

**Trailcutting, Sampling, Photogeological Interpretation
and Base Map Preparation**

of

The Arrow Claims

Tenure Numbers: 365401-365405, 366302, 366303 and 366699

Revelstoke Mining Division – NTS: 082M08E

51°25' 30" Lat. 118° 06' 50" Long.

Claims Owned by:

Robert G. Komarechka

Operator:

Robert G. Komarechka

Consultants:

EDIT Inc. and Azimuth Forestry & Mapping Solutions

Author:

Robert G. Komarechka P. Geol.

Submitted:

November 20, 1999

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

26,112

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Introduction

As a result of the authors interest in marble, and the occurrences of marble within the Badshot Formation, a follow up of various marble float along this formation has focused attention in the Downie Creek Watershed. Recent logging roads has enabled access to this area resulting in the staking of the Arrow claims, the assessment work undertaken and the preparation of this report.

Location

The area of study is located within the east half of NTS map sheet 82M08 centered about NAD 27 UTM coordinates, 422000m E and 5697220m N. This being located at a latitude of 51°25'30" and a longitude of 118°06'50"N. The claims encompasses a general area of steep and rugged crown land 1.5 kilometers north and 3 kilometers east along the north side of Downie Creek opposite the outlet of Belcher Creek. The claims are located in an area of the West Kootenay-Boundary Land-Use Plan designated as an Integrated Resource Management Zone indicating that this zone contains areas available for a full range of resource use and have a moderate to low sensitivity to resource development. The claim location is shown generally on the Regional Location Map #1 and more locally on Index Map #2.

Access

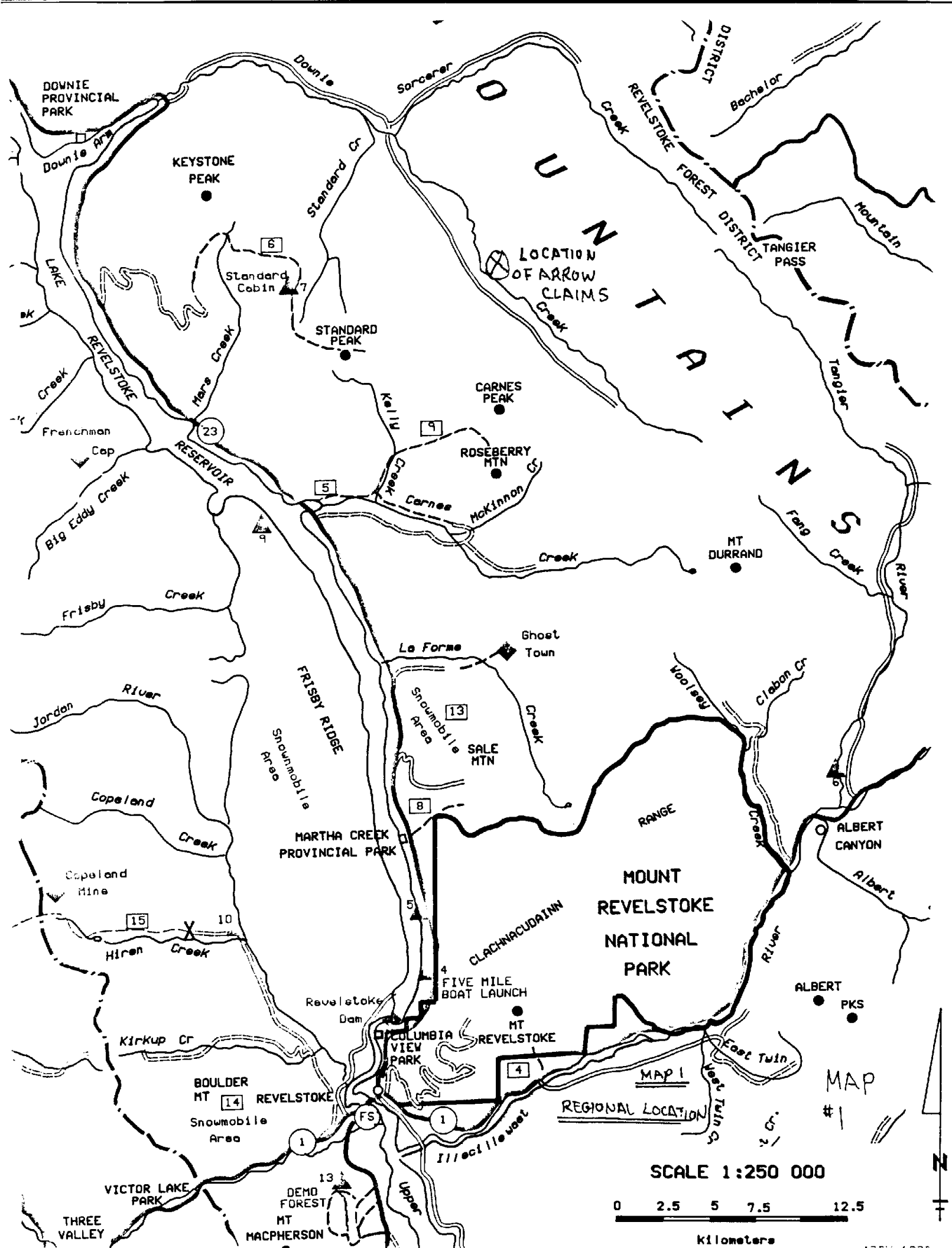
Access to the area can be obtained by driving northward from Revelstoke about 58 km. along highway 23 then eastward along the Downie Creek logging road for 18.7 km. upstream along Downie Creek. Follow the left branch (North Downie Road) northward across Downie Creek then eastward along the north side of Downie Creek to the end of the road at about 7.5 more kilometers ending at a logging landing. A trail leads eastward from this landing to a small ledge sampled for whole rock analysis. See the Local Topographical Map #3 and the Photogeological Interpretive Map #4 for more site specific details.

Property Definition

The Arrow Claims consist of the following mineral claims, all within the Revelstoke Mining Division, which, for this assessment submission, are summarized below:

<u>Claim Name</u>	<u>Tenure #</u>	<u>Type</u>	<u>Size</u>	<u>Registered Owner*</u>	<u>Operator*</u>
Arrow #1	365401	4 post	5Nx4E	Robert G. Komarechka	Robert G. Komarechka
Arrow #2	365402	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #3	365403	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #4	365404	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #5	365405	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #6	366302	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #7	366303	2 post	1	Robert G. Komarechka	Robert G. Komarechka
Arrow #8	366699	2 post	1	Robert G. Komarechka	Robert G. Komarechka

Note: The registered owner of the above claims is Robert G. Komarechka however an unrecorded 1/3 interest is held in each of Robert G. Komarechka, Gord Hurlburt and Kory Koke. Also some of the operational costs have also been incurred by each of Kory Koke and Gord Hurlburt in addition to Robert G. Komarechka.



