

Assesment Report  
Geological Mapping  
Harmony 17 and Harmony 7 Claims  
Mt. Washington, Vancouver Island, BC  
NTS 92F/14W  
Nanaimo Mining Division

by: R.R. Walker, MSc.  
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**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,369**

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## Introduction

- A) **Location:** The property lies 27 air kilometers northwest of Courtney, BC and can be accessed by public and logging roads as shown on Figure 1. The area lies on the north flank of Mount Washington at an elevation of 540 to 820m. The area is covered by planted second growth conifers ranging in age from 35 years to 25 years. Only Rossiter Main and Piggott Main logging roads are maintained by Crown Forest Ltd, the owner of surface rights. Secondary logging roads are overgrown by alder and may be passable with difficulty or not at all. Most of the area has a mild slope with rare outcrop away from road cuts.
- B) **Property Definition:** The area mapped covered Harmony 17 claim of 20 units and extended about 200 meters into the west side of Harmony 7 claim. This area forms part of a much larger claim position extending across the Harmony claims and the Ideal claims as outlined on Figure 1. This property is owned by J. L. Paquet and held under option by a joint venture between Westmin Resources Ltd. and Visible Gold Inc. Westmin is the operator and provided all funds for the work reported herein.

The property is under exploration focused on epithermal precious metal veins of which many occurrences are known in the general Mount Washington area. Epithermal veins with anomalous precious metals have been located within the area of this report both in bedrock and float along Regan Creek on Harmony 17 and Harmony 7 claims. The work reported is the first done on Harmony 17. Previous work on Harmony 7 is referenced in Wright (1989).

- C) **Geological Survey:** An attempt was made to do first pass geological mapping and rock sampling on all of Harmony 127 and a small part of Harmony 7, an area of about 500 ha, at a scale of 1:10,000. Progress was impeded by overgrown roads, washouts, limited outcrop and rain. Figure 2 summarizes the geology mapped. Fifty one rock samples were collected.

None of the outcrops or float examined away from Regan Creek showed much economic potential and although the area is incompletely mapped the effort was terminated in favor of completing a more detailed survey of Regan Creek with the primary purpose of evaluating vein boulders on Harmony 17. This creek bed was mapped at a scale of 1:2000 over a nominal area of 20 ha (see Figure 3).

## General Geology

The entire area surveyed is underlain by Karmutsen Formation basalt of Triassic age. No other formations or intrusions were found. The Karmutsen basalt in the area includes massive flows, pillowed flows and thinner beds of hyaloclastite and pillow breccia. Layering is apparently shallow in dip but specific bedding indicators which could be measured were not found. Faults were exposed only in the bed

of Regan Creek and in a rock quarry on Piggott Main. The faults and shears of widely differing attitudes are exposed in these areas and are probably common but unexposed throughout the area. Both steep and shallow dipping faults are important. Sheared basalt and gouge seams mark fault planes.

In the bed of Regan Creek the exposed faults are commonly, but not always, marked by carbonate altered rusty weathering basalt which is buff when fresh - probably ferroan dolomite and which can extend several meters away from the fault. Some of these altered faults carry axial veins of quartz or quartz carbonate, often containing sphalerite, galena, pyrite, chalcopyrite, grey sulfide and realgar. Descriptions of float samples from Regan Creek represent a range of vein compositions as described in Appendix 1. Faults exposed in the rock quarry on Piggott Main lack hydrothermal alteration and veining. Vein float was not found in other creeks but other drainages examined are poorly developed, low in gradient and are unsuitable for stream sediment surveys.

Prior analyses of samples from bedrock veins and vein float indicate enrichments of metal in grab samples from Regan Creek on Harmony 7, which range up to 20 oz Ag/ton, 0.04 oz Au/ton, 5.3% Pb, 4.9% Zn, 0.58% Cu, 1500 ppm As, 880 ppm Sb (Wright 1988). The mineralogy, chemistry and textures which include drussy vugs and cockade quartz crystals point to an epithermal style of vein mineralization controlled by brittle faults of various attitude.

