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INITIAL ASSESSMENT

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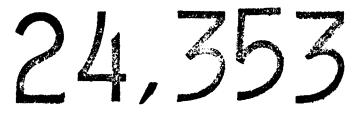
BLUE GRANIT PROPERTY

New Westminster Mining Division Southwestern B.C.

FOR

MAMMOTH GEOLOGICAL LTD.

♥VOLOGICAI BRANC≠ SSESSMENT REPOR



By: R.Tim Henneberry, P.Geo. February 12, 1996

SUMMARY

The Blue Granit property lies within the New Westminster Mining Division, north of Mission. The property is being explored as a potential source of granite dimension stone, primarily polished stone.

The property was acquired as part of an on-going exploration and assessment program of the southern interior plutons. A preliminary examination located a potential quarry site as well as significant boulder talus, with individual boulders in excess of 500 tons. Polished sections show the stone has an appealing texture and exhibits few flaws on the finished surface. The hue is an even grey-white-green.

Based on these preliminary observations, a staged three phase exploration program is recommended as outlined below:

TOTAL BUDGET	\$65,176
Phase III	\$43,183
Phase II	\$18,371
Phase I	\$3,623

Phase I will consist of mapping and sampling of the claims at an estimated cost of \$3.623.

Phase II will consist of both boulder and "outcrop" testing to produce small test blocks for tile and possibly split stone. A preliminary marketing survey will also be completed at a total phase cost of \$18,371.

Phase III, the pre-production bulk test, will include test quarrying of several rough quarry blocks, approximately 2.4m by 1.8m (8 ft. X 6 ft. X 6 ft) each. Phase III is estimated to cost \$43,183.

The initial prospecting and mapping program completed on the Blue Granit property cost \$1.300.

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INTRODUCTION

The purpose of this report is to document the observations made of the granite on the Blue Granit property. A preliminary examination was made on October 18, 1995. This consisted of prospecting and mapping along the logging road system traversing the claim and sampling. Recommendations for further exploration have also been presented.

The term granite is a generic term in the dimension stone industry used to describe any intrusive igneous rock. In this instance, the stone on the Blue Granit property is actually a granodiorite.

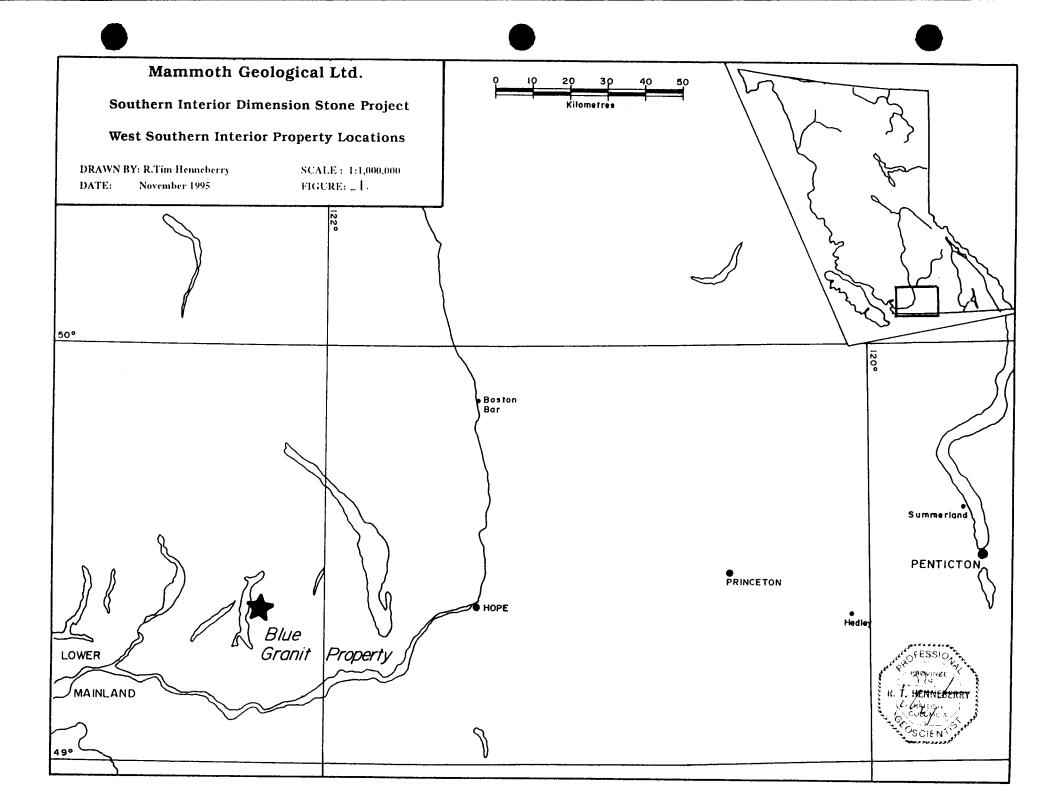
The Blue Granit property was acquired as part of a regional exploration program and assessment of the southern interior plutons. This program was initiated as a result of the on-going dimension stone initiative of the British Columbia Geological Survey Branch (White, 1985; White and Hora, 1988; Page, 1991; Hora and Hancock, 1992 and 1994). The opening of two granite fabricating plants in the Lower Mainland, combined with the up-surge in the use of structural (or masonry) granite has lead to increased demand and a search for local source.

