PERCUSSION DRILLING ASSESSMENT REPORT

on the

VAULT CLAIM GROUP
OKANAGAN FALLS AREA
OSOYOOS MINING DIVISION

by

MURRAY S. MORRISON, B. Sc.

MINERAL CLAIMS:	Vault 1-13 & Vault 14-18 Fractions (79 units)
LOCATION:	The Vault Claim Group is located immediately northwest of Okanagan Falls, B.C. Lat. 49° 22′ N; Long. 119° 37′ W; N.T.S: Map 82-E-5E
OWNER:	Aqua Regia Minerals Inc.
OPERATOR:	Aqua Regia Minerals Inc.
DATE STARTED:	October 17, 2001
DATE COMPLETED:	November 1, 2001

Kelowna, B.C.

December 31, 2001

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ILLUSTRATIONS

SUMMARY

In late October, 2001, a Percussion Drilling Program, totalling 363 metres, was conducted on the Vault Claim Group located immediately northwest of Okanagan Falls, B.C.

The program, which involved the drilling of 5 holes ranging from 66.4 to 84.7 metres in length, was carried out for the operator, Aqua Regia Minerals Inc. of Calgary, under the direction of the writer. The drilling contractor was Northspan Explorations of Westbank, B.C.

The Vault gold property covers an area of approximately eighteen square kilometres, but much of the intensive exploration has been confined to the west-central portion of the property. In the 1980's, aggressive exploration programs were conducted by Riocanex Inc., Dome Exploration Canada Ltd., Seven Mile High Resources Inc. and Inco Ltd.

The Inco Ltd. (60%) and Seven Mile High Resources Inc. (40%) Vault Joint Venture persevered in the late 1980's and after diamond drilling tens of thousands of metres of core and spending in excess of three million dollars, the Joint Venture discovered two deposits of epithermal precious metals on the Vault 1 & 2 mineral claims.

The first discovery was the Central Zone on the Vault 1 mineral claim which contains an estimated geological reserve of approximately 1.3 million tonnes of 2 grams per tonne (gpt) gold. The second discovery was the North Vein on the Vault 2 mineral claim which has a drill indicated reserve of 152,000 tonnes of 14 gpt gold (plus minor silver values) to a depth of 200 metres.

The Vault Claim Group which is comprised of seven modified grid mineral claims and eleven, 2-post or fractional mineral claims is owned by Aqua Regia Minerals Inc. Aqua Regia Minerals Inc. acquired a 100% interest in the property in March, 2000, after Inco Ltd. signed over their remaining interest.

SUMMARY continued

Aqua Regia Minerals Inc. financed the drilling program conducted under the direction of the writer which is outlined in this report. The writer staked the original Vault 1 mineral claim in 1982 and has been intermittently involved with the property ever since.

The property covers a portion of the White Lake Tertiary Basin. Three successive formations (Marron, Marama and White Lake) rest unconformably one upon the other on the property. The Marron Formation is comprised predominantly of trachytic flow rocks. The Marama Formation is made up of a lower sequence of mixed volcaniclastics, pyroclastics and sediments and an upper sequence comprised predominantly of dacitic flows and tuffs. The White Lake Formation is a mix of flow rocks, lahars, and sediments of several compositions.

The rocks are folded into northeasterly plunging synclines and anticlines on the Vault 1 & 4 mineral claims. Late east-west and north-south block faults have segmented the syncline on the Vault 1 mineral claim and successively dropped the most important units of the Lower Marama Formation (i.e. in terms of hosting gold mineralization) to the southeast.

The best gold values at the Central Zone occur within some of the lower units of the Lower Marama Formation. The gold is associated with small quartz veins and silica replacement zones.

The North Vein is an epithermal composite quartz/calcite/adularia vein which cuts through the Marron volcanics for over 1100 metres across the Vault 2 mineral claim. The vein extends to at least 400 metres in depth, but averages only 55 cm in width.

Clearly the property hosts two different styles of mineralization, but they are undoubtably related in origin and time. The North Vein represents simple fissure filling by precipitates from multiple phases of epithermal solutions, but the model for the Central Zone is more complex.

SUMMARY continued

The model for the Central Zone suggests that epithermal solutions have ascended fissures in the Marron Formation and invaded the Lower Marama Formation. It is believed that the solutions have moved freely through the most permeable units (i.e. lahars and lapilli tuffs), but have dammed up against impervious units (i.e. mudstones or dense flow rocks). Precipitation of silica with gold values occurs where there are abrupt changes in conditions. The brecciation of brittle silicified rocks and the invasion of additional epithermal solutions have upgraded the gold values of the deposit. Inco geologists also recognized vertical zoning at the Central Zone.

It is believed that the Vault property has the potential to host more veins like the North Vein and/or more zones like the Central Zone and an exploration which was conducted between September, 2000 and March, 2001 was designed to investigate portions of the property that were largely ignored by earlier workers.

The September-March program included detailed geological, magnetometer and altimeter surveys conducted on portions of the Vault 1, 4 & 5 mineral claims. Samples of altered and silicified rock were also collected for analyses.

The results of the September-March program indicated that there was potential for new gold discoveries around the northwest, west and southwest edges of the syncline on the Vault 1 & 4 mineral claims. It was determined that most of the key rock units of the Lower Marama Formation which play a role in the gold mineralization at the deep Central Zone emerge to surface around the western end of the syncline.

Lithogeochemical samples collected from some of the most prospective rock units on surface yielded elevated values for arsenic (up to 556 ppm) and molybdenum (up to 122 ppm) and two samples collected near the northwest edge of the syncline returned values of 1646 and 5012 parts per billion gold.

SUMMARY continued

A program of Percussion Drilling was recommended to test favourable units of the Lower Marama Formation at ten widely separated sites around the northwest, west and southwest edges of the Vault 1 & 4 mineral claims in March, 2001.

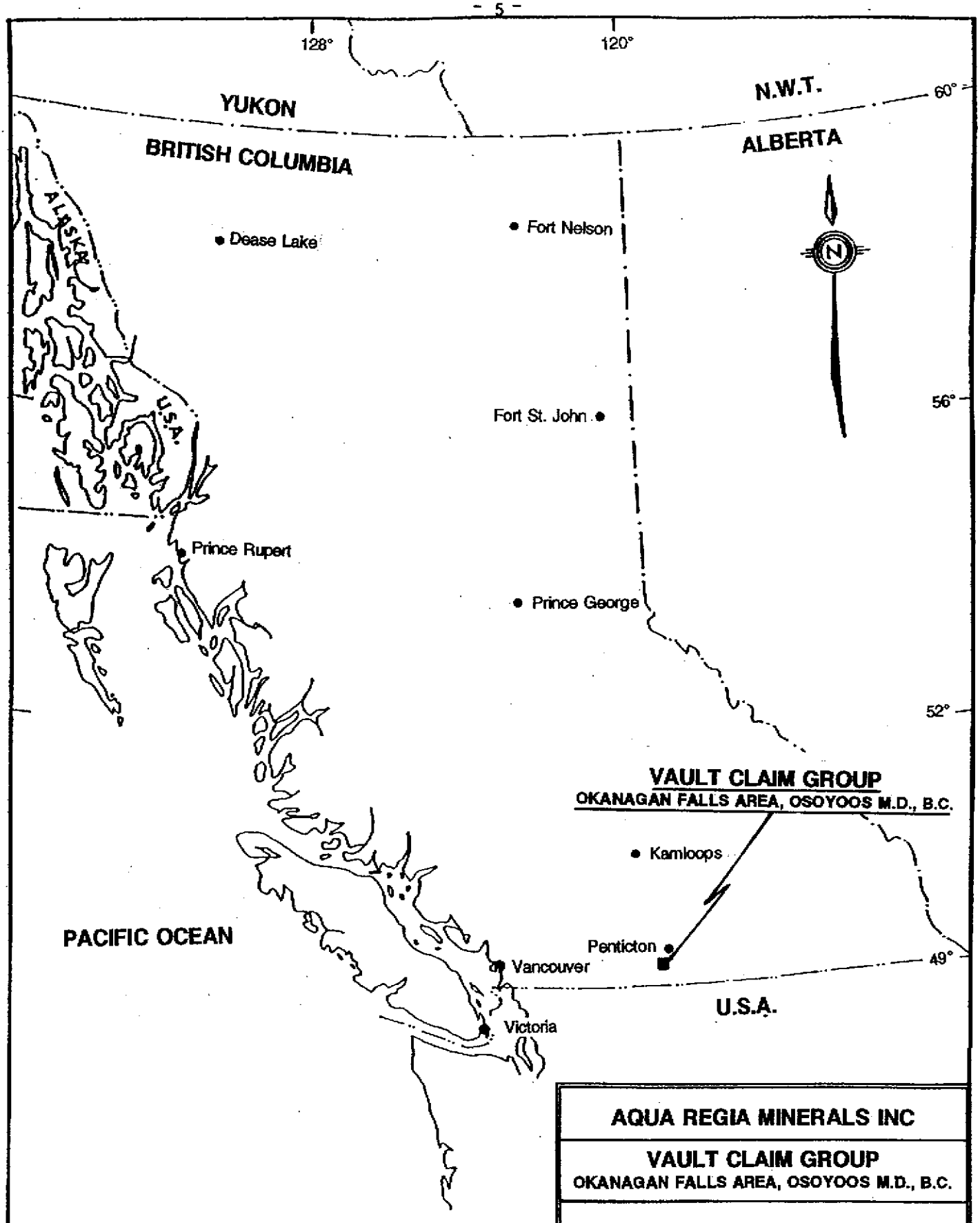
Due to financial restraints, the drilling program was reduced to five drill holes and in late October, 2001 these drill holes were drilled near the northwest edge of the syncline in the vicinity of the silica replacement zone which had returned 5012 ppb gold.

No economic gold mineralization was discovered during the October, 2001 drilling program. The best gold intercept was only 100 ppb over 6.1 metres. The hypothesis that auriferous silica solutions had originated from some source near the centre of the syncline to the southeast was disproved, and the data suggested that the solutions most probably originated from an inferred fault located to the northwest of most of the drill holes.

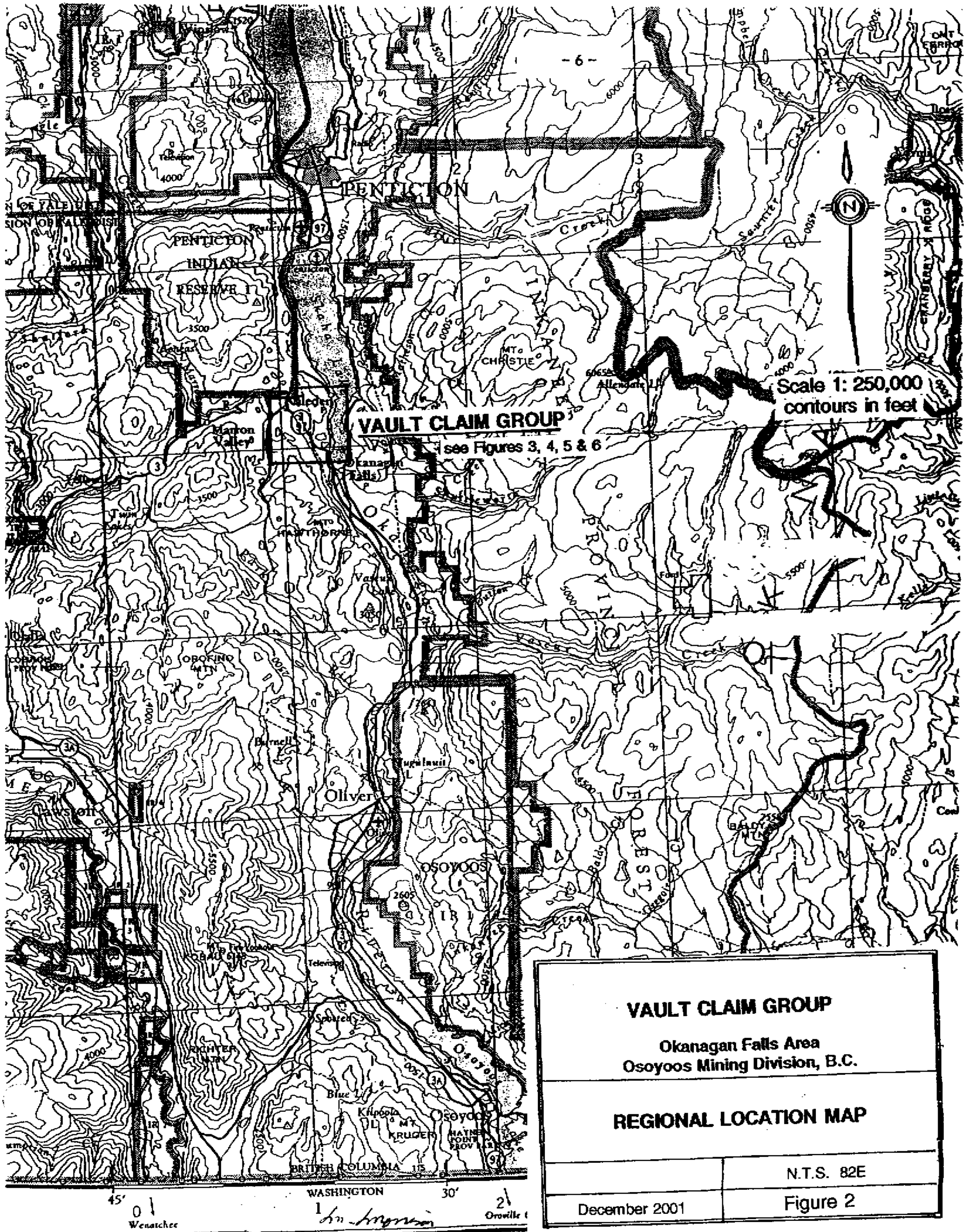
Based on the new model, three additional Percussion Drill Holes are recommended to test the rock units of the Lower Marama Formation on the hanging-wall side of the inferred fault.

It is also recommended that the targets on the southwest and west edges of the syncline be drilled as was suggested in the March, 2001 Assessment Report.

Further deep diamond drilling is also recommended to test the North Vein, Central Zone and an Induced Polarization anomaly which lies just to the northeast of the Central Zone.



AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
LOCATION MAP	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 1



VAULT CLAIM GROUP

Okanagan Falls Area
Osoyoos Mining Division, B.C.

REGIONAL LOCATION MAP

	N.T.S. 82E
December 2001	Figure 2

INTRODUCTION

This report, written for government assessment work credits, discusses the results of a 363 metre Percussion Drilling Program conducted on the northwestern corner of the Vault 1 mineral claim under the direction of the writer in October, 2001.

The drilling program was financed by Aqua Regia Minerals Inc. of Calgary, Alberta which owns title to the Vault Claim Group.

The Vault 1 mineral claim lies within the west-central portion of the Vault Claim Group which is located immediately northwest of Okanagan Falls, B.C. The 18 square kilometre property is comprised of seven modified grid mineral claims and eleven, 2-post and fractional mineral claims.

The original Vault 1 mineral claim was staked by the writer in March, 1982 to cover a silicified gossan zone in Eocene rocks which contained epithermal quartz veins. The potential for an epithermal precious metal deposit was recognized immediately and "Vault" seemed an appropriate name for the property.

During the early 1980's, the Vault property was drilled on several occasions by four different exploration companies (see History), but it was not until 1987 that Inco Ltd. geologists finally achieved the first significant intersection (i.e. 10.8 grams per ton gold over 8.6 metres).

The gold interception occurred within volcaniclastic rocks of the Lower Marama Formation on the north-central portion of the Vault 1 mineral claim. The discovery lead to an aggressive drilling program. Between 1987 and 1989 more than 60 deep diamond drill holes were drilled on the new "Central" and "East" Zones underlying the Vault 1 mineral claim by the Vault Joint Venture (Inco Ltd., 60% and Seven Mile High Resources Inc., 40%). A considerable amount of gold was discovered, but a firm reserve figure was never announced, due to the complex geology and the erratic distribution of gold values.

INTRODUCTION continued

In 1989 & 1990, the Vault Joint Venture concentrated exploration efforts on the North Vein, a composite quartz/calcite/adularia vein, which crosses the southern side of the Vault 2 mineral claim for over 1100 metres. The vein, which intrudes trachyte flows of the Marron Formation, was intercepted in over forty diamond drill holds, some of which tested the vein at depths greater than 350 metres. The reserves of the vein are stated to be 152,000 tonnes of 0.14 gpt gold, plus minor silver values to a depth of 200 metres.

Very little exploration was conducted on the property between 1991 and 2000.

During the aggressive exploration programs of 1986 - 90, most of the work was conducted over a narrow belt which extends up to 300 metres north and south of the boundary of the Vault 1 & 2 mineral claims. The North Vein, Central Zone and East Zones all occur within the belt. Elsewhere, the property was not explored with the same vigour in spite of apparent favourable geology.

In the period September, 2000 to March, 2001, the writer conducted a detailed geological mapping program and a ground magnetometer survey over portions of the Vault 1, 4 & 5 mineral claims in an effort to evaluate ground lying up to 2 km south and 1 km west of that covered by the intensive drilling programs of the 1986-90 seasons.

Based on the geological interpretation of the recent work, several highly favourable drill targets were identified to the south and west of the previously drilled region and the targets were described in a March, 2001 Assessment Report by the writer. This report was submitted to the government and the directors of Aqua Regia Minerals Inc.

Due to financial restraints, the October, 2001 Percussion Drilling Program was limited to only five of the ten drill holes recommended. The five drill holes tested targets on the northwestern corner of the Vault 1 mineral claim, while the targets on the Vault 4 mineral claim to the south were left for a future drilling program.

INTRODUCTION continued

All of the information gathered during the October, 2001 drilling program is presented within this report with the support of Cross-Sectional Diagrams (Figures 7-13), Drill Logs (Appendix C) and Laboratory Analyses (Appendix D).

The drill hole locations are illustrated on Geology Map V-01-1B.

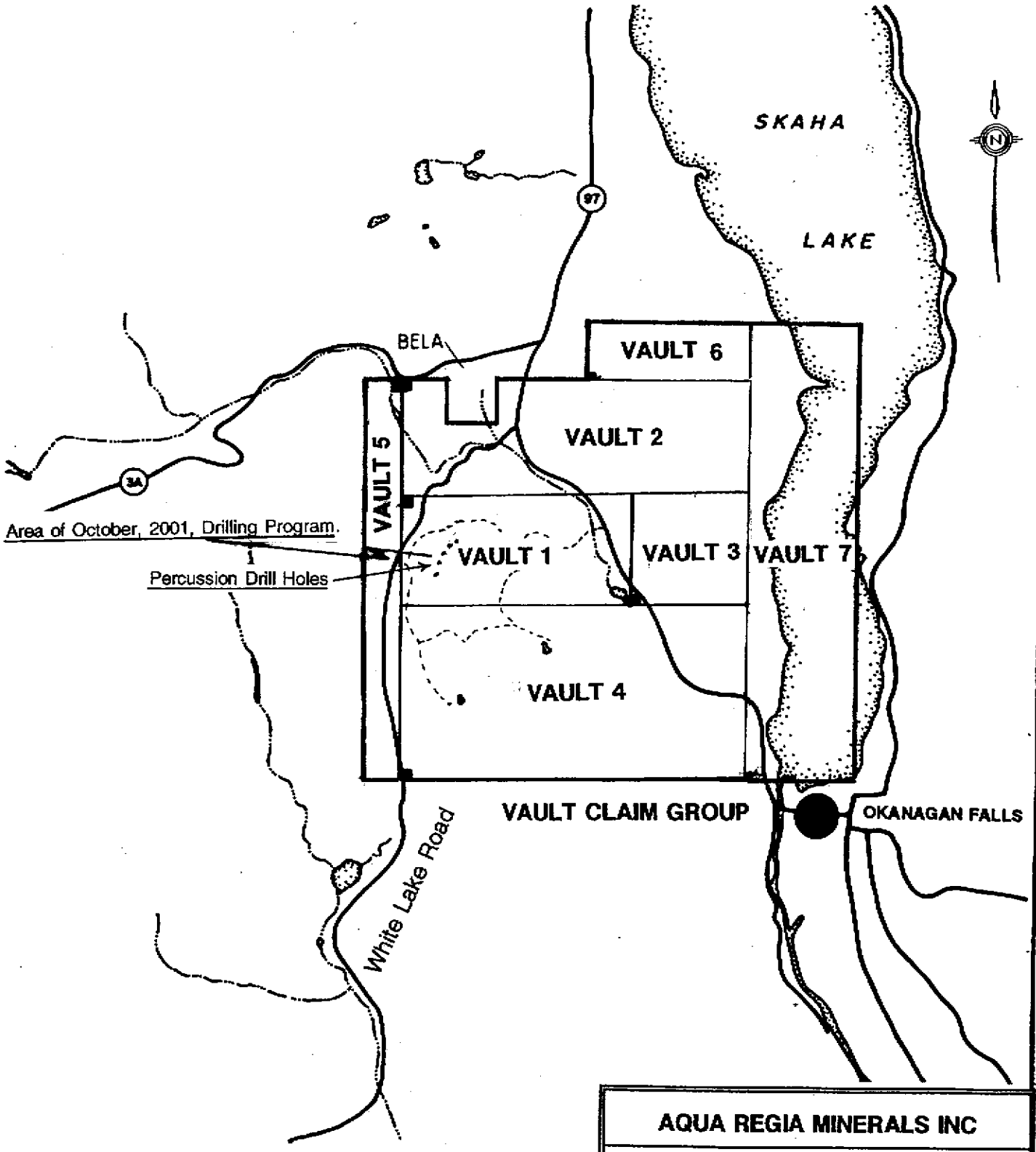
Much of the background information with regard to the Vault Claim Group that was written in the March, 2001 Assessment Report has been repeated in this report for reference, and the Geology Maps V-01-1A & B and Diagram 4C from the March, 2001 report have also been reproduced (with minor modifications) to be included with this report.