Vein float in Regan Creek was systematically studied to determine if the known vein showings in Regan Creek on Harmony 7 are the source of all vein float down the creek or are other unexposed sources indicated downstream on Harmony 17. The method involved traversing the creek for 700 m with intensive boulder prospecting conducted in areas at intervals along the creek as conditions dictated. These closely examined areas were centered approximately 20m downstream to the north of the bridge and 53m, 142m, 266m, 336m, 393m, 524m and 650m upstream from the bridge. Samples of all types of vein float were collected and described. In addition, prominent large float (> 10cm) were collected where encountered between the above specified study sites. All outcrops were mapped.

## Conclusions

The only encouraging mineralization found was in the bed of Regan Creek where outcrops and boulders indicate epithermal style veins. Detailed inspection of the boulder descriptions and locations strongly suggests additional unexposed sources of vein float adjacent to Regan Creek on Harmony 17. The known showings of sulfidic veining in Regan Creek above 560 m above the bridge appear to be the source of similar float down to perhaps the 380 m mark. From 380 m down to 304 m vein float is sparse and sulfide poor. A new source of float is indicated near 289 m by the appearance of larger weakly sulfidic boulders followed by increased float abundance below. Another source of vein float is inferred near the bridge by

the appearance of larger, tabular, angular, more sulfidic float which includes banded quartz and carbonate veining. This source may be the veined and altered fault mapped 9m above the bridge (see sample 90RW10-12-8 in Appendix 2). Regan Creek has a fairly mild gradient below about 560 m above the bridge. Above this the gradient rises sharply and large boulders are transported by the creek. It seems unlikely that angular tabular float over 10 cm has been carried any significant distance by Regan Creek on Harmony 17.

The rock samples taken will be reported in a separate assessment report as the analyses were not done in the required assessment year to receive assessment credit with this submission.

## Geological Mapping Cost Statement

90% on Harmony 17 claim, 10% on Harmony 7 claim

R. Walker Oct 12, 13, 14, 16 :	4 x <sup>\$</sup> 350	= <sup>\$</sup> 1400
E Radcliffe Oct 16	: 1 x 100	= 100
4wd truck Oct 12 13 14 16 :	4 x 50	= 200
Gasoline		= 100
Report compilation R. Walker 1 day x 350		= <u>350</u>

Total = <sup>\$</sup>2,150

Assessment work credit claimed = <sup>\$</sup>1900

### Statement of Qualifications

I, Richard R. Walker, certify that:

- 1) I obtained BSc. and MSc. degrees in geology from the University of Alberta, Edmonton in 1970 and 1975.
- 2) I have practiced geology for mining companies, full time since 1972.
- 3) I have no interest direct or indirect in the property which is the subject of this report.

Respectfully submitted



Richard R. Walker MSc.

## Appendix 1

### Regan Creek Float Sample Descriptions

Samples are numbered according to distance in meters from the logging road bridge on Rossiter Main road crossing Regan Creek 220 meters south of Regan Lake. Samples prefixed L were found in the creek bed down stream to the north of the bridge (eg. sample L43 was 43 m down stream measured along the creek by hip chain.) Samples with no letter prefix were found upstream to the south of the bridge (eg. sample 135 was found 135 m upstream to the south from the bridge.) The samples are listed in order from furthest down stream (north) to furthest upstream (south).

- L43 Angular to sub-angular float 12x10 cm, 75% light grey green bleached basalt (sericite, carbonate altered); 25% network quartz veins, drussy, cockade texture, contains 5% sphalerite to 1 mm, 2% very fine grey sulphide. Veins are up to 1cm thick.
  
- L36 Subrounded cobble, 10cm, aphanitic black hard rock (silicified siltstone?); 2 - 10% network veinlets of quartz and soft chalky white mineral to 2mm. Bright reddish orange and yellow oxides coating joints, no sulfides.
  
- L27 Angular boulder 20x15 cm, 80% medium to light grey-green basalt, 20% network veins of light grey to white quartz and calcite containing trace chalcopyrite and grey sulphide.
  
- L24 Rounded, 10cm cobble of fine quartz almost completely permeated and coloured by earthy, brick red iron oxide.
  
