BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	2001/2002
REPORT #:	PAP 01-35
NAME:	BRUCE HOLDEN

Recd Jan 9, 2002

PROSPECTING REPORT – NORTHEN LIGHTS MINERAL PROPERTY

WHITESAIL RANGE
93E10W, 93E11E

MINISTRY OF
ENERGY & MINES
JAN 15 2002
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2001 PROGRAM

FOR

PROSPECTORS ASSISTANCE PROGRAM

BY

BRUCE HOLDEN
RANDY LORD

1111 NORTH CENTRAL ROAD
DENMAN ISLAND, B C V0R 1T0

December 6, 2001

PROSPECTING REPORT - NORTHERN LIGHTS

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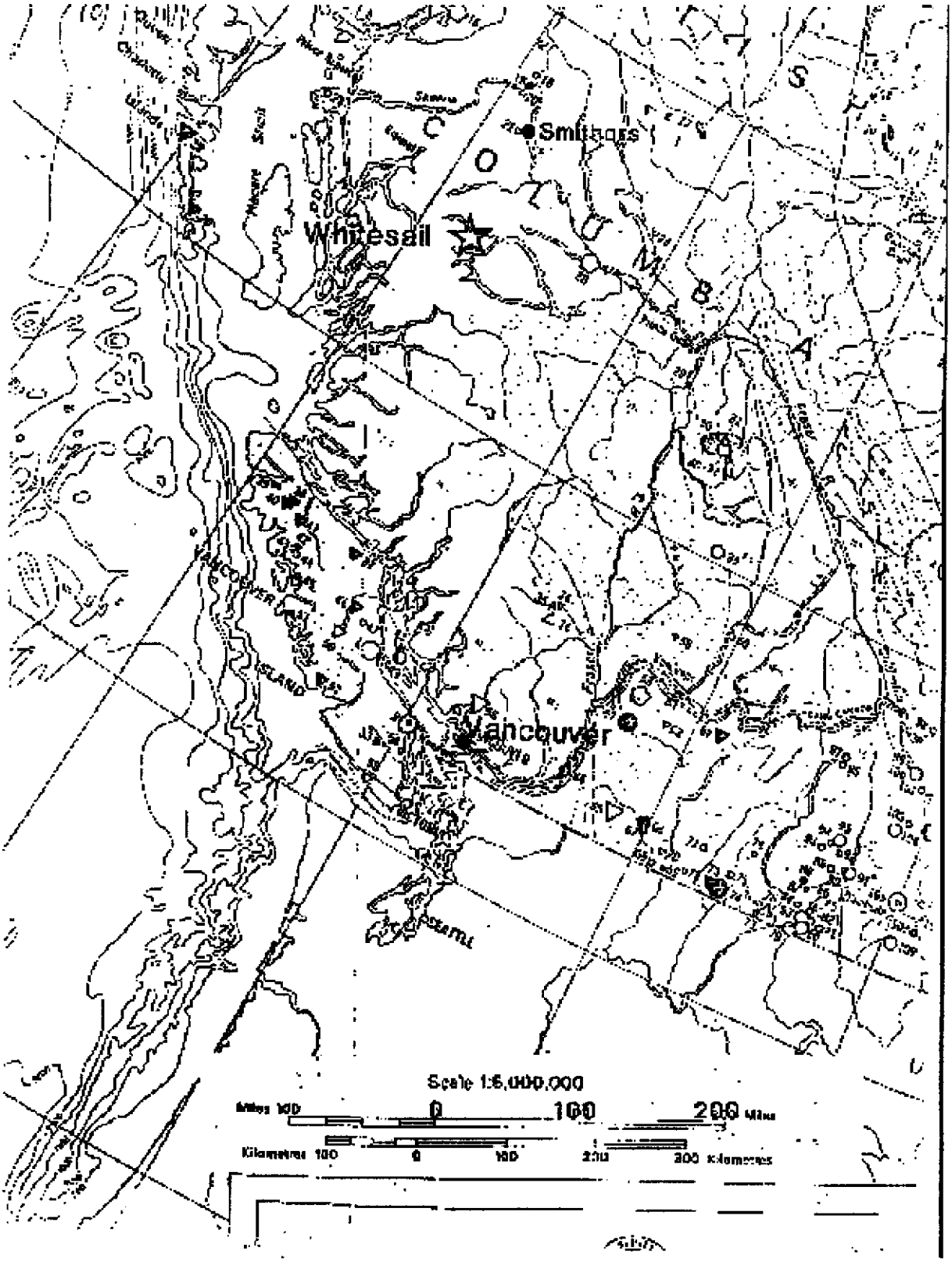
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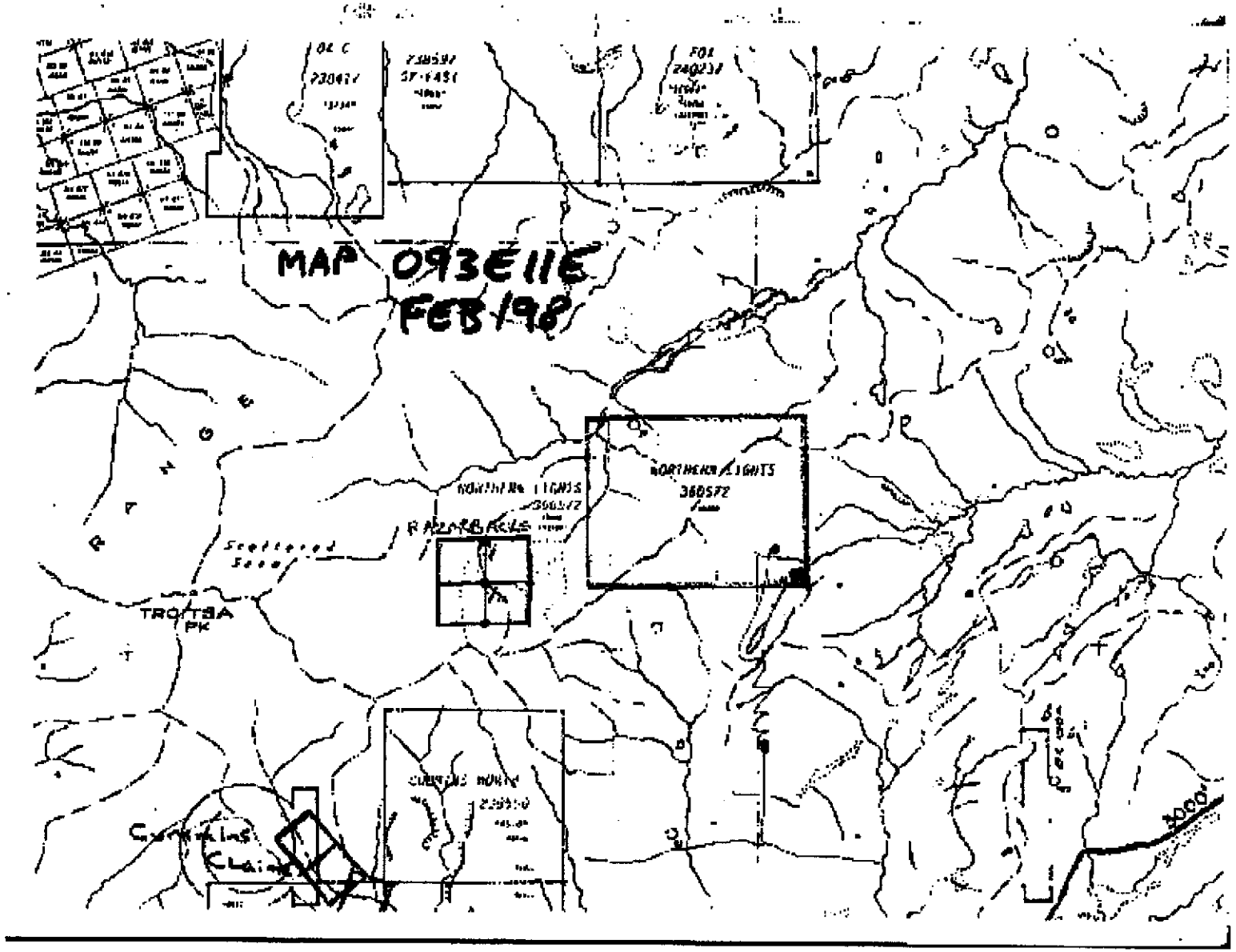
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NORTHERN LIGHTS
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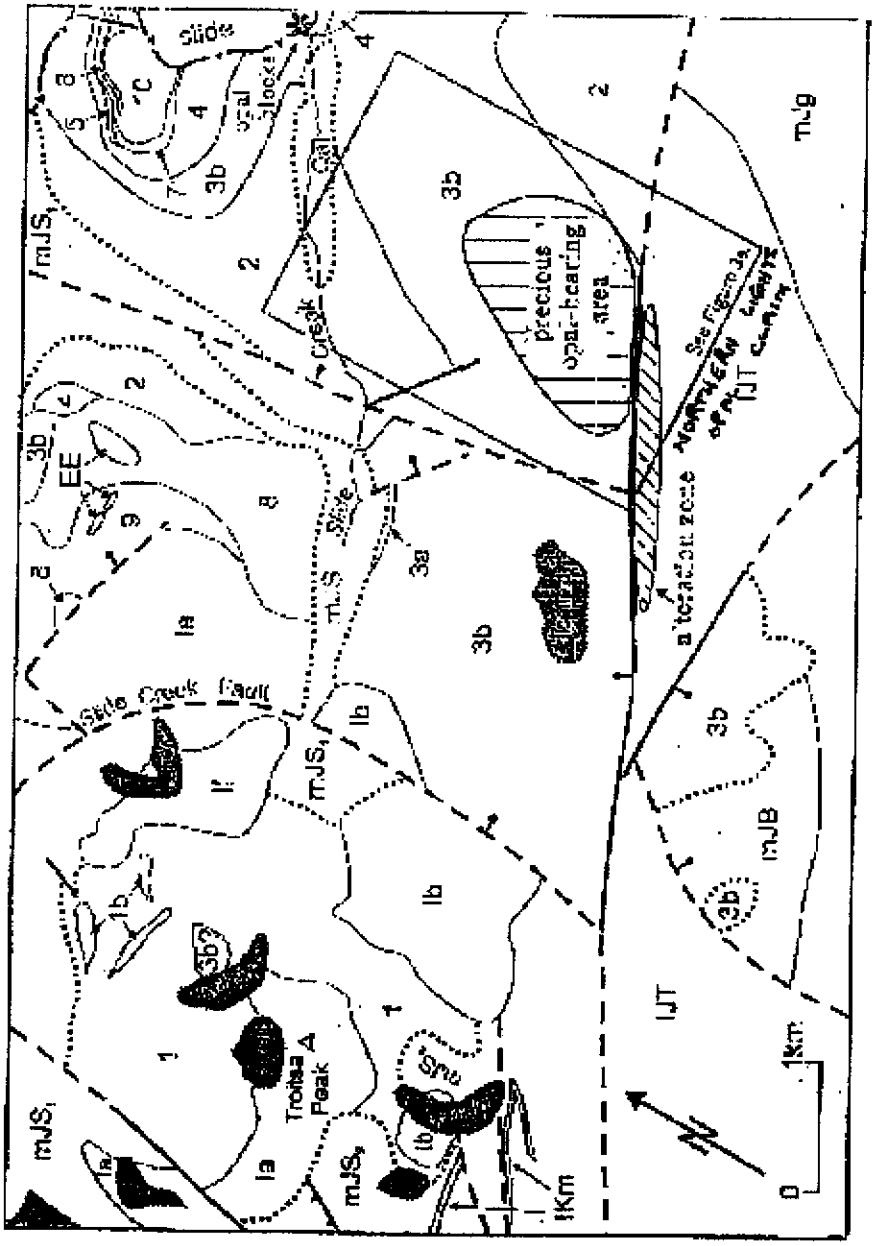


Figure 2. Geological setting of precious opal occurrences in the Whitecourt Range (modified from Hoskins and Mihalynuk, 1987a,b and Jenkins, 1991).

