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FILE NO: SUMMARY REPORT ON RECONNASIANCE

GEOLOGICAL MAPPING

DORA GROUP

DORA 2, DORA 3, JACK 1, JACK 2 CLAIMS

LAC LA HACHE AREA, BC

CLINTON MINING DIVISION

NTS: 92P/14W LATITUDE: 51 DEG. 59 MIN. N LONGITUDE: 121 DEG. 17 MIN. W

ANNUAL WORK APPROVAL NUMBER PRG-1994-1000817-6098

Prepared For

PMA RESOURCES INC. RICHMOND, BC

Prepared By

Kevin M. Newman, P. Geo. Ashcroft, BC VOK 1A0 FILMED

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GEOLOGICAL BRANCH October, 4994 SESSMENT REPORT

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	1993 Report by S.W. Smith

PMA RESOURCES INC.

JACK 1 & 2 DORA 2 & 3 CLAIMS NTS: 92P/14W OCTOBER, 1994

> SUMMARY REPORT ON RECONNAISSANCE GEOLOGICAL MAPPING DORA CLAIM GROUP LAC LA HACHE AREA, BC

SUMMARY

In October, 1993 PMA Resources Inc. had contracted Westore Engineering Ltd. to do geological mapping on the Dora Claim Group. In 1994 additional follow-up prospecting and mapping was done in order to further evaluate the property. The claim group consists of 64 units and it is bounded to the east by claims owned by Regional Resources Ltd. and to the south and west by claims owned by GWR Resources Inc.

In 1993 Regional Resources Ltd. discovered significant surface showings of copper/gold and in 1994 GWR Resources Inc. drilled two diamond drill holes near the southwest corner of PMA's Jack 2 claim, no drilling results have been published.

The surface showings discovered by Regional are hosted by fragmental Nicola Group volcanics that have skarn alteration. The alteration products are epidote, Kspar and garnets, bornite is the primary copper mineral.

As a result of the 1994 mapping and prospecting program additional skarn altered outcrops were located thereby enhancing the potential for discovering copper sulphide mineralization on the property. In addition to the above skarn related minerals tourmaline was also found in the outcrops. Traces of chalcopyrite, bornite and native copper were found in the skarn zones, the amounts are also reflected in the assay results, i.e. 79 and 1130 ppm Cu.

Due to the scarcity of outcrops, especially on the Dora claims, it is recommended that the entire claim group should be covered by an I.P. survey. Drilling has been proposed to test the ground under outcrops 1 and 3 (See Map 1 in pocket), when it will start depends on approval of work permits and weather conditions.

1.0 INTRODUCTION

The Dora Claim Group lies immediately to the west of Regional Resources Ltd. where a significant surface showing of copper/gold was discovered in 1993. To the west and southeast GWR Resources Inc. carried out a diamond drilling program on their property, to-date no information on the drilling results have been published.

This report is a follow-up to the report done on the property by Westore Engineering Limited in October, 1993 (Westore,1993). Mapping by Westore indicated that the Jack 1 and Jack 2 claims are underlain by the Nicola Group of volcanics that have potassic, epidote and possibly garnet alteration that is similar to that associated with Regional's surface showing. At the request of PMA Resources Inc. the mineral showings were reexamined and additional mapping and prospecting was done with the intention of locating additional zones of mineralization.

2.0 LOCATION AND ACCESS

The property is located approximate 25 killometres northeast of Lac La Hache, BC (Figure 1). The claim are at Latitude 51 degrees, 59 minutes north and 121 degrees 17 minutes west (Figure 1). Access to the property can be via two routes: (a) From the north end of 100 Mile House travel east to the community of Forest Grove, continue two killometres east then north for 22 killometres on the 500 Forest Service road. Turn west on the 100 Forest Service road for 10 killometres at which point is the

northeast corner of the Jack 1 claim. (b) From Lac La Hache east to Greeny Lake then northeast on the Mt.Timothy road then north on the Fly Lake (1600) road to the east-west 1700 road at which point turn east and continue until the above 100 Forest Service road is intersected.