- L10 Angular cobble 14x5cm, 70% light buff bleached basalt in part silicified, 30% parallel and stockwork veining of grey to pink quartz, no sulphide, quartz is aphanitic to fine crystalline with some cockade texture.
  
- L5 Angular, 10cm cobble of quartz vein breccia, 80% fine translucent grey to milky quartz containing 20% angular clasts 1-5mm of light buff bleached basalt, no sulphide.
  
- L1 Angular, 10x10x4cm, vein quartz fine sucrosic and medium euhedral cockade texture in patches and bands, no sulphide, very dark red earthy hematite in quartz crystal lined patches to 5mm, dark red and black joint coatings.
  
- 2 Angular to subangular, 18x12x5cm, vein quartz, 80% white to light grey, very fine to coarse anhedral quartz; 20% orange weathering buff carbonate, banded 1 to 12mm wide, minor sphalerite, galena, disseminated to 1mm and very fine in bands 3mm wide. Quartz is locally light green (sericitic?).
  
- 40 Angular 8x10cm vein quartz and vein breccia, 70% fine light grey to white quartz. 30% light buff carbonate altered basalt as angular disoriented clasts in network quartz, no sulphide, 5% limonite lined vugs up to 15mm margined by cockade quartz.



- 45 Angular to subangular, 15x10cm, silicified basalt, 50% aphanitic, medium to light grey quartz, 50% light grey green siliceous basalt in a poorly defined mottled distribution. Minor buff carbonate, no sulphide, few % limonite patches to 5mm.
- 46 Subrounded to subangular, 13x5x5cm, vein quartz, 85% fine grey to white quartz, 10% drussy vugs, 10% carbonate altered basalt clasts to 5mm, 5% disseminated 1mm sphalerite, trace galena?
- 51 Angular, 10x6cm, vein quartz-carbonate, 70% aphanitic grey to white quartz, 30% rusty weathering buff carbonate patches to 1cm (probably altered basalt clasts), no sulphide.
- 59 Subangular, 10x10x5cm banded carbonate vein, 80% fine to medium crystalline buff carbonate vein 3.5cm wide with 20% medium grey carbonate altered basalt wall rock. Rusty weathered surface shows faint banding 1mm to 1cm wide and minor siliceous ribs, no sulphide.
- 60 Subangular, 16x8x7 cm, vein breccia, 65% fine grey to white quartz, 5% sphalerite to 1mm, 2% galena, 30% carbonate altered grey basalt clasts.
- 64 Angular, 6x6x3cm, banded vein quartz, 70% very fine white to grey banded quartz, 30% carbonate altered buff basalt, possibly minor sphalerite in a 1cm band.
- 65 Subround to rounded, 10cm, carbonate veined and altered basalt, 35% rusty weathered buff carbonate veins 1-5mm mostly parallel, 65% carbonate altered buff basalt, no sulphide.
- 66 Subangular, 15x10x9cm. Vein quartz, 75% grey to white, medium crystalline anhedral quartz, 1% chalcopyrite, 1% pyrite disseminated to 1mm anhedral, 25% carbonate altered basalt clasts to 2cm.
- 135 Angular to subangular, 10x10x6cm, quartz vein breccia, 75% grey white fine quartz, 25% carbonate altered basalt clasts to 1cm, minor disseminated sphalerite and grey sulphide.
- 146 Angular, 16x16x5cm, vein quartz, very fine medium grey quartz, 2% buff carbonate, trace yellow sulphide, few % limonite and quartz crystal lined vugs.
- 147 Angular 15x7x6cm, vein quartz. Very similar to 146 but includes a 2cm patch of medium crystalline quartz carbonate with minor disseminated sphalerite.
- 148 Angular, 12x10x7cm, quartz vein breccia, carbonate altered and siliceous fine clasts in 50% fine to medium crystalline, grey to white quartz with 3% disseminated sphalerite, 2% pyrite.
- 199 Subangular, 10x5cm, vein quartz, fine grey to white quartz with few % disseminated sphalerite and pyrite to 1mm, one pyrite seam 1mm wide, 20% carbonate altered basalt wall rock.

