	0.70	>10.00	0.02	0.15	792	1	<2	<1	<1	<5	<10	<.01
V141773		25	1.4	27	65	36		3	52	20	<0.2	<5	268	7	4.13	884	<10	45	29	2	<20	<20	3	0.60	1.36	3.99	0.02	0.30	75	2	<2	<1	<1	<5	<10	<.01
V141774		75	173.9	681	>10000	>10000	7.6	<1	1	14	688.0	<5	233	217	5.91	9122	<10	38	40	<1	433	<514	1	0.47	2.21	6.88	<.01	0.23	109	3	<2	1	<1	<5	12	<.01
V141775		188	39.9	123	8990	>10000	2.6	<1	2	5	178.1	<5	387	64	5.59	>20000	<10	28	29	<1	<20	<124	<1	0.42	2.80	>10.00	<.01	0.20	152	3	3	1	<1	<5	13	<.01
V141776		330	70.4	179	9141	>10000	4.0	<1	4	8	300.7	<5	651	96	7.10	>20000	<10	13	28	<1	<20	<351	<1	0.19	2.76	>10.00	<.01	0.09	129	4	<2	1	<1	<5	17	<.01
V141777		117	85.4	120	>10000	>10000	3.9	<1	<1	7	317.5	<5	479	117	6.43	13629	<10	25	54	<1	<20	<131	<1	0.35	2.35	7.82	<.01	0.15	104	4	<2	1	<1	<5	15	<.01
V141778		84	6.7	18	1897	1619		1	28	11	12.1	<5	358	9	4.58	7404	<10	26	34	<1	<20	<20	1	0.39	2.08	5.45	<.01	0.20	117	3	<2	1	<1	<5	<10	<.01
V141779		277	64.4	109	>10000	>10000	2.2	<1	37	16	192.2	<5	1325	130	>10.00	7970	<10	33	69	<1	<20	<48	1	0.47	2.15	5.31	<.01	0.22	105	5	<2	<1	<1	<5	27	<.01
V141780		20	6.6	7	2137	1701		<1	31	11	11.8	<5	177	7	3.57	4409	<10	32	72	<1	<20	189	2	0.44	1.63	4.68	<.01	0.24	96	6	<2	1	<1	<5	<10	<.01
V141781		41	0.3	22	75	86		3	80	43	<0.2	<5	478	<5	5.76	2549	<10	29	38	<1	<20	<20	1	0.42	1.91	4.39	<.01	0.22	84	2	<2	<1	<1	<5	11	<.01
V141782		27	6.1	238	1677	>10000	3.9	<1	<1	3	299.6	<5	133	192	1.64	972	<10	17	241	<1	<20	<376	<1	0.24	0.63	1.55	<.01	0.12	40	<1	<2	<1	<1	<5	<10	<.01
V141783		6	0.4	29	13	129		2	46	18	<0.2	<5	266	12	4.95	2626	<10	30	34	<1	<20	<20	1	0.53	2.05	5.28	0.01	0.29	128	2	<2	<1	<1	<5	<10	<.01
V141786		76	0.6	20	44	753		2	21	3	4.4	<5	229	7	2.14	1610	<10	18	220	1	<20	<20	2	0.26	1.17	2.85	<.01	0.14	113	2	<2	2	<1	<5	<10	<.01
V141789		126	2.1	27	23	141		3	41	14	<0.2	<5	511	17	5.92	3886	<10	31	104	6	<20	<20	2	0.66	2.83	6.12	<.01	0.31	278	3	<2	1	<1	7	13	<.01
V141792		23	2.4	77	81	57		2	23	6	<0.2	<5	301	22	3.61	1674	<10	8	245	<1	<20	<20	<1	0.13	1.41	3.48	<.01	0.06	176	3	<2	<1	<1	<5	<10	<.01

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Inchcape Testing Services

Geochemical Lab Report

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REPORT: V96-01953.0 (COMPLETE)

PROJECT: VMR
DATE PRINTED: 20-NOV-96 PAGE 18

SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
V141764		2
V141767		2
V141770		7
V141771		<1
V141772		1
V141773		<1
V141774		<1
V141775		1
V141776		<1
V141777		<1
V141778		1
V141779		<1
V141780		<1
V141781		<1
V141782		<1
V141783		<1
V141786		<1
V141789		<1
V141792		<1

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01953.0 (COMPLETE)