It should be noted that the revised Diagram 4C has been renumbered as Figure 12 for this report.

LOCATION AND ACCESS

The Vault Claim Group is located immediately northwest of Okanagan Falls, B.C. (Lat. 49°22′ N; Long. 119°37′ W; N.T.S. 82-E-5E). The main area of exploration lies 4 kilometres northwest of town, or 10 kilometres south of the Penticton Airport.

Highway 97 cuts diagonally through the centre of the property, and the White Lake road crosses the western side of the Claim Group. Several dirt bush roads give access to the main areas of interest on the property as illustrated on Maps V-01-1A & B.



Please see Figure 4 for entire claim group.

■ LEGAL CORNER POSTS

DIRT ROADS

0 1 2 km

SCALE 1:50,000

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
MINERAL CLAIMS AND ACCESS	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 3

PHYSICAL FEATURES AND CLIMATE

The Vault Claim Group covers a rocky, hummocky landscape immediately west of the southern end of Skaha Lake in the Okanagan Valley. Elevations range from 339 metres at Skaha Lake to 800 metres on Mount McLellan on the southern edge of the property. The average elevation of the Claim Group is 600 metres.

Much of the northern portion of the property has a light forest of Ponderosa pine, whereas Douglas fir is the more dominant forest species on the southern half of the property. North-facing slopes support a dense growth of Douglas fir. Some of the forest has been selectively logged in recent years.

The property is sometimes used as summer rangeland for cattle and shallow lakes, which are filled by small streams during the spring snow melt, provide adequate drinking water for the livestock.

Sagebrush and prickly-pear cactus grow on exposed southern slopes in the semi-arid region which receives only 40 cm of precipitation annually. Most of the rain occurs during spring and autumn months. Snow begins to accumulate in November and generally melts from the property by late March. The snow cover rarely exceeds 30 cm.

CLAIM STATUS

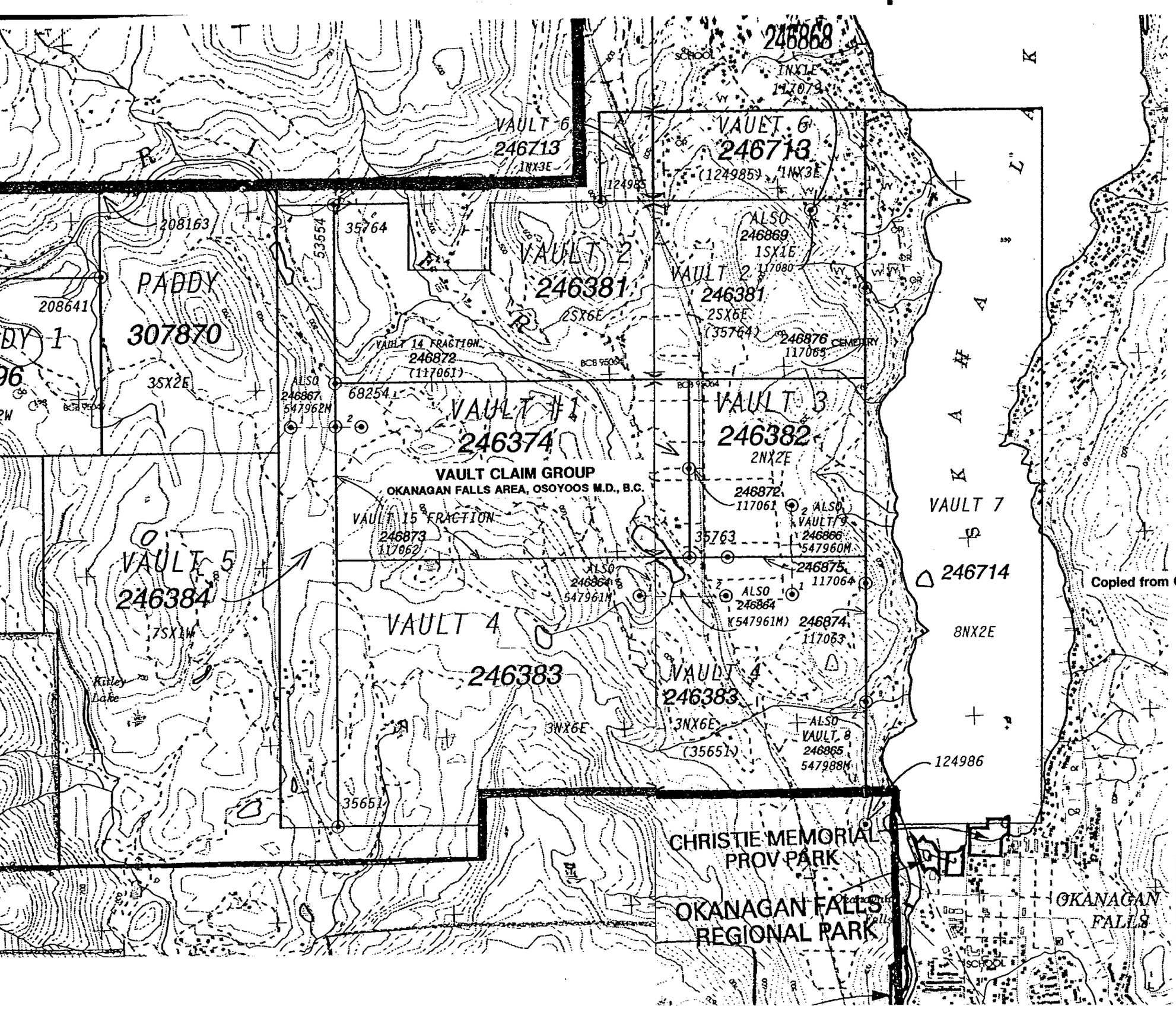
The Vault Claim Group is comprised of seven modified grid mineral claims (68 units) and eleven, 2-post and fractional mineral claims. The mineral claims are contiguous as illustrated on Figure 4.

All of the mineral claims lie within the Osoyoos Mining Division and are owned by Aqua Regia Minerals Inc. of Calgary, Alberta.

Specifics relating to each mineral claim are listed below:

CLAIM NAME	UNITS	TENURE NUMBER	EXPIRY DATE *
Vault 1	8	246374	March 22, 2004
Vault 2	12	246381	March 22, 2004
Vault 3	4	246382	March 22, 2003
Vault 4	18	246383	March 22, 2004
Vault 5	7	246384	March 22, 2003
Vault 6	3	246713	March 22, 2003
Vault 7	16	246714	March 22, 2003
Vault 8	1	246865	March 22, 2004
Vault 9	1	246866	March 22, 2004
Vault 10	1	246864	March 22, 2003
Vault 11	1	246867	March 22, 2003
Vault 12	1	246868	March 22, 2003
Vault 13	1	246869	March 22, 2003
Vault 14 Fraction	1	246872	March 22, 2003
Vault 15 Fraction	1	246873	March 22, 2003
Vault 16 Fraction	1	246874	March 22, 2003
Vault 17 Fraction	1	246875	March 22, 2003
Vault 18 Fraction	1	246876	March 22, 2003

*(The Expiry Dates are based on the acceptance of this report for assessment work credits).



Magnetic declination 21°30'

0 m 500 m 1000 m

Scale 1: 20,000

Copied from Government Mineral Titles Reference Map.

26864 a

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
MINERAL CLAIMS	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 4

HISTORY

During the first nine years (1982 - 90), the Vault property had a robust history with several cycles of exciting exploration followed by failure and disappointment. No fewer than four operators explored the property and three of them were large, highly respected exploration companies. Over four million dollars were spent on exploration programs on the property before the dormant 1990's.

The Vault 1 mineral claim was staked March 8, 1982, by the writer, M. Morrison of Kelowna, B.C. to cover a gossanous area of silicified breccias that carried anomalous gold values. The property was soon optioned to Riocanex Inc. (May, 1982). Riocanex immediately added the Vault 2-5 mineral claims to the property and conducted geological and geochemical surveys on the Vault 1 & 2 mineral claims.

Late in the 1982 season, Riocanex drilled four Percussion Drill holes, totalling 295 metres, to test the silicified "Discovery Zone" on the Vault 1 mineral claim. In April, 1983, Riocanex followed-up the 1982 program with four N.Q. diamond drill holes to further test the silicified zone. A total 632 metres were drilled, but the results were disappointing (2 metres of 2.3 gpt gold and 13.8 gpt silver in one hole and another 2 metres of 2.3 gpt gold and 6.5 gpt silver in a second hole). Riocanex terminated their option in May, 1983.

Late in 1983, Dome Exploration (Canada) Ltd. optioned the property, and early in 1984 crews conducted 3.0 km of Induced Polarization and Ground Magnetometer Surveys over the Discovery Zone on the Vault 1 mineral claim.

Dome followed-up their geophysical surveys with the drilling of seven B.Q. diamond drill holes. The best intercept was only 1 metre of 2.50 gpt gold and 7.0 gpt silver. Dome terminated their option in August, 1984.

Seven Mile High Resources Inc. of Kelowna, B.C. optioned the Vault Claim Group in November, 1984. In April, 1985, crews, under the direction of the writer, conducted

HISTORY continued

geological and geochemical surveys over an area of three square kilometres south of the region covered by the Riocanex 1982 surveys. Five square kilometres of ground magnetometer and VLF-EM surveys were also conducted over the Vault 1 & 4 mineral claims.

In April, 1985, the surveys resulted in the discovery of a new, large, gossanous, silicified and clay-altered zone on the northern side of the Vault 4 mineral claim.

In August, 1985, a program of Percussion Drilling was conducted under the direction of the writer. Two drill holes were drilled to test the eastern extension of the Discovery Zone. These drill holes encountered fault problems and were abandoned short of their target. Five drill holes were then drilled to test the new Vault 4 target. Impressive zones of clay-alteration and silicification were encountered in several of the drill holes, but no economic minerals were intercepted. The drill holes only proved that a large epithermal system occurs on the property.

On May 1, 1986, the property was optioned by Seven Mile High Resources Inc. to Inco Ltd. and the Vault Joint Venture was formed (Inco Ltd. 60% and Seven Mile High Resources Inc. 40%). Two diamond drill holes were drilled in August, 1986, by Inco Ltd. One drill hole returned negligible values, but the second hole, located 750 m east of the Discovery Zone, returned 7.4 gpt gold over 1.05 m from 373.10 - 374.15 metres from a horizon considered to be a favourable host and further drilling was recommended (E. N. Hunter, 1987).

In 1987, two drilling programs were conducted by the Vault Joint Venture. The first program involved six N.Q. diamond drill holes. The best interceptions were only 22.1 m of 1.8 gpt gold and 4.0 m of 3.1 gpt gold. Late in 1987, an additional 16 N.Q. diamond drill holes were drilled (for a total of 4665 m in 1987). In the late program, several encouraging intersections were encountered with the best coming from drill hole 72408 (10.8 gpt gold over 8.36 m) (Groeneweg, 1989).

HISTORY continued

In 1988, 49 N.Q. diamond drill holes were drilled (18,307 m) and a large auriferous epithermal system with several ore grade interceptions was defined over a length of 450 metres. This zone was later called the Central Zone.

During the 1988 program, one deep step-out drill hole was drilled 300 metres east of the Central Zone. This drill hold returned 2.93 m of 7.12 gpt gold (Groeneweg, 1989).

Also in 1988, a Legal Survey of the main Vault claim posts was conducted by S. J. Buzikievich, B.C.L.S.

In 1989, a total of 75 N.Q. diamond drill holes were drilled (13,229 m). Approximately 50 of the drill holes were drilled to test the North Vein to a depth of 200 metres.

In 1990, four deep N.Q. diamond drill holes tested the north Vein to depths of 350 metres. Also in 1990, a surface trenching program exposed the North Vein over a length of 400 metres and detailed sampling was conducted.

Seven Mile High Resources Inc. had an independent Mineral Inventory conducted for them by Orcan Mineral Associates Ltd. in 1989 (Saunders, 1989).

Exploration on the property was low key in the 1990's with the exception of an Induced Polarization and Ground Magnetometer Survey which was conducted over 3 km of lines in 1997 by Aqua Regia Minerals Inc. and a partner. The survey covered portions of the Central Zone and an area lying north and east of the Central Zone. In hindsight, it is interesting to note that the Central Zone is outlined very well by the Induced Polarization survey.

A program consisting of detailed geological mapping, ground magnetometer surveying and altimeter surveying was conducted over portions of the Vault 1, 4 & 5 mineral claims for

HISTORY continued

Aqua Regia Minerals Inc. by the writer between September, 2000 and March, 2001 (Morrison, 2001). The results of this work defined the targets for the October, 2001 drilling program.

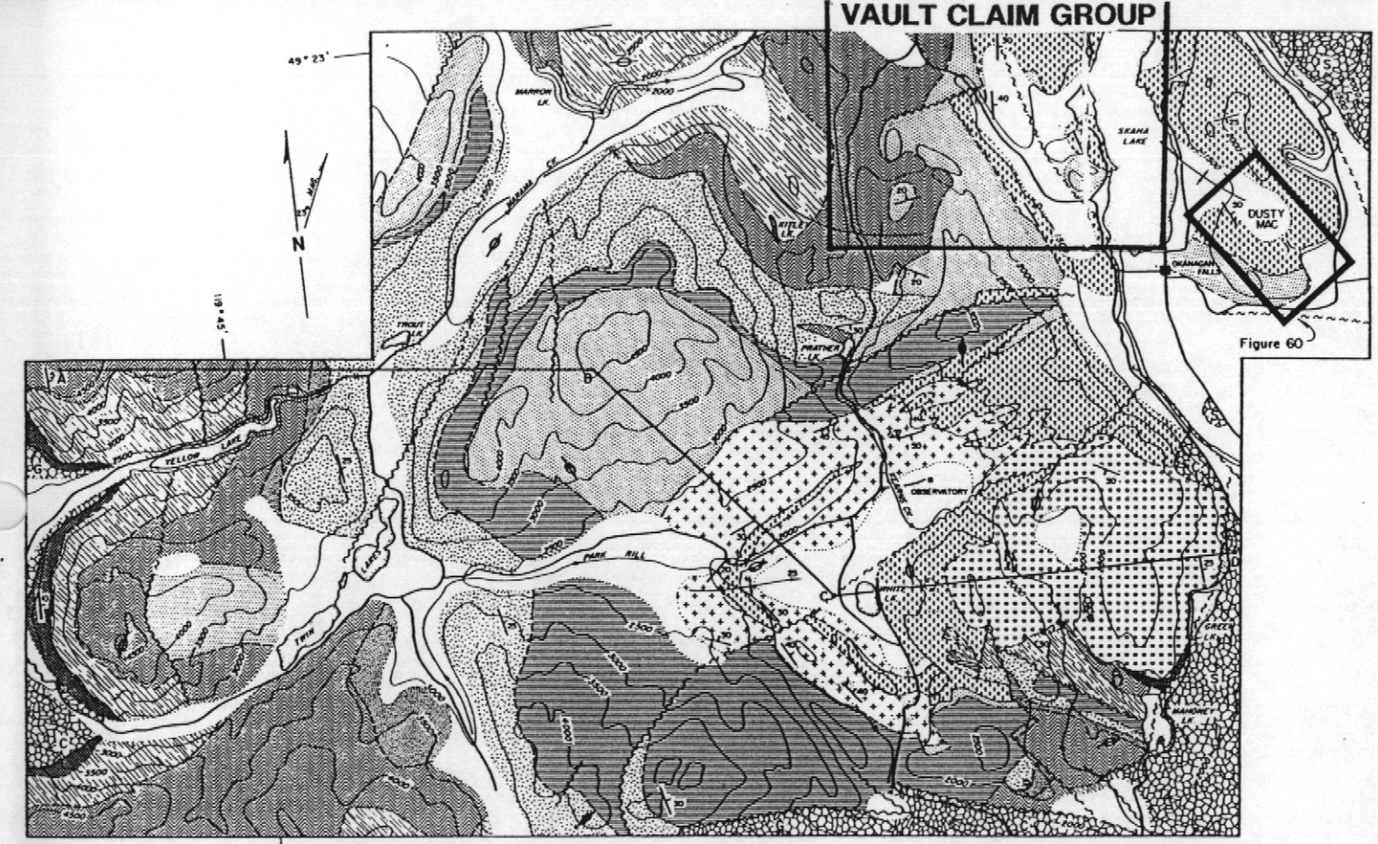
REGIONAL GEOLOGY

The regional geology of the Okanagan Falls area was mapped by B. N. Church of the B.C. Department of Mines and it is described in Bulletin 61 dated 1973.

Two of Church's maps, which appeared in earlier government publications (1969 & 70), are added to this report as Figures 5 & 6. The maps illustrate that the Vault Claim group covers volcanic and sedimentary rocks of Eocene Age. Three different Formations are recognized. The lowermost Marron Formation is unconformably covered by the Marama Formation which in turn is unconformably overlain by the White Lake Formation.

The Marron Formation is made up of extensive lava flows which are largely trachytic porphyries. There are also minor interbedded pyroclastics. The Marama Formation, which unconformably overlies the Marron Formation is made up of a Lower Unit of mixed volcaniclastic and pyroclastic sediments of trachytic, andesitic and dacitic composition and an Upper Unit comprised of dacitic flows and pyroclastics. The White Lake Formation is comprised of a mix of coarse lahars, volcanic flows, tuffs and sediments which unconformably overlie the Marama Formation.

The Eocene rocks have been folded into northeasterly plunging folds and segmented by steep east-west and north-south faults.



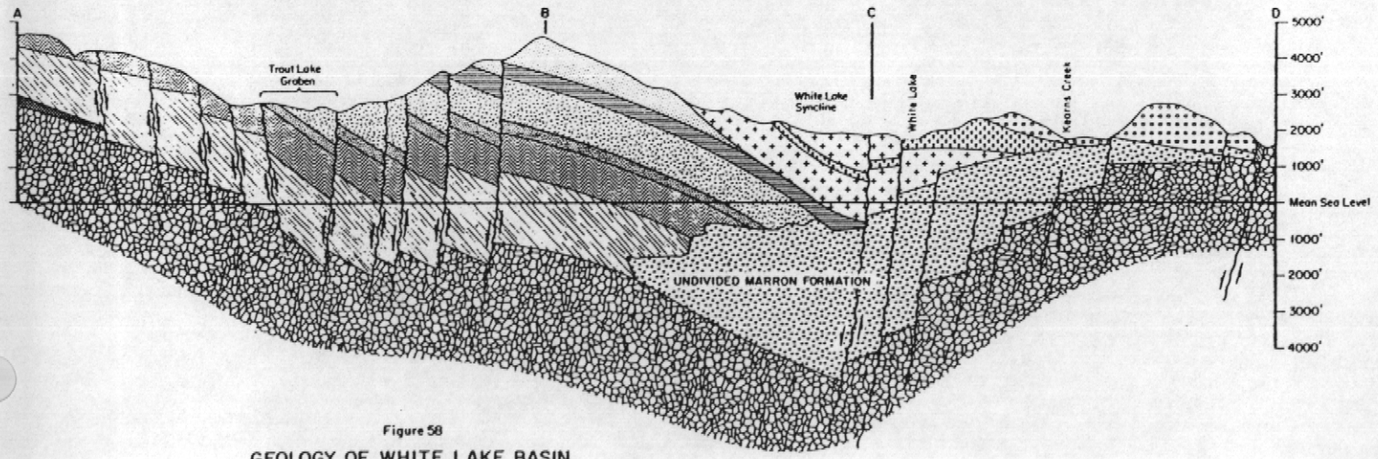


Figure 58

GEOLOGY OF WHITE LAKE BASIN

GEOLOGY BY - N. CHURCH, 1970

SCALE - MILES

B. C. DEPT. OF MINES 0 km 2 km

LEGEND

EARLY TERTIARY ROCKS

SKAHA FORMATION
UPPER MEMBER - MIXED BOULDER CONGLOMERATE.
LOWER MEMBER - MAINLY GRANITE, CHERT, AND GREENSTONE SLIDE BRECCIAS WITH INTERCALATED CONGLOMERATE AND SOME AUGITE-PORPHYRY (TEPHRITE) LAVA.

WHITE LAKE FORMATION
MUDSTONE, SANDSTONE, CONGLOMERATE, COAL, AND MINOR PYROCLASTIC ROCKS INTERCALATED WITH TRACHYTE AND TRACHYANDESITE VOLCANIC BRECCIA, PYROCLASTIC ROCKS, AND LAHAR.

MARAMA FORMATION
UNDIVIDED RHYODACITE AND RHYOLITE LAVA, SOME VOLCANIC BRECCIA AND PYROCLASTIC ROCK AND MINOR BASAL CONGLOMERATE.

MARRON FORMATION

PARK RILL MEMBER - MAINLY MEROCRYSTALLINE AND VITRIC ANDESITE LAVA.

NIMPIT LAKE MEMBER - MAINLY ROSETTE PORPHYRY, SANIDINE-PLAGIOCLASE BEARING TRACHYTE LAVA.

KEARNS CREEK MEMBER - MAINLY PYROXENE PORPHYRY, VESICULAR BASALTIC ANDESITE LAVA.

KITLEY LAKE MEMBER - MAINLY CLOT PORPHYRY, SANDINE - PLAGIOCLASE BEARING TRACHYTE AND TRACHYANDESITE LAVA.

YELLOW LAKE MEMBER - RHOMB PORPHYRIES, AUGITE-ANORTHOCLASE LAVA, VOLCANIC BRECCIA, AND PYROCLASTIC ROCK.

SPRINGBROOK FORMATION
PEBBLE AND BOULDER CONGLOMERATE, BRECCIA, AND SANDSTONE.