- 265 Angular, 10x12cm, quartz vein breccia, 70% grey to white fine quartz with a couple % sphalerite and pyrite to 1mm. Few % fine drussy vugs to 5mm lined with limonite, 30% angular, carbonate altered basalt clasts to 5mm floating in quartz.
- 266 Angular, 10x5x3cm, vein quartz, 90% light grey, fine quartz with minor disseminated grey sulphide (tetrahedrite?), 10% carbonate altered basalt clasts to 5mm
- 267 Angular, 14x10x8cm, quartz-carbonate vein 50% grey fine quartz 25% medium crystalline buff carbonate, 25% carbonate altered basalt, 5% sphalerite associated with grey quartz, 1% chalcopyrite, minor galena.
- 268 Angular 7x5x5cm, vein quartz, 50% fine greenish grey quartz, 50% med crystalline (1-3mm) quartz containing 5% sphalerite, 3% pyrite, minor grey sulphide, all less than 1mm and distributed in a 1cm band.
- 269 Angular, 10kg boulder, quartz vein breccia 50% fine grey matrix quartz, 30% light grey very fine siliceous clasts to 1cm, 20% carbonate altered basalt clasts, 2% sphalerite and 1% pyrite in matrix quartz, minor drussy vugs to 5mm.
- 276 Angular, 13x10x7cm, quartz-carbonate veined basalt, 50% dark grey basalt (not carbonate altered), 30% white to clear grey medium to very coarse quartz 10% 2mm buff carbonate veins post-date quartz, 5% disseminated 1mm sphalerite, 2% pyrite, trace chalcopyrite, trace galena.
- 278 Angular, 5kg boulder, quartz carbonate vein, 60% fine grey quartz contains 40% disseminated 1 to 2mm white carbonate anhedral, 1% very fine disseminated chalcopyrite.
- 289 Angular, 5kg boulder, quartz vein breccia, 65% fine grey to white quartz, 35% carbonate altered basalt clasts to 2cm, 1% sphalerite minor drussy vugs to 5mm.
- 304 Angular, 15x10cm, veined basalt, 85% carbonate altered basalt, 15% fine grey quartz veins to 7mm which contain 30% sphalerite, 10% pyrite, minor chalcopyrite in the veins only.
- 330 Angular, 10x5x5cm, vein quartz. Very fine, light grey quartz with 20% dark grey quartz containing fine galena and sphalerite (5% of sample), 5% altered basalt on one wall, vein greater than 7cm thick.
- 343 Subangular, 7kg boulder, vein quartz, white to grey fine sucrosic quartz with 5% aphanitic grey cherty quartz as a band 2mm thick, 15% altered buff basalt clasts to 5mm. A few limonite lined drussy vugs to 5mm, no sulphide.
- 350 to 400m upstream from bridge, carbonate altered basalt float becomes much more common in creek. Unveined altered basalt was not sampled. Carbonate altered basalt float diminishes in abundance again above 650m.