SCALE 1:250 000

0 2.5 5 7.5 12.5

Kilometers





BRITISH COLUMBIA

MINISTRY OF ENERGY AND MINES

ENERGY AND MINERALS

MINERAL TITLES BR

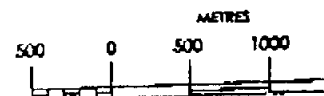
MINERAL TITLES REFERENCE

MAP 082M08E

U.T.M. ZONE 11

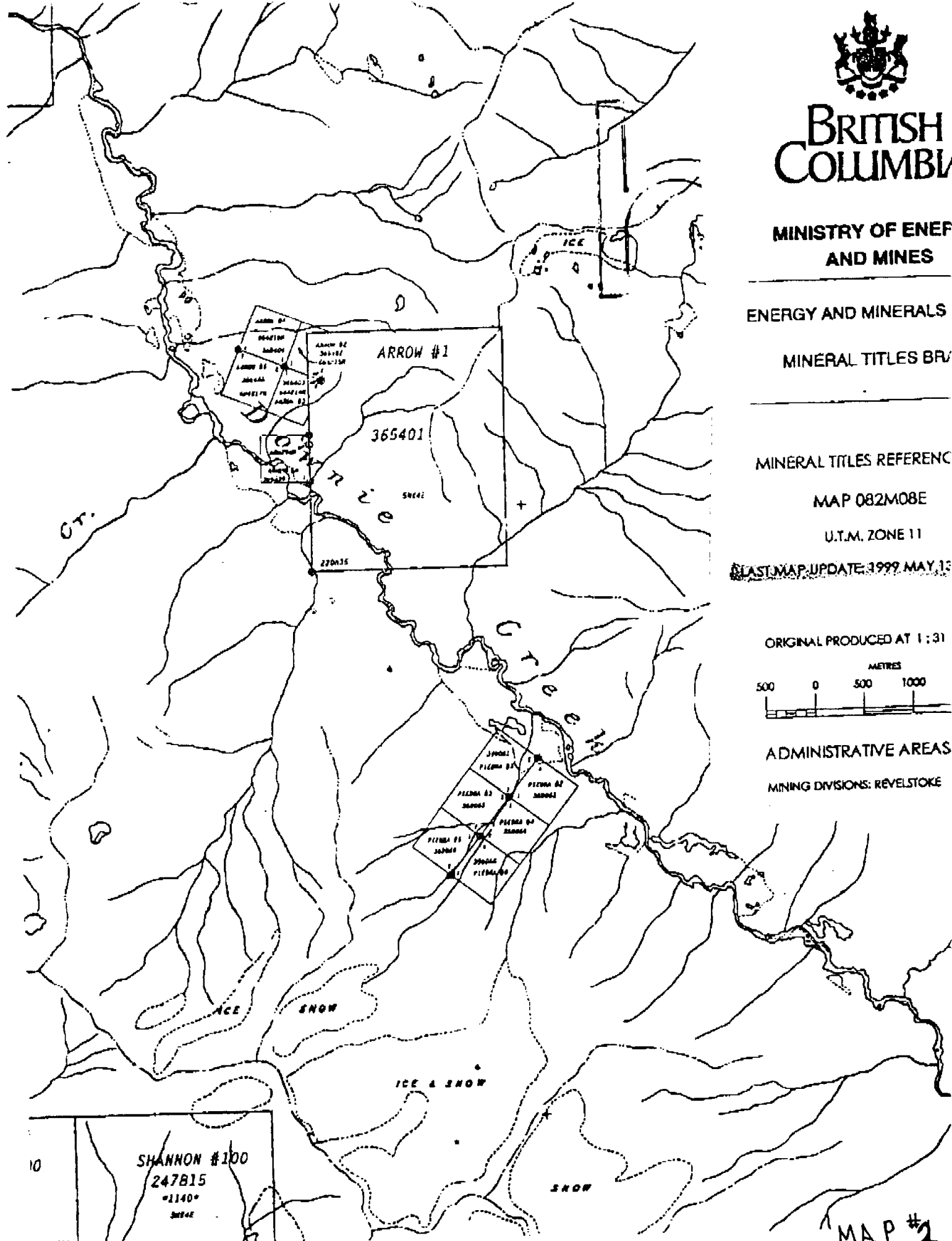
LAST MAP UPDATE: 1999 MAY 15

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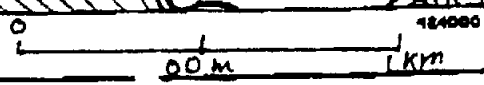
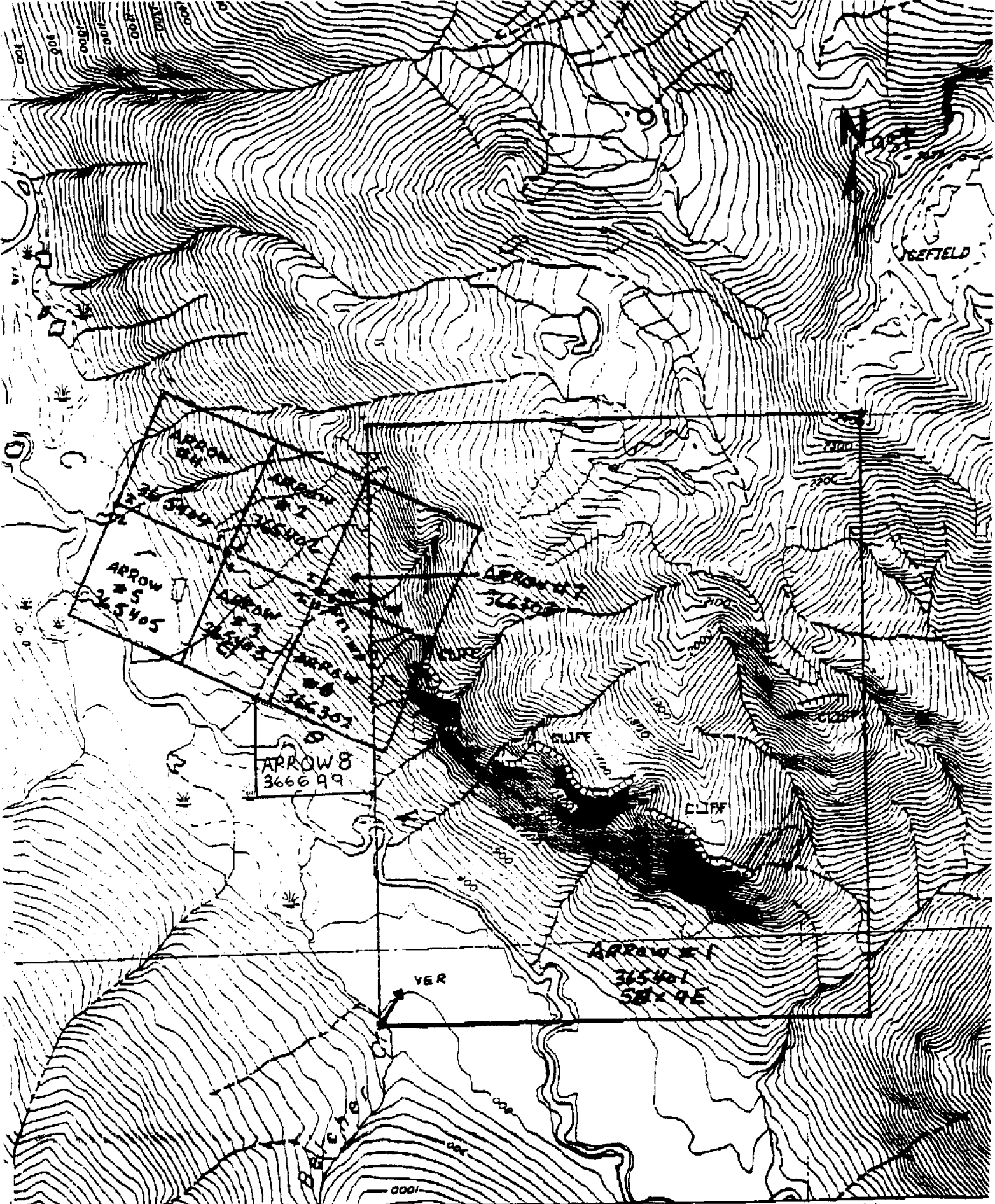
ADMINISTRATIVE AREAS