3.0 PHYSIOGRAPHY

The property is located within the Interior Plateau and the Fraser Plateau subdivision eastblished by Holland (1964). Elevations range fron 1067 metres in the north end of Jack 1 claim to 1340 metres at the south end of the Jack 2 claim. The Dora 2 claim is within a valley with westerly drainage to Peach Lake; Lower Peach Lake is within the Dora 3 claim. Drainage into Lower Peach Lake commences at the northeast corner of the Jack 1 claim.

4.0 PROPERTY TENURE

The Dora Claim Group consists of 64 claim units recorded in the name of PMA Resources Inc., 1103-11871 Horseshoe Way, Richmond, BC, V7A 5H5. Subject to the acceptance of this and Weatore Engineering Ltd. reports the claim names, record numbers, etc. are as follows:



CLAIM	NAME	RECORD NUMBER	NO. OF UNITS	DUE DATES
JACK	1	313376	12	1995/SEP/21
JACK	2	313377	20	1995/SEP/22
DORA	2	313634	16	1995/SEP/19
DORA	3	313635	16	1995/SEP/20

5.0 HISTORY AND PREVIOUS WORK

In the mid 1960's the GSC flew a regional airborne magnetometer survey that outlined an annular magnetic high that has a length of approximately twenty killometres. The southern limits of the anomaly is across the Spout Lake - Peach Lake area. Exploration work on similar magnetic highs to the north led to the discovery of the Mount Polley porphyry copper/gold deposit. This and other deposits is shown on Figure 2.

Exploration of the magnetic high in the Peach Lake area commenced in 1966 and since then it has continued on an intermitent basis until 1984. Coranex, Amax and Craigmont Mines Ltd. exploration programs eventually led to the discovery of the WC, Peach, Tim and Miracle deposits. At various times between 1990 and the present GWR Resources Inc., PMA Resources Inc. and Regional Resources Ltd. have been active in the immediate area. The most significant discovery was made by Regional's prospector on their claims next to the east boundary of PMA's Jack 1 and Jack 2 claims. The surface showing of bornite with gold and silver values is associated with skarn alteration of the Nicola Group



volcanics over a reported length of 400 metres.

6.0 GEOLOGY

6.1 REGIONAL GEOLOGY

The Dora Group is located near the eastern margin of the Intermontaine Belt within the Quesnel Trough of Central BC (Figure 2). The Quesnel Trough is an island arc assemblage of alkalic volcanic flows, clastics, intrusives and sedimentary rocks Triassic/Jurassic age. Coeval alkalic stocks composed of of monzonite, syenite and diorite host copper/gold deposits such as Copper Mountain, Mt. Polley and the Afton mine. Approxmiately five killometres to the east is the Takomkane batholith intrusive complex. Tertiary plateau andesite and basalt blanket portions of the region to the north, east and south (Campbell and Tipper, 1971).

6.2 PROPERTY GEOLOGY

The property is underlain by Upper Triassic/Lower Jurassic Nicola Group of volcanic flows, breccias and tuffs intruded by diorite and monzonite stocks. PMA Resources retained Westore Engineering Ltd. to carry out a review of assessment and geological reports on the area and to carry out a reconnaissance mapping program (Summary Report and Recommendations, 1993). As a result of the mapping program two zones of copper mineralization were located. In the central area of the Jack 2 claim a thin vein of vuggy quartz and potassic feldspar with patchy chalcopyrite assayed

0.70 % copper. Near the northeast boundary of the the Jack 1 claim a grab sample returned an assay of 0.09% copper. The mineralization is associated with Nicola Group volcanics that have epidote, potassic and possibly garnet alteration. To further evaluate the property additional mapping and prospecting was done intermittently between August 25th and September 8th, 1994. Map 1 (In Pocket) shows the location of rock outcrops that were examined during the above dates. In addition to the outcrops mapped in 1993 two new outcrops were located, they have extended the zone of skarn alteration to the west and north of the skarn altered outcrop located near the northeast corner of the Jack 1

claim (Identifed as Otc.1 on Map 1 accompany this report).