The standard exploration program for each of these dimension stone properties consists of prospecting and mapping followed by small scale quarry testing of boulders, finally followed by a large scale bulk test of the identified quarry site.

Some of the granites of the southern interior yield large 100-1000 ton boulders, ideal sites to complete small scale tests of the stone for both polished and structural stone. These boulder testing programs of small scale test quarrying, combined with marketing tests, yield a good assessment of the stone potential of each property.

The boulder testing programs entail the actual quarrying of a few of the boulders into 5-20 ton blocks. These blocks are then supplied to local processors for completion of market tests. At least 500-1000 tons has to be supplied to allow the stone to be tested in the market place, which essentially means the stone is used on a few jobs sites, especially for structural stone.

The final phase involves actual test quarrying of 1000-2000 tons from the planned quarry site to establish the consistency of color, texture and structure. This stone will again be put into the market place to complete marketing analysis, before a final production decision is made.



LOCATION, ACCESS

The southern interior is one of the more accessible areas of the province of British Columbia. It is traversed by the Trans Canada Highway in the north, Highway 6 through much of the centre, and highway 3 in the south. Several north south highways and mainline logging roads transect the region, with secondary and tertiary logging roads providing ready access to most areas.

The topography ranges from ± 450 metres in the valleys to ± 1700 metres in some of the mountain passes. Some of the higher peaks are in excess of 3500 metres. Slopes are forested, with active logging on going at numerous locations.

The climate is warm and dry in the summer and cool to cold in the winter depending on elevation. Temperatures can be as low as -40 Celsius in the winter, though usually not for extended periods. Summer temperatures can reach +35 Celsius. Snow fall varies greatly throughout the region. The valleys and lower slopes are usually clear of snow in late-May to early-June and remain so until late-October to early-November.