MINING DIVISIONS: REVELSTOKE



MAP #2

INDEX MAP



MAP 2a

82M 0E

SCALE 1:20 000

INSPECTORS MAP

History and Economic Assessment

The specific location of the claim area has received very little exploration work due to the fact that logging roads have only recently been constructed in the upper reaches of Downie Creek. Further downstream however, near the confluence of Sorcerer Creek, exploration for copper has occurred based on anomalous geochemical values reported in the area. This work is reported in the assessment files.

Scattered showings in the surrounding area (see MINFILE reports) include polymetallic Ag-Pb-Zn, Au veins and Polymetallic Ag-Pb-Zn mantos. Tungsten skarns also occur to the east across the height of land.

In the past few years an active area of exploration occurred to the south of Downie Creek on the other side of the height of land, outside this proposed study area. Weymin Mining Corporation is currently investigating Ag, Pb, Zn, Au mineralization within their McKinnon Creek Project (claimed to be one of the largest undeveloped gold resources in western Canada) consisting of the J&L Property and a new showing, the Yellowjacket zone.

To the author's knowledge, other than regional studies undertaken by both the provincial and federal governments (see the references on page 1) work was first undertaken on this property in the form of a PAP grant in 1995 in the author's name. A small portion of this grant was used for reconnaissance prospecting in the area. The result of this program led to the recognition of a large slide of predominately varicoloured marbles (to the south of Downie Creek), malachite in white bull quartz float and the abundance of white marble float proximal to the slide area covered by the present Arrow claims. See the bibliography for more information on this report.

Following up on R. Komarechka's PAP grant of 1995, Gord Hurlburt staked six 2-post claims (the Piedra Claims) on the slide of varicoloured marbles to the south of the claim area. Work to date has consisted of sampling and testing small amounts of various material with favorable results primarily as carving stone.

In the summer of 1997 further investigation of a large light coloured cliff and the white slide area to the north of Downie Creek was investigated and found to contain exceptionally white, very fine grained apparently pure calcium carbonate marble.

The economic significance of the marble occurrence on the Arrow Claims is that exceptionally white calcitic marble is one of the most valuable of dimension stone marbles worth significantly more than the value of common gray marbles. It is in very high demand and is sought all over the world. The ability to produce white carving grade material is what will offer the maximum value product from this site. In the course of producing dimension stone blocks waste will be produced. The ability to use this waste material for other high value uses (such as filler) can add extra value to this materials and needs to be evaluated. The capability of this site to produce large sound marble blocks and the calculation of the tonnage of white sound (unfractured) high purity calcite marble is necessary to determine the economics of operating a quarry in this environment of steep terrain, distant location and limited spring to fall operating season.

Sulphide and possible copper mineralization along the marble contact in the vicinity of the white talus slide area of claims 365402 and 365403 should be investigated for economic concentrations of gold, sheelite and copper.

Summary of Work Done

Prospecting (Traverse) Observations

In the late summer to early fall of 1998 this area was staked as the Arrow claims and traversed in part (about 9 kilometers of traversing – see attached photogeological Map #3). Areas of higher quality marble (high whiteness and limited fracturing) and sulphide mineralization were sought. These traverses were undertaken by each of the property owners namely, Kory Koke, Gord Hurlburt and Robert Komarechka from the time of staking and prior to September 6, 1999.

Dimension Stone Sampling of a Talus Block

After staking, a sample block collected from the white talus slide of claim 365405 was shipped, cut, polished and sent to Carrara Italy for evaluation as a high quality dimension and/or carving stone. The results of this analysis were positive warranting further evaluation in the area.

Concern over the exact location of the claims in this area of steep terrain resulted in a claims inspection by a provincial claims inspector with a detailed locate confirmed. To insure that an area of marble talus was included in the claim group an additional claim Arrow 8 was staked on November 3, 1998 after the inspection.

Trail Cutting

Following up on observations during these traverses an area of sound white marble was selected close to the end of the logging road for further evaluation. A walking trail was constructed to this site by a local contractor to facilitate access for back packing out samples and facilitating further evaluation. Previous to trail construction, access to this site required crossing a slide area of innumerable criss-crossed fallen trees and steep wet slippery terrain.

Geochemical Analysis

To initially assess a possible alternate market for quarry waste rock, as filler grade material, Gord Hurlburt collected samples for whole rock analysis. The analysis of this material is contained in the Technical data and Interpretation section.

Photogeological Studies and Topographical Base Map Preparation

To assist in the location and evaluation of the marble in this area of relatively steep terrain, the right to use an orthophoto and digitized topographical map data was purchased from the Revelstoke Community Forest Corporation. This data was used, in adjunct with GPS readings and numerous photographs taken in the field, to locate various outcrops, claim posts and sampling sites, to prepare the local base 1:5,000 scale Topographic Map #3 and the 1: 5,000 scale Photogeological Interpretive Map #4 attached with this submission. These data files were modified and plots prepared with the assistance of two consultants EDIT Inc. of Sudbury, Ontario and Azimuth Forestry & Mapping Solutions of Revelstoke British Columbia.