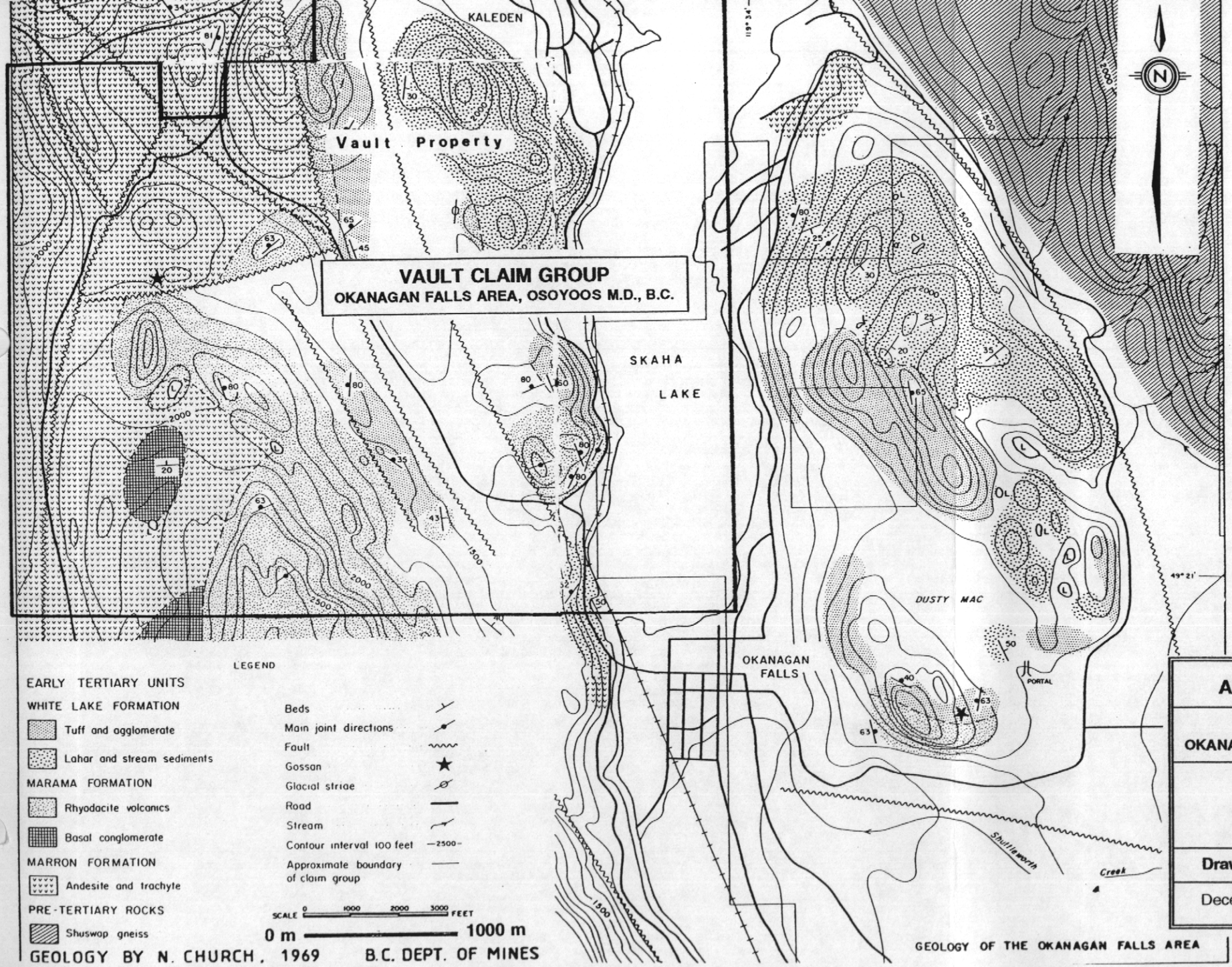
PRE-TERTIARY ROCKS

G - OLD TOM FORMATION - MAINLY GREENSTONE
C - SHOEMAKER FORMATION - MAINLY CHERT
S - SHUSWAP FORMATION - GNEISSIC BASEMENT COMPLEX

SYMBOLS

- 30 — BEDDING ATTITUDE
- ANTICLINAL AXIS
- SYNCLINAL AXIS
- GEOLOGICAL CONTACT
- FAULT ZONE
- BOUNDARY OF BEDROCK EXPOSURE
- 2000 — TOPOGRAPHIC CONTOUR, 500' INTERVAL
- ROAD
- A — B — POSITION OF STRUCTURE SECTION
- GLACIAL STRIAE

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
REGIONAL GEOLOGY	
Drawn By:	N.T.S. 82-E-5E
December 2001	FIGURE 5



GEOLOGY OF THE OKANAGAN FALLS AREA

ENLARGEMENT

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
REGIONAL GEOLOGY	
Drawn By:	N.T.S. 82-E-5E
December 2001	FIGURE 6

REGIONAL MINERALIZATION

The most notable example of precious metal mineralization within Eocene rocks in the Okanagan Falls region (prior to the discovery of the Vault mineralization) was the Dusty Mac occurrence located 2.5 km northeast of town. A near-surface silicified zone which carried good silver and gold values was drilled extensively by Noranda Mines in the late 1960's. The deposit was considered to be too small and uneconomic at the time and Noranda dropped their option on the property. Shortly thereafter, precious metal prices increased dramatically and Dusty Mac Mines Ltd., a Vancouver based company, extracted the deposit with a profitable open pit operation during 1975-76. In all, 93,653 tonnes of ore grading 6.29 gpt gold and 146.59 gpt silver were mined.

The abandoned open pit allows for a good view of the epithermal deposit. A lahar unit comprised of Eocene andesite has been flooded with silica, brecciated, and flooded again. The lahar unit lies directly below a mudstone unit of the White Lake Formation. It is believed that the mudstone unit provided an impervious cap for the ascending epithermal solutions. The gold and silver mineralization is disseminated throughout the andesite/quartz breccia.

PROPERTY GEOLOGY

Summary of Property Geology

The three Eocene Formations (i.e. Marron, Marama and White Lake) described under the title Regional Geology occur on the Vault Claim Group. They are folded into asymmetrical anticlines and synclines and are cut by east-west and north-south faults. Epithermal solutions ascending fractures in the Marron Formation have flooded out into the permeable horizons of the Lower Marama Formation. Strong argillic alteration and silica replacement occur within lahars, tuffs and other permeable sediments.

PROPERTY GEOLOGY continued

Summary of Property Geology continued

Precious metals occur within epithermal quartz/calcite/adularia veins which cut through the Marron formation and with quartz veins and silica replacement zones within the Lower Marama Formation. Some significant ore grade gold intervals have been encountered in drill holes (see Mineralization and Alteration).

The property geology is described in more detail under several titles to follow.

Early Eocene Marron Formation - Unit 1a

The Marron Formation (Unit 1a) is believed to underlie all other rocks on the Vault Claim Group. The Marron Formation occurs at, or near, surface on the northern half of the Vault 1 mineral claim, on much of the Vault 2 & 5 mineral claims, and on the western half of the Vault 4 mineral claim (see Maps V-01-1A & B).

A large area of Marron Formation is exposed south of Baseline 11+00S between lines 0+50W and 5+50E. Marron rocks also occur near L5+00W from 10+00S to 11+00S on Map V-01-1A and on several grid lines on the northwest corner of Map V-01-1B.

The Marron Formation is generally comprised of massive flows of porphyritic trachyte with only minor intercalated flow breccias and lahars of trachytic composition. Zones of well-fractured trachyte or lahar are indicated on Map V-01-1A.

The trachyte exhibits very little variation from one outcrop to the next. The purple porphyritic trachyte consists of 30% large tabular phenocrysts of potassium feldspar up to 5 mm in size that are set in a groundmass of fine K-spar laths. Minor constituents are quartz, hematite, dolomite, sericite and clay (resulting from alteration). The altered trachyte is light green or white.

PROPERTY GEOLOGY continued

Eocene Lower Marama Formation - Unit 2

The Lower Marama Formation is a mixed sequence of sediments, volcaniclastics and pyroclastics that is sandwiched between the underlying trachytes of the Marron Formation and the overlying dacitic flows and tuffs of the Upper Marama Formation.

The Lower Marama Formation reaches its greatest thickness within the syncline which underlies the southern half of the Vault 1 mineral claim, but it is also believed to underlie much of the area covered by Maps V-01-1A & B. The Lower Marama rocks do not stand up to erosion like the Upper Marama dacites and much of the Lower Marama occurs only as scattered poorly exposed outcrops. A large amount of the Lower Marama is covered by drift.

In spite of the lack of good exposure, units comprising the Lower Marama have been mapped for distances of up to 350 metres north of Baseline 11+00S from 1+00W to 6+00E and as far south as 15+50S on line 4+50E. The outlines of the major units comprising the Lower Marama Formation define an asymmetrical anticline on map V-01-1A. One limb dips moderately northeast towards the Vault 1 syncline and the other limb dips moderately southeast.

Although the Lower Marama Formation is comprised of a real mix of intercalated sediments and volcanics, five general mappable units have been recognized and these are described under the titles that follow.

Basal Mixed Sediments - Unit 2a

Unit 2a sediments rest unconformably over trachytes of the Marron Formation on much of the property. The sediments are comprised of cobble conglomerates, pebble conglomerates, grits, greywackes, siltstones, argillites and tuffs that are grey to light green. Much of the clastic material is comprised of Marron Formation trachyte.

PROPERTY GEOLOGY continued

Eocene Lower Marama Formation - Unit 2 continued

Basal Mixed Sediments - Unit 2a

Thick-bedded cobble conglomerates are interbedded with thin-bedded siltstones on the Vault 4 mineral claim and a fast-changing depositional environment is indicated.

The 2a sediments thicken from east to west across the property and equal at least 70 metres in thickness in the October, 2001 drill area where they have been divided into distinct argillite, tuff and conglomerate sub-units. The sub-units change dramatically in thickness over short distances (see Cross Section N-N').

An important outcrop of an auriferous silica replacement zone in 2a sediments occurs at 1+25S, 1+90W.

Debris Flows and Lahars with Trachytic Clasts - Unit 2bt

At several sites, the sediments of Unit 2a are covered by debris flows or lahars that are comprised of Marron Formation trachytic clasts up to 40 cm. The modal size of the sub-angular to sub-rounded clasts is 15 cm. There is very little matrix material and, therefore, these rocks have abundant void space and good permeability.

The 2bt unit is widespread across the property and it is believed to have played a large role in the development of mineralized zones discovered on the Vault 1 mineral claim.

Notable occurrences of Unit 2bt occur near Baseline 11+00S on lines 1+00W and 1+50W and between lines 5+00W and 5+50W at 8+00S on Map V-01-01A.

PROPERTY GEOLOGY continued

Eocene Lower Marama Formation - Unit 2 continued

Andesitic and Mafic Flows and Lahars - Unit 2b

A sequence of thin andesitic and mafic flows, flow breccias and lahars lies above Unit 2bt. The sequence is collectively mapped as unit 2b on Maps V-01-1A & B and it ranges from 60 to 65 metres in thickness. The andesites and basalts (?) are sometimes very porous with large vesicules, but they can also be dense and impervious. Drill logs by previous workers indicate that some sediments are intercalated with the volcanics, but none were recognized in the current map area.

The flow breccias and lahars of Unit 2b are like those of Unit 2bt with clasts up to 40 cm and very little matrix material. They have abundant void space and good permeability. These rocks are often altered and limonitic and locally they are replaced with silica.

Augite phenocrysts are common in some of the andesites, but they range in size from flow to flow. Some andesites also contain white plagioclase phenocrysts. Olivine crystals occur in the basalts (?).

The 2b rocks occur as a wide mappable unit which circles the northeasterly plunging anticline on the Vault 4 mineral claim. The 2b rocks disappear under drift west of L2+00W. One isolated outcrop of Unit 2b occurs on L2+00W at 1+50S on Map V-01-1B.

Sandstone - Unit 2C

A green to black sandstone (Unit 2C) lies immediately above the volcanic rocks of Unit 2b, and the composition of the sandstone appears to be derived from eroded 2b rocks. The sandstone is thin bedded and medium to fine grained. There are some siltstone interbeds.

PROPERTY GEOLOGY continued

Eocene Lower Marama Formation - Unit 2 continued

Sandstone - Unit 2C continued

The sandstone unit which averages 15 metres in thickness has been mapped on both the northwest and southeast limbs of the anticline on Map V-01-1A.

Felsic Crystal and Lapilli Tuff - Unit 2d

A chalky, white to tan, kaolinite altered crystal and/or lapilli tuff (Unit 2d) lies above the 2c sandstone unit on both the northwest and southeast limbs of the anticline on Map V-01-1A. The 2d unit averages 25 metres in thickness.

The 2d tuff is referred to as a "Felsic Unit" in drill logs by earlier workers and the unit appears to have played a role in the deposition of gold at the Central Zone on the Vault 1 mineral claim.

Porphyritic Andesite - Unit 2e

A massive porphyritic andesite flow (Unit 2e) occurs immediately above the 2d tuff unit on L0+00W on Map V-01-1A.

The andesite is comprised of 10% rusty, altered orthoclase phenocrysts up to 5 mm and 3% augite microphenocrysts which are set in a light green, very fine-grained groundmass.

PROPERTY GEOLOGY continued

Eocene Upper Marama Formation - Unit 3

Massive flows of light grey, very fine-grained dacite (Unit 3a) occur above Units 2d or 2e of the Lower Marama Formation on the northwest and southeast limbs of the anticline on Map V-01-1A. The dacite is resistant to erosion and forms a semi-circle of distinct ridges coincident with the anticline on the Vault 1 & 4 mineral claims.

Northeast and east of the dacite flows (Unit 3a) on Map V-01-1A there are crystal and lapilli tuffs (Unit 3b) and debris flows/lahars (Unit 3c) which are comprised of the same material as the dacitic flows.

The tuffs are soft and crumbly and rarely occur as outcrop. North of the shallow lake on lines 7+00E and 8+00E dacitic feeder dykes intrude some of the 3b tuffs.

The Upper Marama Formation exceeds 300 metres in thickness on portions of the Vault property.

Thin section studies of the dacite indicate that the composition is predominantly plagioclase, with 15% k-spar, 5% augite and no quartz (E. N. Hunter, 1987). Much of the dacite is unaltered.

Eocene (?) White Lake Formation - Unit 4

The White Lake Formation (Unit 4) occurs on the northeast portion of the property beyond the March, 2001 mapping program. The formation is comprised of lahars, volcanic flows, tuffs, and sedimentary rocks which range from mudstones to coarse conglomerates. The White Lake Formation unconformably overlies the Upper Marama Formation (E. N. Hunter, 1987).

PROPERTY GEOLOGY continued

Structural Geology and Faulting

The Eocene Marama Formation which unconformably overlies the Early Eocene Marron Formation is folded into a syncline on the Vault 1 mineral claim and an asymmetrical anticline on the Vault 4 mineral claim. The axes of the folds strike and plunge northeasterly. The Marama Formation wedges out to expose the underlying Marron Formation on the western sides of the Vault 1, 4 & 5 mineral claims. To the east, the Marama Formation thickens to at least 450 metres.

On the Vault 1 mineral claim, the Marama Formation is successively down dropped to the south by a series of east-west block faults, and dropped to the east by another series of north-south block faults.

A late fault crosses much of the property from southwest to northeast (see Maps V-01-1A & B) and drops the geology on the southeast side by as much as 100 metres.

Mineralization and Alteration

Much has been written about the mineralization and alteration on the Vault property (see References) and it is suffice here to give only a brief summary of the two main styles of mineralization which are represented by the North Vein and the Central Zone.

North Vein

The North Vein is a precious metal bearing epithermal composite vein comprised of quartz, calcite and adularia. The vein cuts through brittle trachyte flow rocks of the Marron Formation which underlie the southern side of the Vault 2 mineral claim. The vein is

PROPERTY GEOLOGY continued

Mineralization and Alteration continued

North Vein continued

exceedingly persistent and extends over 1100 metres in an east-west direction and dips steeply south to a depth of at least 400 metres.

The vein is irregular in width (5 to 100 cm) and pinches and swells along strike and dip. The upper 200 metres of the vein have been drilled extensively and a reserve of 152,000 tonnes of 14 gpt gold (plus minor silver values) has been calculated over an average vein width of 55 cm. Electrum is the main ore mineral. Pyrite (2 to 3%) is the only notable sulphide.

The trachyte within the shear zone is fragmented and clay altered. Moderate silicification and/or clay alteration extends for up to 20 metres into the hanging wall rocks on the south side of the vein. Quartz and carbonate veinlets within the trachyte also become more numerous as the vein is approached from the south.

Central Zone

The Central Zone on the northern side of the Vault 1 mineral claim has been penetrated by over 50 diamond drill holes. The main host rocks for precious metal mineralization are the lahars and lapilli tuffs of the Lower Marama Formation. These volcanic rocks have been flooded with epithermal silica solutions, fractured, and injected again. Intercalated mudstones and flow rocks appear to have acted as effective dams for epithermal solutions that ascended through the permeable lahar and tuff units. Repeat brecciation and multiphase veinlets are characteristic of portions of the deposit.

PROPERTY GEOLOGY continued

Mineralization and Alteration continued

Central Zone continued

Precious metal bearing quartz veins and veinlets often have an east-west strike and they are most numerous between 0+50S and 1+50S. Some of the best precious metal values of the Central Zone occur within the upper portions of a lahar unit and the lower portions of a felsic unit near the contact of the two units. These units are called 2b and 2d, respectively, in the current project area.

Grades as high as 15.0 gpt gold over 8.8 metres and 10.0 gpt gold over 13.4 metres were reported by the Vault Joint Venture, and tonnage estimates range from 61,000 tonnes of 10 gpt gold or 505,000 tonnes of 3 gpt gold to 1.3 million tonnes of 2 gpt gold. (Due to the lack of in-fill drilling and data, all of the reserve figures calculated to date have been reported with qualifying statements.)

The dimensions of the Central Zone, if projected vertically to surface, occur from 0+50S to 1+50S and from 5+00E to 9+50E.

Some significant interceptions of gold have also been recorded from holes drilled up to 300 metres east of the Central Zone (i.e. 2.93 m of 7.12 gpt gold).

The dominant gold bearing mineral is electrum, while pyrite (2-10%) is the most common assessory sulphide. Very fine-grained pyrite (1-2%) is disseminated throughout the rocks for several tens of metres from the Central Zone. Silver, arsenic and molybdenite occur in anomalous values for several tens of metres above the main gold values and are important pathfinder elements.

PROPERTY GEOLOGY continued

Mineralization and Alteration continued

Central Zone continued

Argillic alteration and silica replacement are common and can extend through the permeable rock units for hundreds of metres beyond the significant gold values.

DRILLING PROGRAM - 2001

Site Preparation

This year's five drill hole sites are all located on the western side of the Vault 1 mineral claim and they are easily reached from the White Lake road by way of an old dirt road (400 metres) and an access trail (500 metres). The access trail meanders through a fairly open forest of Ponderosa pine, and no large trees had to be cut to establish the trail. Trail building consisted of cutting minor brush, moving some large boulders and cutting through deadfall.

A Case 580SK Turbo 4x4 Tractor equipped with a front-end scoop and a backhoe was contracted from A & R Excavating of Penticton, B.C. for site preparation. The preparation work included the levelling of some sites and the digging of 2x3 metre sumps to a depth of 2 metres at each site for the containment of drill water run-off and sludge.

A total of 4 hours tractor time was charged which included mobilization and demobilization from Penticton.

The writer spent one day with a chainsaw opening the access trail through deadfall and small brush and another day supervising the tractor operations.

DRILLING PROGRAM - 2001 continued

Reclamation

The drilling program was conducted late in the season and winter conditions set in before reclamation of the drill sites was completed. It is anticipated that the sumps at each drill site will be filled in and the drill sites will be recontoured to their natural form as soon as the ground thaws in early 2002.

The deadfall and small brush that was cut for access and site preparation has been lopped into short lengths and scattered to decompose quickly on the forest floor. One man-day was required for this work.

When weather permits, a grass seed mix prescribed by the Forest Service will be applied with a 13-16-10 fertilizer to areas where the surface soil has been disturbed by activities related to the drilling program.

The Drill

A track-mounted Percussion Drill was contracted from Northspan Explorations of Westbank, B.C. for the Vault property drilling program. The rig with a capacity to drill a 7 cm bore hole to a depth of at least 100 metres was considered suitable for the job.

A low-bed truck was required to deliver the drill to the property, but once on the property the drill encountered no problems in moving from the White Lake road to the drill sites.

A one-ton, 4x4, pick-up with diesel and water tanks and spare casing accompanied the drill to each drill site.

DRILLING PROGRAM - 2001 continued

The Program

The drilling program was carried out October 24-28, 2001. It involved the drilling of 5 drill holes, totalling 363.2 metres. The drill holes ranged from 66.4 to 84.7 metres in length and were drilled 80 to 105 metres apart.

The key objective of the program was to test units of the Lower Marama Formation for alteration and precious metal mineralization.

All of the drill holes were drilled on the Vault 1 mineral claim (see Map V-01-1B) and the specifics of each drill hole are listed in the Table below:

DRILL HOLE NUMBER	COORDINATES SOUTH	WEST	AZIMUTH	DIP	ELEVATION (metres)	LENGTH (metres)
V-01-1	1+78S	1+22W	310°	-70°	556.5	66.4
V-01-2	2+32S	1+86W	301°	-70°	558	69.5
V-01-3	2+95S	2+28W	291°	-70°	560	76.2
V-01-4	3+91S	2+53W	286°	-70°	572	66.4
V-01-5	4+91S	2+88W	279°	-70°	574	84.7
					Total	363.2

A summary description of each hole is given under a later title in this report. Drill logs for each drill hole may be found in Appendix C.