6.3 ALTERATION AND MINERALIZATION

Otc.2 located 500 metres to the northwest of Otc.1, consists of Nicola Group fragmental and porphyritic hornblende andesite with an interflow zone of light to medium grey banded siliceous rock that has strong sigmoid folding. Alteration of the andesite consists of scattered zones of blotchy epidote with minor Kspar, quartz and secondary biotite. A few isolated, one to two centimetre vugs were noted to infillings of quartz, garnet and tourmaline. Mineralization consists of widely disseminated pyrite, traces of chalcopyrite and malachite. A grab sample from this outcrop assayed 79 ppm Cu (Appendix I, Sample J 1).

Otc.3, located 3000 metres to the south west of Otc.1 is a highly altered andesite. The alteration is veined to patchy epidote haloed by Kspar, there are also zones of strong, almost massive Kspar and secondary quartz that contain radiating, cone shaped, black tourmaline crystals up to three centimetres long. In areas where alteration was not strong finely disseminated native copper was noted. Chalcopyrite ocurrs as fine disseminations in chloritic zones and as two to three millimetre blebs haloed by epidote and Kspar. A grab sample assayed 130 ppm Cu (Appendix 1, Sample JA).

The outcrop where a grab sample on the Jack 2 claim assayed 0.7% copper (Otc.4 on Map 1) was examined and indications are that the mineralization is confined to a narrow shear zone. No additional mineralization was noted in the immediate area.

7.0 CONCLUSIONS

Follow-up mapping has extended the zone of skarn alteration that is associated significant with surface showings of copper/gold/silver mineralization on Regional Resources Ltd. claim group that is located along the east boundary of the Jack 1 and Jack 2 claims. The limits of the skarn alteration to the west and north are unknown due to the lack of outcrops in the valley occupied by Peach Lake and Lower Peach Lake. The low grade copper assays in the altered andesite should not be a deterrent to the strategic location of the claim group. Drilling activity by GWR Resources Inc. immediately to the southwest of the Jack 2 claim

is also an important factor in considering future exploration methods on the property.

8.0 RECCOMENDATIONS

The Dora Claim Group occupies a strategic location between two off-property areas of significant mineralization that have not been fully evaluated. Due to the scarcity of rock outcrops plus that there is a zone of significant alteration on the property it is recommended that an induced polarization survey should be done over the entire claim group.

APPENDIX 1

ASSAY RESULTS

Values in ppm unless otherwise reported

Phone: 604-573-5700 Fax : 604-573-4557 PMA RESOURCES ETK94-784 1103-11971 HORSESHOE WAY RICHMOND, B.C. V7A 5H5

ATTENTION: MICHEAL CASSIDY

4 rock samples received September 27, 1994 Sample Run Date: 6 October, 1994

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	Ft #	Ten #	Au (ppb)	Δα	۵۱ %	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
AM.	1	JD5	5	<.2	0.99	<5	50	<5	0.12	<1	32	99	35	4.35	<10	0.68	161	15	0.03	5	360.	2	<5	<20	7	0.01	<10 10	36 101	<10 <10	<1 5	17 60
X	§ ²	J-1	5	<.2	1.78	<5	65	<5	1.91	<1	18	51 61	130	3.60	<10	0.78	241	112	0.06	5	1710	$\overline{2}$	5	<20	43	0.13	20	162	<10	<1	25
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10/07/94																															

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APPENDIX II

REFERENCES

APPENDIX

REFERENCES

Campbell, R.B. & Tipper, R.W.	Geology of the Bonaparte Lake Map Area, G.S.C. Memoir 363, 1971
Holland, S.S.	Landforms of British Columbia, a physiographic outline; BC Dept. of Mines Petrol. Resources, Bull.48, 1964
Westore Eng. Ltd.	Summary Report and Reccomendations, Dora Group, Prepared for PMA Resources Inc., 1993

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APPENDIX III

STATEMENT OF COSTS

PMA RESOURCES INC JACK 1, JACK 2, DORA 2, DORA 3 TOTAL: 64 UNITS

STATEMENT OF COSTS

WAGES

K. Newman G. Jones	4 days @ \$350/day 4 days @ \$180/day	\$1,400 720
VEHICLE		
Truck 4X4	4 days @ \$65/day	260
ACCOMADATIONS		
Room Meals	3 days @ \$51.75/day 4 days @ \$38/day	155 152
CONSUMABLES		
Field supplies	Flagging, topo string, etc	12
REPORT		
Weatore Eng. Ltd. K. M. Newman, P.Geo.	Field work and report Report	5,294 1,000