Table of Work on Claims

<u>Work Type - Physical</u>	<u>Tenure No.</u>	<u>Quantity of Work</u>	<u>Cost</u>
Traversing	365401	3 days	\$1080
Traversing	366302	2 days	\$720
Traversing	366402	.5 days	\$180
Traversing	366699	.5 days	\$180
Traversing	366403	.5 days	\$180
Traversing	366405	.5 days	\$180
Talus Block Testing	365405	All inclusive	\$941
Trail Cutting	365403	All inclusive	\$379
Trail Cutting	365403	All inclusive	\$884
Geochemical Whole Rock Analysis	366302	10 Samples	\$1209
Photogeological & Topographical Map	365401	All inclusive	\$470
Photogeological & Topographical Map	365402	All inclusive	\$18
Photogeological & Topographical Map	365403	All inclusive	\$18
Photogeological & Topographical Map	365404	All inclusive	\$18
Photogeological & Topographical Map	365405	All inclusive	\$18
Photogeological & Topographical Map	366302	All inclusive	\$18
Photogeological & Topographical Map	366303	All inclusive	\$17
Photogeological & Topographical Map	366699	All inclusive	\$17
Report Preparation	365401	All inclusive	\$1185
Report Preparation	365402	All inclusive	\$45
Report Preparation	365403	All inclusive	\$45
Report Preparation	365404	All inclusive	\$45
Report Preparation	365405	All inclusive	\$45
Report Preparation	366302	All inclusive	\$45
Report Preparation	366303	All inclusive	\$45
Report Preparation	366699	All inclusive	\$45
Total of all Work			\$8,027

Detailed Technical Data and Interpretation

Prospecting (Traverse) Observations and Interpretations

As a result of the limited traverses conducted on this property (see Map #4) to determine the extent of high quality sound white marble the following was observed:

- 1) The slide area underlying claims 365402 to 365405 consists of two major rock types namely white to gray banded to light gray calcitic marble and rusty pyrite bearing quartzite. The source of the quartzite is evident, sitting as a brown knob in the centre of the slide at the southeast corner of claim 365404 and the southwest of claim 365403. Minor white quartz veins were noted in some of the rusty quartzite. No assays were taken of this material. It is possible that the contact of the marble with the quartzite could occur at the north end of this quartzite since the line of this outcrop edge parallels the apparent bedding of the marble to the north. The source of the marble contained in the slide obviously comes from a series of cliffs at the head of the talus slope at the northeast corner of claim 365402. This marble ridge continues southeastward and forms the prominent cliffs on claim 365401. The colour variations from white to banded light gray to light gray marble talus suggests variability in possible bedrock

- beds. The thickness of these beds needs to be determined from further more detailed observations at the outcrop surface.
- 2) Observations of the marble along strike at the base of the cliffs (and top of the talus slope) of claims 366302 and 365401 have indicated that a significant large amount of white marble exists in this area; however, the nature of its occurrence (in terms of extent - both width and strike length and widescale variability) is difficult to determine due to the dark gray lichen which covers the surface. Surface bedrock must be systematically chipped to expose the fresh rock underneath. As this results in a small area of exposure, the certainty of whiteness over a large area takes time to verify. The steepness of the terrain also prevents access for systematic evaluation. In addition to white marble there also exists white marble with light gray wisps, light gray bands and light gray marble. A micaceous variety of impure marble was also observed at one site at the top of the talus which graded upward into a more purer variety. This may suggest that the base of the talus slope at this location may be near the contact of the marble. Several areas of high fracturing were also noted and appear to be locally related to areas of structural deformation and possible small scale faulting. Generally these areas developed embayments in the cliff face and exhibited less purity due to the presence of minor micaceous minerals. Their colour was also a darker gray. A significant amount of material appeared very sound but was inaccessible due to the steep terrain.
 - 3) Of all marble areas observed, the site of the geochemical samples at the end of the trail appear to be one of the whitest, most soundest, easily accessible marble yet encountered in the area. From the lack of fractures in this area it should be possible to extract very large blocks well in excess of 4x4x8 feet. This material very closely represents the marble talus block sent to Carrara Italy for evaluation. This site was also visited by an internationally known stone processor who just returned from visiting quarries in Carrara Italy. He felt that the material was of superb quality comparable with that of the finest quarries in Carrara. With his recommendations, a series of drill sites were located should funding be procured for such an undertaking. From observations of Gord Hurlburt there appeared to be some stratigraphic relationship with regard to variations in colour however limited time did not enable pursuit of this.
 - 4) A one foot piece of bull quartz float containing significant (15%) malachite was noted at the intersection of the North Downie Road and a slide on claim 365404. Numerous other larger pieces of bull quartz float within and adjacent to the slide area may suggest that a source of this material could have come from an anticipated contact with the marble at the head of this slide near the north of claim 365402.
 - 5) Evaluation of material in the talus slopes indicates that the majority consists of marble of varying quality. Frequently the material at the base of the cliffs and top of the talus slope consists of small very angular poorly sorted chips to cobbles with occasional boulders and rare blocks. Near the base of the talus slope there are occasional large blocks of relative soundness that should be examined for possible retrieval. Frequently the bush along these talus slopes are very thick making passage exceedingly difficult.

Dimension Stone Sampling of a Talus Block

A sound block of about 300 pounds found along the North Downie Road at the intersection of the white slide on claim 365405 was retrieved via the use of a hydraulic boom on a flat bed truck rented for this purpose. The block was secured to a pallet and removed from this truck to be placed on a utility trailer to be delivered to Khouri Granite in Sudbury – a processor of stone products. Khouri Granite squared the block and produced several tiles which were displayed for comment at the stone show at Carrara Italy. The results of this effort are described below:

- 1) Before cutting, one side of this block exhibited a very thin coating of muscovite on a planar surface. This suggests that there may be thin? Planes of weakness along parallel surfaces. If this is the case then these could be used to assist block removal or if too close could limit the size of blocks recovered from some areas, affecting marketability.
- 2) The marble cut very well and took a very high polish indicative of its high purity, fine grain structure and uniform composition. When 1/2" tiles were cut and held to the light they were mildly translucent.
- 3) In Carrara the stone was well received. Several parties expressed interest and one party in particular was prepared to bring a significant amount of equipment for quarry development. Unfortunately the late snow pack last year and consequent short summer season deterred his plans.
- 4) One sample was tested by a lab in Carrara and although the results were not released in print it was stated that this was one of the hardest and impervious marbles they had ever tested due in part to its fine interlocking granular structure. Such marbles are in high demand due to their chemical and abrasion resistance as well as their ability to take a high polish. The fine grained structure would also preserve intricate details of carving.