2001 FIELD SEASON PRSPECTING REPORT - NORTHERN LIGHTS

LOCATION AND ACCESS

The Northern Lights Opal claims are located in the Omineca Mining District in the Whitesail Mountain Range approximately 90 km by air south of Houston. The Razorback claims and Cummins Creek claims are located nearby to the west. The NTX mapsheets which correspond are 93E/10W and 93E/11E. Copies of the current Mineral titles mapsheets and topographical map are attached as Appendix A. The claims, except for Cummins Creek, are well above treeline with the nearest road access three km away. Access to the area is by helicopter from a pick up point reached by vehicle at the HFP Tahtsa Reach barge crossing or at the end of the logging road.

PROPERTY HISTORY

Surface showings of precious opal-bearing material were found in the Whitesail Range in the eighties and early nineties by Bruce Holden. In 1995 claims were staked. In 1996 a six week field season revealed further surface showings and in 1997 a five week field season resulted in more discoveries. The Northern Lights property was restaked in 1997 by the applicant with a four post twenty unit claim.

The 1998 field season summary consisted of 152 field days, 7 new claims staked and removal of an 800 lb. Sample for evaluation and market testing. A Prospectors Assistance Grant was received. Regional geologist Paul Wojdak along with BCGS Industrial Mineral geologist George Simandl visited the property in 1998.

In 1999 a 93 man day field season resulted in further precious opal discoveries on the properties; however an unusually large snowpack delayed priority trenching with a mini excavator. Localized continuity of the deposit was indicated and another 800 lb. Sample of better grade material was recovered.

REGIONAL AND LOCAL GEOLOGY

The Northern Lights property is located in the west-central party of the Intermontaine belt of the B.C. cordillera along the southern margin of a major east-northeast trending transverse tectonic belt known as the Skeena Arch. Rock units across the Intermontaine belt include upper Paleozoic to Miocene volcanics, sediments and intrusive rocks. The Hazelton group dominates the lithologies in this area. Volcanics of the upper cretaceous Kasalka and lower tertiary Ootsa Lake group were deposited in a series of basins across much of the area. This volcanic-tectonic episode is responsible for the development of most of the significant mineral deposits in west-central B.C.. Attached as Appendix C is a copy of a map of the geological setting and mineral deposits in the area.

Precious opal occurs at the Northern Lights property in debris flows hosted by the Ootsa Lake volcanics. Precious and common opal occur as open space fillings within fractures and vesicles in volcanic lahar and lapilli tuff units. Eocene-aged rhyolite and dacite flows, breccia, tuff, basalt and conglomerates also contain significant amounts of agate, common opal and zeolites. Hand trenching, drilling, cutting and sampling have exposed considerable distribution of units. This deposit appears to have tonnage potential of some size as indicated by the continuity of units across the structure.

The Whitesail area has many similarities with the Klinker deposit (Okanagan Opal) in terms of lithologies, age of host rocks, mineralogy and the presence of zeolites and celadonite. The deposition model of precious opal by surface or near-surface silica rich solutions appears valid as ICP analysis of opal bearing material from this property contain minimal metals. While hosted in volcanics, this model indicates a sedimentary process which could lead to improved recovery at depth and /or at contact with impermeable units.

WORK DONE

2001 Program Summary- July 25-September 2 (37 field days)

Personnel:

Bruce Holden	37 field days
Randy Lord	37 field days
Kary Lord	37 field days
Total	111 person field days

Prospecting work - 79 person days- ground search on all properties and some nearby areas
Surface sampling, flagging all in-situ precious opal surface showings
Physical work- 26 person days- hand and jackhammer trenching of priority areas, sorting and preparing specimens and samples in the field

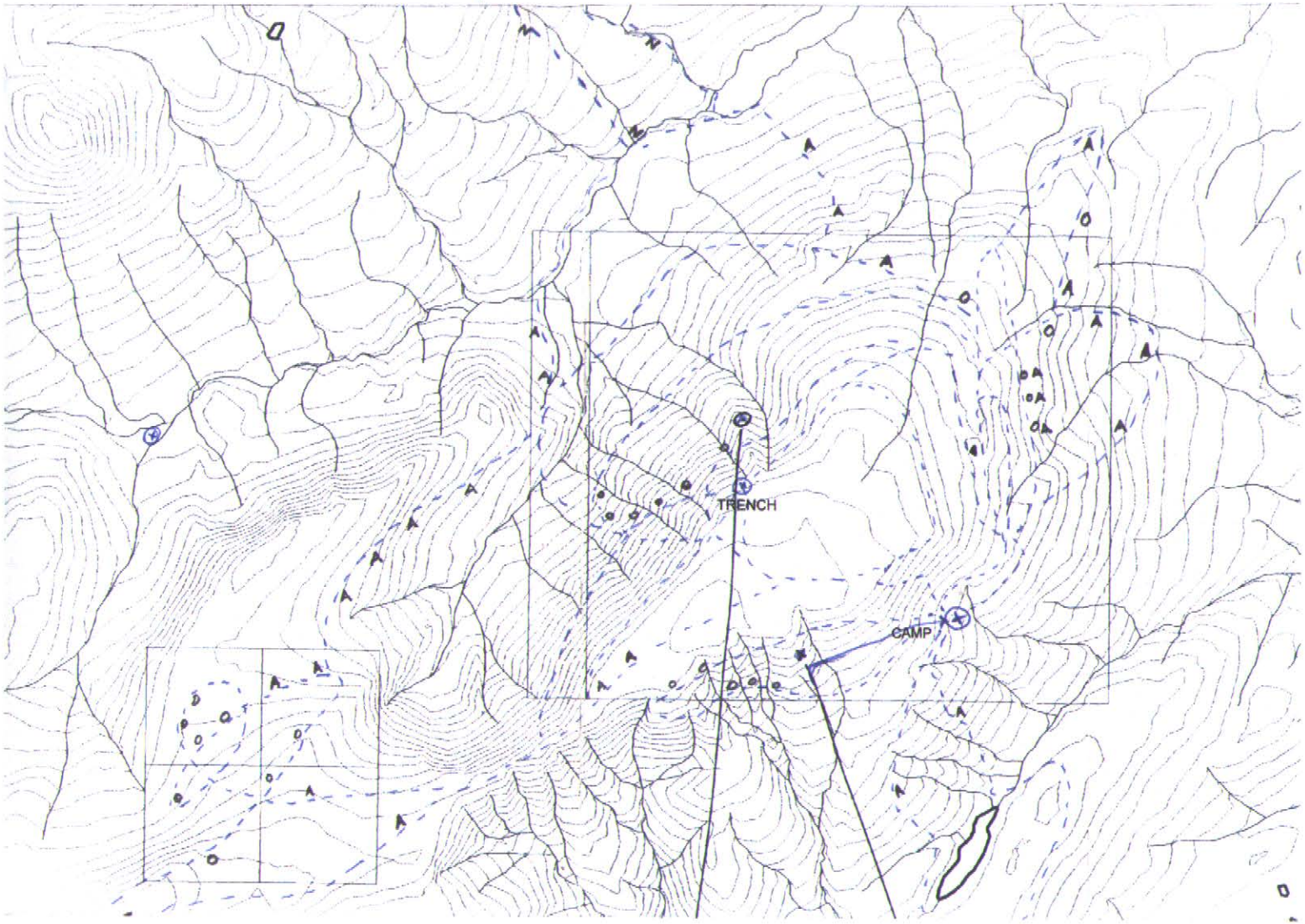
Miscellaneous work- 6 person days- camp related activities, reclamation work

RESULTS

Significant snow pack hampered prospecting results. Successful recognition of precious opal is dependant on its unique optical properties that require sunlight without rainfall. We found the concentration and quality of precious opal was as expected. Using the jack hammer the richer areas continued to show good opal while poor showings [redacted] remained poor.

Surface prospecting nearby ridges in areas east and northeast did not result in any further precious opal discoveries. The Razorback properties to the west were examined in areas where exposure of the outcrop was possible. Snow cover remained in those areas we wanted to work until the last days.

Whitesail Opal - Bruce Holden



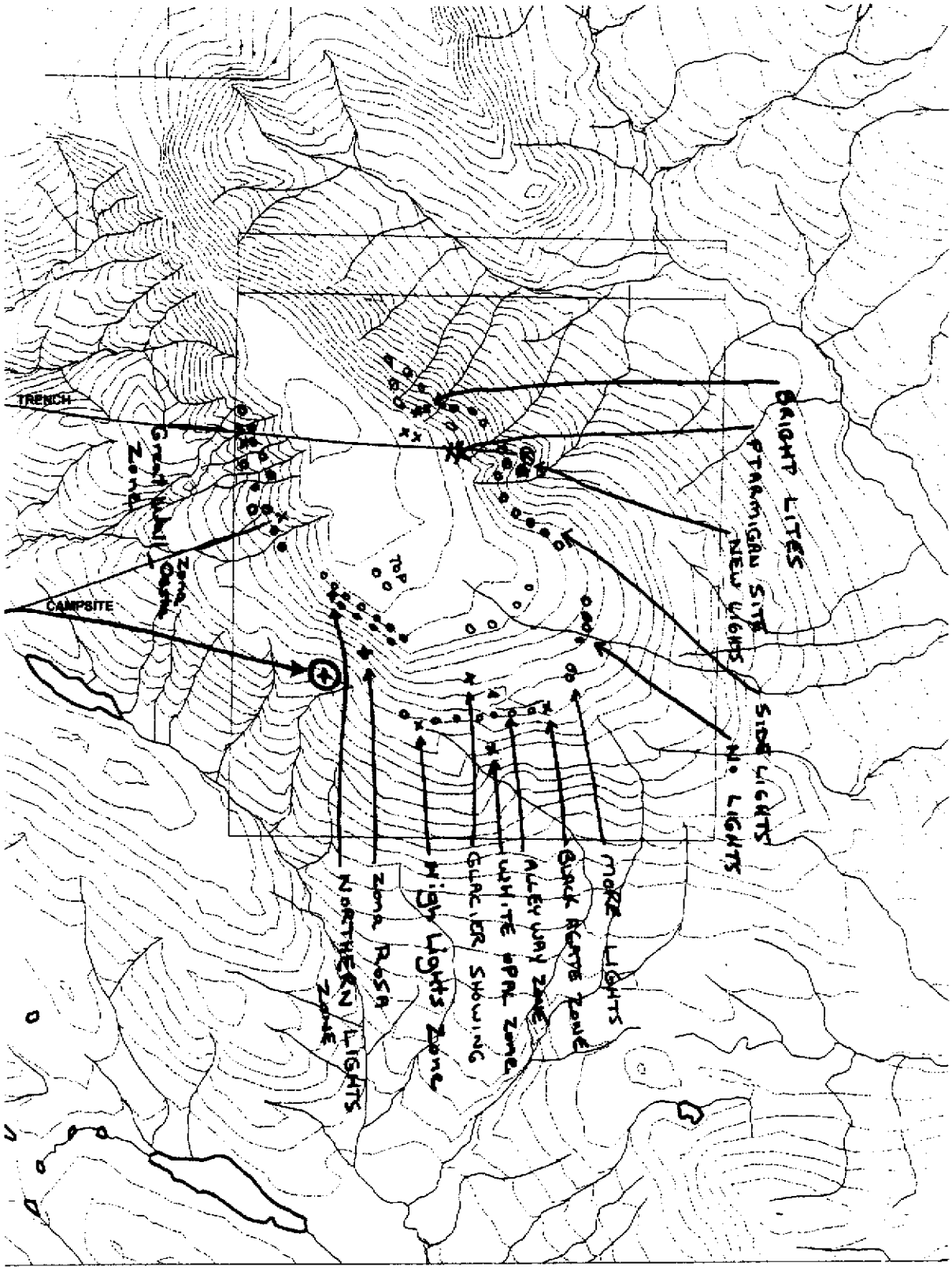
TRAVERSES 2001 A - Agate
O - opal
Z. zeolite

WHITESAIL PROJECT 2001

We started off this season at the end of the logging roads near Cummins Creek. These roads are just being made. We prospected up Cummins Creek, took note and sampled quartz carbonate zones in Hazelton volcanic rock. We saw where the road and bridge will cross the creek in the future. We traversed almost to our first post on the Cummins Creek claims. We noted that the carbonate zones seem more pyritic and have a more mixed gangue than the almost pure silica of the Cummins vein system. Future work in this area will be much easier with road access.