Sampling

Approximately 30 kg of rock powder and chips were produced from each 3 metre drill intercept. The 30 kg sample was poured evenly across a large sheet of plywood and a cement trowel was used to scoop a representative sample from several points of the pile until $2\frac{1}{2}$ kg of material was collected in a plastic rock sample bag for shipment to the laboratory. A

DRILLING PROGRAM - 2001 continued

Sampling continued

second sample was collected in the same manner for back-up purposes, and the excess material was discarded.

A geological sample for logging purposes was also screened and washed from each 3 metre drill interval.

In order to save assaying costs, several of the individual (3 metre) samples were combined with adjoining 3 metre drill intervals to make up composite samples. If the geology did not appear promising, sometimes up to 5 samples (representing 15 metres of drill intercept) were combined as a single composite sample. It was felt that if the composite samples proved to be anomalous in certain elements, then the individual samples making up the composite sample could be analyzed at a later date.

A total of 36 samples (singles and composites) were delivered to Eco-Tech Laboratory in Kamloops, and these represented all of the bedrock encountered in the drilling program. The 36 samples were analyzed for 28 elements by standard ICP methods, and for gold by Atomic Absorption.

The samples were crushed to -10 mesh using jaw and cone crushers and then a 250 g split sample was ring pulverized to approximately -140 mesh. A measure of the -140 mesh material was digested by Aqua Regia and analyzed by ICP. Fire Assay and Atomic Absorption were used for the gold analysis.

The analytical results are listed in Appendix D.

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips

Approximately 200 grams of screened and washed drill chips (3 to 10 mm in size) were collected from each drill intercept for viewing and logging purposes. A quick logging was done on site to guide the drill program, and more thorough logging was done at a later date to properly appraise the drill program results. During the drilling operations, notes were made with regard to the amount of clay material that was washed from the chip samples as it was recognized that clay gouge often represents shearing and faulting.

The drill chips were of sufficient size to allow for the identification of mineral constituents and rock type. Quartz chips from broken veinlets were readily identifiable and recorded in the drill log. The pyrite content within quartz chips was also recorded. The degree of clay alteration and silicification of the rock was noted, as was the pyrite content of the rock as a whole. All of the data observed for each sample interval is recorded in the drill logs that accompany this report (see Appendix C).

Percussion drilling has clear disadvantages when compared with core drilling. The drill chips are like pieces of a jigsaw puzzle, and they must be studied in detail in order to reconstruct the geological picture. If the geologist has enough time to monitor the percussion drill, then rock changes can be recorded within an accuracy of a few centimetres if the rock change is obvious (for example, drilling from a black argillite into a white tuffaceous rock). However, most of the time the 3 metre sample is a mix of chips, of perhaps, 75% tuff, 20% argillite and 5% siltstone, and the best the geologist can do is record the percentages of each rock unit without the exact knowledge of where each lies with respect to the other. The logs for the five drill holes as presented on cross-sectional Figures 7-13 therefore represent some geological guesswork.

The five drill logs comprise Appendix C of this report.

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5

PDH V-01-1

Glacial till and drift were encountered to a depth of 16.8m in PDH V-01-1 which was drilled at minus 70 degrees. The lowermost portion of the till immediately above bedrock consists of 7.2m of almost pure grey kaolinite.

The rest of the drill hole was drilled in Lower Marama Formation sediments which consist of an upper unit of argillite and interbedded siltstone (from 16.8 to 29.9m) and a lower unit made up of very fine grained dacitic(?) tuff from 29.9m to the bottom of the hole at 66.4m.

A fault zone may occur at the base of the argillite/siltstone unit. From 23.8 to 29.9m, large amounts of clay make up 70 to 80% of the interval.

The upper portion of the tuff unit (29.9-42.1m) is moderately to strongly replaced with silica. The silica replacement within this interval is greatest from 36.0 to 39.0m where quartz/pyrite veinlets equal from 2 to 3% of the silicified tuff. The intercept from 36.0 to 39.0m also contains 20% black argillite and the argillite may have played a role in the deposition of the silica.

The best gold intercept of the October, 2001 program (100 parts per billion over 6.1 metres) occurs in sample VA-03 from 36.0 to 42.1m in drill hole PDH V-01-1. The arsenic of this interval was also elevated (235 parts per million). Elsewhere the gold and

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5 continued

PDH V-01-1 continued

arsenic values were generally low in PDH V-01-1 (see drill hole logs and Cross Section A-A' on Figure 7).

A fault zone may cut the tuff from 51.2 to 60.4m where white clay equals 50 to 70% of the material collected from this interval.

The drill hole was completed at 66.4 metres still within tuff of the Lower Marama Formation.

PDH V-01-2

Drill hole PDH V-01-2, also drilled at minus 70 degrees, entered a tuffaceous unit of the Lower Marama Formation just 2.4m below surface. The drill continued to cut the tuffaceous unit to the end of the drill hole at 69.5 metres.

A zone of strong silica replacement with 5% pyrite occurs near the top of the drill hole from 4.0 to 5.5m, and this zone contains 80 ppb gold and 860 ppm arsenic.

A wide zone of the tuff exhibits slight to moderate silica replacement from 20.7 to 36.0m. Gold values within this interval range from 30 to 45 ppb and arsenic values range from 40 to 215 ppm.

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5 continued

PDH V-01-2 continued

A fault zone(?) occurs within the zone of silica replacement from 23.8 to 26.8m where grey kaolinite clay makes up 90% of the material collected and the strongest silica replacement occurs from 26.8 to 29.9m just below the fault zone.

A second wide zone of moderate to strong silica replacement of tuff occurs from 54.3 to 66.4m. The strongest silica replacement of this zone occurs from 57.3 to 63.4m, immediately above a suspected fault zone which the drill hole crosses from 63.4m to the bottom of the drill hole at 69.5m Grey clay equals 90% of the material collected from the suspected fault zone. It is believed that the fault(?) could define the base of the Lower Marama Formation. Sample VA-16 from 57.3 to 60.4m returned 45 ppb gold and 30 ppm arsenic.

PDH V-01-3

The Lower Marama Formation was intercepted at 23.8m in PDH V-01-3 below till and drift. This drill hole, like all of the others, was drilled at minus 70 degrees. The Lower Marama Formation consists of an upper unit of argillite and interbedded siltstone (from 23.8 to 32.9m) and a lower unit of fine grained dacitic(?) tuff from 32.9m to the end of the drill hole at 76.2m. Strong clay zones occur in portions of the argillite unit and minor argillite beds occur within the tuffaceous unit.

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5 continued

PDH V-01-3 continued

One narrow zone with moderate silica replacement occurs within the tuffaceous unit from 39.0 to 42.1m and a second wider zone occurs from 60.4 to 69.5m. From 69.5m to the bottom of the drill hole (at 76.2 metres) the tuff is strongly replaced with silica.

The gold values range from only 15 to 35 ppb throughout the drill hole and show no marked increase within the silica replacement zones. In fact, in the strong silica replacement zone (69.5 to 76.2m) the gold values are low (15 to 20 ppb) although further up the drill hole they range from 35 to 95 ppm.

The drill hole was abandoned in a water-filled fault zone at 76.2 metres. The fault zone may mark the base of the Lower Marama Formation.

Up-hole caving was a problem during the drilling operation, and most samples collected for analyses were badly contaminated with foreign material from above.

DRILL HOLE P.D.H. V-01-3

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE
4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones
——— UNCONFORMITY
3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clast to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff

——— UNCONFORMITY
1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

Casing to 6.1 metres

1.1-5.5m clayey boulder till

5.5-14.6m compacted sand and pebble till

14.6-23.8m compacted clay and gravel till

PLEISTOCENE

LOWER MARAMA FORMATION

550m

525m

500m

475m

Elevation above sea level

VA-18 VA-19 VA-20 VA-21 VA-22 VA-23 VA-24 VA-25 VA-26

2a

ARGILLITE

TUFF

23.8-26.8m dark brown argillite (90%) with interbedded light brown and grey siltstone (10%) slight argillic alteration; 50% grey clay washed out of sample interval

26.8-29.9m as above, but without strong clay zones

29.9-32.9m black argillite, 30% grey clay washed out of sample interval, severe downhole contamination equals 90% of sample collected.

32.9-36.0m light green and pink tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite. Downhole contamination equals 50% of sample.

36.0-39.0m as above (90%) plus 10% interbedded dark brown argillite. Downhole contamination equals 20% of sample.

39.0-42.1m light grey tuff (90%) moderate argillic alteration and moderate silica replacement (20%?) with interbedded dark brown argillite (10%). Downhole contamination equals 10% of sample.

42.1-45.1m green tuff (90%) with interbedded black argillite (10%), 1% quartz veinlets and trace of pyrite. Downhole contamination equals 40% of sample.

45.1-48.2m light green tuff, moderate argillic alteration and slight silica replacement (5%?). 50% grey clay washed out of sample interval. Downhole contamination equals 50% of the sample collected

45.1-60.4m light green to grey tuff, moderate argillic alteration, trace of pyrite. Downhole contamination equals 30 to 90% of sample intervals.

45.1-51.2m 50% contamination (mixed gravel)
51.2-57.3m 30% contamination (mixed gravel)
57.3-60.4m 90% contamination (mixed gravel)

60.4-69.5m light green to grey tuff, moderate argillic alteration, and moderate silica replacement (30%?), trace of pyrite. Downhole contamination equals 50 to 60% of samples collected.

69.5-76.2m light grey tuff, very strong silica replacement (90%?), no pyrite.
69.5-75.6m Downhole contamination equals 20 to 30% of samples collected.
75.0-76.2m Fault Zone? with water
~~75.6-76.2m Downhole contamination equals 90% of sample collected (mixed gravel).~~

76.2m Drill Hole Abandoned (Fault Zone? with water).

0 5 10 metres

Scale 1:250

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-18	20.7 - 23.8 = 3.1	35	95
VA-19	23.8 - 32.9 = 9.1	20	75
VA-20	32.9 - 39.0 = 6.1	25	55
VA-21	39.0 - 42.1 = 3.1	30	75
VA-22	42.1 - 57.3 = 15.2	35	65
VA-23	57.3 - 63.4 = 6.1	30	70
VA-24	63.4 - 69.5 = 6.1	15	35
VA-25	69.5 - 72.5 = 3.0	15	30
VA-26	72.5 - 76.2 = 3.7	20	30

Please see Appendix D for other elements and further details.

AQUA REGIA MINERALS INC

VAULT CLAIM GROUP
OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.

26864 **PDH V-01-3**
CROSS SECTION
FACING NORTHEAST (018°)

Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	**FIGURE 9**

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5 continued

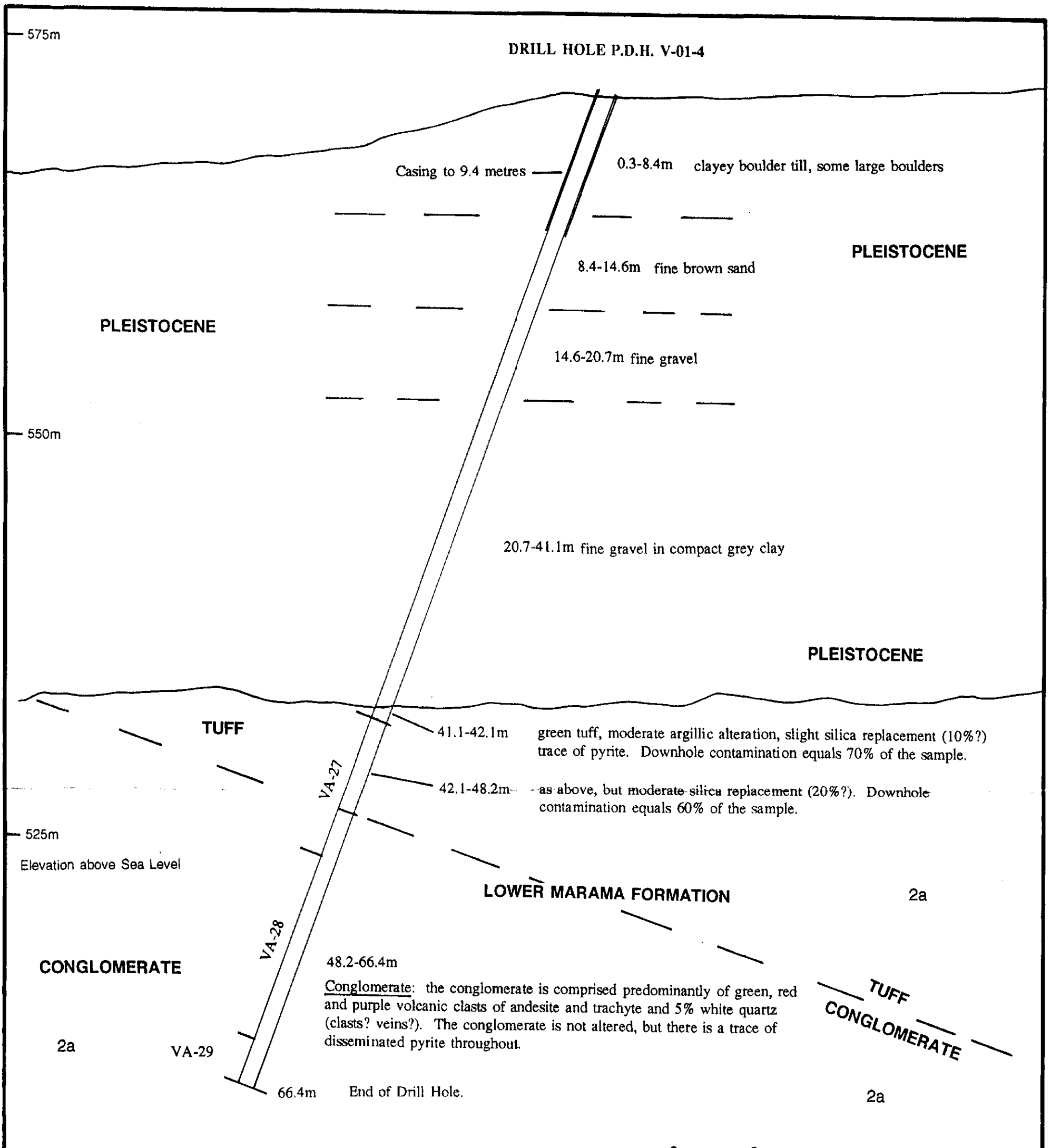
PDH V-01-4

The overburden was unexpectedly thick in PDH V-01-4 and it consisted of loose sand and gravel to 20.7m and then compacted clay with some fine gravel to 41.1m (the drill hole was drilled at minus 70 degrees).

The Lower Marama Formation encountered by the drill consists of a thin upper unit of fine grained dacitic(?) tuff (41.1 to 48.2m) and a lower unit of conglomerate from 48.2m to the bottom of the drill hole at 66.4m.

The tuffaceous unit is moderately silicified from 42.1 to 48.2m. The conglomerate is unaltered, but it does contain a trace of disseminated pyrite throughout. The chips collected from the conglomerate contain 5% white quartz, but it is unknown if the small quartz fragments represent pieces of crushed vein material or pieces of broken clasts which were set within the conglomerate when it formed.

The gold and arsenic values are low throughout the drill hole (i.e. up to 25 ppb gold and 55 ppm arsenic), but two of the samples were composite samples representing 9.1 and 12.2 metres of intercepted bedrock and any small zone with higher gold or arsenic values occurring within the intervals could have been diluted.



500m

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE

4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones

------ UNCONFORMITY

3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clast to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff

------ UNCONFORMITY

1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million
VA-27	42.1 - 51.2 = 9.1	10	55
VA-28	51.2 - 63.4 = 12.2	20	15
VA-29	63.4 - 66.4 = 3.0	25	15

Please see Appendix D for other elements and further details.

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AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
PDH V-01-4 **CROSS SECTION** **FACING NORTHEAST (017°)**	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 10

DRILLING PROGRAM - 2001 continued

Geological Study of the Drill Chips continued

Summary Description of Percussion Drill Holes V-01-1 to V-01-5 continued

PDH V-01-5

Drill hole PDH V-01-5 encountered loose silt and gravel to 29.9m and then compacted clay with some sand and gravel to 34.4m. A water channel occurs at 29.3 to 29.9m.

The Lower Marama Formation in the drill hole consists of an upper conglomerate unit with minor tuffaceous interbeds (34.4 to 71.9m) and a lower tuffaceous unit from 71.9m to the bottom of the drill hole at 84.7 metres.

The conglomerate unit is unaltered, but the tuff interbeds within it exhibit moderate argillic alteration. White quartz (clasts and/or veins?) comprise 5% of the conglomerate as in PDH V-01-4.

The lower tuffaceous unit is highly altered to chalky white and it is strongly replaced with silica. The gold values are generally low (15 to 35 ppb) in the silica replacement zone and arsenic values are low (5 to 25 ppm) throughout the entire drill hole.

Sample VA-30 represents a 12.2m interval at the top of the conglomerate unit which contains 55 ppb gold.

Severe up-hole caving resulted in heavy contamination of many of the samples. The drill hole had to be abandoned at 84.7 metres due to the up-hole caving.

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE
4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones
——— UNCONFORMITY
3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clast to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff

——— UNCONFORMITY
1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

DRILL HOLE P.D.H. V-01-5

575m

Casing to 3 metres

0.3-8.5m brown silt

PLEISTOCENE

8.5-14.6m brown silt and fine gravel

PLEISTOCENE

14.6-22.3m grey clay and gravel

550m

22.3-29.9m gravel, 1 to 3 cm

29.3-29.9m water channel

29.9-34.4m grey compacted clay with coarse sand and fine gravel

PLEISTOCENE

LOWER MARAMA FORMATION

34.4-71.9m

Conglomerate: the conglomerate is comprised predominantly of green, red and purple volcanic clasts of andesite and trachyte and 5% white quartz (clasts? veins?). Very fine grained tuff interbeds are moderately clay altered. Variations within the conglomerate are listed below.

LOWER MARAMA FORMATION

CONGLOMERATE

2a

VA-30

45.1-48.2m slight argillic alteration of fine grained matrix

48.2-51.2m Downhole contamination equals 90% of the sample.

525m

LOWER MARAMA FORMATION

VA-31

51.2-54.3m 10% tuff, moderate argillic alteration; 10% contamination (downhole).

2a

54.3-57.3m 15% tuff, moderate argillic alteration; 20% contamination.

57.3-60.4m 10% tuff, moderate argillic alteration; 40% contamination.

CONGLOMERATE

VA-32

60.4-63.4m 10% tuff, moderate argillic alteration; 80% contamination.

63.4-69.5m 10% tuff, moderate argillic alteration; 60% contamination.

TUFF

VA-33

69.5-71.9m 20% tuff, moderate argillic alteration; 40% contamination.

LOWER MARAMA FORMATION

CONGLOMERATE

VA-34

2a

71.9-84.7m

TUFF

500m

Elevation above Sea Level

VA-35

Tuff: chalky white, highly altered, very fine grained tuff. Strong silica replacement (60%?), trace of very fine grained pyrite. Downhole contamination equals 50% of the samples collected.

VA-36

Drill Hole Abandoned (Severe uphole caving).

84.7m

0 5 10 metres

Scale 1:250

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million
VA-30	36.0 - 48.2 = 12.2	55	< 5
VA-31	48.2 - 60.4 = 12.2	20	25
VA-32	60.4 - 66.4 = 6.0	10	15
VA-33	66.4 - 75.6 = 9.2	20	< 5
VA-34	75.6 - 78.6 = 3.0	15	10
VA-35	78.6 - 81.7 = 3.1	20	< 5
VA-36	81.7 - 84.7 = 3.0	35	5

Please see Appendix D for other elements and further details.

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d

AQUA REGIA MINERALS INC

VAULT CLAIM GROUP
OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.

PDH V-01-5
CROSS SECTION
FACING NORTHEAST (008°)

Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 11

DRILLING PROGRAM - 2001 continued

Lithogeochemistry of Bedrock Samples

Samples were submitted for analyses from all of the bedrock encountered in this year's drilling program. Drill intervals were 3.05 metres, but in many cases successive samples were combined into composite samples to save the costs of analyses. Several composite samples representing 6.1 metres of bedrock or more (up to 15.2m) were submitted (see drilling logs).

Deep overburden (23.8 to 41.1m) was encountered in PDHs V-01-3, 4 & 5 and casing was not sunk all the way to bedrock due to excessive costs. In general, the highly compacted till stood up, but in some holes the walls caved and caused severe contamination of the lower sample intervals. In many of the samples collected from PDHs V-01-4 & 5, contamination accounted for 50% or more of the sample material submitted for analyses.

It is expected that the contamination could either upgrade of downgrade the values of any of the elements in the samples, but in the case of gold and arsenic it is believed that contamination from the overburden would most likely downgrade the value of gold and arsenic in the samples submitted.

Notwithstanding the contamination and dilution problems just mentioned, the analytical results suggest that gold is probably the best geochemical pathfinder for gold mineralization in this year's program area. Of the 230.6 metres of bedrock drilled, 122.5 metres yielded gold values of less than 25 ppb, but 108.1 metres yielded gold values of greater than 25 ppb, and of these 108.1 metres, 58.7 metres yielded gold values of greater than 50 ppb. Some of the better gold intercepts were discussed under the previous title.

In addition to gold, arsenic also works well as a pathfinder for gold mineralization in this year's drill area. There is generally a good positive correlation between the high gold values

DRILLING PROGRAM - 2001 continued

Lithogeochemistry of Bedrock Samples continued

and the higher arsenic values and this is particularly true in the upper portions of PDHs V-01-1 & 2.