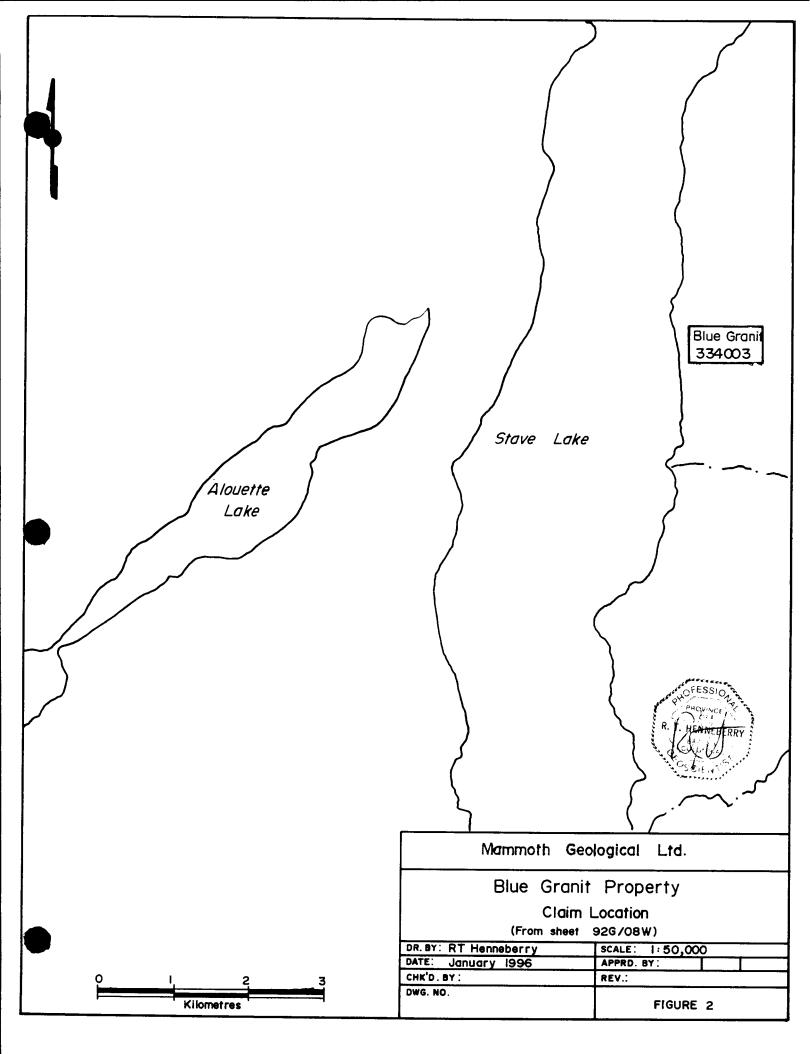
Aside from road transportation, the Trans Canada Rail Line parallels the Trans Canada Highway. Canadian Pacific also operates a railway in the south connecting its Sullivan Mine in Kimberly with its smelter in Trail, and eventually the port of Vancouver. Modern airports are located in Kelowna, Penticton and Castlegar, with daily jet service to Vancouver or Calgary. Several of the smaller communities are served by feeder airlines.

Skilled manpower is available in the numerous cities and towns throughout the region, as is heavy duty equipment (cats, excavators, loaders, etc.) Hydro-electricity is the main source of power. Water is abundant throughout the region.

The larger population centres have all of the modern amenities. Accommodation can be had in any of the major centres including: Hope, Princeton, Penticton or Grand Forks.

The Blue Granit property lies on NTS sheet 92G/08W, 25 kilometres north of Mission. Access is via the Lost Creek Forest Service Road to Kenyon Lake. The Lost Creek Forest Service Road leaves Highway 7 at Hatzic Prairie. The status of the is logged and reforested with immature second growth.

The Blue Granit property lies at an elevation of 340 to 880 metres. This property can be snow bound from late October to early May.



CLAIM OWNERSHIP

The Blue Granit property consists of one 2 unit mineral claim encompassing an area 1 kilometre by 0.5 kilometre. This group covers a small portion of the Mt. Robie Reid pluton, concentrated in a more structurally competent and color specific section of it.