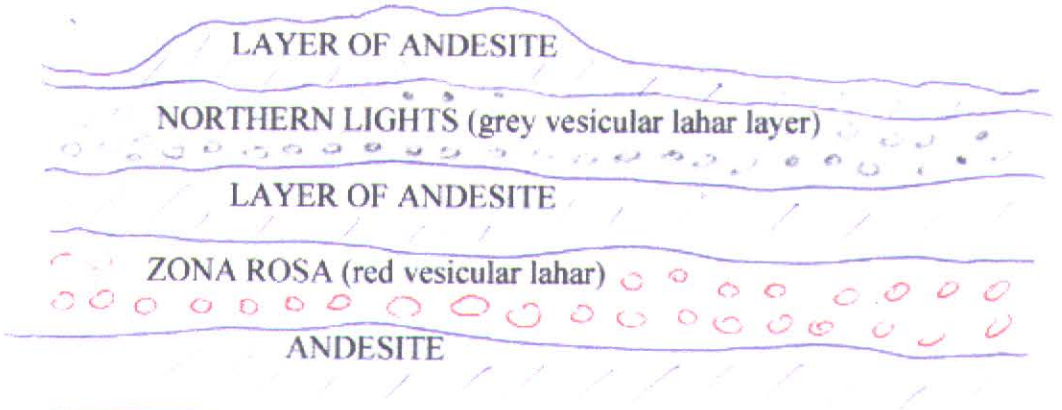
After finding a good spot to leave our vehicles we packed nets and got ready to be helicoptered into our main camp. We had a smooth trip in with gear and supplies. Once we got set up we got started on our search. We did traverses for the first while further afield and around areas that have shown some promise in past seasons. We had a very heavy snow pack this year and couldn't access some areas that have been clear in the past. Most of our traverses affirmed that the precious opal seems limited to an area outlined by the shape of this mountain. We have not found precious opal in this range of mountains other than this particular volcanic event (this flat-topped, steep eroded butte appearing mountain). In my study of other opal occurrences on the globe this similar mountain structure consistently hosts precious opal. We don't know if erosion has hidden or removed opal from areas surrounding this particular flank of the Whitesail Range. After spending the first part of the project time prospecting for new occurrences, we started out for Cummins Creek. Our Cummins excursion took five days from leaving camp to returning. We camped along Cummins Creek above the first big canyon going down and prospected out from there. We explored many new quartz veins showing up around the small hills to the west of camp. If these kick we will have easy access from the new road when it gets this far. We worked at exposing veins and sampling for minerals as well as crystal specimen samples. We had some of the best weather of August during these days and it really helped. We decided because of snow conditions and the deteriorating weather to abandon our plan to explore the moraine near Troitsa Creek. We stopped to examine the Razorback claims but all of our

showings were under snow. Some were never exposed this season. At this point the weather deteriorated and never really improved until we were moved out on September 2. We spent the last weeks prospecting, digging small holes and jackhammering into outcrop. Although we don't have any spectacular finds to report the areas showing precious opal continued to show to the depths we could dig. The areas of particular brightness continued bright and nodule size remained consistent. In the area of large white nodules when we encountered precious opal it was always tiny compared to the half-pound to several pound chunks of white common opal. Despite no great new finds this season we feel we did define this deposit and have a better understanding of its actual potential. We still are hoping to continue to explore this prospect and are planning to apply to build a trail from the closest road to camp as our next stage in developing this project. The short season continues to be a problem. With the trail we can work the low ground if conditions exclude us from working on the top. When the bridge goes across Cummins Creek we will access this area by road and continue our search further west. We have considered many ways to keep affording this venture.

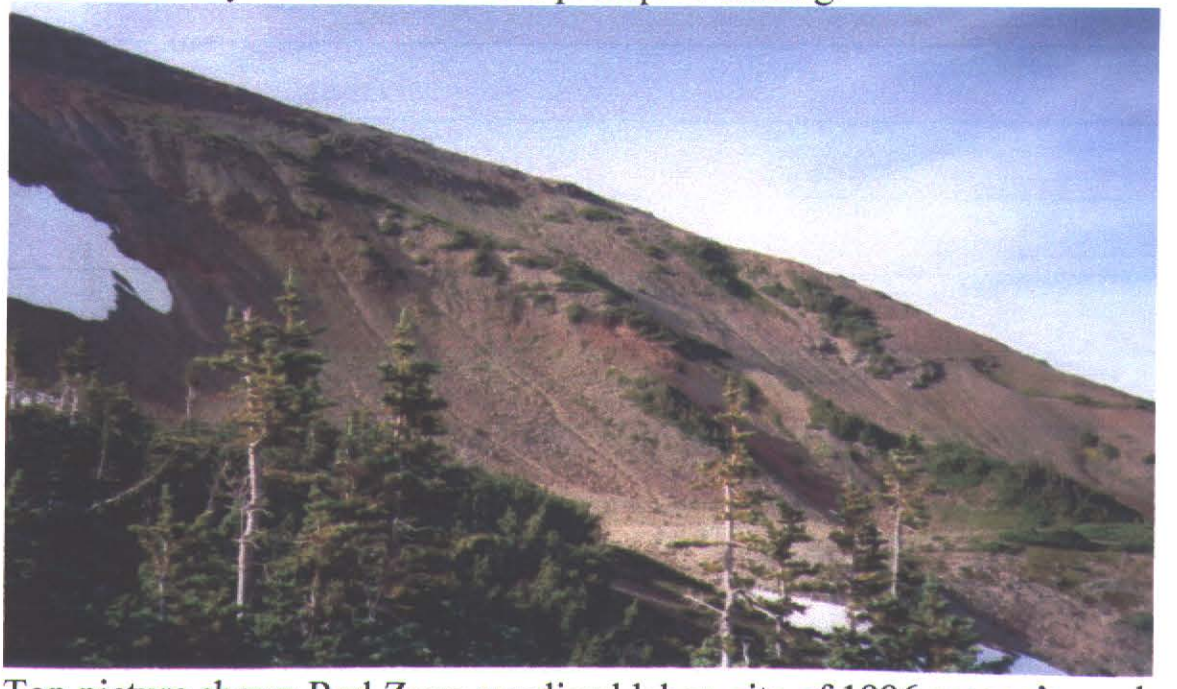

TRENCH
CAMPSITE
BRIGHT LITES
PTARMIGAN SITE
NEW LIGHTS
SIDE LIGHTS
NO. LIGHTS
MORE LIGHTS
BLACK ROCK ZONE
ALLEY WAY ZONE
WHITE APRL ZONE
GLACIER SHOWING
Night Lights Zone
Zona Rosa
NORTHERN LIGHTS ZONE

ZONA ROSA

This is the site of our first serious excavation. We spent a large part of our first season focusing on this dig and gathered a large pile of opal-bearing rock. Unfortunately this site is half way up a very steep mountain side and became more dangerous as we dug in and down. The material on both sides and much further along is mostly agate and common opal but is too steep to work on. This material is stable and comes in vesicles that are sometimes filled with precious opal, common opal, zeolites, agate, or are empty. The host material here is very oxidized, thus the name Zona Rosa.



This discovery named Zona Rosa prompted staking.



Top picture shows Red Zone oxydized lahar, site of 1996 season's work. Material is vesicle filling and occasionally seam or crack fill. Picture shows Red Zone outcrops again and all along.

Bottom picture showing Zona Rosa tailings

NORTHERN LIGHTS ZONE

This is a large, flat-lying lahar flow covering most of the face at the top of this flat topped mountain. As we are able to find the same layer on the top and a ways further on there is reason to believe this represents a large area. We spent a lot of our second year's work hand sampling this area. We proved that this lahar unit hosts precious opal over a very large area. This quality of flash is very good. This site was named from watching the Northern Lights flash right over the site, seeming to emanate from it. Then we found opal there next morning! We did what we call scalping (chip sampling). The material comes in grey and ashy lahar. We find nodules, crack filling flooded matrix, etc.. The host material is less solid than Zona Rosa.

Northern Lights Zone

Top picture : Cliff exposure is the Northern Lights zone Grey lahar with opal matrix, etc.

Bottom picture : Camp as seen from Zona Rosa-switchback trail to top of mountain. Picture shows Whitesail lake with Eutsuk lake in background north entrance to Twedsmuir park.

AGATE ALLEY AREA- numerous showings each with its own character

HIGH LIGHT ZONE- area of pinhead to pea sized nodules. Sometimes very brilliant. This material never seems to get very large but is stable. We spent some time digging here and have some beautiful stones.

ALLEY WAY- We have found erratic and unpredictable material along the alley way. Sometimes it's all agate nodules, usually pea sized, occasionally larger. We have found a few precious pieces up to one inch across and many common opal and agate pieces up to four or five inches.

BLACK AGATE ZONE- A lahar unit either grading into or up against a vesicular zone. The result is precious opal in the lahar area, fairly large nodules of black and brown agate and some brown and red precious opal at the contact.

GLACIER SHOW- Weathered lahar with precious opal in matrix and seam filling

WHITE OPAL ZONE-Large nodules of opaque white opal, much smaller nodules when precious opal occurs. The largest piece from this area showing good colour flash is just over one inch across and was very crazed. There are many showings in this area that carry precious opal but it is completely unpredictable.

MORE LIGHTS- Lahar showing pretty good material. We scalped this showing with hand tools. We planned to continue work but snow has not left this showing for the past few seasons.

NO LIGHTS- Lahar zone with some very brilliant but rare precious opal. Much of this material seems undersilicated or weathered to a white opaque vesicle filling opal.

Agate Alley from High Lights showing — Picture next page

Black Agate site—Agate Alley

SIDE LIGHTS- Area of lahar outcrop showing a large zone of precious opal potential. Mostly matrix with the occasional nice nodule under one inch in size.

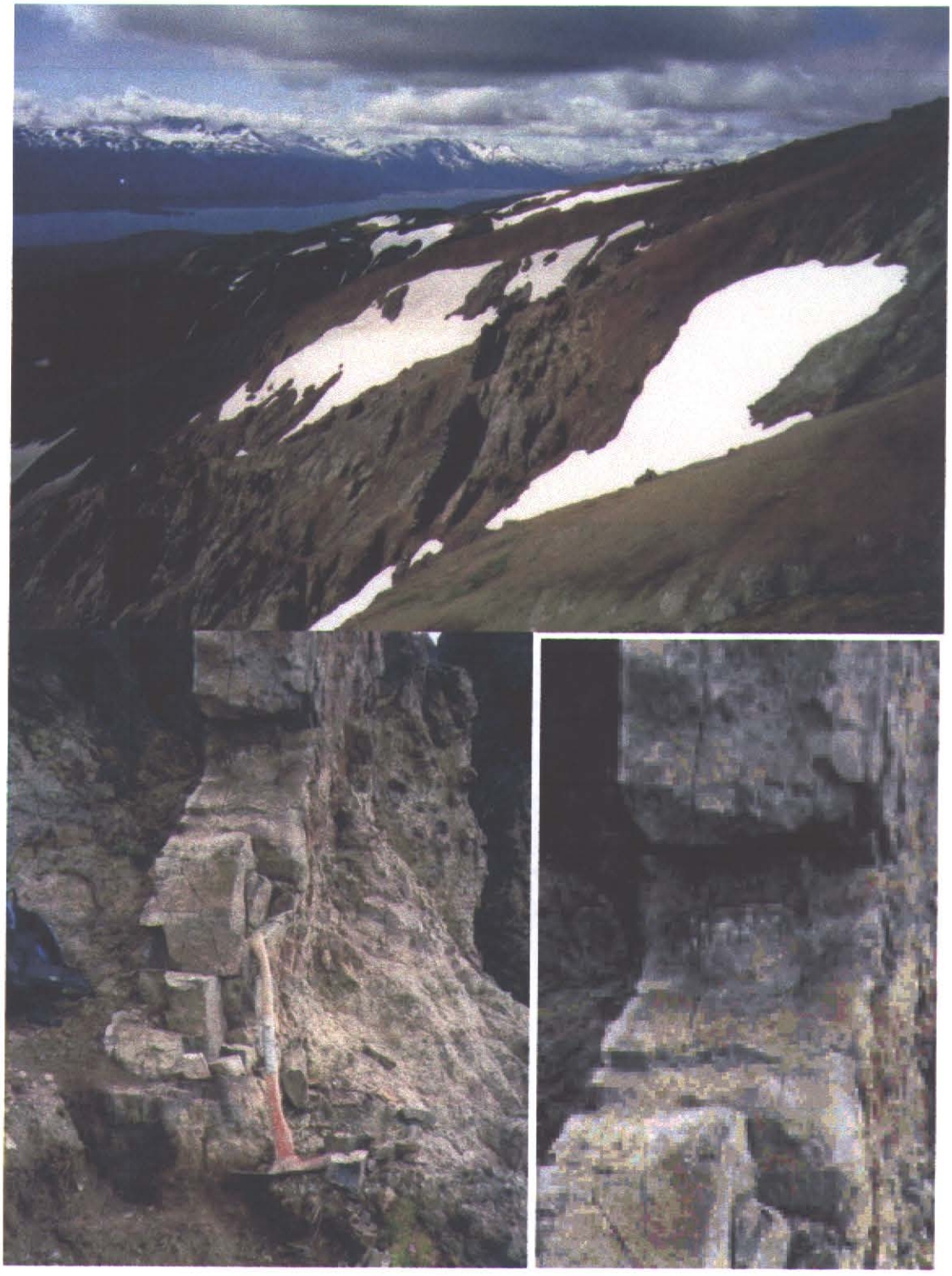
PTARMIGAN ZONE- This site has been our main focus for the past two field seasons. It is a nicely situated lahar with good material being mostly flooded matrix and some crack filling. The matrix is grey to black and a lot of the material is invisible when wet, beautiful when dry. Conversely some material is flashy when wet and then dries out to nothing. We have a nice face showing and an easy reclamation situation.