TOTAL \$8,993

K. M. Newman, P. Geo.

APPENDIX IV

STATEMENT OF QUALIFICATIONS

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STATEMENT OF QUALIFICATIONS

I, Kevin M. Newman, of the Village of Ashcroft, British Columbia, do hereby certify that:

- 1. I am a Consulting Geoscientist and reside at 604 Pine Drive, Ashcroft, BC, Box 1268, VOK 1A0.
- 2. I am a graduate of St. Francis Xavier University, Antigonish, NS, with a B.Sc., Geology Major, 1956.
- 3. I have been practicing the profession of mining and exploration geology for the past thirty-eight years.
- I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 5. I carried out reconnaissances geological mapping on the property between August 25th and September 8th, 1994.
- 6. I own 3500 shares of PMA Resources Inc., they are held in a RRSP.
- 7. PMA Resources Inc. is hereby given permission to reproduce this report, or any part of it, provided that no portion is taken out of context in such a manner to convey a meaning differing from that set out in the whole.

Dated at Ashcroft BC this Th day of September, 1994. October Kurn M. Maiomace Kevin M. NewmarkewMan Geo.

	OCT 2 5 1994	RD.
<u> </u>	APPENDIX	<u> </u>
FILE NO:		

SUMMARY REPORT AND RECOMMENDATIONS

DORA GROUP

(DORA 2 & 3 AND JACK 1 & 2 CLAIMS)

CLINTON MINING DIVISION NTS: 92P/14W LATITUDE: 51° 59'N LONGITUDE: 121° 17'W

Prepared For

PMA RESOURCES INC. RICHMOND, BC

Prepared By

Scott W. Smith, P. Geol. WESTORE ENGINEERING LTD. 703-1112 West Pender St. Vancouver, BC V6E 2S1

October, 1

GEOLOGICAL BRANCH ASSESSMENT REPORT

PMA RESOURCES INC

NTS: 92P/14W

OCTOBER, 1993

APPENDIX V

SUMMARY REPORT AND RECOMMENDATIONS DORA GROUP

SUMMARY

The Dora Group is a porphyry copper/gold prospect located approximately 25 kilometres northeast of Lac La Hache, BC. The property is strategically located in the Quesnel Trough of central British Columbia, which hosts several large porphyry copper/gold and gold skarn mines, as well as numerous advanced projects. The property is located at the south end of a regional aeromagnetic high, which crosses Peach Lake, on the north half of the property. The exploration of this mag high has lead to the discovery of numerous mineral-showings.

The proximity of the property to numerous mineral showings indicates the potential for significant mineral discovery. Surrounding the claim group are new and old mineralized showings that are seeing renewed interest due to recent positive exploration results. The newest zone of mineralization that has been reported is a zone of copper mineralization 'discovered this summer by GWR and Regional Resources along the eastern boundary of the Dora Group. This discovery gives rise to terrific potential for expansion of copper mineralization identified on the property. Previous geophysical work on the property interpreted northwest trending alkalic intrusions and conductors along its eastern boundary and other work identified copper/silver and gold soil anomalies, also on the eastern portion of the claims. The previous results and the strong alteration and copper mineralization noted in the northeast part of the Dora Group, points to a relationship with the new copper zone to the east.

A three phase exploration program is recommended to test the mineral potential of the property. Phase I would focus on the northeast corner to test if there is any continuation of GWR/Regional's newly found copper zone onto the Jack 1 claim. It would consist of line cutting, soil sampling, IP survey and geological mapping. Phase II would consist of further soil sampling across Jack 2, lines would be chained and flagged. Phase III, contingent upon successful completion and encouraging results from Phase I and II, will consist of a 1000 m of diamond drilling, due to problems with approaching winter weather conditions it may be prudent to combine Phases I and II. Costs of these programs are estimated at approximately \$50,000 for Phases I and II and a further \$100,000 for Phase III.

1.0 INTRODUCTION

The Dora Group is a porphyry copper/gold prospect located approximately 25 kilometres northeast of Lac La Hache, BC, on the boundary between the Cariboo and Clinton Mining Divisions. The area is currently experiencing extensive exploration due to recent positive results received on new and old showings in the area.