Claim

Record Number

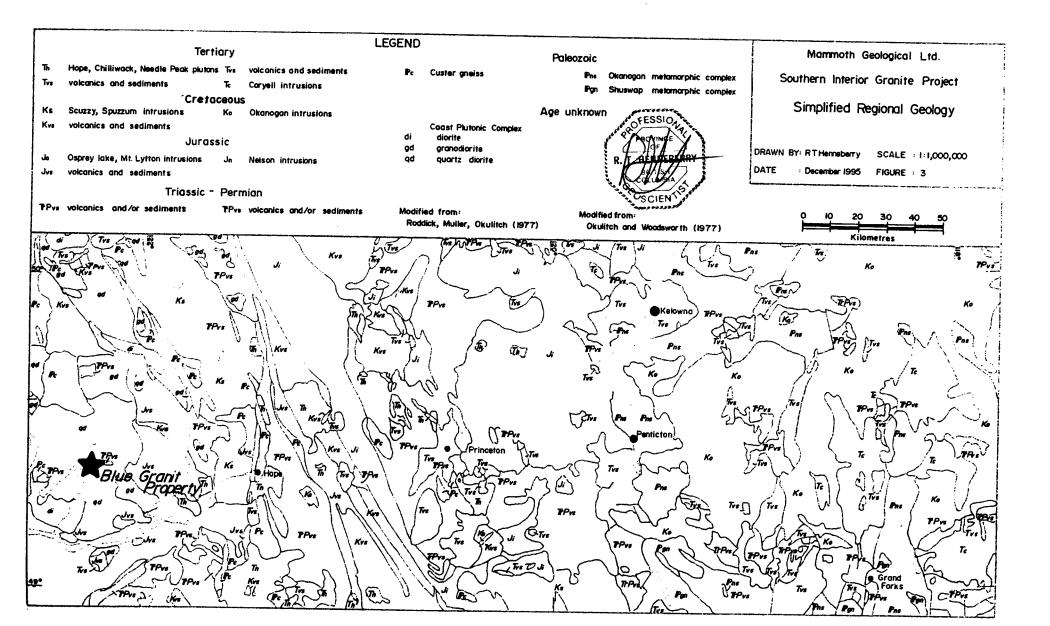
Anniversary Date

Blue Granit

334003

February 22, 1996

The registered owner is David Javorsky of Vancouver, B.C.



REGIONAL GEOLOGY

The geology of the southern interior of British Columbia is characterized by three major tectonic belts; the volcano-sedimentary Intermontane belt sandwiched between the plutonic Omineca Crystalline belt on the east and the Coast Plutonic belt on the west. (McMillan, 1990).

The Omenica belt consists of a basement of the Paleozoic Okanogan and Shuswap metamorphic complexes. Remnants of volcanic and/or sedimentary sequences of Permian through to Triassic age outcrop throughout the belt. These rocks are then intruded by a series of plutonic events, concentrated in the Jurassic (Nelson intrusions). Cretaceous (Okanogan intrusions) and Tertiary (Coryell intrusions). Outliers of Tertiary mafic volcanics and related sediments outcrop throughout the map area. (Okulitch and Woodsworth, 1977).

The Intermontane belt is comprised of a series of accreted volcano-sedimentary terranes ranging in age from Permian to Triassic. These rocks are intruded by large Jurassic batholiths, including the Mt. Lytton and Osprey Lake batholiths. Tertiary outliers of mafic volcanics and sediments outcrop locally within the belt. (Roddick, Muller and Okulitch, 1979).

The Coast belt consists of intrusive rocks of many ages, including gneissic metamorphic assemblages as well as dioritic, quartz dioritic and granodioritic intrusions. Triassic and Jurassic volcano-sedimentary assemblages outcrop through the eastern margin of the belt. Two distinct plutonic events have been recognized near the eastern boundary: a Cretaceous event (Scuzzy intrusions) and a Tertiary event (Chilliwack and related intrusions). Local felsic Tertiary outliers are also mapped in the belt. (Roddick, Muller and Okulitch, 1979).

Historic dimension stone exploration and development has been undertaken within the plutonic rocks in all three belts. Southern interior dimension stone activity was concentrated in the early part of the century, essentially ceasing until a rejuvination in the late 1980's.