Although silver and molybdenum are good pathfinder elements at the Central Zone (see Mineralization and Alteration), the silver and molybdenum values obtained from this year's drilling are very low and of no use as pathfinder elements. Most of the silver values are less than 0.2 ppm and the molybdenum values 3 ppm or less. However, some of the higher molybdenum values (13 to 26 ppm) do correlate with some of the higher gold values.

The antimony content in the samples is generally low (5 ppm or less), but some of the higher values (10 to 15 ppm) correlate with some of the higher gold and arsenic values.

Some of the higher iron values (3.65% and 4.25%) correlate with some of the highest gold values, and the geological logs of the drill holes indicate that there is a positive correlation between higher gold values and the pyrite content in the samples.

Lead and zinc display very little variation from sample to sample and can not be used as pathfinder elements. The same can be said for most of the other elements listed in Appendix D which have not already been mentioned above.

Barium has moderately elevated values (250 to 435 ppm) in samples from the last 21.3m of PDH V-01-2 where the tuffaceous rock is generally moderately to strongly altered to clay and moderately to strongly replaced with silica. Elsewhere, barium values change very little from sample to sample.

DRILLING PROGRAM - 2001 continued

Lithogeochemistry of Bedrock Samples continued

The only two rare earths that were analyzed, lanthanum and yttrium, have elevated values within all of the rocks intercepted in the drilling program, but the tuffaceous rocks generally yield higher values than the conglomerates. Lanthanum values range from 70-120 ppm, while yttrium values are as high as 36 ppm. The higher lanthanum values correlate with the higher yttrium values.

DISCUSSION

Two high priority exploration targets were identified on the Vault Claim Group as a result of a work program conducted on the property between September, 2000 and March, 2001, by the writer. One target area occurs on the western side of the Vault 1 mineral claim and the other lies 1000 metres to the southeast on the Vault 4 mineral claim. At the completion of the March, 2001 work, a recommendation was made to drill ten relatively shallow drill holes to test the two target areas as well as much of the Lower Marama Formation lying between them (Morrison, 2001). Unfortunately, due to financial restraints, the original drilling program had to be scaled back to a five hole program and a decision was made to test the highest priority target area with a more dense drilling pattern. It was resolved that the target area on the Vault 4 mineral claim would have to await a future drilling program.

The highest priority target featured a strong silica replacement zone at grid 1+25S, 1+90W which returned values of up to 5012 parts per billion gold. The 3 x 20 metre, poorly exposed, replacement zone lies immediately below an impervious argillite bed within the Lower Marama Formation which dips 15 to 20 degrees to the southeast.

It was believed that the replacement zone resulted from the disposition of ascending auriferous silica solutions that had dammed up against the argillite. It was further assumed that the solutions had originated from some source lying down-dip to the southeast. There appeared to be good potential for locating larger and higher grade replacement zones down-dip and drill hole PDH V-01-1 was designed to test this hypothesis (see Figure 12).

The same exploration model was considered for drill holes PDH V-01-2, 3 4 & 5 illustrated on Cross Sections AA-AA′, B-B′, BB-BB′ and C-C′ (see Figure 13) where silica replacement zones were expected to occur within permeable units of the Lower Marama Formation. In all cases, the source of the silica solutions was believed to lie somewhere to the southeast.

DISCUSSION continued

No strong auriferous silica replacement zones were encountered during the drilling program and the original hypothesis has had to be revised. The new data obtained from the drilling program (i.e. lithogeochemistry, alteration, silicification, etc) has, however, been very useful in formulating the new exploration hypothesis. Much of this data will be discussed in detail in the paragraphs that follow.

The new exploration model which is based on observations outlined in several of the following paragraphs suggests that the auriferous silica solutions probably ascended a fault which lies near the original surface occurrence at grid 1+25S, 1+90W (see Geology Map V-01-1B and a revision of Cross Section A-A' on Figure 13). The silica replacement zone, according to the new model, lies on the hanging wall side of the fault. A second silica replacement zone at grid 1+50S, 2+10W is believed to lie on the hanging wall side of the same fault on Cross Section L-L' (see Figure 13).

The positions of the two best gold intercepts of the October, 2001, drilling program fit the new exploration model. The better of the two intercepts (i.e. 100 ppb gold over 6.1m from 36.0 to 42.1m) occurs in PDH V-0-1 which is nearest the inferred fault. The second best intercept (i.e. 80 ppb gold and 860 ppm arsenic over 3.1m from 2.4 to 5.5m) occurs in PDH V-01-2 located 90 metres to the southwest of PDH V-01-1 or 55 metres from the inferred fault.

Gold and arsenic values decrease from north to south in drill holes PDH V-01-3, 4 & 5 at increasing distances from the inferred fault. This observation also supports the revised hypothesis.

Percussion Drill rock chips do not allow for an examination of the stratigraphy in the way that diamond drill core allows. In spite of this disadvantage, it appears that impervious

DISCUSSION continued

argillite interbeds within the highly permeable tuffaceous rocks may have caused the development of the weak auriferous zones in PDHs V-01-1 & 2 recorded above. This mode of mineralization is therefore similar to that observed at the surface showing at grid 1+25S, 1+90W. It is also the style of mineralization predicted by the new exploration model.

The best gold intercept of PDH V-01-1 occurs where the drill logs define an area of moderate to strong silica replacement in tuffaceous rock with an interbedded argillite layer. Unfortunately, two samples were combined to make up composite sample VA-03. It is possible that most of the gold occurs within the upper 3 metre sub-sample where quartz/pyrite veinlets equal 2 to 3% of the rock. The lower 3.1 metres of the composite sample may have diluted the gold values in the upper 3 metre interval.

The best gold intercept of PDH V-01-2 occurs where there is strong silica replacement and pyrite (5%) within a tuffaceous unit. The intercept occurs immediately below till and the impervious argillite bed that may have once covered the tuffaceous rock has been eroded away.

In addition to the observations already described, it is worth mentioning some of the other features encountered during the drilling program. Of particular interest are clay alteration, silica replacement and pyritization.

The most easily recognized alteration in the Lower Marama Formation is argillic alteration and the rocks most effected are the porous tuffaceous units. The alteration is universal throughout the tuffaceous units where it ranges from slight to intense. The argillite and conglomerate units, on the other hand, are altered very little.

Silica replacement is also easily recognized and confined almost exclusively to the tuffaceous units. Notable silica replacement zones occur in PDH V-01-1 from 29.9 to 42.1m;

DISCUSSION *continued*

PDH V-01-2 from 4.0 to 5.5m, 20.7 to 36.0m and 54.3 to 66.4m; PDH V-01-3 from 39.0 to 42.1m and from 60.4 to 76.2m; PDH V-01-4 from 42.1 to 48.2m; and PDH V-01-5 from 71.9 to 84.7m.

There is generally a good correlation between silica replacement and gold content, but some strong silica replacement zones have very little gold. The lowermost strong silica replacement zones in PDHs V-01-3 & 5 (see above) contain very little gold.

Pyrite is rate in the October, 2001 target area. The pyrite content is generally less than 1/4 % and very seldom over 1%. The pyrite content, although low in most samples, has a better positive correlation with gold than does silica.

The best gold of all (100 ppb in sample VA-03) occurs where a silica replacement zone is cut by 2 to 3% quartz/pyrite veinlets.

It has also been noted that the tuffaceous units of PDHs V-01-1, 2 & 3 contain elevated values of lanthanum and yttrium. It is expected that other rare earth minerals may also occur in the tuffaceous units, and it is suggested that some samples should be tested for other light rare earths. The writer is familiar with another regional property where anomalous rare earths occur within Eocene rocks (Morrison, 2001).

Many of the features associated with the general epithermal model which occur at the Central Zone apply in the October, 2001 program area. Large volumes of epithermal solutions have flooded through the Lower Marama Formation and the most porous rocks (e.g. tuffs and siltstones) have been the most clay altered or silicified. The argillites and conglomerates have been effected very little.

DISCUSSION continued

It appears that the earliest epithermal solutions flooded the lowermost tuffaceous units in PDHs V-01-3 & 5, but that these early solutions carried very little gold. It is believed that some of the later epithermal solutions (originating from the inferred fault?) carried more gold and passed through some of the upper tuffaceous horizons only to dam up against impervious argillite horizons.

It is believed that the very thick porous tuffaceous beds which lie adjacent the inferred fault represent a great host for the deposition of auriferous silica replacement zones, particularly near argillite interbeds. It is for this reason that three additional Percussion Drill Holes are recommended in the area of the inferred fault. These drill holes are illustrated on Cross Sections A-A', K-K' and AA-AA' (see Figures 7, 8 & 13).

In addition to drilling three more shallow Percussion Drill Holes in the October, 2001 project area, it is also recommended that shallow drill holes be drilled on the northwest limb of the anticline on the Vault 4 mineral claim as was suggested in the March, 2001 Assessment Report (see References). The targets (illustrated on Geology Map V-01-1A and on the Cross Sections on Figure 12) were based on the interpretation of the geological mapping and on the results of lithogeochemical samples collected during the September, 2000 - March, 2001 program.

The targets are considered high priority based on the lithology which features a mix of very permeable and impervious units in the Lower Marama Formation. Also, the lithogeochemical values in some of the surface samples were high in arsenic (up to 556 ppm) and molybdenum (up to 122 ppm) and even moderately elevated in gold (up to 52 ppb).

Clay alteration, silica replacement, quartz veining and strong pyrite all occur within the Lower Marama Formation on surface on the northwest limb of the anticline. These features (especially the pyrite) are considered highly significant. The drilling results of the October,

DISCUSSION continued

2001 program demonstrated a positive correlation between pyrite and gold values on the Vault 1 mineral claim.

There are other possibilities for exploration on the Vault Claim Group and although they are beyond the scope of this report they are well worth mentioning.

First, it is believed that the reserves of the North Vein could be increased substantially with a series of drill holes designed to intercept the vein at a depth of 300 metres. The vein has been drilled extensively to the 200 metre depth and a reserve of 152,000 tonnes of 14 gpt gold occur from surface to the 200 metre depth.

In some cases, the vein intercepts from the 200 metre depth were the best of the drilling program (i.e. thicker intercepts and good gold grades). However, in 1990, the Vault Joint Venture decided to test the vein at a depth of 400 metres (well below the reserves) with four widely spaced drill holes. The data from these drill holes proved that the gold grade and thickness of the vein both drop off at 400 metres, but to this day nothing is known about the vein at the 250, 300 or 350 metre depths.

Second, there are also large gaps in the data obtained from the early drilling programs on the Central Zone. Many of the drill holes were drilled to simply intercept the Lower Marama Formation. It was not determined until later in the drilling programs that the best gold values often occur just below impervious rock units which occur intercalated within the very permeable tuff and lahars of the Lower Marama Formation.

It is believed that a drilling program designed to explore strong silica replacement zones below some of the known impervious rock units could outline economic zones of higher grade gold within the Central Zone.

DISCUSSION continued

Third, a strong Induced Polarization anomaly was outlined 300 to 400 metres northeast of the Central Zone by a survey conducted in 1997. This anomaly has not been tested with a drill although it has characteristics that are similar to an Induced Polarization anomaly that is coincident with the Central Zone.

Costly, deep diamond drill holes will be required to test the North Vein, Central Zone and Induced Polarization targets.

CONCLUSIONS AND RECOMMENDATIONS

The October, 2001 Percussion Drilling Program conducted near the northwest corner of the Vault 1 mineral claim failed to locate economic concentrations of gold. The best intercept from the five hole, 363 metre, program contained 100 parts per billion gold over 6.1 metres from 36.0 to 42.1m in PDH V-01-1. A second intercept contained 80 parts per billion gold over 3.1 metres from 2.4 to 5.5m in PDH V-01-2. In both cases, the gold appears to be associated with strong silica replacement of tuffaceous rocks which lie immediately below impervious argillite beds. This style of mineralization is equivalent to that which occurs at the surface showing at grid 1+25S, 1+90W which prompted the October, 2001 drilling program. At 1+25S, 1+90W, a zone of strong silica replacement contains up to 5012 ppb gold.

Although there is a similarity in the style of gold mineralization and stratigraphic position between the surface replacement zone and the drill hole intercepts, the gold values from the drill holes are significantly lower and the hypothesis that the auriferous silica solutions originated from the southeast was disproved by the drilling program.

CONCLUSIONS AND RECOMMENDATIONS continued

The revised hypothesis, which is supported by much of the new drill data suggests that the auriferous silica solutions most probably originated from a fault that lies very near the surface silica replacement zone at 1+25S, 1+90W.

Based on the new hypothesis, three additional Percussion Drill Holes are recommended to be drilled into the hanging-wall side of the fault in the October, 2001 project area (see Discussion).

Prior to the October, 2001 drilling program, very little was known about the bedrock geology on the western side of the Vault 1 mineral claim due to the thick cover of glacial drift. The extent of the Lower Marama Formation on this part of the property was unknown.

The drilling program did provide some promising surprises. First of all, all five drill holes penetrated a considerable thickness (up to 70 metres) of the Lower Marama Formation. Second, there was much more tuffaceous rock (up to 60 metres) than was expected, and the widespread zones of argillic alteration and silica replacement within the tuffaceous rocks are believed to record the passage of volumes of epithermal solutions. Third, gold and arsenic values in much of the Lower Marama Formation are elevated, but the values decrease from north to south. This observation supports the revised hypothesis that the silica solutions originate from the newly recognized inferred fault.

It is also interesting to note that there is generally a good positive correlation between the higher gold and arsenic values.

Another surprise resulting from the drilling program was the discovery of dramatic changes in the composition of the Lower Marama Formation over short distances (100 metres). The tuffaceous rocks are predominant in the northern drill holes (PDHs V-01-1, 2 & 3) whereas

CONCLUSIONS AND RECOMMENDATIONS continued

conglomerates are predominant in the southern drill holes (PDHs V-01-4 & 5) just 100 to 200 metres to the south.

The tuffaceous rocks of PDHs V-01-1, 2 & 3 contain elevated values of lanthanum and yttrium and it is recommended that some samples from these drill holes be analyzed for some of the more valuable rare earth elements.

Several Percussion Drill Holes were recommended for targets on the northwest limb of the anticline on the Vault 4 mineral claim in the March, 2001 Assessment Report and these holes are still strongly recommended (see Discussion). There is much more pyrite in the Lower Marama Formation units on the Vault 4 mineral claim than there is in the October, 2001 project area. The distinct correlation between high gold values and high pyrite content was observed in the October, 2001 drill results.

In addition to the low-cost, shallow hole, Percussion Drilling Program recommended, there are three other general targets on the Vault Claim Group that warrant further exploration with deep diamond drill holes. The three regions which are described in more detail under the title Discussion include: (a) the North Vein, where drilling to the 300 metre depth is expected to increase gold reserves, (b) the Central Zone, where well-aimed drill holes could outline economic pockets of high grade gold; and (c) the Induced Polarization Anomaly which lies northeast of the Central Zone that has characteristics much like the anomaly over the Central Zone, but which has never been drilled.

It is believed that the Vault Claim Group still has great exploration potential for economic precious metal deposits.

Kelowna, B.C.
December 31, 2001

Murray Morrison, B.Sc.

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* Assessment Reports on file with the Ministry of Energy and Mines of British Columbia.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.

2. I have been working in all phases of mining exploration in Canada for the past thirty-two years.

3. During the past thirty-two years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.

4. I have conducted several geological, geochemical, and geophysical surveys on mineral properties in Southern British Columbia during the past thirty-two years.

5. I directed and supervised the Percussion Drilling Program outlined in this report.

6. I own a 4.8% Net Profit Interest in the Vault Claim Group.

December 31, 2001
Kelowna, B.C.

Murray Morrison - B.Sc.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE VAULT CLAIM GROUP

Statement of Expenditures in connection with a Percussion Drilling Program carried out on the Vault Claim Group, located immediately northwest of Okanagan Falls, B.C. (N.T.S. Map 82-E-5E) during 2001.

DRILL SITE PREPARATION

Case 580 Turbo 4x4 Tractor with front scoop and backhoe including Operator and mobilization and demobilization from Penticton, B.C. (A & R Excavating 1989 of Penticton, B.C.)	4 hrs. @ $75.00/hr. plus $21.00 G.S.T.		$ 321.
M. Morrison, geologist (work included measuring out drill site locations, and scouting access routes, chainsaw prep. work and supervising the tractor operations)	3 days @ $300.00/day		900.
Chainsaw	1 day @ $20.00/day		20.
4 x 4 pick-up (including gasoline and insurance)	3 days @ $75.00/day		150.
Meals and lodging	no charge		-
		Sub-total	$ 1,391.

DRILLING COSTS

Percussion Drill (7.0 cm bore)	363.2m @ $28.824/m		$10,469.
Casing (10 cm diameter)	27.43 m @ 49.21/m		1,350.
	Plus 7% G.S.T.		827.
Mobilization and demobilization costs for the drill from Westbank, B.C. Contractor: Northspan Exploration Ltd. of Kelowna, B.C.	$750.00 plus 7% G.S.T.		803.
Supervision: M. Morrison, geologist (includes 7 days of direct drill supervision and 4 days of sample handling and logging drill chips)	11 days @ $300.00/day		3,300.
4 x 4, pick-up (including gasoline and insurance)	7 days @ $75.00/day		525.
Meals and lodging	no charge		-
		Sub-total	$17,274.

APPENDIX B continued

ASSAYING COSTS

Sample bags for lab samples, reject samples and geological samples			$ 66.
Transportation of large, wet, sloppy samples by pick-up truck to Kamloops laboratory			150.
ICP analyses for 28 elements plus gold geochem	36 samples @ $22.737 each		819.
		Sub-total	$ 1,035.

REPORT PREPARATION COSTS

M. Morrison, geologist (detailed logging of drill chips, drafting cross-sections and maps, analyzing all data and writing report)	11 days @ $300.00/day		$ 3,300.
Drafting (including materials)			467.
Typing			125.
Copying maps and report			40.
		Sub-total	$ 3932.
	GRAND TOTAL		**$23,632.**

I hereby certify that the preceding statement is a true statement of monies expended in connection with the Percussion Drill Program carried out between October 17 and November 1, 2001.

December 31, 2001
Kelowna, B.C.

Murray Morrison, Geologist

INVOICE

OUR NUMBER 679850

DATE OCT. 22/01

CUSTOMER'S ORDER

[illegible]
[illegible]
240 Abbott St.
Penticton, B.C.
V2A-4J4 492-2253

SOLD TO MR. ANDREW GRUSZECKI
ADDRESS AQUA REGIA MINERALS INC.
#20 SUN HARBOUR PLACE SE
CALGARY, ALBERTA T2X 3B2

SHIP TO
ADDRESS

TAX REG. NO GST 137615894 RT

SALESPERSON

F.O.B | TERMS | VIA

QUANTITY	DESCRIPTION	PRICE	AMOUNT
OCT. 22/01	LEVEL 5 DRILLING SITES		
	WHITE LAKE AREA.		
	4 HOURS @ 75/HR		300 00
	Thanks.		
		GST	21 00
		PST	
		TOTAL	321 00

BLUELINE DC 31

No. NE 0306 Oct 29 2001

TO

FOR Northspan Explorations

$

BALANCE ..... $		
DEDUCT CASH ORDER ..... $		
BALANCE ..... $		
ADD DEPOSIT ..... $		
BALANCE ..... $	10648	83

Invoice # NE 0306

Date: October 29, 2001

Invoice

orthspan Explorations Ltd.

nnon Lake Road, Westbank, B.C. Canada V4T 1V5
elephone: 250-769-2045 Fax: 250-769-2002

Attention: Mr. Brian Brindley
Fax: 403-260-0596

RE: Vault Claims

Description	
- 1102 Feet rotary air blast drilling @ $9.50/foot	$10,469.00
- 90 Feet Casing thru overburden @ $15.00/foot	1,350.00
- Mob charges (lump sum)	750.00
Total Items:	$12,569.00
Services:	
Subtotal Services:	
Total GST (Tax Reg. #103935714)	879.83
Total:	$13,448.83
Less Advance:	2,800.00
Balance Due:	$10,648.83

Due and Payable Upon Receipt of Invoice

2% per month (24% per annum) charged on overdue accounts

Brian 2600596

Eco-Tech LABORATORIES LTD.

ASSAYING
GEOCHEMISTRY
ANALYTICAL CHEMISTRY
ENVIRONMENTAL TESTING

10041 Dallas Drive, Kamloops, B.C. V2C 6T4
Phone (250) 573-5700 Fax (250) 573-4557
email: ecotech@direct.ca

AQUA REGIA MINERALS INC.
#20 SUN HARBOUR PLACE S.E.
CALGARY, ALBERTA
T2X 3B2

16-Nov-01

ATTENTION: ANDY GRUSZECKI

2001 INVOICE

INVOICE #:AK 01-395

	DESCRIPTION	PRICE / SAMPLE	AMOUNT
PROJECT #: NONE GIVEN			
36	SAMPLE PREP (CORE/ROCK)	5.00	180.00
36	AU (10g) GEOCHEM	9.25	333.00
36	MULTI-ELEMENT ICP	7.00	252.00
		SUBTOTAL:	765.00
		& 7% G.S.T:	53.55
		TOTAL DUE & PAYABLE UPON RECEIPT:	**818.55**

THANK YOU!!

G.S.T. REGISTRATION NUMBER R101565358

TERMS: NET 30 DAYS. INTEREST AT RATE OF 1 1/2 PER MONTH (18% PER ANNUM) WILL BE CHARGED ON OVERDUE ACCOUNTS.