Trail Cutting

A walking trail was flagged from the end of the North Downie road from the timber landing towards the east side of the cut area, through a tree strewn slide area and up the side of the forested slope to a vertical face of a white marble rock ledge about 12' high. This marble face had been located as a result of the traverses undertaken earlier. The trail cut was of minimal environmental impact and consisted of cutting brush and fallen trees. No commercial timber was cut and the trail was configured around standing trees. The trail has a width of 1 meter and a length of about 275 meters to the marble face. Additional brush was cleaned out about 75 meters along the base of this face in anticipation for later sampling and access resulting in the total length of 350 meters.

Geochemical Analysis

Ten samples were collected by Gord Hurlburt P.Geol. at the face at the end of the walking trail. These samples were collected at regular intervals approximately 50 meters apart along a 400 meter interval along the exposed face. The samples were collected indiscriminately and were to represent an unbiased representative sample of the whole rock outcrop. See the attached sample sketch of figure 1 on page 7i and the sample location of write up of figure 2 on page 7ii.

The samples were collected directly from solid rock using a sledge hammer and chisel. Care was exercised to avoid lichen coatings on the sample. The samples were sent to Loring Laboratories Ltd. for Whole Rock Analysis ICP Analysis - see pages 7iv.

A cursory description of the samples collected revealed them for the most part to consist of white marble with minor amounts of light gray wisps to faint bands. A few of the samples were described as being gray.

The results of this Whole Rock analysis on this small sample has revealed that the marble, in the area of investigation, is a high purity Calcitic marble with an average CaCO_3 content of 98.19% - see figure 3 on page 7iii. This is an exceptional purity that exceeds that of ground Italian marble filler and compares with grades of precipitated calcium carbonate (PCC) filler¹ possibly suitable for grade 1 applications. Further analysis needs

¹ Harben, W. Peter, The Industrial Minerals HandyBook 2nd Edition pg. 38

North

South

N

S

SMALL CLIFF FACE

A1

A2

A3

A4

A5

A6

A7

A8

A9

1st outcrop

2nd outcrop

TRAIL

FIGURE #1

SAMPLE LOCATION SKETCH

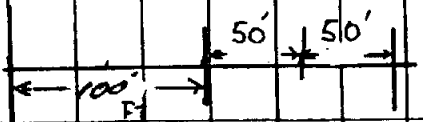


FIGURE #2

Arrow Claims – Sample Locations (99/09/04)

<u>Sample #</u>	<u>Location</u>
A-1	~50' north of A-2
A-2	From rockface at head of trail (1 st drillsite location)
A-3	~150' south of A-2. At edge of cliff (2 nd drillsite location)
A-4	~50' south of A-3
A-5	~50' north of A-3 (2 small pieces, very hard rock, massive)
A-6	~50' north of A-5. Below tree on right hand side (south)
A-7	~50' north of A-1. Slightly gray & fissile
A-8	~50' north of A-7. Just out of the forest & above thin (1') fissile layer
A-9	~50' north of A-8. From face out in the open.
A-10	From fissile layer below A-8. Sample 4' north & 2' down of A-8

Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: GORDON HURLBURT

#43, 1815 Varsity Estates Drive N.W.
 Calgary, Alberta
 T3B 3V7

FILE: 41447

DATE: Sept.24, 1999

WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al ₂ O ₃ %	Ba ppm	CaO %	Cr ppm	Fe ₂ O ₃ %	K ₂ O %	MgO %	MnO %	Na ₂ O %	Ni ppm	P ₂ O ₅ %	SO ₃ %	SiO ₂ %	Sr ppm	TiO ₂ %	V ₂ O ₅ %	LOI %	SUM %
A1	0.16	<1	54.80	13	0.13	0.06	0.19	<0.01	0.04	9	0.008	0.39	0.98	80	<0.01	<0.01	43.15	99.91
A2	0.10	<1	55.18	7	0.08	0.05	0.20	<0.01	0.04	7	0.015	0.38	0.38	105	<0.01	<0.01	43.36	99.79
A3	0.05	<1	55.35	26	0.12	0.04	0.11	<0.01	0.04	8	<0.001	0.39	0.36	84	0.01	<0.01	43.45	99.92
A4	0.04	<1	55.29	8	0.10	0.04	0.35	<0.01	0.04	6	<0.001	0.39	0.31	93	<0.01	<0.01	43.35	99.91
A5	0.05	<1	55.06	18	0.09	0.04	0.16	<0.01	0.04	10	<0.001	0.40	0.29	104	<0.01	<0.01	43.37	99.41
A6	0.03	<1	55.15	22	0.10	0.06	0.25	<0.01	0.04	8	<0.001	0.40	0.33	96	<0.01	<0.01	43.35	99.71
A7	0.14	<1	55.16	12	0.08	0.09	0.18	<0.01	0.03	11	0.012	0.39	0.58	97	<0.01	<0.01	43.24	99.90
A8	0.33	<1	54.48	22	0.18	0.12	0.25	<0.01	0.04	7	0.015	0.40	1.29	127	0.01	<0.01	42.72	99.83
A9	0.25	<1	54.28	<1	0.17	0.11	0.29	<0.01	0.04	8	0.155	0.39	1.34	109	0.01	<0.01	42.65	99.69
A10	0.02	<1	55.30	<1	0.07	0.05	0.17	<0.01	0.03	4	0.001	0.43	0.24	142	<0.01	<0.01	43.48	99.79
Totals	0.12	0	55.01	6	0.11	0.07	0.21	0.00	0.04	7.80	0.02	0.40	0.61	104	0.00	0.00	43.21	99.79

SAMPLE GROUND TO -150 MESH & HOMOGENIZED. *AK*

0.2g sample fused with lithium metaborate, dissolved in 100ml. 5% HNO₃, and analyzed by ICP.