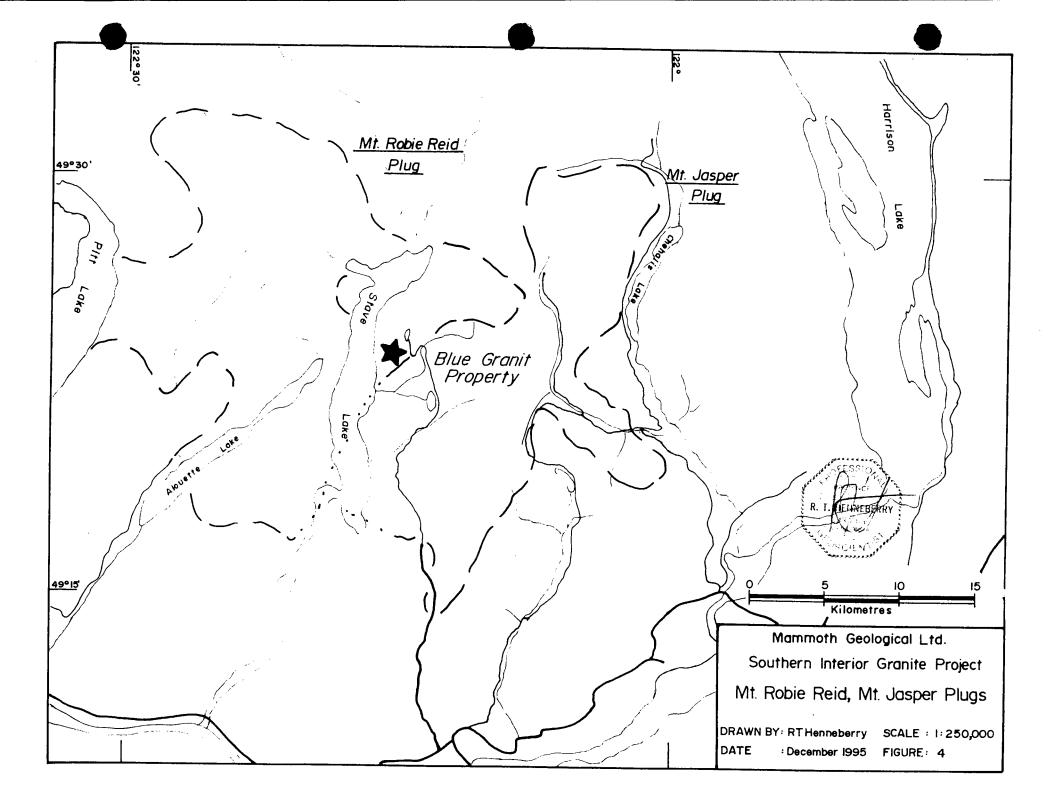
Omenica Crystalline belt

Dimension stone targets in this belt include the Nelson, Okanogan and Coryell intrusions. Historic production was concentrated in the Nelson and Coryell intrusions. Present production is concentrated in the Okanogan intrusions, though exploration and development is being undertaken in all three intrusive groups.

The Nelson intrusions outcrop to the east of the present map area. Cairnes (1934) described these intrusions as massive, generally moderately foliated, medium grey weathering, medium- to coarse-grained, equigranular, hornblende-biotite granodiorite, quartz diorite and granite. The intrusions were quarried at three locations on Kootenay Lake with only limited success, due primarily to knots and sulfides.

Though the **Okanogan intrusions** historically received little attention for dimension stone, most of the present production from the southern interior is concentrated within these plutons. These intrusions outcrop throughout the eastern half of the present map area. The Okanogan intrusions are predominantly massive, light grey weathering, medium- to coarse-grained, equigranular to porphyritic, unfoliated to weakly foliated, fresh biotite granodiorite and granite (Templeman-Kluit, 1989).

The **Coryell intrusions** outcrop is a confined area on the eastern side of the present map area. As with the Nelson intrusions, these intrusions were quarried in the early part of the century, with little present exploration taking place. Most of the early quarrying was completed for structural stone for railway bridges and abutments. These intrusions are alkalic to calc-alkalic, high level, pink and buff syenite and quartz monzonite and trachytic pink feldspar porphyry dykes (Templeman-Kluit, 1989).



Intermontane belt

The dimension stone targets in this belt are the Jurassic batholiths. No historic exploration or development has been undertaken in these rocks. Recent exploration has been confined to the Osprey Lake batholith.

The Osprey Lake intrusion outcrops through the centre of the map area, lying west of Okanogan Lake. Recently, very limited production has taken place within the intrusion. The body is described as a coarse-grained, porphyritic, pink-red granite (Rice, 1960).

Coast Plutonic belt

The Scuzzy and Chilliwack intrusions are the main dimension stone targets within this belt, along with some of the quartz dioritic intrusions. Limited historic exploration and development has taken place in these rocks. Present quarry production is sourced from several of the Chilliwack intrusions.

The main body of undifferentiated **quartz diorite** outcrops on the western boundary of the map area. The intrusion is described as a medium-grained, quartz diorite, with 10% mafic minerals, with hornblende slightly more abundant than biotite (Roddick, 1965).

The Scuzzy intrusions outcrop along the western boundary of the Coast belt. Surprisingly, no exploration or development for dimension stone is documented, though there has been mention of "granite" in the area of Spuzzum being used for bridges and abutments for the railway lines in the Fraser Canyon. The stone is described as massive granodiorite, with coarse-grained quartz and feldspar and much finer grained biotite. (Monger, 1970).