APPENDIX C

DRILL HOLE LOGS

AQUA REGIA MINERALS INC. VAULT CLAIM GROUP PERCUSSION DRILL HOLE RECORD

DRILL HOLE: V-01-1 **SECTION: A-A'** **PAGE 1 of 2**
LOCATION: 381m South and 387m East of the Vault 1 Mineral Claim Legal Corner Post.
PROPERTY GRID: 1+78S, 1+22W **AZIMUTH:** 310° **DIP:** -70° **LENGTH:** 66.4m
DRILL DIAMETER: 7 cm **DIP TESTS:** none **ELEVATION:** 556.5m
DATE: October 24, 2001 **LOGGED BY:** M.S. Morrison
DRILLING CONTRACTOR: Northspan Explorations Inc., Westbank, B.C.
PURPOSE: to test units of the Lower Marama Formation for alteration and mineralization.
DESCRIPTION:

0-1.2m	Collar Casing to 6.1 metres (10 cm diameter).
1.2-16.8m	PLEISTOCENE
1.2-5.5m	clayey boulder till
5.5-11.6m	till: sand, fine gravel, some cobbles
11.6-16.8m	grey kaolinite clay with minor fine gravel
16.8-66.4	LOWER MARAMA FORMATION
16.8-29.9m	Argillite: black, dark brown or grey argillite with thin interbeds of brown to grey siltstone. The argillite is unaltered, but much of the siltstone is strongly altered to clay. Zones of pure kaolinite clay occur within the argillite unit. Variations within the argillite unit are listed below.
16.8-17.7m	black argillite (50%) with a trace of disseminated pyrite and grey siltstone (50%) with strong argillic alteration; trace of quartz veinlets
17.7-20.7m	black argillite (95%) with interbedded light grey siltstone (5%), moderate argillic alteration
20.7-23.8m	grey argillite (90%) with interbedded light grey siltstone (10%) with moderate argillic alteration; trace of quartz veinlets
23.8-29.9m	Fault Zone?
23.8-26.8m	black and brown argillite (70%) with interbedded grey siltstone (30%) with strong argillic alteration; 70% brown and grey clay washed from interval.
26.8-29.9m	black argillite (60%) with interbedded light grey siltstone (40%) with strong argillic alteration; 80% grey kaolinite clay washed from interval.
29.9-66.4m	Tuff: very fine grained dacitic(?) tuff; light green or red and locally altered to white, grey or pink; moderate to strong argillic alteration and slight to strong silica replacement; generally minor pyrite and quartz veinlets. Variations within the tuff are listed below.
29.9-36.0m	light green tuff with moderate argillic alteration, and moderate silica replacement (20 to 30%?), trace of pyrite
36.0-39.0m	light green tuff (80%) moderate argillic alteration and strong silica replacement (20-50%?); quartz/pyrite veinlets 2 to 5mm equal 2 to 3%; black argillite (20%) unaltered
39.0-42.1m	as above except no quartz/pyrite veinlets and only 1% pyrite disseminated; no argillite interbeds

Cont'd

DESCRIPTION continued

Tuff continued

42.1-45.1m	green and red tuff with moderate argillic alteration, no pyrite
45.1-48.2m	green and red tuff with moderate argillic alteration, trace of pyrite
48.2-51.2m	dark green tuff (90%) with moderate argillic alteration, 10% of interval with strong argillic alteration; 3% quartz veinlets, trace of pyrite
51.2-66.4m	light green and white tuff with moderate argillic alteration
51.2-60.4m	Fault Zone? 50% to 70% white clay washed out of this interval
51.2-54.3m	3% disseminated pyrite
54.3-66.4m	slight silica replacement (10%?), trace of pyrite
60.4-63.4m	trace of quartz veinlets
66.4m	End of Drill Hole.

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-01	14.6 - 29.9 = 15.3	25	55
VA-02	29.9 - 36.0 = 6.1	35	95
VA-03	36.0 - 42.1 = 6.1	100	235
VA-04	42.1 - 45.1 = 3.0	10	25
VA-05	45.1 - 48.2 = 3.1	< 5	30
VA-06	48.2 - 51.2 = 3.0	15	10
VA-07	51.2 - 60.4 = 9.2	10	5
VA-08	60.4 - 66.4 = 6.0	< 5	< 5

Please see Appendix D for other elements and further details.

AQUA REGIA MINERALS INC. VAULT CLAIM GROUP PERCUSSION DRILL HOLE RECORD

DRILL HOLE: V-01-2 **SECTION: AA-AA'** **PAGE 1 of 2**
LOCATION: 435m South and 320m East of the Vault 1 Mineral Claim Legal Corner Post.
PROPERTY GRID: 2+32S, 1+86W **AZIMUTH:** 301° **DIP:** -70° **LENGTH:** 69.5m
DRILL DIAMETER: 7 cm **DIP TESTS:** none **ELEVATION:** 558m
DATE: October 25, 2001 **LOGGED BY:** M.S. Morrison
DRILLING CONTRACTOR: Northspan Explorations Inc., Westbank, B.C.
PURPOSE: to test units of the Lower Marama Formation for alteration and mineralization.
DESCRIPTION:

0-0.5m	Collar Casing to 3.0 metres (10 cm diameter).
0.5-2.4m	PLEISTOCENE: clayey boulder till (hardpan)
2.4-69.5m	LOWER MARAMA FORMATION
2.4-69.5m	Tuff: very fine grained dacitic(?) tuff; green or pink, but generally altered to light green, grey or white and locally stained purple with hematite; slight to strong argillic alteration and slight to strong silica replacement; minor quartz veinlets with pyrite locally, but low pyrite generally. Variations within the tuff are listed below.
2.4-4.0m	tuff(?) strong limonite staining
4.0-5.5m	tuff(?) strong silica replacement (50%), 5% pyrite with silica
5.5-8.5m	grey tuff, slight argillic alteration, and slight silica replacement (10%)
8.5-14.6	green and grey tuff, moderate argillic alteration and slight silica replacement (10%?), trace of quartz veinlets and pyrite
14.6-20.7m	same as above, but all grey tuff
20.7-23.8m	grey tuff, moderate argillic alteration; white, pink and clear silica replacement (15%?), trace of quartz veinlets and pyrite
23.8-26.8m	grey and light green tuff, moderate argillic alteration and moderate white and pink silica replacement (15%?), 2% white quartz veinlets. Fault Zone? 90% grey kaolinite clay washed out of sample interval.
26.8-29.9m	light green and pink tuff, moderate argillic alteration and moderate silica replacement (30%?), 2% white quartz veinlets
29.9-36.0m	light green and pink tuff, moderate argillic alteration and slight silica replacement (10 to 15%?)
36.0-45.1m	light green and minor pink tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite
45.1-48.2m	light green (80%) and purple (20%) tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite
48.2-54.3m	light green (80%) and purple (20%) tuff, slight to moderate argillic alteration
54.3-57.3m	light green and white tuff, strong argillic alteration and moderate silica replacement (20%?), 2% quartz veinlets, trace of very fine disseminated pyrite
57.3-60.4m	light green and white tuff, strong argillic alteration, strong silica replacement (50%?), trace of very fine disseminated pyrite
60.4-63.4m	light green and pink tuff, strong argillic alteration, moderate to strong white and pink silica replacement (40%?), trace of very fine disseminated pyrite

Cont'd

DESCRIPTION continued

63.4-69.5m	Fault Zone?
63.4-66.4m	light green (50%) and hematitic purple (50%) tuff, moderate argillic alteration; moderate silica replacement (30%?) of the light green tuff only; 90% of the interval equals clay which was washed from the sample.
66.4-69.5m	light green (80%) and hematitic purple (20%) tuff, moderate argillic alteration and slight silica replacement (10%?); 90% of the interval equals clay which was washed from the sample.
69.5 m	End of Drill Hole.

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-09	2.4 - 5.5 = 3.1	80	860
VA-10	5.5 - 14.6 = 9.1	20	300
VA-11	14.6 - 26.8 = 12.2	45	215
VA-12	26.8 - 29.9 = 3.1	45	65
VA-13	29.9 - 36.0 = 6.1	30	40
VA-14	36.0 - 48.2 = 12.2	15	15
VA-15	48.2 - 57.3 = 9.1	30	5
VA-16	57.3 - 60.4 = 3.1	45	30
VA-17	60.4 - 69.5 = 9.1	30	15

Please see Appendix D for other elements and further details.

AQUA REGIA MINERALS INC. VAULT CLAIM GROUP PERCUSSION DRILL HOLE RECORD

DRILL HOLE: V-01-3 **SECTION:** B-B'
LOCATION: 498m South and 280m East of the Vault 1 Mineral Claim Legal Corner Post.
PROPERTY GRID: 2+95S, 2+28W **AZIMUTH:** 291° **DIP:** -70° **LENGTH:** 76.2m
DRILL DIAMETER: 7 cm **DIP TESTS:** none **ELEVATION:** 560m
DATE: October 25-26, 2001 **LOGGED BY:** M.S. Morrison
DRILLING CONTRACTOR: Northspan Explorations Inc., Westbank, B.C.
PURPOSE: to test units of the Lower Marama Formation for alteration and mineralization.
DESCRIPTION:

0-1.1m	Collar Casing to 6.1 metres (10 cm diameter).
1.1-23.8m	PLEISTOCENE
1.1-5.5m	clayey boulder till, some large dacitic boulders
5.5-14.6m	compacted sand and pebble till
14.6-23.8m	compacted clay and gravel till
23.8-76.2m	LOWER MARAMA FORMATION
23.8-32.9m	Argillite; dark brown to black argillite with minor interbeds of light brown or grey siltstone which are slightly altered to clay. Zones of pure kaolinite clay occur within the argillite interval. Variations within the argillite unit are listed below.
23.8-26.8m	dark brown argillite (90%) with interbedded light brown and grey siltstone (10%) slight argillic alteration; 50% grey clay washed out of sample interval
26.8-29.9m	as above, but without strong clay zones
29.9-32.9m	black argillite, 30% grey clay washed out of sample interval, severe downhole contamination equals 90% of sample collected.
32.9-76.2m	Tuff: very fine grained dacitic(?) tuff; green to pink, but locally altered to light green, light grey or grey; slight to moderate argillic alteration and slight to very strong silica replacement; very minor quartz veinlets and very weak pyrite. Variations within the tuff, including minor argillite interbeds, are listed below.
32.9-36.0m	light green and pink tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite. Downhole contamination equals 50% of sample.
36.0-39.0m	as above (90%) plus 10% interbedded dark brown argillite. Downhole contamination equals 20% of sample.
39.0-42.1m	light grey tuff (90%) moderate argillic alteration and moderate silica replacement (20%?) with interbedded dark brown argillite (10%). Downhole contamination equals 10% of sample.
42.1-45.1m	green tuff (90%) with interbedded black argillite (10%), 1% quartz veinlets and trace of pyrite. Downhole contamination equals 40% of sample.
45.1-48.2m	light green tuff, moderate argillic alteration and slight silica replacement (5%?). 50% grey clay washed out of sample interval. Downhole contamination equals 50% of the sample collected
45.1-60.4m	light green to grey tuff, moderate argillic alteration, trace of pyrite. Downhole contamination equals 30 to 90% of sample intervals.
45.1-51.2m	50% contamination (mixed gravel)

Cont'd

DESCRIPTION continued
Tuff continued

51.2-57.3m	30% contamination (mixed gravel)
57.3-60.4m	90% contamination (mixed gravel)
60.4-69.5m	light green to grey tuff, moderate argillic alteration, and moderate silica replacement (30%?), trace of pyrite. Downhole contamination equals 50 to 60% of samples collected.
69.5-76.2m	light grey tuff, very strong silica replacement (90%?), no pyrite.
69.5-75.6m	Downhole contamination equals 20 to 30% of samples collected.
75.0-76.2m	Fault Zone? with water
75.6-76.2m	Downhole contamination equals 90% of sample collected (mixed gravel).
76.2m	Drill Hole Abandoned (Fault Zone? with water).

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-18	20.7 - 23.8 = 3.1	35	95
VA-19	23.8 - 32.9 = 9.1	20	75
VA-20	32.9 - 39.0 = 6.1	25	55
VA-21	39.0 - 42.1 = 3.1	30	75
VA-22	42.1 - 57.3 = 15.2	35	65
VA-23	57.3 - 63.4 = 6.1	30	70
VA-24	63.4 - 69.5 = 6.1	15	35
VA-25	69.5 - 72.5 = 3.0	15	30
VA-26	72.5 - 76.2 = 3.7	20	30

Please see Appendix D for other elements and further details.

AQUA REGIA MINERALS INC. VAULT CLAIM GROUP PERCUSSION DRILL HOLE RECORD

DRILL HOLE: V-01-4 **SECTION: BB-BB'** **PAGE 1 of 1**
LOCATION: 593m South and 250m East of the Vault 1 Mineral Claim Legal Corner Post.
PROPERTY GRID: 3+91S, 2+53W **AZIMUTH:** 286° **DIP:** -70° **LENGTH:** 66.4m
DRILL DIAMETER: 7 cm **DIP TESTS:** none **ELEVATION:** 572m
DATE: October 26-27, 2001 **LOGGED BY:** M.S. Morrison
DRILLING CONTRACTOR: Northspan Explorations Inc., Westbank, B.C.
PURPOSE: to test units of the Lower Marama Formation for alteration and mineralization.
DESCRIPTION:

0-0.3m	Collar Casing to 9.4 metres (10 cm diameter).
0.3-41.1m	PLEISTOCENE
0.3-8.4m	clayey boulder till, some large boulders
8.4-14.6m	fine brown sand
14.6-20.7m	fine gravel
20.7-41.1m	fine gravel in compact grey clay
41.1-66.4m	LOWER MARAMA FORMATION
41.1-48.2	Tuff: very fine grained green dacitic(?) tuff; moderate argillic alteration and slight to moderate silica replacement, trace of pyrite.
41.1-42.1m	green tuff, moderate argillic alteration, slight silica replacement (10%?) trace of pyrite. Downhole contamination equals 70% of the sample.
42.1-48.2m	as above, but moderate silica replacement (20%?). Downhole contamination equals 60% of the sample.
48.2-66.4m	Conglomerate: the conglomerate is comprised predominantly of green, red and purple volcanic clasts of andesite and trachyte and 5% white quartz (clasts? veins?). The conglomerate is not altered, but there is a trace of disseminated pyrite throughout.
66.4m	End of Drill Hole.

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million
VA-27	42.1 - 51.2 = 9.1	10	55
VA-28	51.2 - 63.4 = 12.2	20	15
VA-29	63.4 - 66.4 = 3.0	25	15

Please see Appendix D for other elements and further details.

AQUA REGIA MINERALS INC. VAULT CLAIM GROUP PERCUSSION DRILL HOLE RECORD

DRILL HOLE: V-01-5 **SECTION:** C-C' **PAGE 1 of 2**
LOCATION: 694m South and 214m East of the Vault 1 Mineral Claim Legal Corner Post.
PROPERTY GRID: 4+91S, 2+88W **AZIMUTH:** 279° **DIP:** -70° **LENGTH:** 84.7m
DRILL DIAMETER: 7 cm **DIP TESTS:** none **ELEVATION:** 574m
DATE: October 27-28, 2001 **LOGGED BY:** M.S. Morrison
DRILLING CONTRACTOR: Northspan Explorations Inc., Westbank, B.C.
PURPOSE: to test units of the Lower Marama Formation for alteration and mineralization.
DESCRIPTION:

0-0.3m	Collar Casing to 3 metres (10 cm diameter).
0.3-34.4m	PLEISTOCENE
0.3-8.5m	brown silt
8.5-14.6m	brown silt and fine gravel
14.6-22.3m	grey clay and gravel
22.3-29.9m	gravel, 1 to 3 cm
29.3-29.9m	water channel
29.9-34.4m	grey compacted clay with coarse sand and fine gravel
34.4-84.7	LOWER MARAMA FORMATION
34.4-71.9m	Conglomerate: the conglomerate is comprised predominantly of green, red and purple volcanic clasts of andesite and trachyte and 5% white quartz (clasts? veins?). Very fine grained tuff interbeds are moderately clay altered. Variations within the conglomerate are listed below.
45.1-48.2m	slight argillic alteration of fine grained matrix
48.2-51.2m	Downhole contamination equals 90% of the sample.
51.2-54.3m	10% tuff, moderate argillic alteration; 10% contamination (downhole).
54.3-57.3m	15% tuff, moderate argillic alteration; 20% contamination.
57.3-60.4m	10% tuff, moderate argillic alteration; 40% contamination.
60.4-63.4m	10% tuff, moderate argillic alteration; 80% contamination.
63.4-69.5m	10% tuff, moderate argillic alteration; 60% contamination.
69.5-71.9m	20% tuff, moderate argillic alteration; 40% contamination.
71.9-84.7m	Tuff: chalky white, highly altered, very fine grained tuff. Strong silica replacement (60%?), trace of very fine grained pyrite. Downhole contamination equals 50% of the samples collected.
84.7m	Drill Hole Abandoned (Severe uphole caving).

Cont'd

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million
VA-30	36.0 - 48.2 = 12.2	55	< 5
VA-31	48.2 - 60.4 = 12.2	20	25
VA-32	60.4 - 66.4 = 6.0	10	15
VA-33	66.4 - 75.6 = 9.2	20	< 5
VA-34	75.6 - 78.6 = 3.0	15	10
VA-35	78.6 - 81.7 = 3.1	20	< 5
VA-36	81.7 - 84.7 = 3.0	35	5

Please see Appendix D for other elements and further details.

APPENDIX D

CERTIFICATES OF ANALYSES

15-Nov-01

ECO-TECH LABORATORIES LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2001-395

AQUA REGIA MINERALS INC.
#20 SUN HARBOUR PLACE S.E.
CALGARY, ALBERTA
T2X 3B2

ATTENTION: ANDY GRUSZECKI

No. of samples received: 36
Sample type: Drill Chips
Project #: None Given
Shipment #: No. 1
Samples submitted by: Murray Morrison