Certified by: _____

%CaCO₃ = CaO x 1.785 = 55.01 x 1.785 = 98.19%

%MgCO₃ = MgO x 2.09 = 0.21 x 2.09 = 0.44%



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
Calgary Alberta T2K 4W7
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TO: GORDON HURLBURT
#43, 1815 Varsity Estates Drive N.W.
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FILE: 41447

DATE: Sept.24, 1999

WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al ₂ O ₃ %	Ba ppm	CaO %	Cr ppm	Fe ₂ O ₃ %	K ₂ O %	MgO %	MnO %	Na ₂ O %	Ni ppm	P ₂ O ₅ %	SO ₃ %	SiO ₂ %	Sr ppm	TiO ₂ %	V ₂ O ₅ %	LOI %	SUM %
A1	0.16	<1	54.80	13	0.13	0.06	0.19	<0.01	0.04	9	0.008	0.39	0.98	80	<0.01	<0.01	43.15	99.91
A2	0.10	<1	55.18	7	0.08	0.05	0.20	<0.01	0.04	7	0.015	0.38	0.38	105	<0.01	<0.01	43.36	99.79
A3	0.05	<1	55.35	26	0.12	0.04	0.11	<0.01	0.04	8	<0.001	0.39	0.36	84	0.01	<0.01	43.45	99.92
A4	0.04	<1	55.29	8	0.10	0.04	0.35	<0.01	0.04	6	<0.001	0.39	0.31	93	<0.01	<0.01	43.35	99.91
A5	0.05	<1	55.06	18	0.09	0.04	0.16	<0.01	0.04	10	<0.001	0.40	0.29	104	<0.01	<0.01	43.37	99.41
A6	0.03	<1	55.15	22	0.10	0.06	0.25	<0.01	0.04	8	<0.001	0.40	0.33	96	<0.01	<0.01	43.35	99.71
A7	0.14	<1	55.16	12	0.08	0.09	0.18	<0.01	0.03	11	0.012	0.39	0.58	97	<0.01	<0.01	43.24	99.90
A8	0.33	<1	54.48	22	0.18	0.12	0.25	<0.01	0.04	7	0.015	0.40	1.29	127	0.01	<0.01	42.72	99.83
A9	0.25	<1	54.28	<1	0.17	0.11	0.29	<0.01	0.04	8	0.155	0.39	1.34	109	0.01	<0.01	42.65	99.69
A10	0.02	<1	55.30	<1	0.07	0.05	0.17	<0.01	0.03	4	0.001	0.43	0.24	142	<0.01	<0.01	43.48	99.79

0.2g sample fused with lithium metaborate, dissolved in 100ml. 5%HNO₃, and analyzed by ICP.

Certified by:

to be undertaken to determine the volume of material containing this grade but it appears that it may be possible to quarry dimension stone and use the waste material for filler grade material. Further tests on brightness, absorption and other properties need to be undertaken before a filler application can be confirmed.

Photogeological Studies and Topographical Base Map Preparation

The right to use a topographical and orthophoto digital data base was authorized for a small fee by the Revelstoke Community Forest Corporation who log and hold the timber rights in the area covered by the Arrow Claims. The data covering the claim group was selectively extracted containing the layers of information pertinent to the geological evaluation, access to, development safety and environmental concerns of this area. Layers showing the claim boundaries and access trail was added to this database and a CD of this data was prepared by Azimuth Forestry and Mapping Solutions of Revelstoke.

Further modification for the preparation of a plot of a 1:5,000 scale topographical and orthophoto map with matching NAD27 UTM grid was undertaken. This information was undertaken and plotted by EDIT Inc. of Sudbury, Ontario. The two maps were overlain on a light table and an overlay of mylar was used to draw in the outcrop exposures. Numerous colour photos taken of inaccessible outcrops were then used to match with accessible outcrops visited in the field to produce the resulting photogeologic interpretation.

It is proposed that a digital terrain model will be later created with this data that will enable a more detailed evaluation of the structure in the area as it appears from limited field observations that these affect the degree of fracturing and potentially the size of blocks extracted. Further field outcrop examination of this observation will also be required.

Itemized Cost Statement

Prospecting Traverses

Robert Komarechka, Oct. 24 &25, 1998

(2 man days) on claims 365402, 365405, 365403, 366302 and 365401

Kory Koke and Gord Hurlburt, Nov. 2 &3, 1998

(3 man days) on claims 365401, 366699, 366302

Gord Hurlburt, Oct. 3&4, 1999

(2 man days) on claims 366302 and 365401

1. <u>Time</u> : 7 days by three different P.Geol. Geologists registered with APEGGA 7x \$300.00	\$2,100.00
2. <u>Travel</u> : expenses 3 trips to and from the Alberta Border to site Lessor of actual costs or (.2 x 2,100.00)	\$420.00
Total	\$2,520.00

Dimension Stone Sampling of Talus Block – Sept. 11- Oct 12, 1998

100% on claim 365405

1. <u>Time</u> : Travel to site to load block and return 1man day x 150.00/ day	\$150.00	SEPT 11/98
2. <u>Rental</u> : Boom Truck with Pallet 1day@ 133.02/day	\$133.02	"
3. <u>Fuel</u> :	\$54.43	"
4. <u>Shipping</u> : 300# marble block Revelstoke to Sudbury Ontario	\$264.40	SEPT 15-18/98
5. <u>Processing</u> : Slabbing and polishing Marble Block 5.5 hrs x \$55.00/hr. x 1.12 GST& PST	\$338.80	OCT 12/98
6. <u>Shipping</u> : Air freight to Carrara, Italy	not charged	
Total	\$941.00	

Trail Cutting – Oct. 20-23, 1998

1m wide x 350m lg.

30% on claim 365403, 70% on claim 366302

1. <u>Time</u> : GPS Locate and Flag Trail Route 1 day technician	\$250.00	OCT. 20/98
2. <u>Time</u> : Clean and brushed Trail \$321.00/day x 3 man days	\$963.00	OCT 21-23/98
3. <u>Travel</u> : Vehicle to and from Revelstoke	\$50.00	OCT 20 /98
Total	\$1,263.00	

Geochemical Whole Rock Collection and Analysis - Sept 4-5, 1999.

100% on claim 366302

1. <u>Time</u> : Travel & Sample Collection 2 days P.Geol x \$300.00/day	\$600.00
2. <u>Accommodation and Food</u> : 2 days	\$155.69
3. <u>Gas</u> : Travel to and from Alberta Border to Revelstoke and to site	\$138.04
4. <u>Analysis</u> : Sample prep. and whole rock analysis. INVOICE DATE SEPT 24/99 10 samples @ 31.57/sample	\$315.65
Total	\$1,209.00

Photogeological Studies and Topographical Base Map Preparation

79% on claim 365401, 3% on each of 365402 to 365405, 366302, 366303 and 366699.

1. <u>Fee</u> : Use of Orthophoto and Base Map digital data	\$214.00	MARCH 4, 1999
2. <u>Time</u> : Digital Mapping services locating claims and preparation of data	\$305.15	AUG 25, 1998
3. <u>Time</u> : Printout of contoured and planimetric map from digital file	\$48.15	OCT 30, 1998
4. <u>Time</u> : Printout of Orthophoto reproduction	\$26.75	NOV 15, 1998
Total	\$594.00	

Report Preparation - Nov. 15 –20, 1999

79% on claim 365401, 3% on each of 365402 to 365405, 366302, 366303 and 366699.