- 380 Angular, 15x8x7cm, vein quartz, dark grey to white fine, banded quartz, 2% pyrite, minor, very fine grey sulphide.
- 390 Angular, 15x10x10cm, quartz vein breccia, 50% vein greater than 5cm wide of altered basalt clasts in grey quartz, 7% sphalerite, 1% grey sulphide, 5% coarse carbonate patches, same cockade texture, trace pyrite; 50% siliceous light grey basalt.
- 405 Angular, 10x4x4cm, vein quartz, 65% medium grained grey sucrosic quartz with 2% disseminated sphalerite and pyrite, 35% coarse anhedral clear whitish quartz as 1.5cm wide vein.
- 425 Angular to subround, 10kg boulder, quartz-sulphide vein breccia, 10% sphalerite, 5% galena, 20% dark grey fine quartz, 65% grey carbonate altered basalt. The quartz and sulphide form network veinlets and matrix to basalt clasts. Minor pyrite and grey sulphide.
- 521 Angular, 15x12x5cm, veined basalt, 80% carbonate altered buff basalt with 20% network veins to 1cm of fine grey to cockade quartz, 10% sphalerite plus grey sulphide in veins only (2% in total rock).
- 522 Angular, 13x10x4cm, vein breccia, 30% altered basalt clasts to 5mm, 70% fine grey to white quartz with 1% galena, 1% sphalerite. A 7mm thick vein of white, coarse anhedral quartz cuts the quartz vein breccia.
- 527 Angular, 13x10x4cm, vein breccia, 30% altered basalt clasts to 5mm, 70% fine grey to white quartz with 1% galena, 1% sphalerite. A 7mm thick vein of white, coarse anhedral quartz cuts the quartz vein breccia.
- 540 Angular, 12x5x6cm, veined basalt, 80% buff, carbonate altered basalt, 10% dark grey, very fine, sulphitic quartz vein 1cm wide with brecciated diffuse walls; 10% white coarse quartz vein 6mm wide with sharp walls; minor sphalerite and grey sulphide.
- 555 Very angular, 7kg boulder, quartz-sulphide veined basalt, 40% light grey carbonate altered basalt, 60% veined by quartz, sulphide and buff carbonate in equal amounts. Quartz and carbonate are medium crystalline with a little cockade texture. The total sample contains about 15% sphalerite, 3% galena, 2% pyrite.
- 560m Stream gradient steepens significantly.
- 573 Angular, 60x60x45cm boulder, 70% light greenish buff altered basalt silicified by network veinlets. Sphalerite-galena-quartz veining totals 30%. A central vein zone is 15cm thick with 60% quartz, 5-10% sphalerite, a few % galena and 30% altered basalt.

614 Angular, 30x20cm boulder, quartz-sulphide vein, 15% sphalerite, 5% galena, 2% pyrite, 75% very fine grey quartz, 5% buff carbonate. This sample from adjacent to a bedrock vein showing from which it appears derived.

650m Sulphitic vein float disappears from the creek bed at approximately 650m. Carbonate altered basalt float continues with decreased abundance.

690m End of traverse.

## Appendix 2

### Harmony 17 Bedrock sample descriptions

90RW10-12-8 Regan Creek 9m upstream from bridge on Rossiter Main.

Carbonate and quartz veined, carbonate altered basalt from underwater outcrop of vein zone at 350 - 70 W. Carbonate veined zone with parallel fine-grained quartz ribs exposed over 50cm wide and 2m length. Carbonate altered basalt wall rock exposed on west side only and about 10cm wide bordered to west by dark green, amygdaloidal basalt pillow breccia. The sample is chipped from two places and includes minor grey sulphide.

90RW10-16-1 Regan Creek 183m upstream from Rossiter Bridge.

Carbonate vein and carbonate altered basalt, 40% brownish weathering white carbonate vein 2 cm wide oriented 015 -75 W within a carbonate altered basalt zone 1m wide oriented 160 and apparently steep. Carbonate altered basalt comprises 60% of sample. No sulphide or quartz.

90RW10-16-2 Regan Creek 560m upstream from Rossiter Bridge.

Carbonate veined and altered basalt from a zone exposed over 4m wide oriented 140 - 80 E. A 0.3m wide central zone contains 20-40% carbonate veining with trace grey sulphide. The rock and veining are rusty weathering buff carbonate.

90RW10-13-2 On Piggott Main road 1.5km south of Rossiter Main. Vein on west edge of road bed.

Quartz vein breccia zone more than 10cm thick and less than 30cm thick composed of 50% quartz network veins and cement, 50% altered, greenish-buff basalt. Vein zone strikes 350 and dips steep west with parallel quartz veinlets less than 1cm thick. Wall rock is pillow basalt and rubbly weathering hyaloclastite.

90RW10-14-1 On branch 11A road 1.08km east of Piggot Main.

15cm white quartz pod in pillowed basalt, coarse anhedral quartz, no sulphide, some radiating zeolite, probably a quartz filling of a pillow interstitial space.