Values in ppm unless otherwise reported

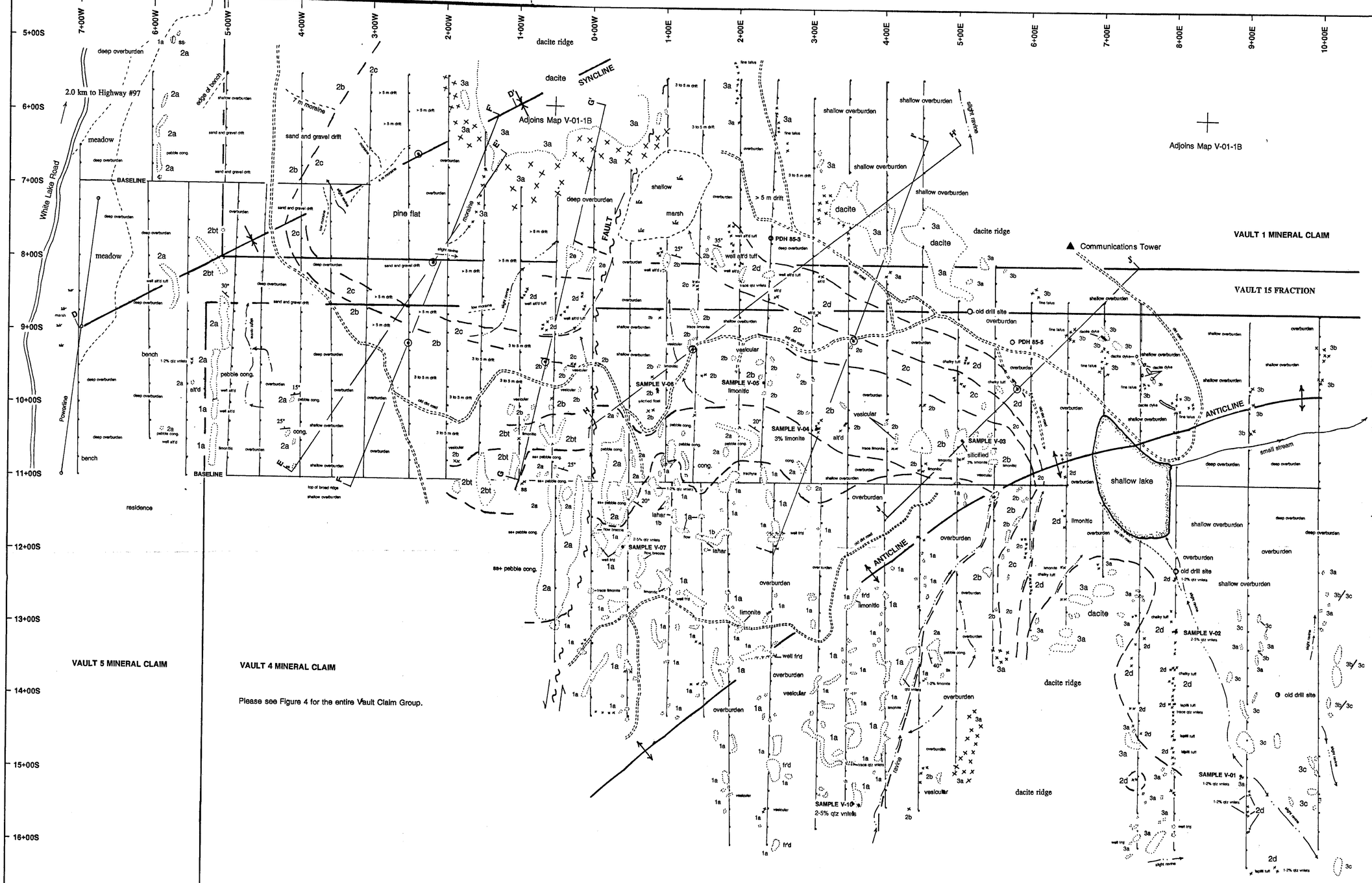
Drill Hole	metres from	to	Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
V-01-1	14.6	to 29.9	1	VA-01	25	0.6	1.25	55	60	<5	0.80	<1	9	11	24	2.47	90	0.59	786	7	0.06	14	1000	42	<5	<20	206	<0.01	<10	19	<10	10	71
	29.9	to 36.0	2	VA-02	35	<0.2	1.12	95	40	<5	0.96	<1	13	41	18	2.59	70	0.68	371	17	0.05	32	1250	26	5	<20	146	<0.01	<10	33	<10	12	52
	36.0	- 42.1	3	VA-03	100	<0.2	1.49	235	65	<5	1.14	<1	20	63	20	4.25	100	1.03	541	13	0.07	45	2020	28	10	20	187	<0.01	<10	51	<10	23	62
	42.1	- 45.1	4	VA-04	10	<0.2	2.15	25	145	<5	1.04	<1	23	60	31	4.08	100	1.54	964	<1	0.09	66	2210	26	<5	20	226	<0.01	10	49	<10	23	72
	45.1	- 48.2	5	VA-05	<5	0.2	1.55	30	90	<5	1.35	<1	25	53	35	3.37	70	0.97	602	<1	0.13	78	2670	38	<5	<20	336	0.02	<10	39	<10	24	67
	48.2	- 51.2	6	VA-06	15	0.4	1.59	10	65	<5	1.05	<1	21	17	16	3.03	70	0.85	505	<1	0.11	39	1480	28	<5	20	278	<0.01	<10	22	<10	14	56
	51.2	- 60.4	7	VA-07	10	<0.2	1.26	5	170	<5	2.72	<1	15	22	13	2.73	80	1.03	644	<1	0.12	19	1710	28	5	<20	383	<0.01	<10	32	<10	16	55
	60.4	- 66.4	8	VA-08	<5	<0.2	1.55	<5	140	<5	3.46	<1	15	47	15	2.72	80	1.25	827	<1	0.11	20	2120	26	<5	<20	365	<0.01	<10	43	<10	22	59
V-01-2	2.4	- 5.5	9	VA-09	80	<0.2	1.55	860	125	<5	0.85	<1	22	69	20	3.65	100	0.87	413	2	0.01	46	2530	30	45	<20	75	0.02	<10	45	<10	31	69
	5.5	- 14.6	10	VA-10	20	<0.2	1.82	300	155	<5	1.49	<1	22	77	16	3.64	110	1.34	624	<1	0.02	49	2400	30	15	<20	222	0.02	<10	53	<10	36	69
	14.6	- 26.8	11	VA-11	45	<0.2	1.92	215	160	<5	1.46	<1	22	77	26	3.89	110	1.52	644	1	0.07	46	2670	42	5	40	303	0.01	<10	51	<10	35	76
	26.8	- 29.9	12	VA-12	45	1.0	1.42	85	165	<5	1.70	<1	16	64	37	2.84	90	1.01	478	15	0.07	31	1730	22	5	<20	257	<0.01	<10	42	<10	20	53
	29.9	- 36.0	13	VA-13	30	<0.2	2.18	40	130	<5	1.02	<1	19	56	40	3.45	120	1.89	634	<1	0.12	38	2130	30	<5	20	312	<0.01	<10	47	<10	27	71
	36.0	- 48.2	14	VA-14	15	<0.2	1.91	15	180	<5	1.82	<1	17	48	26	3.14	110	1.61	679	<1	0.13	34	2200	30	<5	20	344	0.01	<10	48	<10	26	74
	48.2	- 57.3	15	VA-15	30	<0.2	0.99	5	295	<5	3.35	<1	21	38	64	3.23	100	1.06	635	<1	0.13	38	1860	24	5	20	476	0.02	<10	46	<10	22	74
	57.3	- 60.4	16	VA-16	45	0.2	0.75	30	435	<5	1.52	<1	13	23	37	1.80	70	0.70	373	19	0.09	18	1240	20	<5	<20	343	<0.01	<10	30	<10	12	40
	60.4	- 69.5	17	VA-17	30	<0.2	0.86	15	250	<5	2.49	<1	20	30	50	3.13	110	1.28	622	<1	0.14	33	1940	30	5	20	552	<0.01	<10	47	<10	20	77
V-01-3	20.7	- 23.8	18	VA-18	35	<0.2	0.90	85	80	<5	2.03	<1	10	38	15	2.50	80	0.45	458	26	0.06	15	1330	28	15	<20	276	0.04	<10	27	<10	13	52
	23.8	- 32.9	19	VA-19	20	<0.2	0.74	75	70	<5	1.64	<1	9	26	14	2.21	70	0.45	421	15	0.05	12	1250	18	10	<20	235	0.05	<10	29	<10	13	46
	32.9	- 39.0	20	VA-20	25	<0.2	1.16	55	70	<5	3.96	<1	14	38	19	2.68	90	0.77	694	2	0.07	24	1650	26	5	<20	366	0.03	<10	35	<10	19	53

AQUA REGIA MINERALS INC. ICP CERTIFICATE OF ANALYSIS AK 2001-395 ECO-TECH LABORATORIES LTD.

Drill Hole	metres from	to	Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
V-01-3	39.0	42.1	21	VA-21	30	<0.2	1.56	75	60	<5	3.37	<1	15	54	16	3.06	90	1.09	668	3	0.09	22	1970	24	<5	<20	301	0.02	<10	48	<10	21	56
	42.1	57.3	22	VA-22	35	<0.2	1.34	65	85	<5	2.96	<1	13	39	14	2.39	90	0.82	638	2	0.08	30	1650	28	5	<20	300	0.02	<10	30	<10	17	56
	57.3	63.4	23	VA-23	30	<0.2	0.96	70	110	<5	2.58	<1	11	40	14	1.99	90	0.54	508	1	0.06	28	1690	24	5	<20	290	0.04	<10	25	<10	17	47
	63.4	69.5	24	VA-24	15	<0.2	0.88	35	75	<5	3.26	<1	10	46	15	1.74	80	0.52	599	1	0.05	32	1720	24	10	<20	244	0.03	<10	20	<10	17	43
	69.5	72.5	25	VA-25	15	<0.2	0.76	30	80	<5	2.35	<1	9	37	10	2.30	80	0.67	636	<1	0.06	24	1280	24	<5	<20	244	0.03	<10	23	<10	14	53
	72.5	76.2	26	VA-26	20	<0.2	0.73	30	80	<5	2.49	<1	10	41	13	2.31	80	0.66	652	1	0.05	29	1470	22	5	<20	259	0.04	<10	26	<10	15	50
V-01-4	42.1	51.2	27	VA-27	10	<0.2	1.42	55	70	<5	2.88	<1	15	62	21	3.13	90	0.99	680	<1	0.06	27	1920	24	5	<20	229	0.04	<10	57	<10	21	56
	51.2	63.4	28	VA-28	20	2.0	1.40	15	85	<5	1.75	<1	15	59	16	3.13	90	1.27	587	<1	0.07	27	1930	20	<5	20	239	0.07	<10	51	<10	22	52
	63.4	66.4	29	VA-29	25	<0.2	1.38	15	90	<5	1.67	<1	15	53	21	2.99	90	1.10	530	<1	0.08	29	1870	24	<5	<20	262	0.06	<10	50	<10	21	53
V-01-5	36.0	48.2	30	VA-30	55	<0.2	1.11	<5	100	<5	1.60	<1	13	51	17	2.60	80	0.88	474	2	0.08	18	1760	18	<5	<20	226	0.08	<10	42	<10	18	50
	48.2	60.4	31	VA-31	20	<0.2	0.79	25	95	<5	2.39	<1	13	56	17	2.82	80	0.92	532	1	0.05	20	1600	18	<5	<20	298	0.07	<10	43	<10	16	49
	60.4	66.4	32	VA-32	10	<0.2	0.89	15	90	<5	2.18	<1	12	42	15	2.63	80	0.82	559	2	0.05	15	1530	18	<5	<20	271	0.08	<10	33	<10	16	49
	66.4	75.6	33	VA-33	20	<0.2	0.78	<5	90	<5	1.99	<1	10	50	13	2.48	70	0.72	554	1	0.05	15	1340	16	<5	<20	255	0.08	<10	28	<10	14	48
	75.6	78.6	34	VA-34	15	<0.2	0.67	10	110	<5	1.55	<1	9	43	11	2.47	70	0.65	552	2	0.05	17	1130	18	<5	<20	211	0.06	<10	28	<10	12	55
	78.6	81.7	35	VA-35	20	<0.2	0.66	<5	95	<5	1.53	<1	9	51	11	2.43	70	0.65	568	2	0.05	14	1130	18	5	<20	212	0.07	<10	26	<10	13	52
	81.7	84.7	36	VA-36	35	<0.2	0.70	5	105	<5	1.48	<1	9	53	12	2.50	70	0.66	573	3	0.05	13	1200	16	<5	<20	215	0.07	<10	32	<10	14	52
QC DATA:																																	
Resplit:																																	
	1		VA-01		30	0.4	1.26	55	55	<5	0.69	<1	9	10	22	2.46	90	0.59	787	7	0.06	16	990	42	10	<20	203	<0.01	<10	19	<10	9	70
	36		VA-36		35	<0.2	0.70	5	100	<5	1.47	<1	9	51	12	2.51	70	0.65	567	2	0.05	14	1210	18	<5	<20	219	0.07	<10	30	<10	13	52
Repeat:																																	
	1		VA-01		25	0.4	1.25	50	55	<5	0.90	<1	9	11	21	2.48	90	0.59	787	7	0.06	15	1010	44	5	<20	201	<0.01	<10	19	<10	9	72
	10		VA-10		30	<0.2	1.87	300	160	<5	1.50	<1	22	81	17	3.70	120	1.37	632	<1	0.02	49	2400	30	20	<20	228	0.02	<10	54	<10	36	69
	19		VA-19		15	<0.2	0.74	75	70	<5	1.63	<1	9	25	14	2.22	70	0.45	419	15	0.05	12	1230	20	5	<20	234	0.05	<10	27	<10	13	45
Standard:																																	
GEO'01					135	1.2	1.74	50	160	<5	1.55	<1	20	53	89	3.55	20	0.98	670	<1	0.02	25	730	24	<5	20	61	0.12	<10	66	<10	13	72

FP/kk
df/395
XLS/01
CC. Murray Morrison (Mail)

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer



- GEOLOGICAL LEGEND -

MIDDLE EOCENE to UPPER EOCENE

4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones

—— —— —— —— UNCONFORMITY

3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clasts to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones siltstones and mudstones

—— —— —— UNCONFORMITY

1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

- Symbol Legend -
- access roads
- outcrop
- angular float
- bedding
- assumed contacts
- inferred faults

• Lithogeochemical Samples - Samples V-01 to V-10 (see report for details)

⊙ PROPOSED DRILL HOLES

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,864

0 50 100 METRES
Scale 1:2500

To accompany a Geological and Geophysical Report by M.S. Morrison.

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
GEOLOGY VAULT 1, 4 & 5 MINERAL CLAIMS	
Drawn By: M.M.	N.T.S. 82-E-5E
March 2001	MAP V-01-1A

(1)

7+00W 6+00W 5+00W 4+00W 3+00W 2+00W 1+00W 0+00W 1+00E 5+00E 10+00E

5+00N 4+00N 3+00N 2+00N 1+00N 0+00N 1+00S 2+00S 3+00S 4+00S 5+00S 6+00S

800 m north to the Legal Corner Post of the Vault 2 & 5 Mineral Claims.

to Highway 97
1 km

NORTH VEIN

Portion of North Vein exposed during 1990 trenching program.

NORTH VEIN

Portion of North Vein exposed during 1990 trenching program.

VAULT 2 MINERAL CLAIM

VAULT 14 FRACTION

Legal Corner Post

VAULT 1

VAULT 1 MINERAL CLAIM

Please see Figure 4 for the entire Vault Claim Group.

VAULT 5 MINERAL CLAIM

DISCOVERY ZONE

MAIN ZONE

Detailed Geology Mapped in 1982

FAULT

SYNCLINE

Powerline

White Lake Road

SAMPLE V-09

SAMPLE V-08

inferred fault?

pine flat
pine
meadow
sagebrush bench
old dirt road
top of bench
bench
edge of bench
top of slope
top of slope bench
top of sloped bench
sloped bench
piedmont
low ridge
3 m ridge
3 to 5 m drift
> 5 m drift
sand and gravel drift
overburden
shallow overburden
brecciated sediments
20-50% qtz replacement
2-5% qtz veinlets
limonitic
dacite
dacite ridge

1a 2a 2b 3a

A A' B B' C C' AA' BB'

Adjoins Map V-01-1A

Detailed Geology Mapped in 1982

Adjoins Map V-01-1A

- GEOLOGICAL LEGEND -

MIDDLE EOCENE to UPPER EOCENE
4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones
——— UNCONFORMITY
3 UPPER MARAMA FORMATION
3c dacitic lahars
3b dacitic crystal and lapilli tuffs
3a dacitic flows, very fine grained
2 LOWER MARAMA FORMATION
2e porphyritic andesite
2d felsic crystal and lapilli tuffs
2c green sandstone and siltstone
2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
2bt lahars with trachytic clasts to 40 cm
2a mixed sediments: conglomerates, grits, sandstones siltstones and mudstones
——— UNCONFORMITY
1 MARRON FORMATION
1b trachytic lahars
1a porphyritic trachyte flows

- Symbol Legend -
access roads
outcrop
angular float
bedding
assumed contacts
inferred faults

Lithogeochemical Samples - Samples V-01 to V-10
(see report for details)

PERCUSSION DRILL HOLES
DRILLED OCTOBER, 2001

0m 50m 100 metres
Scale 1:2500

To accompany a Geological and Geophysical Report by M.S. Morrison.

Revised December, 2001

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
GEOLOGY VAULT 1, 4 & 5 MINERAL CLAIMS	
Drawn By: M.M.	N.T.S. 82-E-5E
March 2001	MAP V-01-1B

(2)

575m

550m

525m

500m

475m

450m

Elevation above Sea Level

silica replacement zone

Proposed Drill Hole L-L'

PLEISTOCENE

LOWER MARAMA FORMATION

ARGILLITE

TUFF

2a

LOWER MARAMA FORMATION

TUFF

2a

Inferred Fault

LOWER MARAMA FORMATION

TUFF

2a

MARRON FORMATION

55m @ -60°

MARRON FORMATION

Please see Figure 13

ascending solutions

UPPER MARAMA FORMATION

3a dacitic flows, very fine grained

LOWER MARAMA FORMATION

2d felsic crystal and lapilli tuffs

2c green sandstone and siltstone

2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments

LOWER MARAMA FORMATION

2a mixed sediments

2a

ARGILLITE

TUFF

2a

TUFF

LOWER MARAMA FORMATION

2a

MARRON FORMATION

DRILL HOLE P.D.H. V-01-1

Casing to 6.1 metres 1.2-5.5m clayey boulder till

5.5-11.6m till: sand, fine gravel, some cobbles

11.6-16.8m grey kaolinite clay with minor fine gravel

16.8-29.9m LOWER MARAMA FORMATION
Argillite: black, dark brown or grey argillite with thin interbeds of brown to grey siltstone. The argillite is unaltered, but much of the siltstone is strongly altered to clay. Zones of pure kaolinite clay occur within the argillite unit.

29.9-66.4m Tuff: very fine grained dacitic(?) tuff; light green or red and locally altered to white, grey or pink; moderate to strong argillic alteration and slight to strong silica replacement; generally minor pyrite and quartz veinlets.

	16.8-17.7m	black argillite (50%) with a trace of disseminated pyrite and grey siltstone (50%) with strong argillic alteration; trace of quartz veinlets
	17.7-20.7m	black argillite (95%) with interbedded light grey siltstone (5%), moderate argillic alteration
VA-01	20.7-23.8m	grey argillite (90%) with interbedded light grey siltstone (10%) with moderate argillic alteration; trace of quartz veinlets
	23.8-29.9m	Fault Zone?
	23.8-26.8m	black and brown argillite (70%) with interbedded grey siltstone (30%) with strong argillic alteration; 70% brown and grey clay washed from interval.
	26.8-29.9m	black argillite (60%) with interbedded light grey siltstone (40%) with strong argillic alteration; 80% grey kaolinite clay washed from interval.
VA-02	29.9-36.0m	light green tuff with moderate argillic alteration, and moderate silica replacement (20 to 30%?), trace of pyrite
VA-03	36.0-39.0m	light green tuff (80%) moderate argillic alteration and strong silica replacement (20-50%?); quartz/pyrite veinlets 2 to 5mm equal 2 to 3%; black argillite (20%) unaltered
	39.0-42.1m	as above except no quartz/pyrite veinlets and only 1% pyrite disseminated; no argillite interbeds
VA-04		
VA-05	42.1-45.1m	green and red tuff with moderate argillic alteration, no pyrite
	45.1-48.2m	green and red tuff with moderate argillic alteration, trace of pyrite
VA-06	48.2-51.2m	dark green tuff (90%) with moderate argillic alteration, 10% of interval with strong argillic alteration; 3% quartz veinlets, trace of pyrite
VA-07	51.2-66.4m	light green and white tuff with moderate argillic alteration
	51.2-54.3m	3% disseminated pyrite
	54.3-66.4m	slight silica replacement (10%?), trace of pyrite
	51.2-60.4m	Fault Zone? 50% to 70% white clay washed out of this interval
VA-08	60.4-63.4m	trace of quartz veinlets
	66.4m	End of Drill Hole.

TUFF

LOWER MARAMA FORMATION

2a

MARRON FORMATION

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE
4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones
—— —— —— —— —— UNCONFORMITY
3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clast to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff

—— —— —— —— —— UNCONFORMITY
1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

—— —— —— Assumed Contacts
~ ~ ~ ~ Inferred Fault

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-01	14.6 - 29.9 = 15.3	25	55
VA-02	29.9 - 36.0 = 6.1	35	95
VA-03	36.0 - 42.1 = 6.1	100	235
VA-04	42.1 - 45.1 = 3.0	10	25
VA-05	45.1 - 48.2 = 3.1	< 5	30
VA-06	48.2 - 51.2 = 3.0	15	10
VA-07	51.2 - 60.4 = 9.2	10	5
VA-08	60.4 - 66.4 = 6.0	< 5	< 5

Please see Appendix D for other elements and further details.

0 5 10 metres
Scale 1:250

Horizontal Scale = Vertical Scale

To Accompany a Geological Report by M.S. Morrison.
Please see Maps V-01-1A & B for Geology.

M. Morrison

(3)

AQUA REGIA MINERALS INC
VAULT CLAIM GROUP
OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.
PDH V-01-1
CROSS SECTION
FACING NORTHEAST (040°)

Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 7

575m

550m

525m

500m

475m

450m

Elevation above Sea Level

Proposed Drill Hole M-M'

PLEISTOCENE

LOWER MARAMA FORMATION

TUFF

2a

MARRON FORMATION

50m @ -70°

Inferred Fault

ascending solutions

2.4-69.5m LOWER MARAMA FORMATION
2.4-69.5m Tuff: very fine grained dacitic(?) tuff; green or pink, but generally altered to light green, grey or white and locally stained purple with hematite; slight to strong argillic alteration and slight to strong silica replacement; minor quartz veinlets with pyrite locally, but low pyrite generally.

DRILL HOLE P.D.H. V-01-2

Casing to 3.0 metres

VA-09
- 2.4-4.0m tuff(?) strong limonite staining
- 4.0-5.5m tuff(?) strong silica replacement (50%), 5% pyrite with silica
- 5.5-8.5m grey tuff, slight argillic alteration, and slight silica replacement (10%)

VA-10
- 8.5-14.6 green and grey tuff, moderate argillic alteration and slight silica replacement (10%?), trace of quartz veinlets and pyrite
- 14.6-20.7m same as above, but all grey tuff

VA-11
- 20.7-23.8m grey tuff, moderate argillic alteration; white, pink and clear silica replacement (15%?), trace of quartz veinlets and pyrite
- 23.8-26.8m grey and light green tuff, moderate argillic alteration and moderate white and pink silica replacement (15%?), 2% white quartz veinlets. Fault Zone? 90% grey kaolinite clay washed out of sample interval.

VA-12
- 26.8-29.9m light green and pink tuff, moderate argillic alteration and moderate silica replacement (30%?), 2% white quartz veinlets

VA-13
- 29.9-36.0m light green and pink tuff, moderate argillic alteration and slight silica replacement (10 to 15%?)

VA-14
- 36.0-45.1m light green and minor pink tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite
- 45.1-48.2m light green (80%) and purple (20%) tuff, slight argillic alteration and slight silica replacement (10%?), trace of pyrite

VA-15
- 48.2-54.3m light green (80%) and purple (20%) tuff, slight to moderate argillic alteration

VA-16
- 54.3-57.3m light green and white tuff, strong argillic alteration and moderate silica replacement (20%?), 2% quartz veinlets, trace of very fine disseminated pyrite
- 57.3-60.4m light green and white tuff, strong argillic alteration, strong silica replacement (50%?), trace of very fine disseminated pyrite

63.4-69.5m Fault Zone?

VA-17
- 60.4-63.4m light green and pink tuff, strong argillic alteration, moderate to strong white and pink silica replacement (40%?), trace of very fine disseminated pyrite
- 63.4-66.4m light green (50%) and hematitic purple (50%) tuff, moderate argillic alteration; moderate silica replacement (30%?) of the light green tuff only; 90% of the interval equals clay which was washed from the sample.
- 66.4-69.5m light green (80%) and hematitic purple (20%) tuff, moderate argillic alteration and slight silica replacement (10%?); 90% of the interval equals clay which was washed from the sample.

69.5 m
End of Drill Hole.