NEW LIGHTS- An area of steep lahar bluffs below Ptarmigan dig. We scalped some good material here and hope to have the opportunity of digging seriously on this site in the future

BRIGHT LIGHTS- Large area of lahar showing precious opal . Some work done this year proved this continuous over a fairly large area. Snow kept us out of some of this area-vesicles and matrix with good colour flash

ZONA OUESTA- More lahar with precious showings. So far we've only scalped this area. It has the same kind of material as the Northern Lights zone—grey to black lahar.

GREAT WALL ZONE- area of original discovery in 1982. This area is much different than most others. Opal is found as a crack filling in a dacite-andesite dike and in nodules in lahar at the edges of this dike. This area is very steep and the rock unstable and dangerous. We have not worked in this area very much as the conditions are not friendly.
Great Wall Zone—Site of original discovery. Opal as crack filling in dacite-andesite dike. – Pictures next page →



SALIDONITE AND LIMONITE
GREEN AND RED OXIDATION

PRECIOUS OPAL AS THIN SEEMS AND CRACK FILLING

COMMON OPAL
AS NUGGETS
ALONG CONTACT

SUMMARY AND CONCLUSIONS

We hope to continue to explore the feasibility of a serious mining proposition. The next stage would see some drilling and blasting to expose the lahar overhangs on the Northern Lights, the Bright Lights and the New Lights. There are many other zones that need to be explored but these would give more bang for the buck. The logging company has got its road as close as they plan to come so it is time for us to make an access trail, and not need helicopter support any longer. We have been doing this venture on our own and with the support of the Prospectors Assistance Grants, as well as a small revenue from opal sales. We haven't made profit or wages as yet but realize this takes time. We are at the stage of considering a partner, joint venture or perhaps an option. Whatever happens we would prefer to stay involved as operators and crew. We are open to proposals at this time.

GLOSSARY

Agate- volcanic silicate without water content

Andesite- volcanic porphry with lighter minerals

Common Opal- volcanic silicate without colour flash

Craze- unstable opal develops a series of crack lines with drying

Dacite- volcanic porphyry with dark minerals, biotite mica, etc.

Flooded matrix- here referring to host rock which has opal flooded into the spaces wherever it can (still unclear whether silica was a part of the host or came dissolved in ground water)

Gangue- group of minerals that usually accompany quartz in veins

Lahar rounded vesicular boulder, glued together with ash or flow. Can change to small pieces or huge boulders erratically.

Nodules- solid, glassy opal or agate pieces from vesicle filling of host

Oxidized- minerals present are attacked by oxygen and become limonite (red) or salidonite (green)

Precious Opal- volcanic silicate with electric colour flash

Scalping- on our first pass we chipped precious opal with hammer and chisel to assess its quality and concentration

Stable- Opal that does not craze when dried

Vesicle- a hole, void, or empty pocket

Vesicle filling- some material has been introduced theoretically by ground water precipitation, producing opal, agate, zeolite, etc..

Zeolite- soft calcium based filling in vesicles

Ptarmigan Dig Site

Site chosen to dig in is safe and easy reclamation

Note lahar boulders—opal occurs as space fillings and included in boulders as matrix material

Ptarmigan Dig Site —Core drilling to salvage good matrix pieces

Angling core drill for in place sampling

Ptarmigan Dig Site
Using saw to cut out good material

Clearing overburden from outcrop

OPAL MATRIX

These pictures show Common Opal in place, with Chunks of white common opal from Agate Alley area.

Bright Lights Zone

Sampling with Jackhammer

Side Light Area

Breaking into lahar outcrop

D. TECHNICAL REPORT

BRITISH COLUMBIA
Ministry of Energy and Mines
Energy and Minerals Division

- One technical report to be completed for each project area.
- **Refer to Program Regulations 15 to 17, page 6.**

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the *Freedom of Information Act.*

Name Bruce Holden Reference Number 0200485

LOCATION/COMMODITIES

Project Area (as listed in Part A) Whitesail MINFILE No. if applicable

Location of Project Area NTS 093 E 11 E, 93E10W Lat 59 35 42 Long 126 02 30

Description of Location and Access Drove to closest spot on the Whitesail Main Logging road, Helicopter moved us into camp and back out again. Northern Lights claim

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)
Randy Lord - Partner for six years on this project - Kary Lord - Came along to labour and help with project.

Main Commodities Searched For Opal - Northern Lights Razorback areas
Au, Ag, Cu etc specimen qtz - Cummins claim area

Known Mineral Occurrences in Project Area
Many showings between Deerhorn mine + Huckleberry

WORK PERFORMED

1. Conventional Prospecting (area) Area of Claims and Surrounding Area
2. Geological Mapping (hectares/scale)
3. Geochemical (type and no. of samples) 14 samples - I.C.P.
4. Geophysical (type and line km)
5. Physical Work (type and amount) Cobra Jackhammer - 19 sites
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

FEEDBACK: comments and suggestions for Prospector Assistance Program The prospectors Assistance program has made a bid difference in our ability to bring the Northern Lights claim to a next stage. We are hoping to find a company or individual with mining experience in the Opal world to assess this property as we have proven it. If we can find a financial partner we will be able to move it forward faster. If not we will continue to work on it when possible. Without the help of Prospectors Assistance we surely wouldn't have gotten it to this stage so quickly if at all.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- **Supporting data must be submitted with the following TECHNICAL REPORT or any report accepted in lieu of.**

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

Name Bruce Holden Reference Number _____

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

South east flank of Troitsa peak and area Whitesail Mountains

2. PROGRAM OBJECTIVE [Include original exploration target.]

We are assessing the Northern Lights Opal claim to determine concentration quality and minability of this opal.
We are assessing the Cummins Crk claim for minerals and for collectable crystal.
The razorbacks remained under snow for this season.

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

Prospecting around area of Northern Lights claim turned up zeolites, agate and common opal But we didn't find precious opal off claim. We did infill and find new showings of precious opal within claim boundaries.

Prospecting around area of Cummins Crk we found many new viens of Qtz with pyrite and occasional calcopyrite. The results from geochem analyses were minimal and we are letting these claims drop.

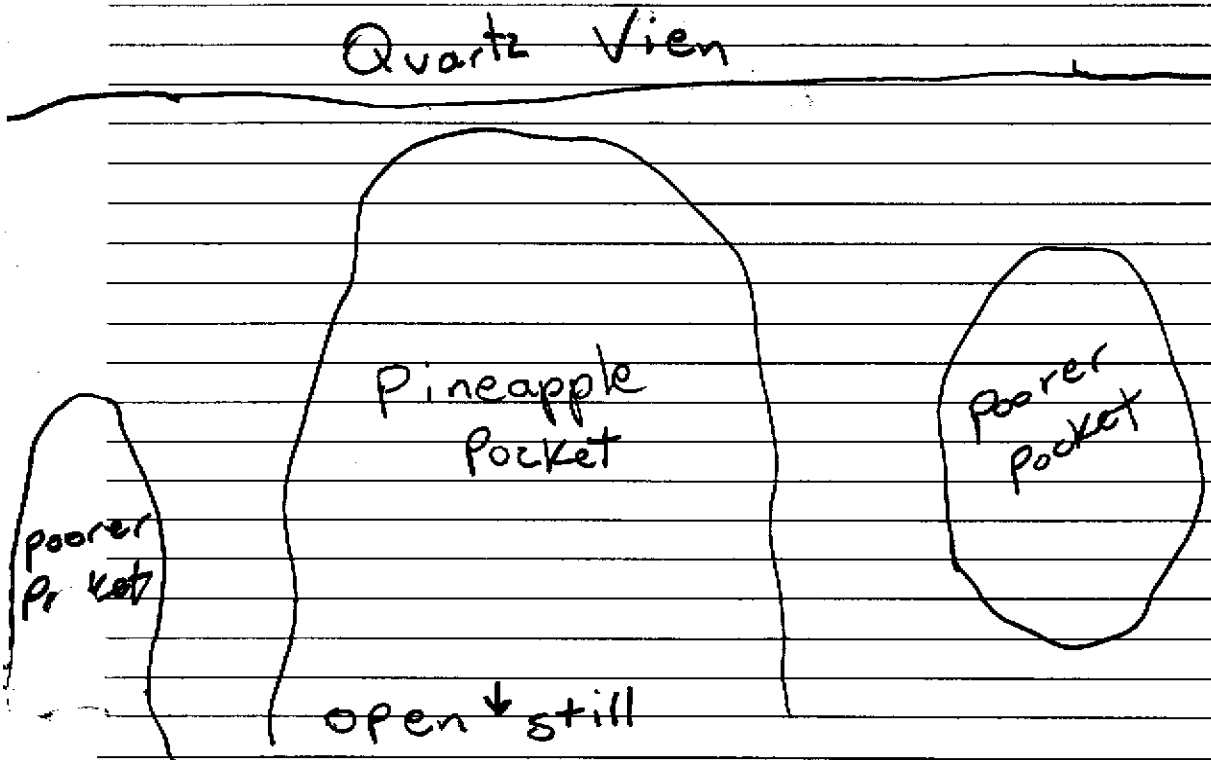
Prospecting with a jack hammer proved many showings of precious opal to be continuous and consistant.

BRITISH COLUMBIA

3. PROSPECTING RESULTS (continued)

Results from Cummins area were disappointing and we have decided to put this area on hold till the Logging road crosses Cummins Crk and we can continue our search on roads and using them to get us to new areas.

Our digging into the Cummins crystal viens proved that these pockets are erattic and not always of quality material. Our main dig this year was a vien we discovered and sampled in 1999. We extracted approximately 200 pounds of good material which we took out by helicopter. Although this is valuable collectable material. The quantity, method of extraction and transport proved to make this uneconomical at this time. We also found more crystaline veins at a much better area for access. When the bridge is over Cummins Crk. It might be worth getting back here.



D. TECHNICAL REPORT (continued)

REPORT ON RESULTS (continued)

4. GEOCHEMICAL RESULTS [Describe all survey types done (rock, soil, silt) and their objective. Show clearly on accompanying map(s) of appropriate scale all sample sites along with all significant values. Any anomalous areas should be indicated on maps by the use of contouring, variable symbol sizes, or some other suitable technique. Include a discussion/interpretation of results. A copy of analysis/assay certificates **must** be included with sample numbers from map. Details of individual rock samples taken are encouraged. Significant geochemical values obtained must be stated.]

We took a total of 14 samples of Qtz viens encountered. Each of these were new to us and appeared promising. Unfortunately the results were discouraging and we have decided to concentrate our time and energy on Opal again as we have a clear target.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS (continued)

5. GEOPHYSICAL RESULTS [Specify the objective of the survey, the method used and the work done. Discuss the results and show the data on an accompanying map of appropriate scale. Any anomalous areas must be indicated on maps by the use of contouring, or some other suitable technique.]