This report presents a geological appraisal of the Dora Group for PMA Resources Inc. The intention of the field work was to add to the geological understanding and assist in the economic evaluation of the property, and to direct further exploration to favourable target areas. It has been prepared by Westore Engineering Ltd. at the request of the directors of PMA Resources Inc.

This report is based upon my examination of the claims within the group between October 3 and 9, 1993. Further information is based on the literature listed in the references and from personal communications with geologists now working on claims adjoining the property.

2.0 LOCATION AND ACCESS

The property is located in the Cariboo region of British Columbia, approximately 25 kilometres northeast of Lac La Hache, BC. The claims are centred on Latitude 51° 59'N and Longitude 121° 17'W (Figure 1). Access to the property is via approximately 30 kilometres of good gravel forestry roads from the town of Forest Grove (south of the property), which is 27 kilometres northeast of 100 Mile House along paved roads. Access is also possible along some minor gravel roads that branch off of the Mount Timothy Road, a good gravel road that originates from Lac La Hache.

3.0 PHYSIOGRAPHY

The property is situated on the Interior Plateau, with elevations varying from 1067 metres (3500 feet) to 1341 metres (4400 feet). The terrain consists of gentle, rounded hills and gradual sloping valleys. Water is available year round from numerous lakes, ponds and streams. Annual precipitation of rain and snow is moderate in this cold temperate climate. Snow cover on the property arrives in November and has melted by the end of April. Forest cover consists of lodgepole pine, spruce and fir typical of the Cariboo region. Approximately 30% of the forested area has been clearcut.

4.0 **PROPERTY TENURE**

The Dora Group (Group # 3035598, recorded May 14, 1993) consists of 64 claim units recorded in the Clinton Mining Division in the name of PMA Resources Inc., 1103-11871 Horseshoe Way, Richmond, BC, V7A 5H5. The claims within the Dora group and their current due dates are listed below and there location is seen on Figure 1.

<u>Claim Name</u>	Record Number	No. of Units	Due Dates*
Dora 2	313634	16	Sept 19, 1994
Dora 3	313635	16	Sept 20, 1994
Jack 1	313376	12	Sept 21, 1994
Jack Ž	313377	20	Šept 22, 1994

* checked at Vancouver Mineral Titles Branch, October 14, 1993

5.0 HISTORY AND PREVIOUS WORK

A regional GSC airborne magnetometer survey was flown over the area in the mid 1960's, the survey showed a pronounced annular magnetic high situated northeast of Lac La Hache. The high is approximately 20 kilometres in length and centred along a northwest trending axis, its southern boundary is across the Spout Lake and Peach Lake areas. Fifty kilometres north of the property the same regional survey initiated follow up exploration on other magnetic highs. Exploration on one aeromagnetic anomaly led to the discovery of the Cariboo-Bell (Mount Polley) porphyry copper/gold deposit, 56 km northeast of Williams Lake, BC,

(Hodgson et al., 1976). This and other significant mineral occurrences in the area is shown on Figure 2.

The first recorded exploration of the aeromagnetic high in the Spout And Peach Lake areas began in 1966, with a reconnaissance geochemical soil/silt sampling program by Coranex Ltd. (Janes, 1967). Numerous copper anomalies were outlined in the area. Other companies, including Amax Potash Ltd. and Craigmont Mines Ltd., also began to explore the area. Further soil sampling, geological mapping, trenching, ground magnetometer and geophysical surveys along with diamond drilling, led to the eventual discovery of the WC, Peach, Tim and Miracle showings. The Peach and Tim showings are contained on ground bordering the Dora Group to the south and west.

Amax Potash Ltd. outlined the Tim showings and also discovered the WC magnetite/copper skarn deposit south of Spout Lake (Hodgson and DePaoli, 1973). Additional diamond drilling on the WC deposit by Craigmont Mines Ltd. returned good copper values in a number of holes; the best assayed 2.47% copper over 20 feet (Vollo, 1975). In the winter of 1992-93 G W R Resources Inc. further defined the zone with diamond drilling and calculated reserves of 10 to 12 million tonnes averaging 1.79% copper, 50.5% magnetite and 0.12 grams per tonne gold (Canadian Mines Handbook, 1993-94).