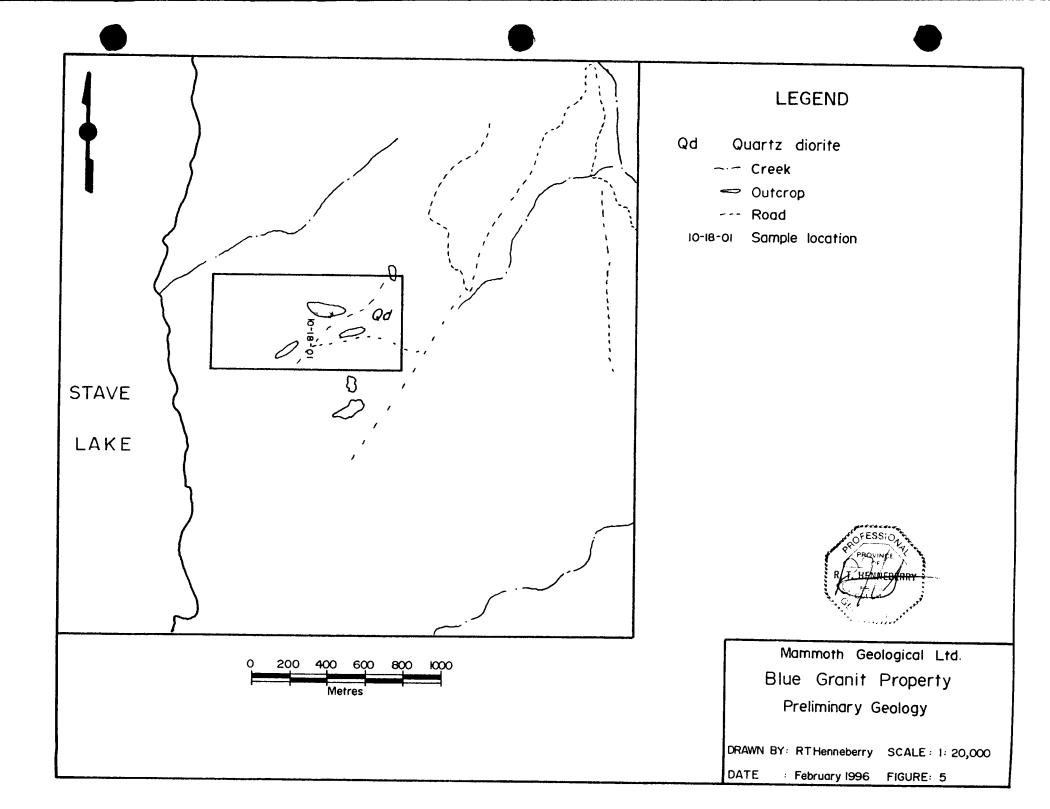
The **Chilliwack intrusions** outcrop in a confined area on the western side of the map area. Though these intrusions have no historic exploration or development documented, they are presently being quarried at three different locations, the Needle Peak pluton in the north, the Hope pluton in the centre and the Chilliwack batholith in the south. These intrusions are generally massive in outcrop and range in composition from granite to granodiorite (Monger, 1970).

Mt. Robie Reid Plug

The plug is informally named from a site local description in Roddick (1965). The stone is described as medium-grained quartz diorite, with 10% mafic minerals, with hornblende slightly more abundant than biotite. In the area of the Blue Granit property the stone is a coarse-grained grey-white-green quartz diorite, a grey-white stone with a green hue.

Outcrops on the east side of Stave Lake appear to be bluffs, cliffs and ledges of massive quartz diorite. These outcrops can have large boulder trains or taluses associated with them. These boulders can reach sizes in excess of 500 to 1000 tons.

Exploration and/or development for dimension stone is essentially non-existent in this area, though the Minfile lists several undeveloped occurrences throughout the 92G map sheet.



PRELIMINARY PROPERTY GEOLOGY

The Blue Granit property is underlain by the Mt. Robie Reid plug, an informally named phase of the undifferentiated quartz diorites of Roddick (1965). The stone outcrops at regular intervals along a series of secondary logging roads, with several of the outcrops displaying a large, unfractured, glacially smoothed nature. A large ledge displays a large boulder talus immediately below it.

Prospecting and preliminary mapping and sampling was undertaken. The mapping was confined to the secondary logging roads through the claim. Several of the exposures are easily accessible via the logging roads.

Access to the Blue Granit property is good, with secondary logging roads from the Lost Creek / Kenyon Lake road system providing access to much of the property. The property has been logged and replanted, with immature second growth. The main target area is adjacent to the existing road.