5. OTHER RESULTS [**Drilling** - describe objective, type and amount of drilling done. Discuss results, including any significant intersections obtained. Indicate on a map of appropriate scale the drill-hole collar location, the angle of inclination and azimuth. Drill logs correlated with assay results must be included. **Physical Work** - describe the type and amount of physical work done and the reasons for doing it (where not self-evident). This includes lines/grids, trails, trenches, opencuts, undergound work, reclamation, staking of claims, etc. Discuss results where pertinent.]

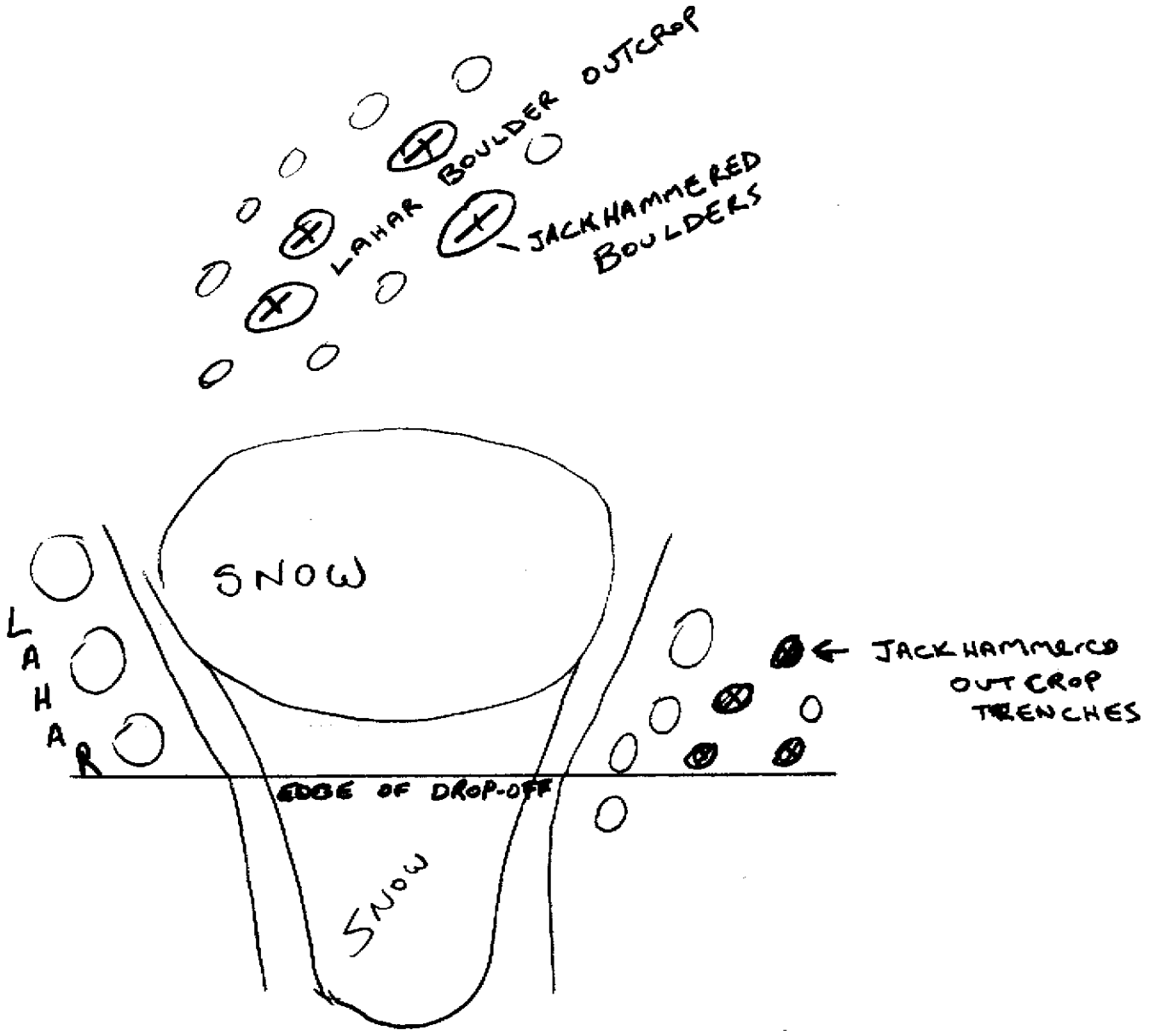
Proving the extent of each showing has been a major focus that we have persued with the intention of getting an idea of the size of each showing and it's relationship to other showings The more we work on this claim the more we fill in gaps. It appears at this time. that there is leither several flat lying sheets representing a different flow for each layer or seperate Lahars units tumbling down ravines on the edge of flow. We still haven't got this clear. We do know that we have filled in many holes and it sure looks like a layer cake with each layer identifiable with it's signature — colour texture etc.

Signature of Grantee Bruce Holden Date Dec. 2001

Signature of person filling out Final Prospecting Report if other than grantee _____

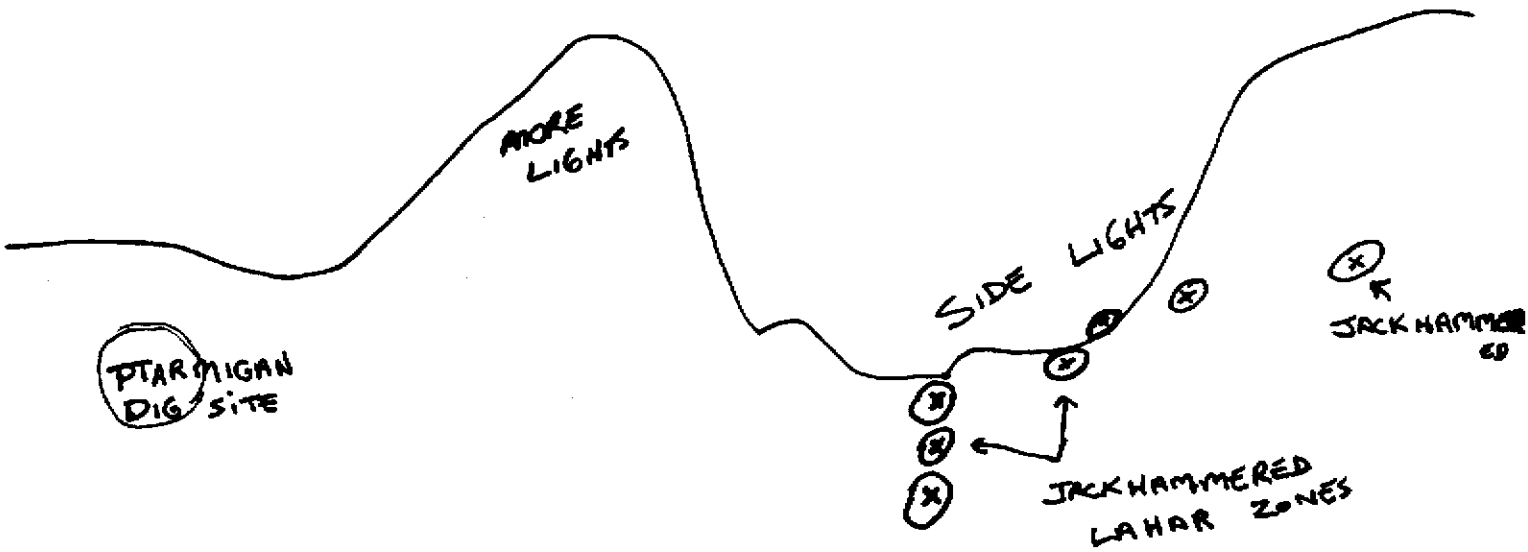
2001 Whitesail Opal Project

Trenching Areas : Bright Lights - 8 sites sampled
2 sites never cleared of snow



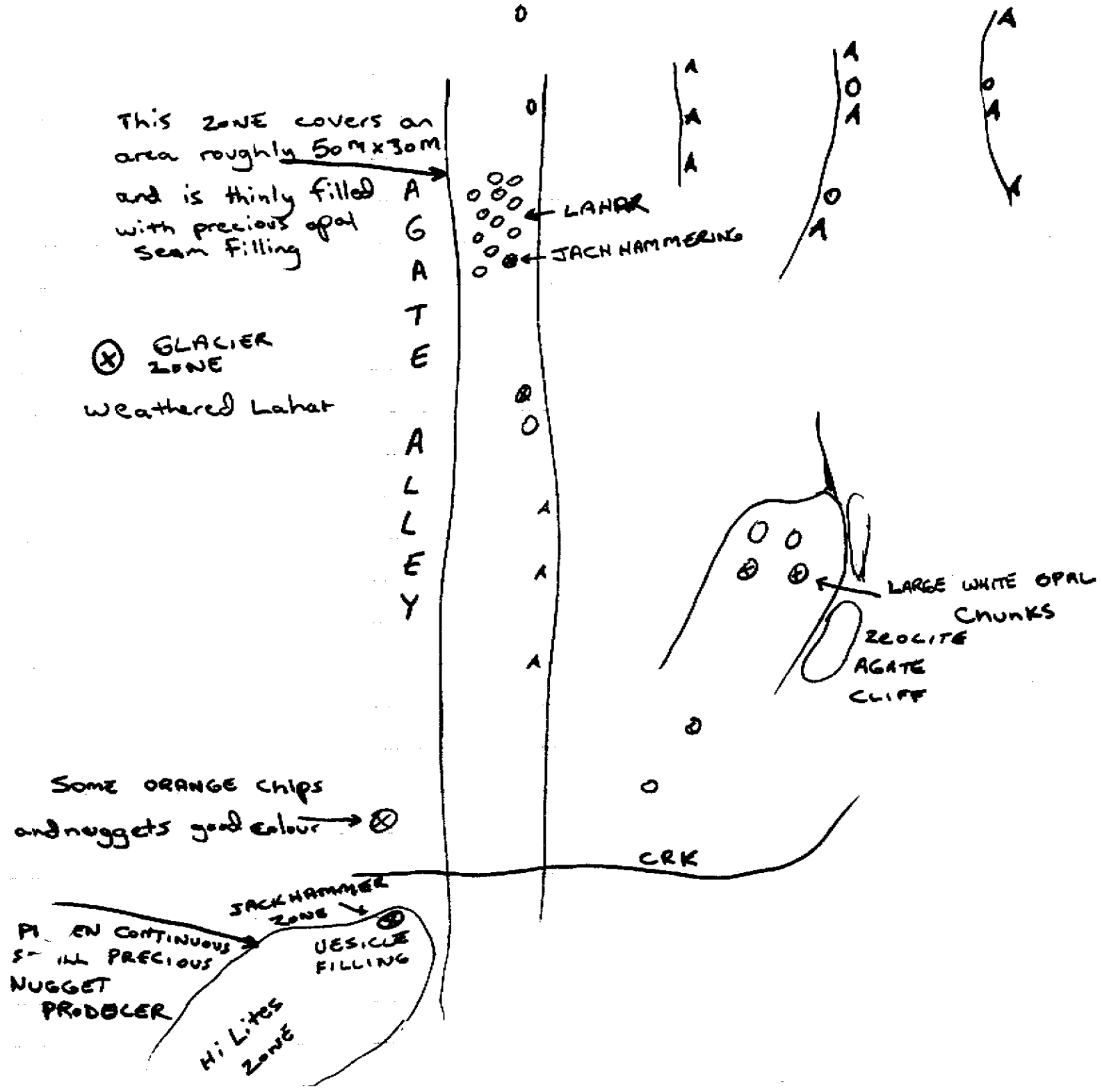
2,001 Whitesail Opal Project

Trenching Area: Side Lights - 6 sites sampled



2.001 Whitesail Project

Trenching Area : Agate Alley - 5 sites sampled



Personnel Biographies:

Bruce Holden

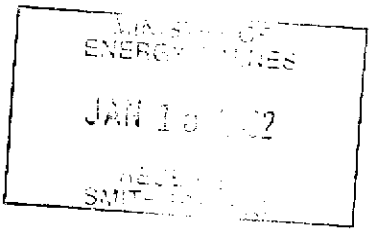
Completed advanced prospectors course in 1981. Has worked throughout the Northwest including the Toodoggone and Iskut regions. Involved in prospecting and staking for minerals and metals as a main occupation for 19 years. Co-founded Atna Resources with Tom Richards and has performed extensive field work. Presently resides on Denman Island, B.C. and while exploring independently and supplying mineral and fossil specimens to the wholesale trade remains dedicated to the exploration industry.