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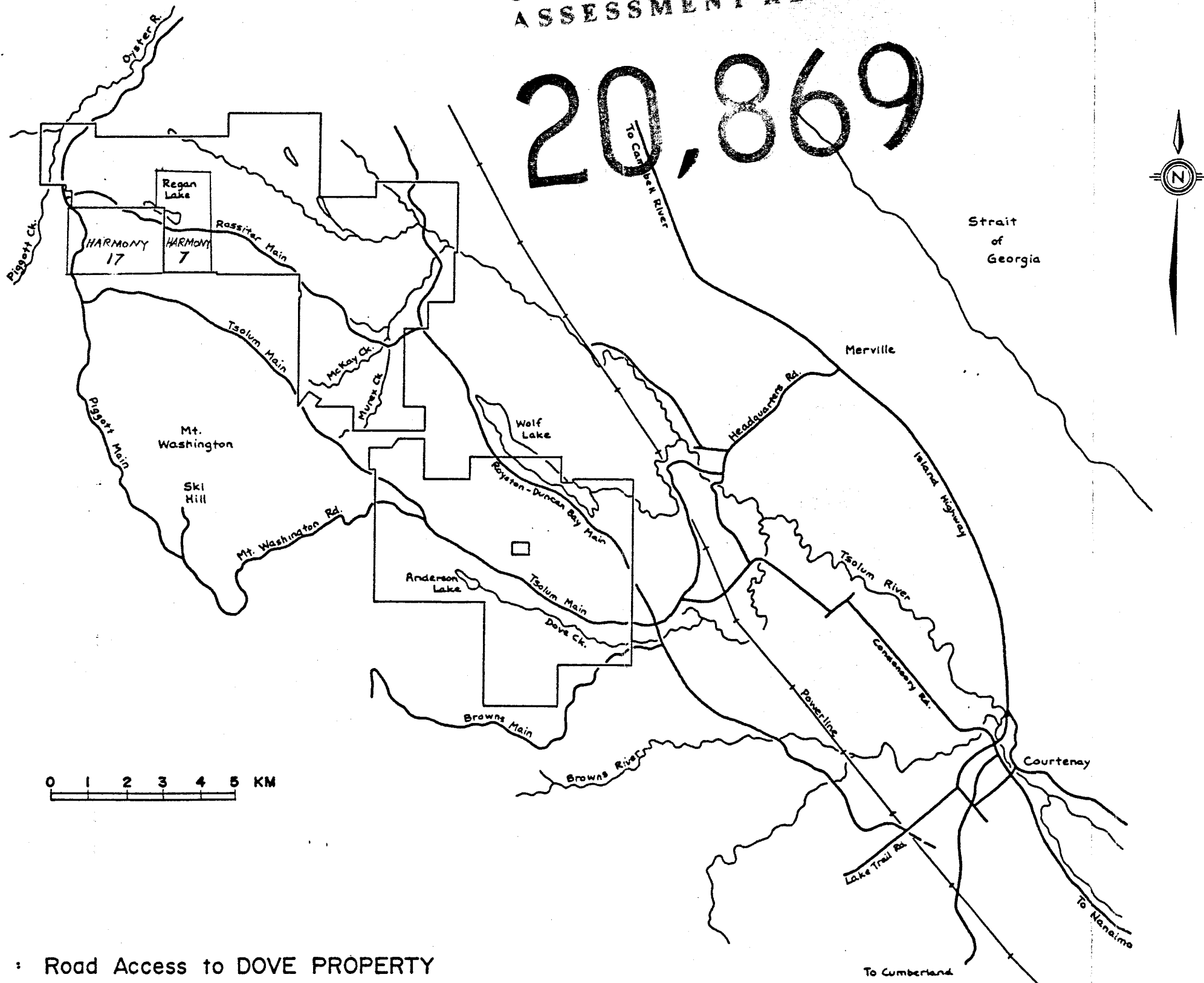
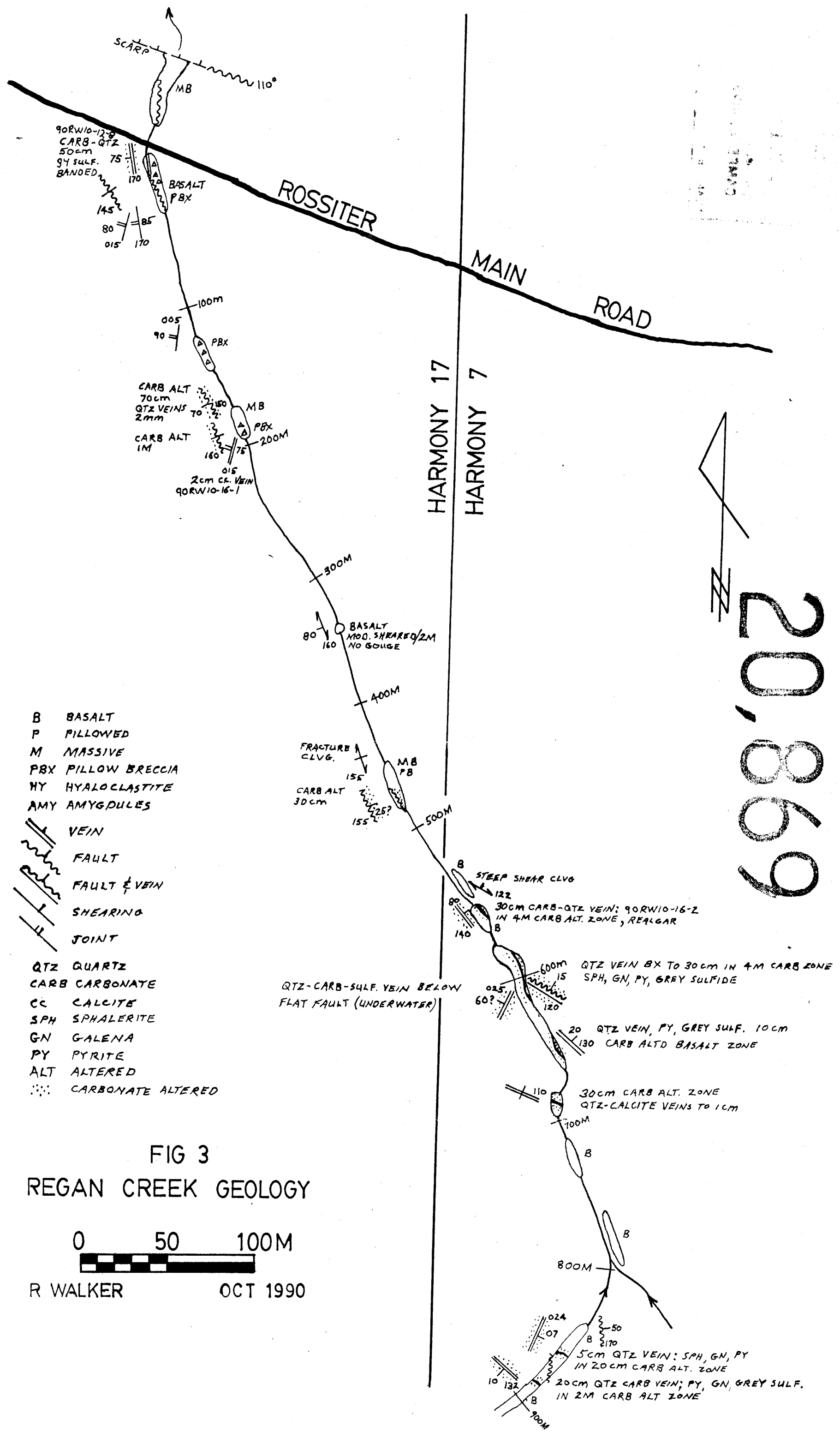


FIGURE 1 : Road Access to DOVE PROPERTY



20,869



- B BASALT
- P PILLOWED
- M MASSIVE
- PBX PILLOW BRECCIA
- HY HYALOCLASTITE
- AMY AMYGDULES
- VEIN
- FAULT
- FAULT & VEIN
- SHEARING
- JOINT
- QTZ QUARTZ
- CARB CARBONATE
- CC CALCITE
- SPH SPHALERITE
- GN GALENA
- PY PYRITE
- ALT ALTERED
- CARBONATE ALTERED

FIG 3  
REGAN CREEK GEOLOGY

0 50 100M  
R WALKER OCT 1990