Grey-White-Green Quartz Diorite

The stone of interest is best described as a grey-white-green, coarse-grained, equigranular quartz diorite. The constituents are: 80% white, anhedral (5-7mm) plagioclase, 15% grey, anhedral (5-7mm) quartz and 5% black anhedral (3-5mm) mafics, comprised roughly equally of hornblende and biotite.

The stone has a clean, fresh appearance on natural break. The stone seems to weather well on glacial or long exposed faces, as no rusting or other deleterious substances were noted. No sulfides were noted in any of the samples, or on the weathered surfaces of any outcrops. No xenoliths were noted in the outcrop exposures.

The stone is massive to broken in outcrop, with at least one location identified where sustained quarry block production may be possible. The site consists of a solid ledge of stone in excess of 50 metres along strike and in excess of 15 metres thick. As well, the numerous 100-1000 ton boulders below the ledge should provide material for an initial market test.

The property was staked as a potential source for dimension stone, both polished and structural.

MARKETING

Marketing carries almost an equal importance to geology for any industrial mineral property. The two key aspects of marketing for the southern interior dimension stone project are: acceptability of the stone in the marketplace and transportation of the stone from quarry to fabrication or job site.

The marketing assessment of the southern interior granite is a two step process. After the property has been acquired and prospected, resulting in the identification of a potential quarry site, a small (50 to 200 ton) amount of the desired end product, in this instance 5 ton block, is produced. This stone is then cut into tiles and shown to end users, namely fabricators, wholesale distributors and architects, for opinions and general comments. The purpose of this phase is to obtain frank opinions as to the suitability of the stone for entry into the marketplace.

Transportation is straight forward for this southern interior property. Road accessibility will allow Super "B" Trains direct access to the quarry site. The blocks can easily be delivered to Lower Mainland fabricators and/or port.

The second stage in the marketing process is to establish the quarry bench and produce a bulk test of 20 ton block in the range of 1000 to 2000 tons. The 20 ton block is supplied to fabricators to produce the end products for distribution to potential purchasers. Fabricators and purchasers of 20 ton block for polished dimension stone will demand to see the quarry site and actual **quarry bench** before they will consider block purchases. They want to verify consistency of color, grain and texture and ensure sufficient reserves are in place for continued supply.

Masonry or structural applications should also be considered for every granite property. An attempt should be made to split some of the initial 5 ton block to assess its suitability as split stone. If the stone splits readily a small $(\pm 20 \text{ ton})$ volume should be made into 4 inch split face and shown to masons and landscapers for opinions and comments. Every attempt should be made to get the stone tried on a few job sites. This will allow the completion of a photo portfolio for future marketing and eventual sales.

The marketing program cannot be initiated until the boulder testing program commences to provide sufficient material. As such, no marketing has been undertaken on the Blue Granit property to date.

DISCUSSION

The grey-white-green quartz diorite of the Blue Granit property is interesting. The polished appearance is attractive, with an even hue. The polished surface is smooth with little pitting. The split face nature of this stone has yet to be assessed.

The massive appearance of the outcrop exposures, combined with the large boulder talus suggest structural competency. The lack of xenoliths, rusting and other deleterious substances further enhance the property's potential.

Based on the preliminary results to date, the Blue Granit property warrants further work. The first stage of the proposed program will entail rudimentary geological mapping and initial boulder testing. Several of the noted boulders should be split into 5 ton block for polished stone testing. The purpose is to complete a detailed marketing assessment.

An attempt should also be made to split the granite to test the suitability for structural stone.

A successful conclusion to this phase will result in a larger testing program, where an actual quarry bench will be established, yielding 10-20 rough (twenty ton) quarry blocks. These blocks will be fabricated into polished slabs and tiles, leading to a detailed market assessment.

A production decision can be made at the conclusion of this phase.

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CONCLUSIONS AND RECOMMENDATIONS

The Blue Granit property was identified and staked as part of the regional exploration and assessment program of the southern interior plutons. The grey-white-green quartz diorite from this property is projected to have use as polished dimension stone.

Exploration to date has been minimal with only preliminary prospecting completed. Several large (100-500 ton), locally derived boulders have been located, as has one potential quarry site.

Initial tests suggest the stone may have potential as polished stone, warranting further exploration.

The next stage of exploration is a program of rudimentary geological mapping, combined with a boulder testing program. Several of the boulders will be cut into 5 ton block for further processing and market assessments. The estimated cost of this phase is \$21,993.