1. <u>Time</u> : Photogeological Interpretation 3 days x \$300.00/day	\$900.00
2. <u>Time</u> : Drafting and Report Preparation 2 days x \$300.00/day	\$600.00
Total	\$1,500.00

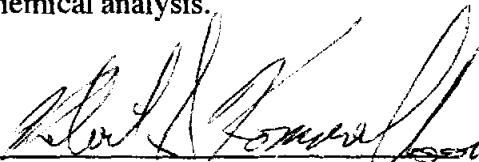
Total of all above (includes additional new expenses) \$8,027.11**Amount claimed as per Statement of Costs \$6,822.65**

Author's Qualifications

CERTIFICATE

I, Robert G. Komarechka, of the City of Sudbury, in the Province of Ontario hereby certify as follows:

1. That I am a consulting geologist currently residing and practicing in Sudbury.
2. That I am a graduate, B.Sc. Geology major, of Laurentian University of Sudbury, Ontario, a registered professional geologist in the Province of Alberta affiliated with the Canadian Council of Professional Engineers, a member of the Geological Association of Canada, a fellow of the Canadian Gemmological Association and that I have been practicing my profession for fifteen years.
3. That I have an interest in the Arrow Claims.
4. That I am familiar with the marbles of the Big Bend area, having studied these for over 15 years and been the recipient of several grants to evaluate them.
5. That this report is based on field observations over the last year in the area of study, along with data from airphotography, topography, ground photography, GPS location data, marble finishing and very local geochemical analysis.

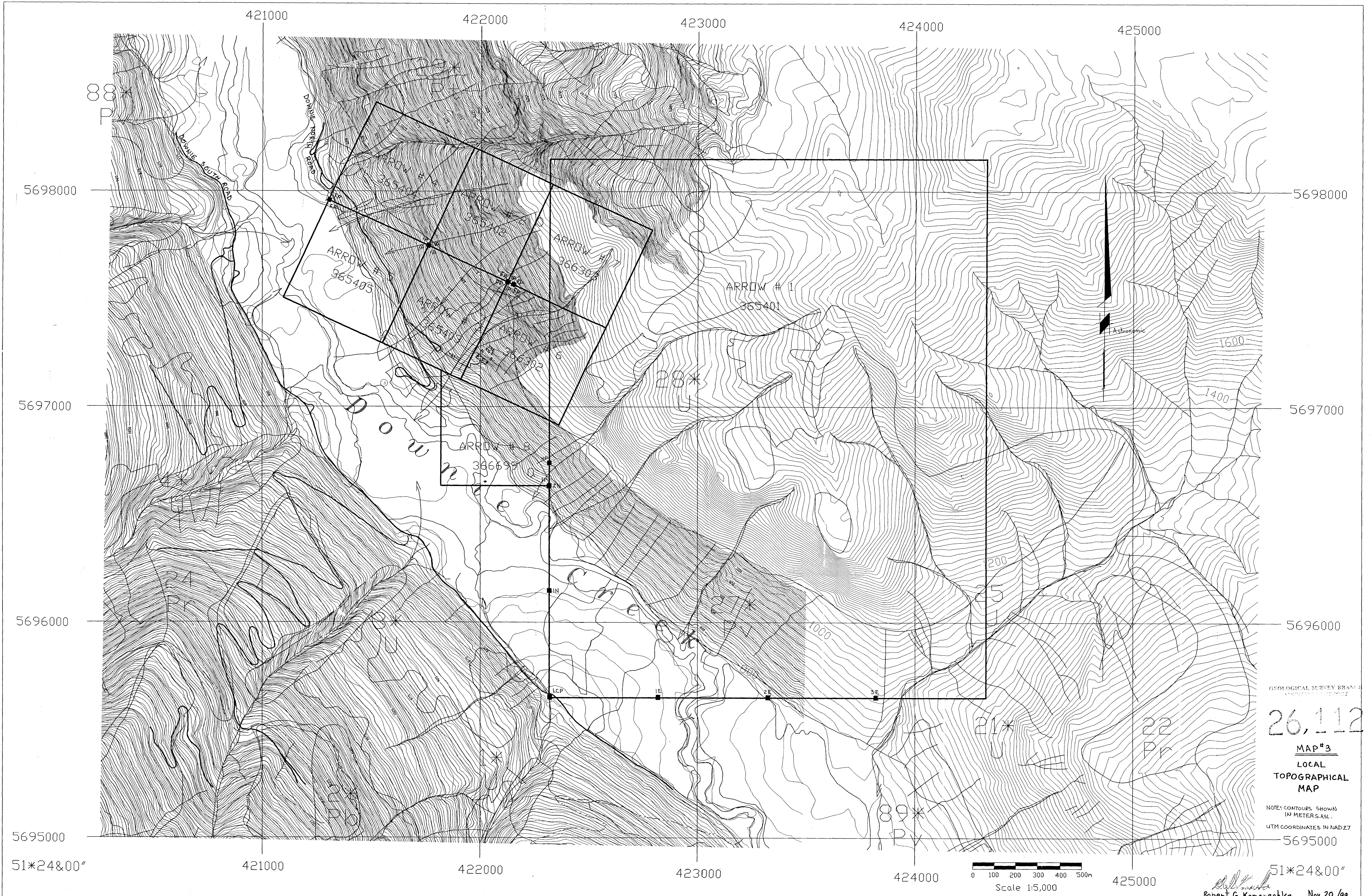


Robert G. Komarechka P.Geol.

Dated at Sudbury, Ontario, this 20th day of November, 1999.