Randy Lord

Has worked in petroleum exploration and development in over 8 counties around the world and holds 2 Magna Cum Laude diplomas from BCIT. Started collecting rocks and minerals 39 years ago and learned lapidary skills at the largest Vancouver based club 25 years ago. Has extensive knowledge of BC locations and currently resides in Burnaby , B.C.

Rec'd Jan. 9, 2002

PROSPECTING REPORT
Cummins Creek Mineral Properties 2001



Cummins #1 Record Number 681805

Cummins #2 Record Number 681806

Cummins #3 Record Number 681807

Omineca Mining District
Whitesail Range
9 3 E 1 1 E

543542 126 02 30

Owner: Bruce Holden
1111 N. Central Road
Denman Island, B.C. VOR ITO

Authors: Bruce Holden
Randy Lord

PROSPECTING REPORT
Cummins Creek Mineral Properties 2001

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PROSPECTING REPORT - CUMMINS CREEK - 2001

INTRODUCTION

Two prospectors examined the property for five days in the 2001 field season. Quartz veins were exposed and examined for enrichment and alteration zones and samples were taken. Several hundred pounds of high quality quartz crystal specimens were taken out by helicopter at the end of the field season.

LOCATION AND ACCESS

The Cummins Creek claims are located in the Omineca Mining District on the south flank of the Whitesail Mountain Range some 95 kin south of Houston, B.C. Copies of the current mineral titles reference maps and topographical map are attached as Appendix A. The claims are located at approximately 3,000 feet in elevation with snow cover from mid-September until July. Access to the area is by helicopter only from a pick up point reached by vehicle at the Tahtsa Reach barge crossing. The claims are in the steep canyons and mountainside along Cummins Creek. New logging roads have reached the creek and provide access to the lower area.

PROPERTY HISTORY

In 1998 Bruce Holden staked three claims in the Cummins Creek area to cover a set of large quartz veins that had proven anomalous in earlier samples. Union Carbide and Canamax had explored the area briefly in the early 1980's in a quest for epithermal gold deposits. The Cummins claims cover three units as follows:

CLAIM	RECORD No.	TYPE	UNITS	OWNER	RECORDING DATE
CUMMINS #1	681805	2 POST	1	B. Holden	August 27, 1998
CUMMINS #2	681806	2 POST	1	B. Holden	August 27. 1998
CUMMINS #3	681807	2 POST	1	B. Holden	August 27, 1998

In 1998 grab samples were taken from a series of quartz veins and results although not dramatic indicated further assessment work was needed. In 1999 a three day field season resulted in further grab samples and several hundred pounds of specimen quartz crystal pieces being collected. A copy of the completed Notice of Work form is included as Appendix B.

Pineapple crystal pockets uncovered.

Another Pineapple site.

REGIONAL/LOCAL GEOLOGY

The Cummins Creek properties are located in the west-central part of the Intermontaine belt of the B.C. cordillera along the southern margin- of a major east-northeast trending transverse tectonic belt known as the Skeena Arch. Rock units across the Intermontaine belt include upper Paleozoic to Miocene volcanics,, sediments and intrusive rocks. The Hazelton group dominates the lithologies in this area. Volcanics, of the upper cretaceous Kasalka and lower tertiary Ootsa Lake group were deposited in a series of basins across much of the area. This volcanic-tectonic episode is responsible for the development of many significant mineral deposits in west-central B.C. Attached as Appendix C is a copy of a map of the mineral deposits and showings in the area.

On the Cummins claims numerous quartz veins in a northwest-southeast trending zone are exposed in the creek bed and along the canyons until they disappear into the mountain terrain. The veins are up to three meters in thickness, are exposed for lengths up to 100 meters and can be traced for distances up to three hundred meters. The best developed veins appear to strike generally northerly and dip vertically or at steep angles to the east. A map showing quartz veins and sample locations is attached as Appendix D.

WORK DONE.

Prospectors Randy Lord and Bruce Holden spent five days each from August 13 to 17 collecting samples and mapping veins. Access to the property this season came via a traverse from our main camp and surface exposures along route were examined. A topographical map showing these traverses is included in Appendix A. Prospecting in the Cummins Creek drainage upstream from the property yielded minor float specimens. No quartz veins were noted. The quartz veins on each of the claims were examined and sampled. Veins were examined for enrichment with hand exposure wherever possible. The work this year was to take rock samples of quartz veins and country rock alteration zones where breccia quartz flooding was noted. Surface prospecting down the canyon and up the slope was accomplished where safely possible. A large amount of specimen material was extracted and left beside the vein as no method was available to remove the pieces from this location. Choice specimens were taken out by backpack, and at the end of the field season we picked up more specimens by helicopter. Interest from museums and collectors has prompted us to clean and prepare specimens for display and sale. On a traverse west of the clam area we encountered many new and large veins of quartz, some crystalline.

Standing quartz vein alongside Cummings Creek.

Mineralization alongside creek.

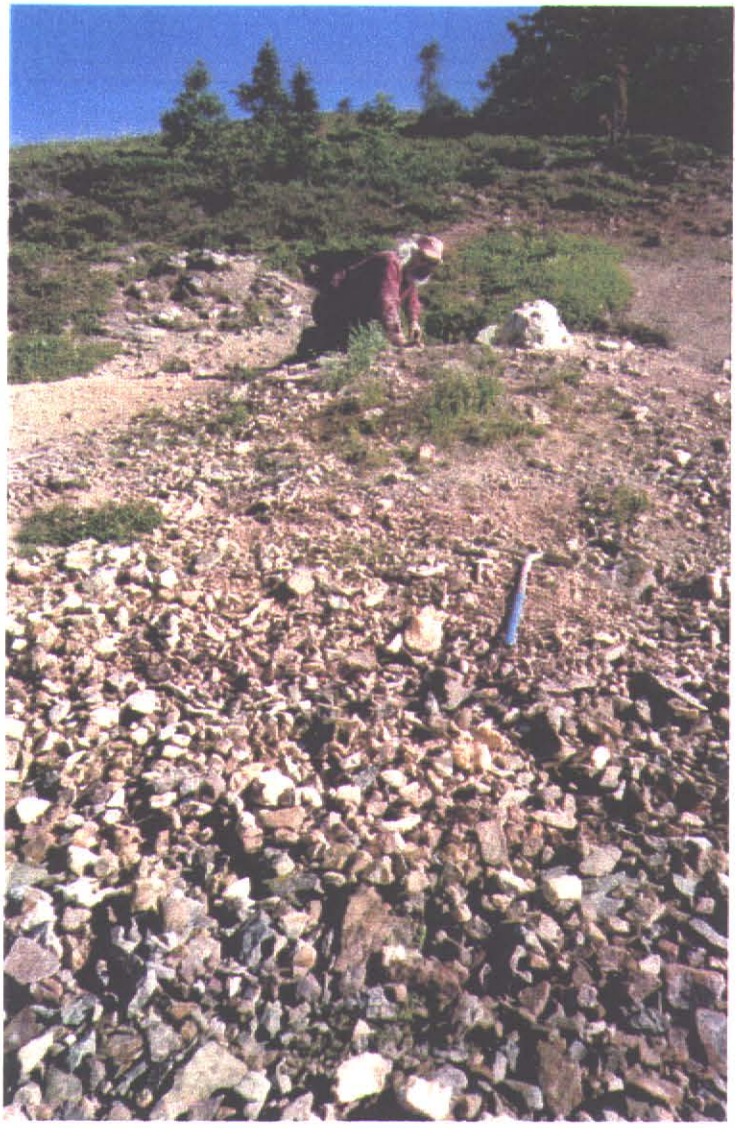
CUMMINS CREEK

Site of the Pineapple Vein
To the Left of the Big Rock

PINEAPPLE CRYSTAL
POCKET

Marmot Vein

Marmot has dug out crystal pocket and dumped it off the edge



Below: Crystal Float

Daily Sample Report:

August 13 2001 We traversed from camp to Cummins camp.

Cummins B # 1 – Large area of kaolin and carbonate alteration. Sample is quartz with minor bornite chalcopyrite.

Cummins B #2- Calco in silicified grey-black fine grained rock. Gossan Zone local float talus pile. Got to camp, set up and then went down to crystal vein.

August 14, 2001 Randy worked on crystal pocket, Bruce traversed the north and east side of the claims. Very steep ground. Steep talus hills from steep outcrop faces. Grey volcanics with little chlorite pockets and minor pyrite.

Cummins B #3 - alteration zone quartz vein material

Cummins B #4 - White altered country rock with quartz and minor sulphides

Cummins B #5 - Quartz vein with minor pyrite

August 15, 2001 Prospected up side creek by camp. Quartz stringers and pyrite, lots of large quartz rock.

Cummins B #6, sample of altered outcrop.

Cummins B #7 large quartz vein and alteration zone.

Cummins B #8 higher on same creek, mineralized zone is five meters wide.

Cummins B #9 Quartz vein with minor pyrite on top of ridge.

Cummins B #10 beside small. Creek flowing out of a little lake, pyrite and quartz.

Cummins B #11 around little knob, pyritic alteration. many crystalline quartz veins in this area.

Cummins B #12 backside of knob,, lots of quartz boulders.

August 16

Cummins B # 13 from the pineapple crystal vein.. We worked on the vein, gathered crystal specimens, filled the hole back in and packed our material to where it could be picked up later.

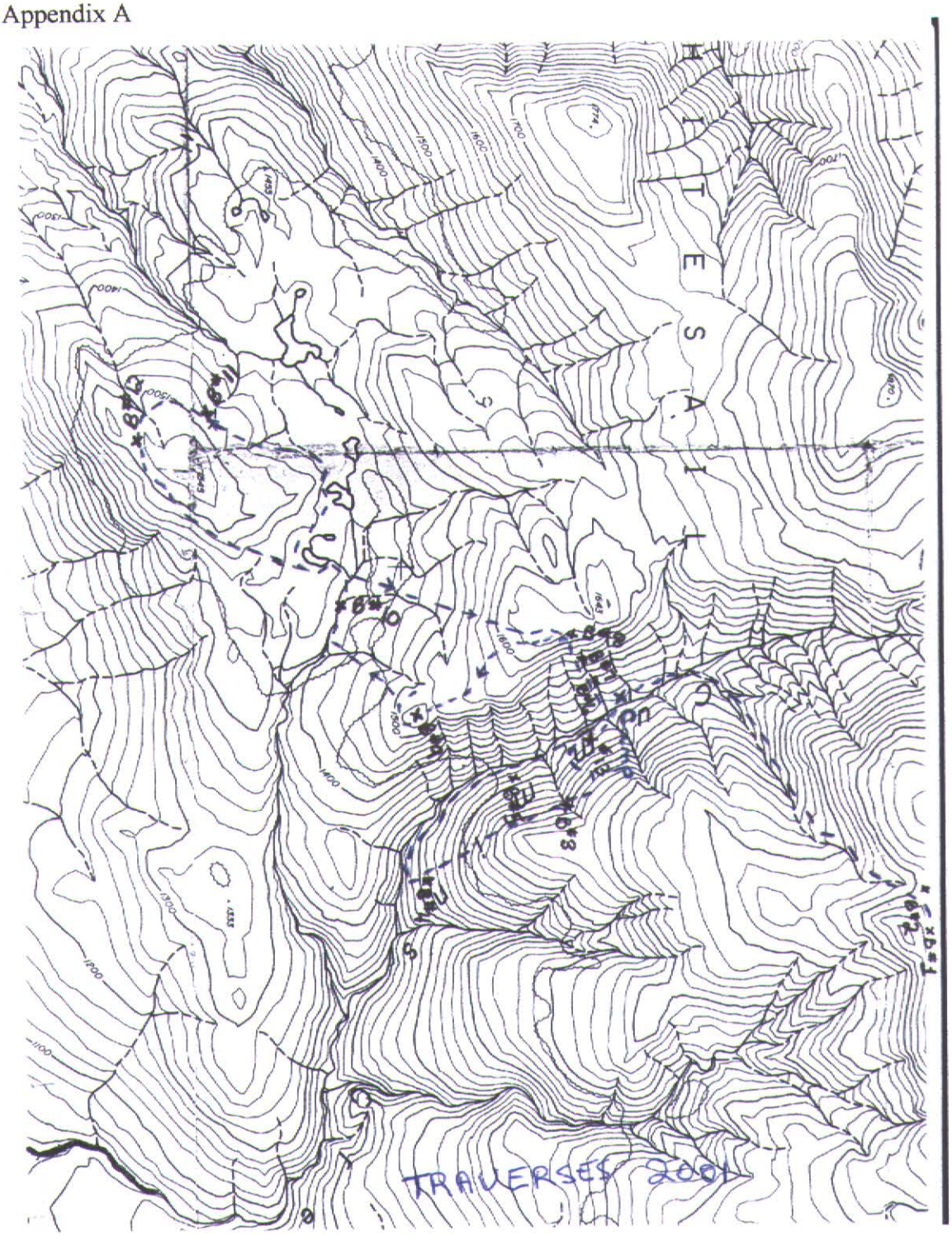
August 17
Weather deteriorating. Broke camp and headed to Razorback claims. Too much snow to do any work here yet. Headed back to the Ptarmigan and returned to camp by dark.