The Tim showings were tested by Stallion resources Ltd. in the fall of 1983, and a zone of 10.7 metres assayed 4.6% copper, 1.7 oz/ton silver and 0.097 oz/ton gold (Butler, 1984). Further percussion and diamond drilling was done by Parkside Ventures in 1990.

Following earlier reconnaissance work by Guichon Explorco Ltd. (Gamble, 1983), the

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Miracle showing was located by prospectors Neils Kriberg and Don Fuller. Recent work, including diamond drilling by G W R Resources Inc. has outlined a zone of copper/gold/silver mineralization (Canadian Mines Handbook, 1993-94).

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The first recorded work on the claims that now make up the Dora Group was in 1973 when Craigmont Mines performed geophysical surveys and geochemical sampling on their SL Group, which covered part of the Dora 2 and 3 claims north of Peach and Lower Peach Lake (Vollo, 1973). They outlined a number of copper soil anomalies, one which is situated near the north border of the present Dora 2 claim, no follow up work to this anomaly was found. In 1984 the Selco Division-BP Resources Canada Ltd. performed soil geochemical sampling on their Core 8 to 13 claims which covered what is now the Dora Group (Gamble and Hoffman, 1984). The soil sampling was on a very wide spacing with 400 m between lines and 200 m between sample sites. A multisample copper/silver soil anomaly was identified in the southeastern area of what is now the Jack 1 claims. The soil sampling also identified 4 areas of anomalous gold values across the central and northeast corner of the present Jack 1 and 2 claims. Again no follow up work on any of these anomalies has been found. Ground magnetic and VLF-EM surveys were performed on what is now the Jack 1 and 2 claims (White, 1988) and the present Dora 2 and 3 claims (Seywerd, 1990). The surveys show a number of northwest/southeast trending magnetic highs. These highs along with the mag high across the northern portion of the Jack 1 claim were interpreted to be a series of alkalic intrusives which form part of the large regional annular aeromagnetic high to the north. The VLF-EM surveys showed a series of good conductors across the Dora 2 and 3 claims and the eastern side of the Jack 1 and 2 claims. These conductors appear to correlate with the magnetic anomalies and may suggest strong structural influence on underlaying lithology.

G W R Resources Inc. have obtained a large land package in the area, their ground borders the Dora Group on 3 sides. In June 1993 GWR made a deal with Regional Resources Ltd. of Toronto, whereby Regional could earn a 50% interest in GWR's ground in the Lac La Hache area for expenditures of \$3 million by the end of 1997 and an option to earn additional 25% interest by further expenditures of \$1.5 million. In 1993 a \$350,000 exploration program, including geological mapping, geochemical sampling and geophysical surveys is ongoing (Canadian Mines Handbook, 1993-94). In the Stockwatch of October 20, 1993 GWR reported that the first phase has been completed and two areas were selected for detailed IP surveys:

Approximately 100 line km of IP is planned and surveying commenced on October 6, 1993. The first survey will cover an area discovered by prospecting this summer in which copper mineralization occurs as skarn mineralization interbedded with volcanic rocks. The mineralization which grades up to 3.5% copper, 1 gm/t gold and 2 oz/t silver has been found in outcrop over a strike length of 400 m.

This new discovery is situated along the eastern claim boundary of the Dora Group.

6.0 GEOLOGY

6.1 **REGIONAL GEOLOGY**

The Dora Group is situated near the eastern margin of the Intermontaine Belt within the Quesnel Trough of central BC (Figure 2). The Quesnel Trough is a northwesterly trending structural basin and extends from northern Washington State to north-central BC and hosts several large porphyry copper/gold and gold skarn mines, and numerous advanced projects as shown on Figure 2. The Triassic/Jurassic rocks of the trough in this area are bounded to the west by the Pinchi fault system, and some 80 km to the east by the Eureka thrust (Blann, 1993)

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The Quesnel Trough is believed to be an island arc assemblage of alkalic volcanic, volcaniclastic and sedimentary rocks of Triassic/Jurassic age. Several volcanic centres within the trough are evident from subaerial flows and the presence of coarser clastic sediments. The volcanic centres and their related intrusives appear to be controlled by northwest trending, primary fault structures which were active into the late Mesozoic (Salken and Simpson, 1981).