PROJECT: VMR
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STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
ANALYTICAL BLANK		<5	<0.2	<1	<2	<1	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01
Number of Analyses		1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3	0.1	0.5	1	0.5	-	0.5	0.5	0.5	0.1	3	3	3	0.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	0.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.2	1	2	1	<.01	1	1	1	0.1	2	5	5	0.05	1	.01	.01	1	1	.01	.005	.01	<.01	<.01	<.0001	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01
Garnet Standard		1555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		1555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4		-	1.0	322	38	286	-	5	47	10	0.6	<5	36	<5	2.84	641	<10	58	92	8	<20	<20	4	0.89	1.34	1.58	0.05	0.16	39	3	2	6	<1	<5	<10	<.01
Number of Analyses		-	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	1.0	322	38	286	-	5	47	10	0.6	3	36	3	2.84	641	5	58	92	8	10	10	4	0.89	1.34	1.58	0.05	0.16	39	3	2	6	0.5	3	5	.005
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.8	290	33	255	0.03	4	42	9	0.8	1	30	0.5	2.40	600	0.1	55	80	9	5	1	4	0.77	1.34	1.43	0.04	0.14	39	4	2	7	1	12	1	0.01

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

CLIENT: MINEQUEST EXPLORATION ASSOCIATES LTD.
REPORT: V96-01953.0 (COMPLETE)

PROJECT: VMR
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STANDARD NAME	ELEMENT UNITS	Zr PPM
ANALYTICAL BLANK		<1
Number of Analyses		1
Mean Value		0.5
Standard Deviation		-
Accepted Value		.01
Garnet Standard		-
Number of Analyses		-
Mean Value		-
Standard Deviation		-
Accepted Value		-
BCC GEOCHEM STD 4		10
Number of Analyses		1
Mean Value		10
Standard Deviation		-
Accepted Value		8

Bondar Clegg
Inchcape Testing Services

Geochemical
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SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
V141771		548	0.3	19	28	>10000	1.9	<1	<1	1	105.8	<5	1491	12	1.11	4348	<10	10	13	<1	<20	<20	1	0.13	0.38	>10.00	<.01	0.07	538	<1	<2	<1	<1	<5	<10	<.01
Duplicate		551	0.3	17	25	>10000	1.8	<1	<1	1	98.7	<5	1465	10	1.25	4314	<10	9	12	<1	<20	<20	1	0.11	0.37	>10.00	<.01	0.07	551	<1	<2	<1	<1	<5	<10	<.01

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SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
V141771		<1
Duplicate		<1

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SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
V141764		2
V141767		2
V141770		7
V141771		<1
V141772		1
V141773		<1
V141774		<1
V141775		1
V141776		<1
V141777		<1
V141778		1
V141779		<1
V141780		<1
V141781		<1
V141782		<1
V141783		<1
V141786		<1
V141789		<1
V141792		<1

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STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
ANALYTICAL BLANK		<5	<0.2	<1	<2	<1	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01
Number of Analyses		1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3	0.1	0.5	1	0.5	-	0.5	0.5	0.5	0.1	3	3	3	0.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	0.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.2	1	2	1	<.01	1	1	1	0.1	2	5	5	0.05	1	.01	.01	1	1	.01	.005	.01	<.01	<.01	<.0001	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01
Garnet Standard		1555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		1555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4		-	1.0	322	38	286	-	5	47	10	0.6	<5	36	<5	2.84	641	<10	58	92	8	<20	<20	4	0.89	1.34	1.58	0.05	0.16	39	3	2	6	<1	<5	<10	<.01
Number of Analyses		-	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	1.0	322	38	286	-	5	47	10	0.6	3	36	3	2.84	641	5	58	92	8	10	10	4	0.89	1.34	1.58	0.05	0.16	39	3	2	6	0.5	3	5	.005
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.8	290	33	255	0.03	4	42	9	0.8	1	30	0.5	2.40	600	0.1	55	80	9	5	1	4	0.77	1.34	1.43	0.04	0.14	39	4	2	7	1	12	1	0.01

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STANDARD NAME	ELEMENT / UNITS	Zr / PPM
ANALYTICAL BLANK		<1
Number of Analyses		1
Mean Value		0.5
Standard Deviation		-
Accepted Value		.01
Gannet Standard		-
Number of Analyses		-
Mean Value		-
Standard Deviation		-
Accepted Value		-
BCC GEOCHEM STD 4		10
Number of Analyses		1
Mean Value		10
Standard Deviation		-
Accepted Value		8

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SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	ZnOL PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
V141771		548	0.3	19	28	>10000	1.9	<1	<1	1	105.8	<5	1491	12	1.11	4348	<10	10	13	<1	<20	<20	1	0.13	0.38	>10.00	<.01	0.07	538	<1	<2	<1	<1	<5	<10	<.01
Duplicate		551	0.3	17	25	>10000	1.8	<1	<1	1	98.7	<5	1465	10	1.25	4314	<10	9	12	<1	<20	<20	1	0.11	0.37	>10.00	<.01	0.07	551	<1	<2	<1	<1	<5	<10	<.01

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SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
V141771		<1
Duplicate		<1