References

- Guillet, G. R. and Kriens, J.**, 1984 Ontario and the Mineral Filler Industry; Ontario Ministry of Natural Resources, Mineral Resources Branch, Industrial Mineral Background Paper 5 (IMBP 5) 175 pp.
- Harben, Peter W.**, 1995, The Industrial Mineral HandyBook, 2nd Edition, A Guide to Markets, Specifications, & Prices, published by Industrial Minerals Division, Metal Bulletin PLC, London, United Kingdom.
- Hoy, T.**, 1979. Geology of the Goldstream Area. British Columbia Ministry of Energy, Mines And Petroleum Resources, Bulletin #71.
- Hurlburt, G. C., Koke, K., R., Meyer, B., H.**, 1988. The Oro Viejo Group, Revelstoke Mining Division. Assessment Report submitted to the British Columbia Ministry of Energy Mines and Petroleum Resources, November 15, 1988.
- Keevil, Gordon A.**, 1977. Exploration Report of the Big Bend Claims, British Columbia assessment files, reference #06176.
- Komarechka, Robert G.**, 1987. Geological Report of The Oro Viejo Claims, Revelstoke Mining Division. Assessment Report submitted to the British Columbia Ministry of Energy, Mines and Petroleum Resources, November 30, 1987.
- Komarechka, Robert G.**, 1996. 1995 BC Prospectors Assistance Program Final Report Submission on the Downie Creek Area submitted to the British Columbia Ministry of Energy, Mines and Petroleum Resources, January, 1996.
- Lane, L. Brown, R. L. and Hoy, T.**, 1977., Geology of the Goldstream River - Downie Creek Area, Southeastern British Columbia. Preliminary Map #25, British Columbia Ministry of Energy Mines and Petroleum Resources.
- Read, P. B., and Brown, R. L.**, 1981. Columbia River Fault Zone: Southeastern Margin of the Shuswap and Monashee Complexes, Southern British Columbia, Canadian Journal of Earth Science Vol. 18, 1981.
- United States Bureau of Mines**, 1975, Mineral Facts and Problems, 1975 edition by the Staff bureau of Mines United States Department of the Interior.
- Wheeler, J. O.**, 1965, Big Bend Map Area, British Columbia. Geological Survey of Canada, Paper #64-32.



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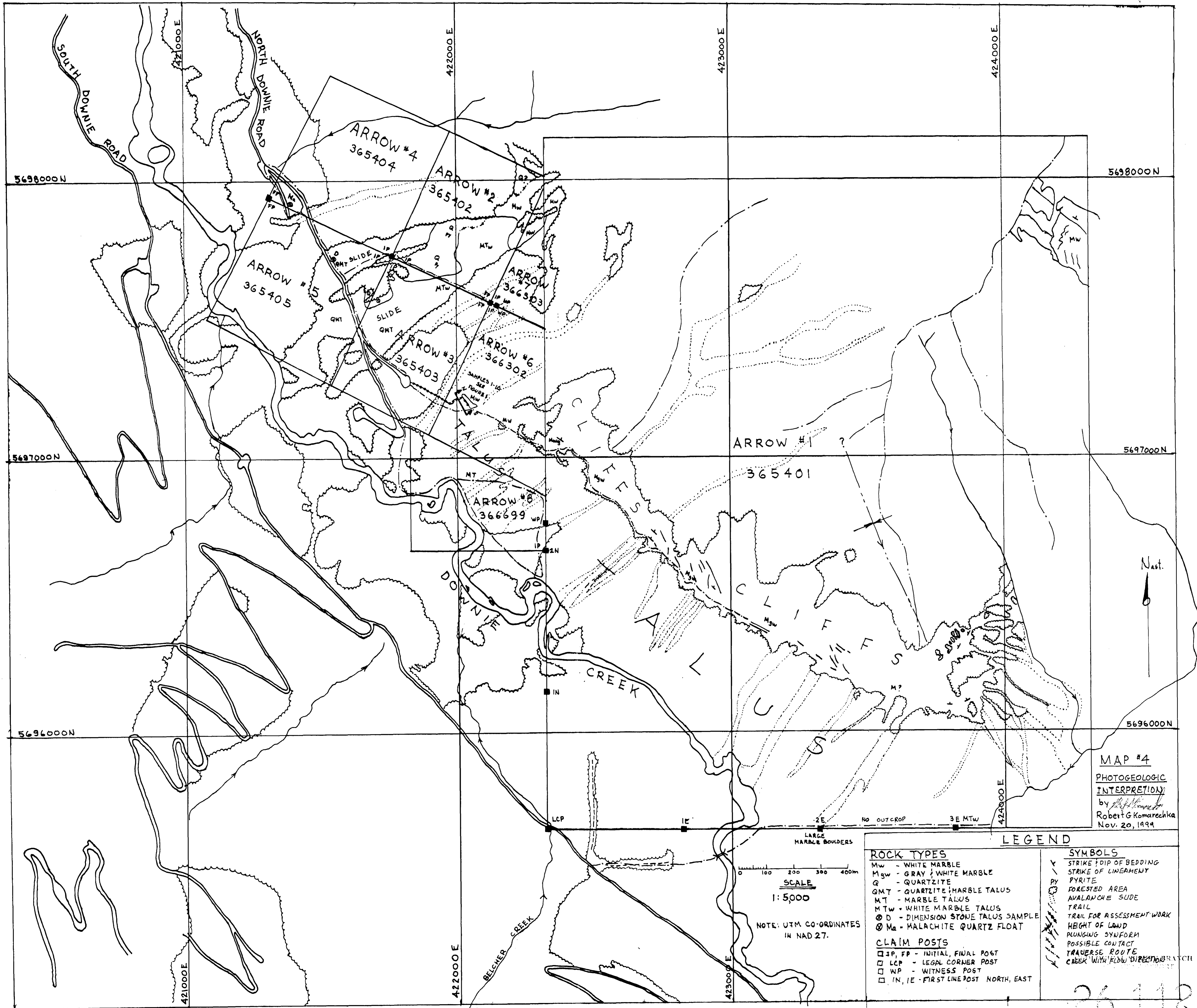
MAP #3
 LOCAL
 TOPOGRAPHICAL
 MAP

NOTE: CONTOURS SHOW IN METERS ASL.
 UTM COORDINATES IN NAD27

51*24&00"

Robert G. Komarechka Nov. 20, 99

MAP #3



MAP #4
 PHOTOGEOLOGIC
 INTERPRETION
 by Robert G. Komarechka
 Nov. 20, 1994

LEGEND	
ROCK TYPES	SYMBOLS
Mw - WHITE MARBLE	Y - STRIKE & DIP OF BEDDING
Mgw - GRAY & WHITE MARBLE	— - STRIKE OF LINEAMENT
Q - QUARTZITE	py - PYRITE
QMT - QUARTZITE; MARBLE TALUS	— - FORESTED AREA
MT - MARBLE TALUS	— - AVALANCHE SLIDE
MTW - WHITE MARBLE TALUS	— - TRAIL
⊙ D - DIMENSION STONE TALUS SAMPLE	— - TRAIL FOR ASSESSMENT WORK
⊙ Ma - MALACHITE QUARTZ FLOAT	— - HEIGHT OF LAND
CLAIM POSTS	— - PLUNGING SYNFORM
□ IP, FP - INITIAL, FINAL POST	— - POSSIBLE CONTACT
□ LCP - LEGAL CORNER POST	— - TRAVERSE ROUTE
□ WP - WITNESS POST	— - CREEK WITH FLOW DIRECTION
□ IN, IE - FIRST LINE POST NORTH, EAST	

SCALE
 1:5000
 NOTE: UTM CO-ORDINATES
 IN NAD 27.

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