A linear band of coeval alkalic stocks composed of diorite, monzonite and syenite intruded the volcanic/sedimentary strata at these volcanic centres. These intrusives are hosts for alkalic suite copper/gold porphyty deposits such as Copper Mountain, Afton and Mt. Polley. They also host semi-conformable, stratabound gold mineralization such as that found at the QR gold mine, located approximately 70 km to the north near Likely BC.

Approximately 5 km east of the property, the Takomkane batholith occurs as a large granodiorite intrusive complex up to 50 km in diameter. Potassium-argon age dating of the batholith suggests an age of 187 to 198 million years (Campbell and Tipper, 1971). Tertiary volcanic flows cover portions of the region to the north and west.

6.2 **PROPERTY GEOLOGY**

The Dora Group is located at the south end of the regional aeromagnetic high, across Peach Lake. Property geology is shown on Map 1. There is a lack of outcrop across the Dora 2 and 3 claims where they are situated across the east-west valley that contains Peach and Lower Peach Lake. In the rolling hills that comprise most of Jack 1 and 2, small knobs of outcrop are not uncommon and in the clear cut areas the outcrop exposure is quite good with the exception being those clear cuts that occur in wider valleys.

The claims are underlain by rocks of the Upper Triassic-Lower Jurassic Nicola Group, which seen on the property consist of volcanic tuffs and breccias and lesser sedimentary rocks, intruded by magnetite bearing diorite stocks and/or plugs. Along the northwest side of Dora 2 a weakly magnetic monzonite stock has been defined to be one kilometre in diameter (Blann, 1993). Tertiary volcanic flows were identified north of Dora 2 and 3.

General rock descriptions of those rocks encountered on the claims during the program, are as follows:

Andesitic lithic/crystal lithic tuff

Dark green/grey variably chloritic, lithic to crystal lithic tuff, massive to rare discontinuous thin bands (<0.5cm), locally welded tuff. Thin (<0.5cm) veinlets of epidote are common. Pyrite rarely noted, weak magnetite throughout.

Andesitic lapilli tuff/breccia

Dark green/grey variably chloritic/epidotized, fine to medium grained matrix, locally with porphyritic white feldspar crystals. Sub-angular to angular fragments vary in size from 0.5 cm to over 20 cm, fine grained volcanic tuffaceous fragments to diorite and syenite intrusive fragments occur in varying amounts. Strong epidote with lesser amounts of K feldspar commonly occur as veinlets and disseminated throughout fragments, also noted in breccia as rimming fragments. Fragments show moderate to strong magnetite with only rare sulfides.

Argillite

Dark brown, fine grained and massive appearance. Showed little alteration and complete lack of sulfides.

Diorite

Salt and pepper colour, fine to medium grained and equigranular, massive and blocky, locally moderately fractured, highly saussuritized plagioclase and clinopyroxene partly replaced by hornblende. Strong epidote with lesser amounts of K feldspar commonly occur as veinlets and disseminated throughout. Moderate to strong magnetite content, fracture controlled pyrite and rare chalcopyrite noted.

Monzonite

Light coloured, fine to medium grained matrix with medium grained hornblende and feldspar crystals, massive and blocky. Weak to moderate magnetite content, locally weakly altered.

6.3 MINERALIZATION AND ALTERATION

With the lack of ground work done on the property, the mineralization picture is not fully

known. During mapping four samples were taken and the assays are listed in Appendix I and the locations are noted on Map 1. Two types of copper mineralization were noted on the property. In the central area of Jack 2 a thin vein of vuggy quartz and patchy chalcopyrite was noted, it contained fairly strong potassic feldspar alteration with little magnetite. A sample across the vein returned 0.70% copper (sample #J201). The other and more important type of mineralized was encountered in the northeast corner of Jack 1. It was found within andesitic lapilli tuff made up of volcanic and rare intrusive fragments. The rock was moderately to locally strongly fractured with very strong epidote and lesser potassic alteration, a light brown coloured mineral that appeared to be secondary garnet was noted. Malachite staining was found along fractures and fine grained chalcopyrite was finely disseminated through the matrix and fragments. A grab sample of one outcrop with little seen mineralization returned 0.09% copper. This area is fairly flat and with less outcrop visible than some of the areas with more slope. This area was not fully explored and it is thought that the with the amount of fracturing and alteration noted the potential for a major zone of copper mineralization is excellent.