Upon successful completion of the boulder testing program, a bulk testing program in the order of 1000-2000 tons is recommended. This program will establish a quarry bench on the property and provide initial 20 ton quarry blocks for further polished testing and market analysis. Cost estimate of this stage is \$43,183.

Successful completion of the second phase will result in a positive production decision.

The initial prospecting and mapping program on the Blue Granit property cost \$1,300.

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STATEMENT OF QUALIFICATIONS

I, R.Tim Henneberry, am the principle of Mammoth Geological Ltd., a geological consulting firm with offices at 9250 Carnarvon Road, Port Hardy, B.C. The mailing address is Box 5250, Port Hardy, B.C. VON 2P0

I earned a Bachelor of Science Degree majoring in geology from Dalhousie University, graduating in May 1980.

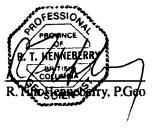
I have practiced my profession continuously since graduation.

I am registered with the Association of Professional Engineers and Geoscientists in the Province of British Columbia as a Professional Geoscientist. I am also a Fellow of the Geological Association of Canada.

I examined the Blue Granit property on October 18, 1995. The property is presently held by David Javorsky of Vancouver. Mammoth Geological Ltd. will acquire ownership after the filing of the assessment work.

This report may be used for any purpose normal to the business of Mammoth Geological Ltd.. provided no part is used in such a manner to convey a meaning different than that set out in the whole.

14th day of Feldman in the Town of Port Hardy. British Columbia. Dated this ____



STATEMENT OF COST

Blue Granit Property

Project Manager Assistant	1.0 days 1.0 days		300.00 /day 200.00 /day	\$300.00 \$200.00
Room and Board				\$100.00
Vehicles	1.0 days	@	50.00 /day	\$50.00
Analysis	1 samp	@	50.00 /sample	\$50.00
Documentation	2 days	@	300.00 /day	\$600.00

Blue Granit Property Costs

\$1,300.00

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COST ESTIMATES

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Phase I - Mapping and Sampling (2 days) Field Costs (Geological and Supervision)	\$1,600	
Support Costs (Room and Board, Vehicles)	\$400	
Analysis Costs (Polished/Thin Sections)	\$400 \$250	
Documentation (Reports)	\$900	
Contingency (15%)	\$473	\$3,623
Phase II - Boulder Testing (5 days)		
Quarrying Costs (Personnel and Equipment)	\$3.375	
Field Costs (Geological and Supervision)	\$2,250	
Support Costs (Room and Board, Vehicles)	\$1,625	
Market Assessment	\$4,225	
Documentation (Reports)	\$4,500	
Contingency (15%)	\$2,396	\$18.371
Phase III - Pre-production Bulk Test (10 days)		
Contractor Cost (Machinery)	\$8,000	
Quarrying Equipment Cost	\$2,300	
Quarrying Personnel Cost	\$5,000	
Field Costs (Geological and Supervision)	\$4,500	
Support Costs (Room and Board, Vehicles)	\$3,250	
Sample Preparation	\$10,000	
Documentation (Reports)	\$4,500	
Contingency (15%)	\$5,633	\$43,183
Phase I - Property Mapping	\$3,623	
Phase II - Boulder Testing	\$18,371	
Phase III - Bulk Test	\$43,183	

SAMPLE DESCRIPTIONS

Sample 10-18-01 -Grey-white-green, coarse-grained, equigranular quartz diorite. The constituents are: 80% white, anhedral (5-7mm) plagioclase, 15% grey, anhedral (5-7mm) quartz and 5% black anhedral (3-5mm) mafics, comprised roughly equally of hornblende and biotite. The sample takes a good polish with no pitting or interstitial cracks noted in the specimen. There were no sulfides noted.

Outcrop - The sample came from a boulder talus below a massive ridge of quartz diorite. The ridge is in excess of 50 metres along strike and in excess of 15 metres thick. The numerous boulders below the ridge range in size from 100-1000 tons.

The stone has a clean, fresh appearance on natural break. The stone seems to weather well on glacial or long exposed faces, as no rusting or other deleterious substances were noted. No sulfides were noted in the sample, or on the weathered surfaces of any outcrops. No xenoliths were noted in the outcrop exposures.