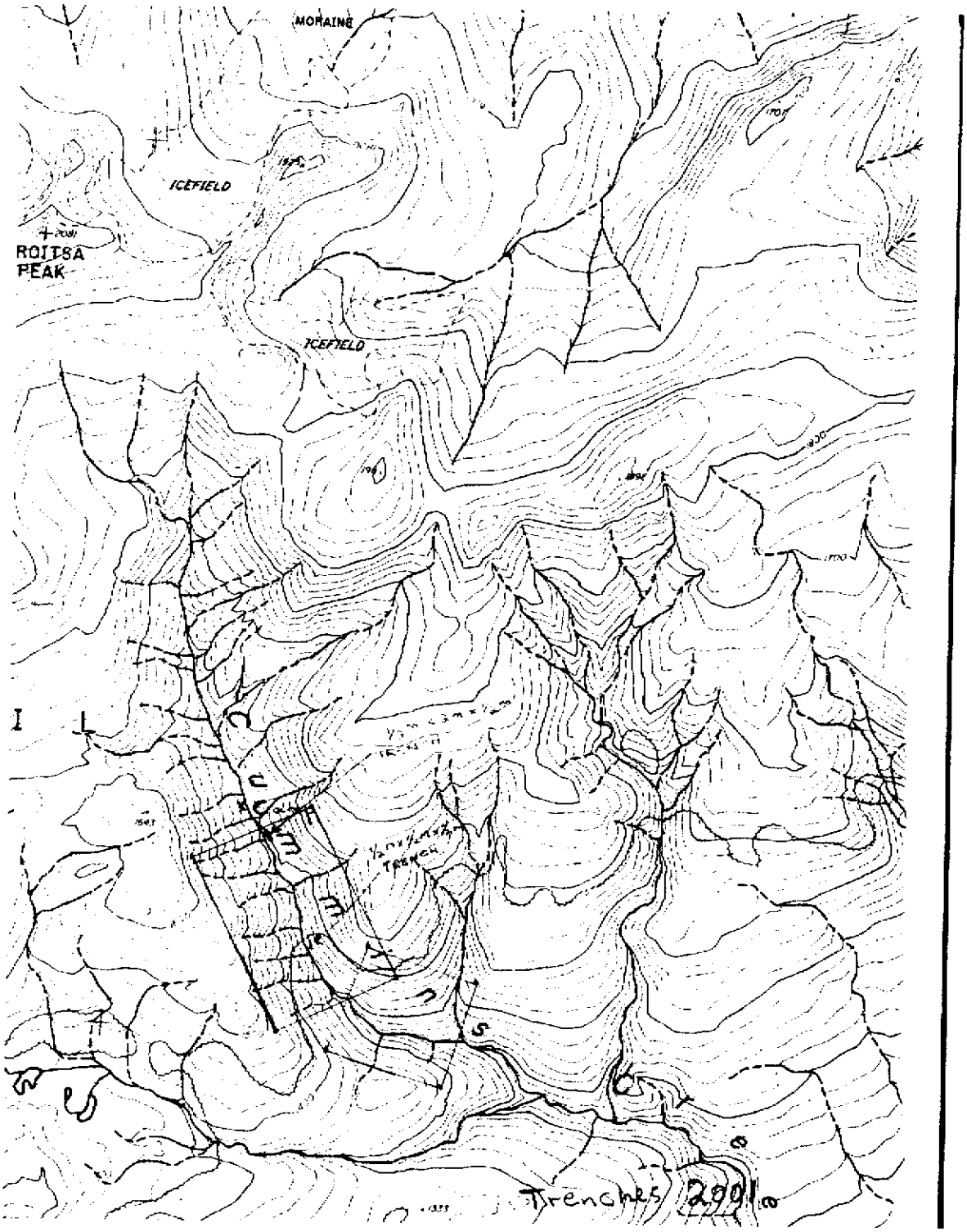
Cummins Creek Conclusions

Many large exposed quartz veins were examined and sampled but we were unable to find any appreciable metallic values. We found some well altered pyritized rock but ore grade veins eluded us. Assay results were not encouraging but better access through forestry development indicates that this property should be warehoused for option or sale.

Continued interest and promotion of the Pineapple quartz crystals from collectors and museums has shown this unique form of quartz to be desirable. However crystal pockets are rare and isolated. Economic specimen mining is difficult however limited collection is possible.

Appendix A

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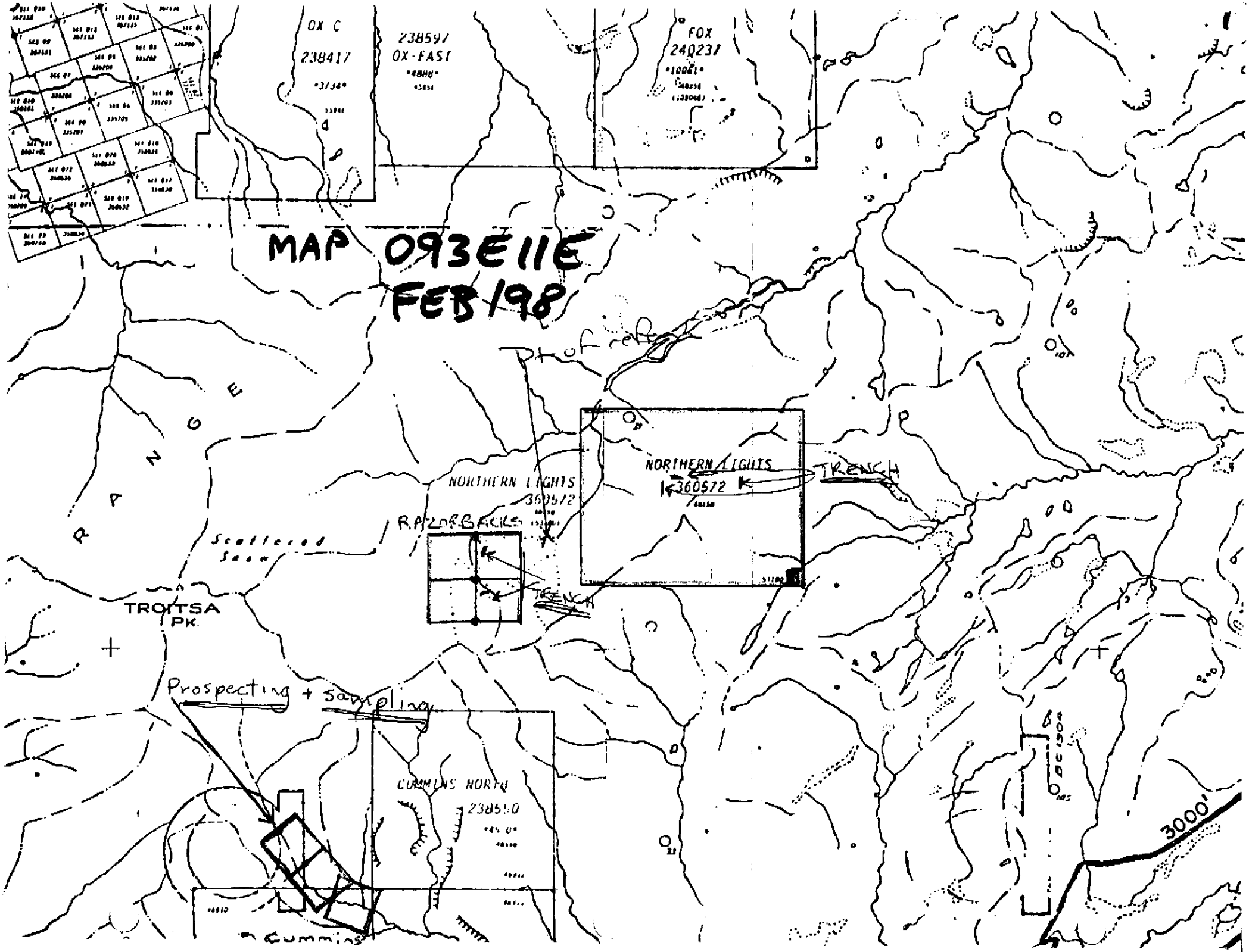
ICEFIELD
ROLLSA PEAK
ICEFIELD
Trenches 2001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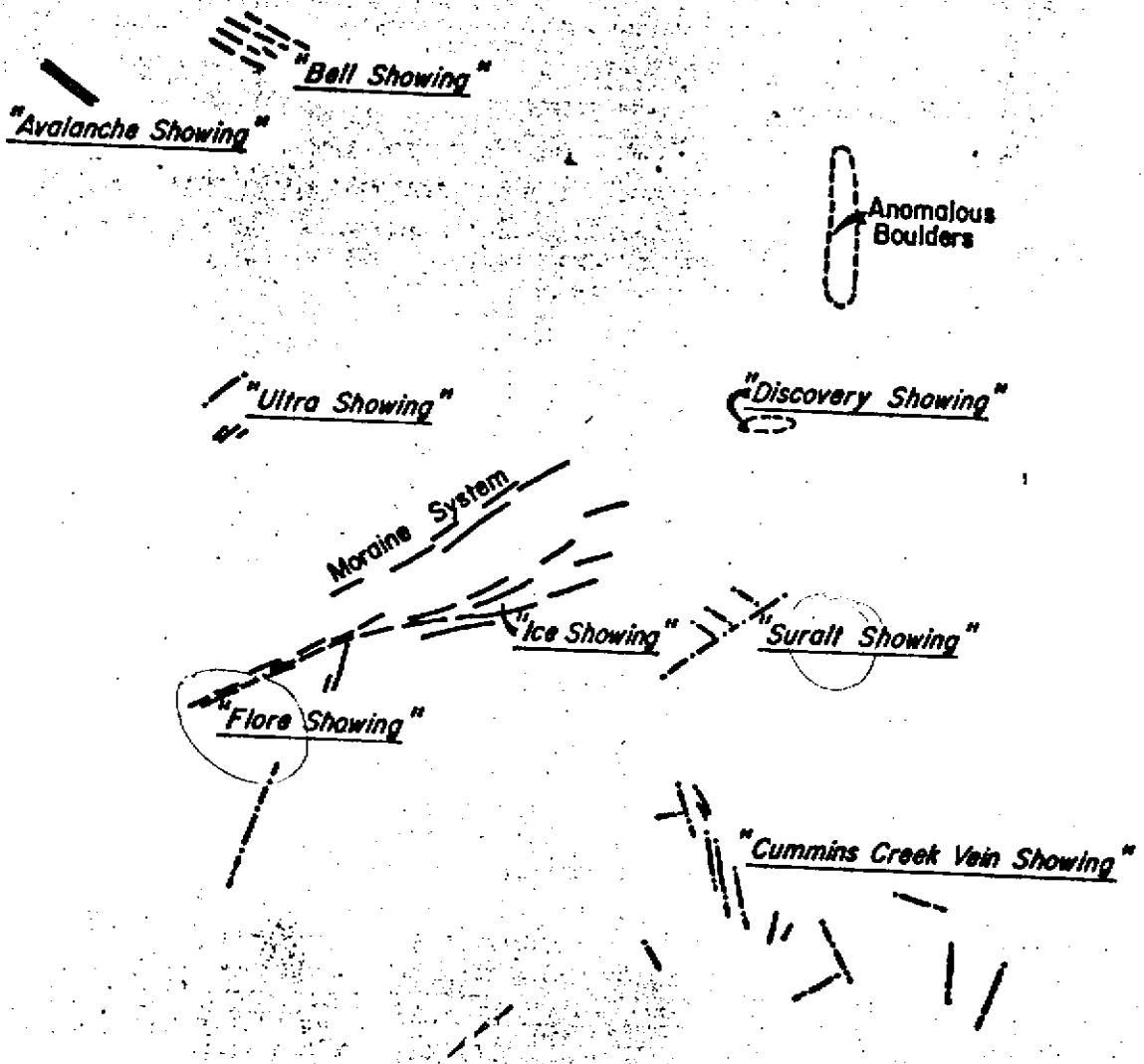
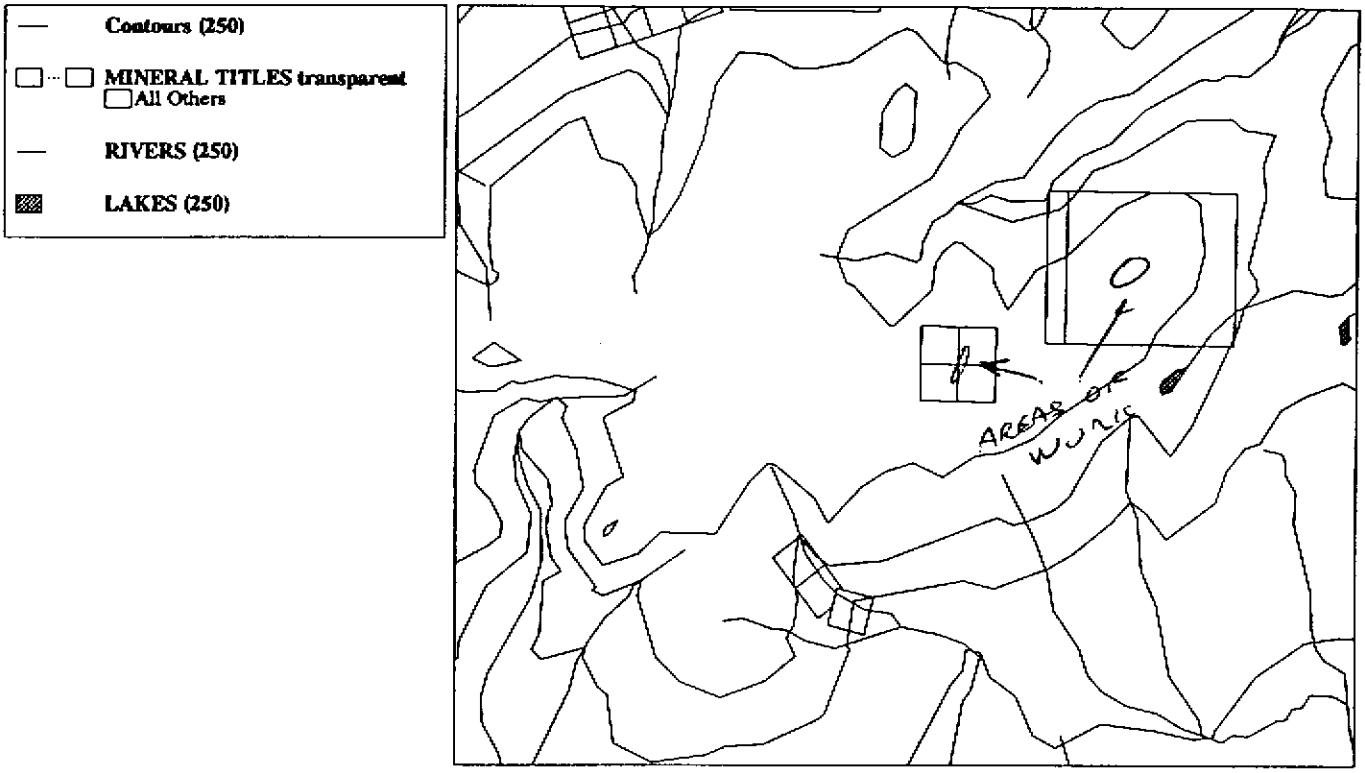
238417
3734
238597
OX-FAST
4848
FOX
240231
10081
MAP 093E11E
FEB 198
RANGE
NORTHERN LIGHTS
360572
TRENCH
NORTHERN LIGHTS
360572
RAPTOR RIDGE
TRENCH
Scattered
Snow
TROITSA
PK
Prospecting + sampling
CUMMINS NORTH
238550
3000'