UPPER MARAMA FORMATION

3a dacitic flows, very fine grained

LOWER MARAMA FORMATION

2d felsic crystal and lapilli tuffs

2c green sandstone and siltstone

2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments

2a mixed sediments

ARGILLITE

TUFF

LOWER MARAMA FORMATION

TUFF

2a

TUFF

2a

TUFF

MARRON FORMATION

TUFF

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE
4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones
—— —— —— —— —— **UNCONFORMITY**
3 UPPER MARAMA FORMATION
- **3c dacitic lahars**
- **3b dacitic crystal and lapilli tuffs**
- **3a dacitic flows, very fine grained**

2 LOWER MARAMA FORMATION
- **2e porphyritic andesite**
- **2d felsic crystal and lapilli tuffs**
- **2c green sandstone and siltstone**
- **2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments**
- **2bt lahars with trachytic clast to 40 cm**
- **2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff**

—— —— —— —— —— **UNCONFORMITY**
1 MARRON FORMATION
- **1b trachytic lahars**
- **1a porphyritic trachyte flows**

0 5 10 metres

Scale 1:250

— — — Assumed Contacts
~ ~ ~ ~ Inferred Fault

Horizontal Scale = Vertical Scale

SAMPLES SUBMITTED FOR ANALYSES

Sample Number	Interval (in metres)	Gold ppb (parts per billion)	Arsenic ppm (parts per million)
VA-09	2.4 - 5.5 = 3.1	80	860
VA-10	5.5 - 14.6 = 9.1	20	300
VA-11	14.6 - 26.8 = 12.2	45	215
VA-12	26.8 - 29.9 = 3.1	45	65
VA-13	29.9 - 36.0 = 6.1	30	40
VA-14	36.0 - 48.2 = 12.2	15	15
VA-15	48.2 - 57.3 = 9.1	30	5
VA-16	57.3 - 60.4 = 3.1	45	30
VA-17	60.4 - 69.5 = 9.1	30	15

Please see Appendix D for other elements and further details.

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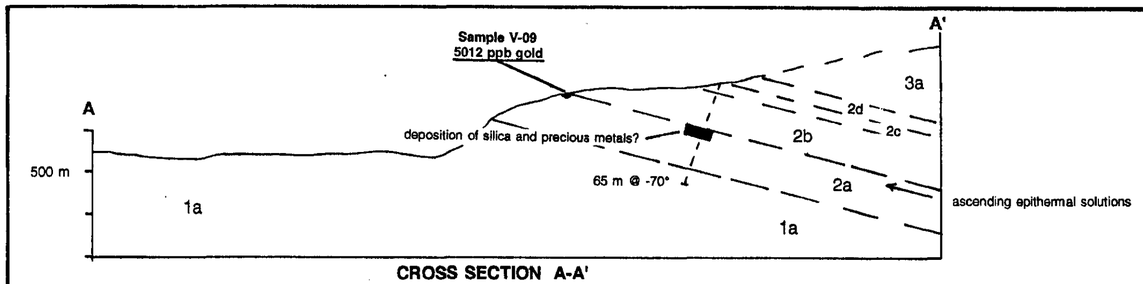
To Accompany a Geological Report by M.S. Morrison.
Please see Maps V-01-1A & B for Geology.

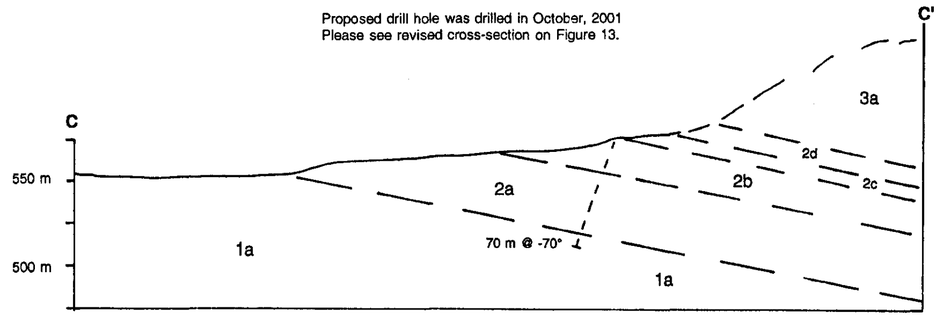
AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
PDH V-01-2 CROSS SECTION FACING NORTHEAST (028°)	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 8

4



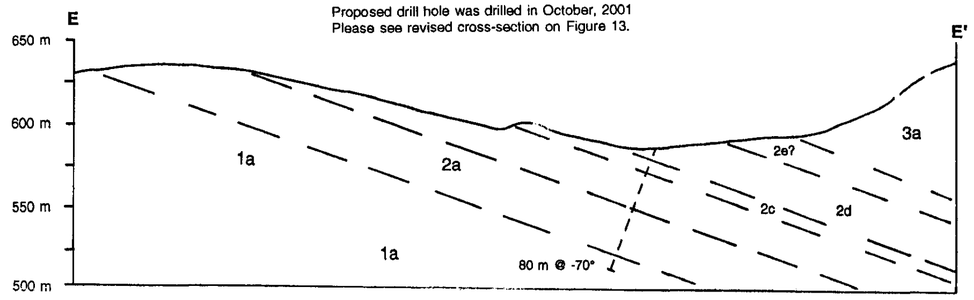
CROSS SECTION A-A'

Proposed drill hole was drilled in October, 2001
Please see revised cross-section on Figure 13.

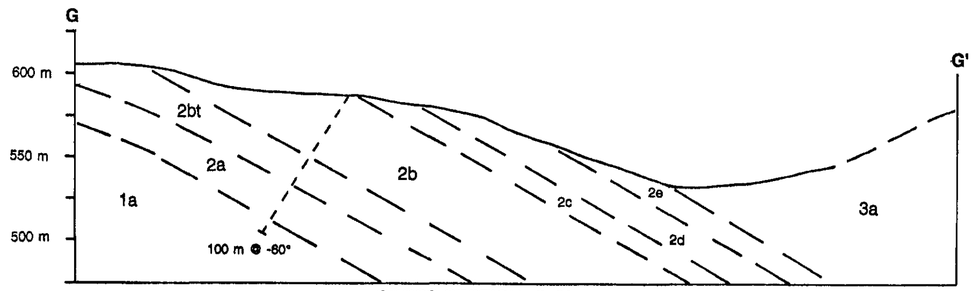


CROSS SECTION C-C'

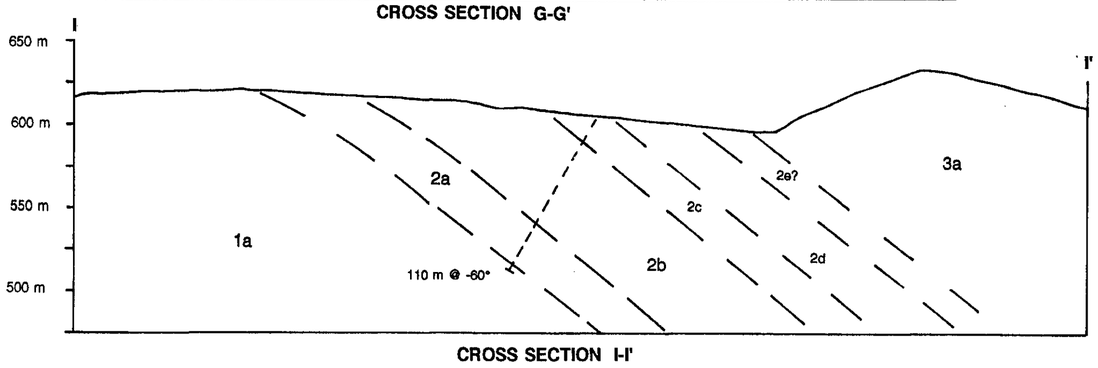
Proposed drill hole was drilled in October, 2001
Please see revised cross-section on Figure 13.



CROSS SECTION E-E'



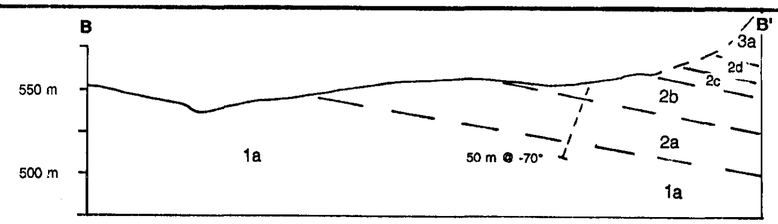
CROSS SECTION G-G'



CROSS SECTION I-I'

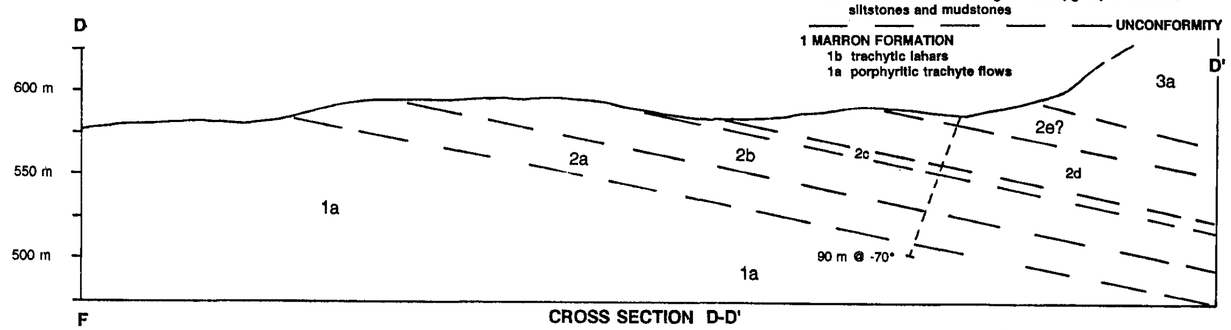
Elevation Above Sea Level

Proposed Drill Holes

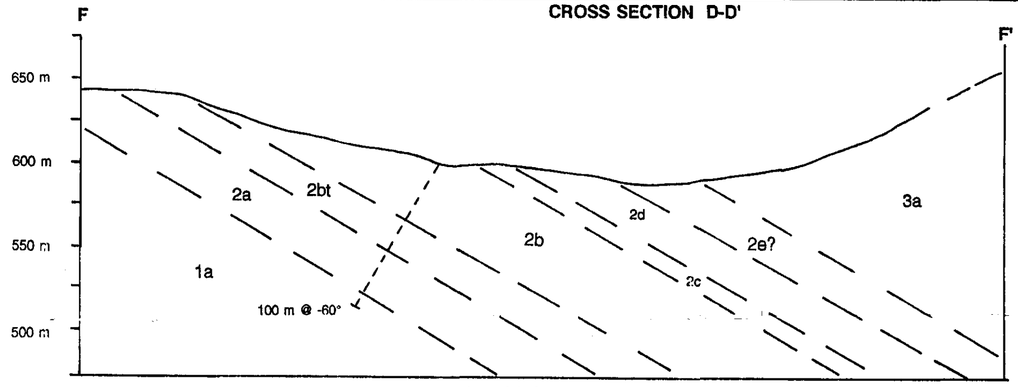


CROSS SECTION B-B'

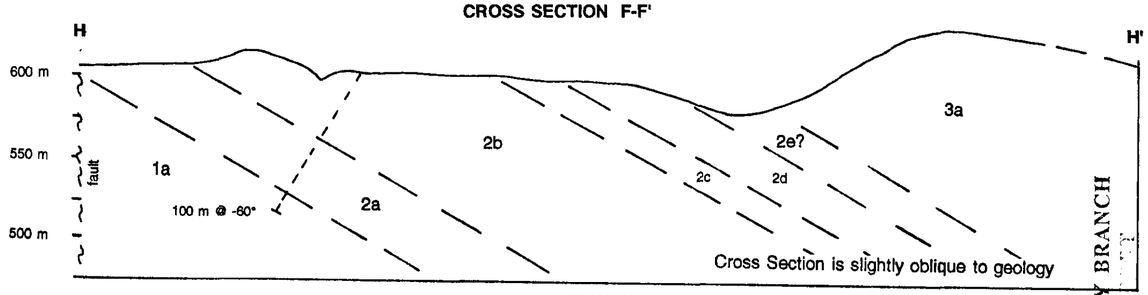
Proposed drill hole was drilled in October, 2001
Please see revised cross-section on Figure 13.



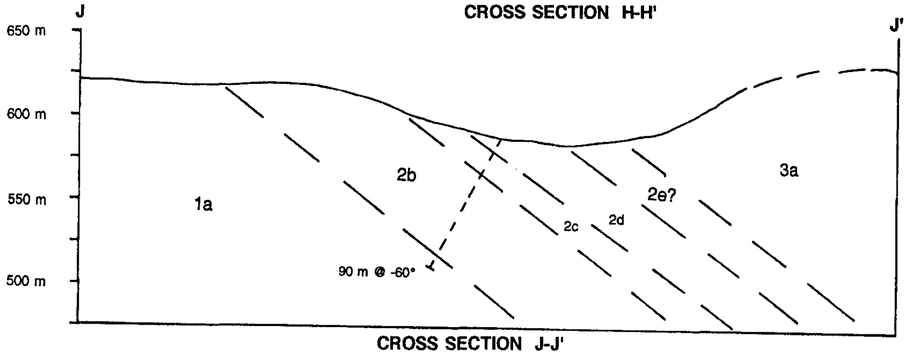
CROSS SECTION D-D'



CROSS SECTION F-F'



CROSS SECTION H-H'



CROSS SECTION J-J'

Elevation Above Sea Level

Assumed Contacts

To accompany a Geological and Geophysical Report by M.S. Morrison.
Please see Maps V-01-1A & B for Geology.

0m 50m 100 metres

Scale 1:2500

Horizontal Scale = Vertical Scale

- GEOLOGICAL LEGEND -

MIDDLE EOCENE to UPPER EOCENE

4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones

UNCONFORMITY

3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
- 2d felsic crystal and lapilli tuffs
- 2c green sandstone and siltstone
- 2b andesitic and mafic flows, flow breccias, lahars, with minor intercalated sediments
- 2bt lahars with trachytic clasts to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones siltstones and mudstones

UNCONFORMITY

1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

GEOLOGICAL SURVEY BRANCH

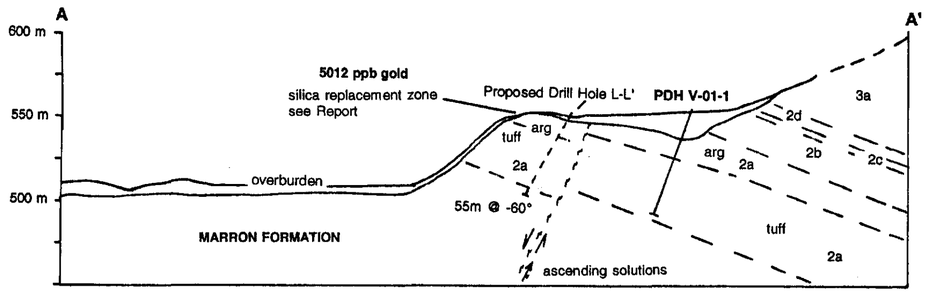
ASSESSMENT REPORT

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
CROSS SECTIONS & PROPOSED DRILL HOLES	
Drawn By: M.M.	N.T.S. 82-E-5E
March 2001	FIGURE 12

(5)

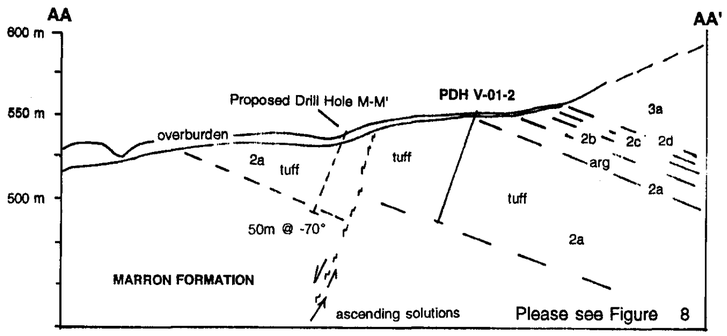
M. Morrison

Revised December, 2001



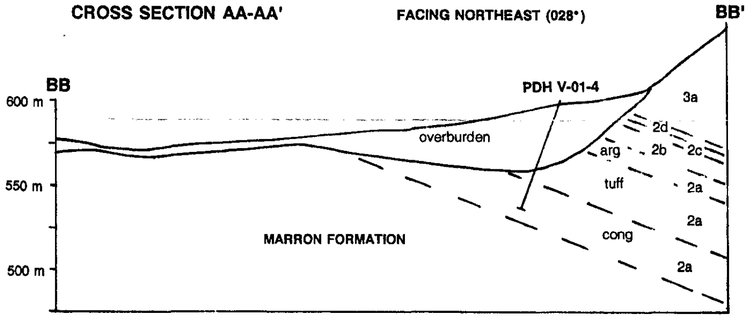
CROSS SECTION A-A' FACING NORTHEAST (040°)

Please see Figure 7



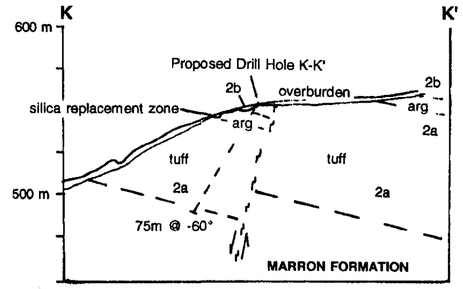
CROSS SECTION AA-AA' FACING NORTHEAST (028°)

Please see Figure 8

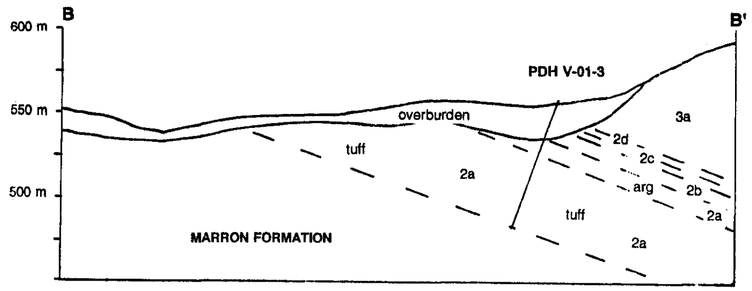


CROSS SECTION BB-BB' FACING NORTHEAST (017°)

Please see Figure 10

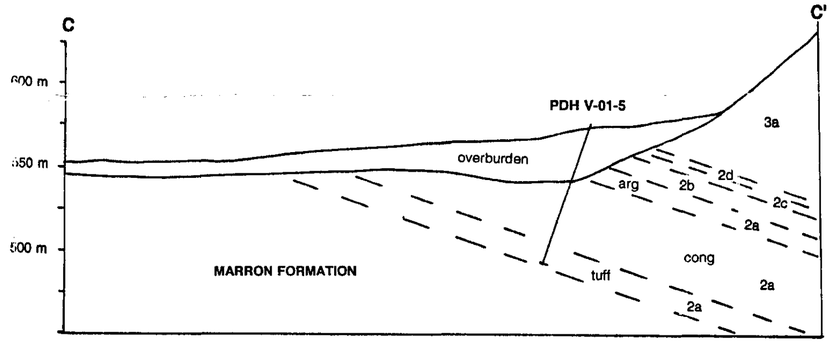


CROSS SECTION K-K' FACING NORTHEAST



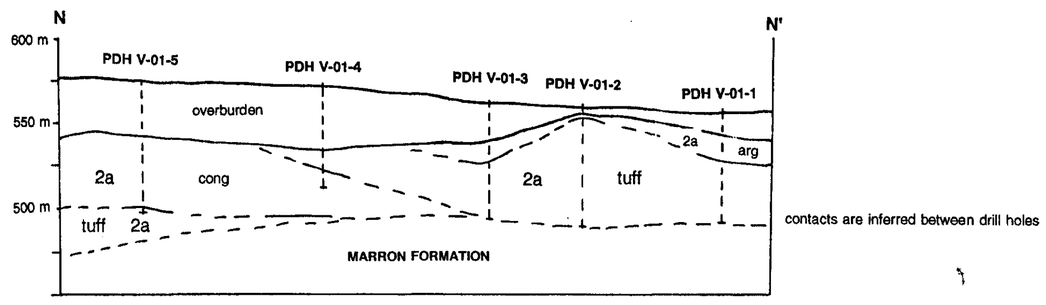
CROSS SECTION B-B' FACING NORTHEAST (018°)

Please see Figure 9



CROSS SECTION C-C' FACING NORTHEAST (008°)

Please see Figure 11



Elevation above Sea Level CROSS SECTION N-N' FACING NORTHWEST

contacts are inferred between drill holes

- GEOLOGICAL LEGEND -

MIDDLE EOCENE TO UPPER EOCENE

4 WHITE LAKE FORMATION
lahars, flows, tuffs, conglomerates and sandstones

UNCONFORMITY

3 UPPER MARAMA FORMATION
- 3c dacitic lahars
- 3b dacitic crystal and lapilli tuffs
- 3a dacitic flows, very fine grained

2 LOWER MARAMA FORMATION
- 2e porphyritic andesite
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- 2bt lahars with trachytic clast to 40 cm
- 2a mixed sediments: conglomerates, grits, sandstones, argillites, siltstones, mudstones and tuff

UNCONFORMITY

1 MARRON FORMATION
- 1b trachytic lahars
- 1a porphyritic trachyte flows

— — — — Assumed Contacts

~ ~ ~ ~ ~ ~ Inferred Fault

arg = argillite
cong = conglomerate

0m 50m 100 metres

Scale 1:2500

Horizontal Scale = Vertical Scale

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,814

AQUA REGIA MINERALS INC	
VAULT CLAIM GROUP OKANAGAN FALLS AREA, OSOYOOS M.D., B.C.	
PERCUSSION DRILL HOLES DRILLED OCTOBER, 2001	
Drawn By: M.M.	N.T.S. 82-E-5E
December 2001	FIGURE 13

To Accompany a Geological Report by M.S. Morrison.
Please see Maps V-01-1A & B for Geology.

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Jm. Morrison