MINERALIZED SHOWINGS, SYSTEMS AND OCCURRENCES
WHITESAIL RANGE, BRITISH COLUMBIA



B.C. Ministry of Energy and Mines



SCALE 1 : 100,000

2 0 2 4 6

KILOMETERS

N

http://webmap.ei.gov.bc.ca/minpot/map/pdac.MWF

May 6, 1999 11:57 AM

CERTIFICATE OF ANALYSIS
iPL 01K1259

INTERNATIONAL PLASMA LABORATORY LTD
2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
Email ipl@direct.ca
[125915:01:30:10111501]

Whitesail
Project : None Given
Shipper : Randy Lord
Shipment: PO#:
Analysis:
ICP(AqR)30

Comment:

17 Samples Out: Nov 15, 2001 In: Nov 09, 2001

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION
B211	17	Rock	crush, split & pulverize

PULP 12M/Dis | REJECT 03M/Dis
NS=No Sample Rep=Replicate M=Month Dis=Discard

Document Distribution

1 Whitesail
7512 - 18th Ave.
Burnaby
B.C. V3N 1H9
Canada
Att: Randy Lord

EN	RT	CC	IN	FX
1	2	1	1	0
DL	3D	EM	BT	BL
0	0	0	0	0

2 Whitesail
1111 N. Central Road
Denman Island
B.C. V0R 1T0
Canada
Att: Bruce Holden

EN	RT	CC	IN	FX
1	2	2	2	1
DL	3D	EM	BT	BL
0	0	0	0	0

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0721	ICP	ppm	Ag ICP	Silver	0.1	100.0
02	0711	ICP	ppm	Cu ICP	Copper	1	20000
03	0714	ICP	ppm	Pb ICP	Lead	2	20000
04	0730	ICP	ppm	Zn ICP	Zinc	1	20000
05	0703	ICP	ppm	As ICP	Arsenic	5	10000
06	0702	ICP	ppm	Sb ICP	Antimony	5	1000
07	0732	ICP	ppm	Hg ICP	Mercury	3	10000
08	0717	ICP	ppm	Mo ICP	Molydenum	1	1000
09	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	1000
10	0705	ICP	ppm	Bi ICP	Bismuth	2	10000
11	0707	ICP	ppm	Cd ICP	Cadmium	0.1	100.0
12	0710	ICP	ppm	Co ICP	Cobalt	1	10000
13	0718	ICP	ppm	Ni ICP	Nickel	1	10000
14	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	10000
15	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	1000
16	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	10000
17	0729	ICP	ppm	V ICP	Vanadium	2	10000
18	0716	ICP	ppm	Mn ICP	Manganese	1	10000
19	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	10000
20	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	10000
21	0731	ICP	ppm	Zr ICP	Zirconium	1	10000
22	0736	ICP	ppm	Sc ICP	Scandium	1	10000
23	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
24	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	10.00
25	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	10.00
26	0712	ICP	%	Fe ICP	Iron	0.01	10.00
27	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	10.00
28	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	10.00
29	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
30	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

EN=Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(1=Yes 0=No) Totals: 3=Copy 3=Invoice 0=3½ Disk
DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C01590102
* Our liability is limited solely to the analytical cost of these analyses.

BC Certified Assayer: David Chiu

CERTIFICATE OF ANALYSIS
iPL 01K1259

INTERNATIONAL PLASMA LABORATORY LTD.
2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
Email ipl@direct.ca

Client : Whitesail
Project: None Given

17 Samples
17=Rock

[125915:01:30:10111501]

Out: Nov 15, 2001
In : Nov 09, 2001

Sample Name	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
Cummins B # 1	792	1	1	<0.01	0.29	18%	0.88	5.34	0.02	0.01	0.03
Cummins B # 2	5	2	5	<0.01	2.52	0.30	11%	1.41	0.05	0.01	0.03
Cummins B # 3	8	2	1	<0.01	0.15	0.16	1.36	0.05	0.06	0.01	0.02
Cummins B # 4	10	3	<1	<0.01	0.28	0.04	0.40	0.03	0.21	0.01	0.01
Cummins B # 5	3	1	<1	<0.01	0.13	0.01	0.93	0.06	0.09	0.01	<0.01
Cummins B # 6	10	3	1	<0.01	0.33	0.38	1.77	0.02	0.11	0.07	0.01
Cummins B # 7	2	2	<1	<0.01	0.19	0.01	1.61	0.01	0.16	0.01	<0.01
Cummins B # 8	223	3	1	<0.01	0.28	2.53	5.55	1.13	0.02	0.02	0.01
Cummins B # 9	4	1	<1	<0.01	0.11	0.03	0.95	0.02	0.08	0.01	0.02
Cummins B # 10	12	3	2	<0.01	1.05	0.40	2.13	0.76	0.17	0.05	0.09
Cummins B # 11	6	2	4	<0.01	1.20	0.12	4.63	0.63	0.16	0.03	0.10
Cummins B # 12	7	4	1	0.05	0.15	0.11	0.62	0.01	0.13	0.01	0.01
Cummins B # 13	4	3	<1	<0.01	0.30	0.06	1.46	0.30	0.07	0.01	0.02
Cummins B # 14	888	1	3	0.01	0.28	33%	0.97	0.21	0.07	0.01	0.02
MCGC # 1	12	2	2	0.13	1.01	3.43	2.10	0.83	0.01	0.04	0.06
RC # 5	2	1	<1	<0.01	0.32	0.09	3.46	0.07	0.18	0.01	0.03
NR 34	4	4	2	<0.01	0.45	0.02	18%	0.03	0.05	0.04	0.01
Minimum Detection	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Maximum Detection	10000	10000	10000	1.00	10.00	10.00	10.00	10.00	10.00	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test In=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

CERTIFICATE OF ANALYSIS
iPL 01K1259

INTERNATIONAL PLASMA LABORATORY LTD.
2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
Email ipl@direct.ca

Client : Whitesail
Project: None Given

17 Samples
17=Rock

[125915:01:30:10111501]

Out: Nov 15, 2001
In : Nov 09, 2001

Sample Name	Type	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm
Cummins B # 1	Rock	0.2	19	5	19	<5	<5	<3	6	<10	<2	<0.1	2	3	69	<5	49	20	1093	5
Cummins B # 2	Rock	0.4m	19870	1053	327	10	<5	<3	10	<10	2801	<0.1	45	8	12	5	63	46	2405	<2
Cummins B # 3	Rock	17.0	43	8	24	17	10	<3	83	<10	2	<0.1	4	13	25	<5	233	12	93	<2
Cummins B # 4	Rock	3.2	103	20	11	6	<5	<3	59	<10	23	<0.1	1	4	410	<5	167	4	50	16
Cummins B # 5	Rock	1.1	6	17	13	<5	5	<3	49	<10	<2	<0.1	2	7	29	<5	205	3	119	<2
Cummins B # 6	Rock	0.2	18	11	35	<5	<5	<3	17	<10	<2	<0.1	2	6	35	<5	132	3	339	12
Cummins B # 7	Rock	11.0	7	186	5	111	19	<3	263	<10	<2	<0.1	3	7	35	<5	145	4	18	4
Cummins B # 8	Rock	2.9	52	37	124	679	8	<3	14	<10	<2	<0.1	26	28	5	<5	116	18	203	7
Cummins B # 9	Rock	2.8	30	19	44	44	5	<3	36	<10	<2	<0.1	3	7	45	<5	174	5	29	2
Cummins B # 10	Rock	0.2	42	6	52	<5	<5	<3	4	<10	<2	<0.1	10	21	70	<5	216	22	543	12
Cummins B # 11	Rock	0.4	33	9	53	56	<5	<3	11	<10	<2	<0.1	18	25	16	<5	76	40	489	7
Cummins B # 12	Rock	0.1	3	6	7	11	<5	<3	5	<10	<2	<0.1	2	4	45	<5	138	5	70	3
Cummins B # 13	Rock	0.2	5	14	44	28	<5	<3	12	<10	<2	<0.1	3	5	18	<5	167	4	172	5
Cummins B # 14	Rock	0.4	5	3	9	<5	<5	<3	4	<10	<2	<0.1	3	2	1396	<5	19	15	3509	10
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Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

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