7.0 CONCLUSIONS

The Dora Group is strategically located in the Quesnel Trough of central British Columbia. The proximity of the property to numerous mineral showings indicates the potential for significant mineral discovery. Surrounding the claim group are new and old mineralized showings that are seeing renewed interest due to recent positive exploration results. The proximity to other showings, with special interest to the new skarn zone identified this summer by GWR/Regional along the eastern boundary of the Dora Group gives rise to terrific potential for expansion of copper mineralization identified on the property. Previous work on the property interpreted northwest trending alkalic intrusions and conductors along its eastern boundary, this along with the strong epidote and potassic feldspar alteration and copper mineralization noted in the northeast part of the Dora Group, points to a relationship with the new skarn zone along side its eastern boundary.

8.0 RECOMMENDATIONS

A three phase exploration program is recommended to test the mineral potential of the property. Phase I would focus on the northeast corner with grid establishment (line cutting), soil sampling, IP survey and geological mapping to test if there is any continuation of GWR/Regional's newly found skarn zone onto the Jack 1 claim. It would consist of 15 line km of 10 north-south lines, 1500 m long @ 100 m spacing between lines and 50 m spacing between sample sites. Phase II would consist of wider spaced soil sampling (200 m spacing between lines) across 18.4 line km on Jack 2, lines would be chained and flagged. Phase III, contingent upon encouraging results from Phase I, will consist of a program of diamond drill testing. Phase III may include a small amount of IP survey to better identify drill targets outlined in Phase II on the Jack 2 claim. The details of the recommended work is shown in Figure 3 and the budget estimate is on page 11. Due to problems with approaching winter weather conditions it may be prudent to combine Phases I and II.



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9.0 BUDGET ESTIMATE

PHASE I (Northeast corner)

Personnel:	· · ·
Geologist (9 days @ \$300/day)	\$ 2,700
Field assistant (7 days @ \$150/day)	1,050
Line cutting (15 line km @ \$500/km)	7,500
Assays (310 soil samples @ \$13.50/sample)	4,185
P survey (15 line km @ \$1,200/km)	18,000
Truck rental (10 days @ \$65/day)	650
Room and board (16 man days @ \$60/day)	960
	35,045
Contingency @ 10%	3,505
	· · · · · · · · · · · · · · · · · · ·
Total Pr	iase I <u>\$ 38,500</u>
PHASE II (Southcost area)	•
THASE II (Soumeast alea)	
Personnel	
Geologist (2 days @ \$300/day)	\$ 600
Field assistant (10 days @ \$150/day)	1.500
Assays (378 soil samples @ \$13.50/sample)	5.103
Truck rental (10 days @ \$65/day)	650
Room and board (12 man days @ \$60/day)	720
	8,573
Contingency @ 10%	857
Total Pr	ase II <u>\$ 9,430</u>
THASE III	
Diamond drilling 1000 m @ \$100/m (all inclusion)	100 000
Tetal Di	<u>_100,000</u>
	lase 111 <u> <u> <u> </u> <u> </u></u></u>
TOTAL PHASE I, II AND III:	\$147.980
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Dated at Vancouver, British Columbia, this <u>25</u> day of October 1993.

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Scott W. Smith, P. Geol.

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APPENDIX II

REFERENCES

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APPENDIX III

STATEMENT OF QUALIFICATIONS

1, Scott W. Smith, of 845 East 31st Avenue, Vancouver, BC, V5V 2X2, declare:

- 1. I am presently employed as a geologist with Westore Engineering Ltd. of 703-1112 West Pender Street, Vancouver, British Columbia.
- 2. I graduated from the University of Alberta with a Bachelor of Science (Spec. Geology) degree in 1988.
- 3. I have been practising my profession as a geologist for five years.
- 4. I am a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 5. This report is based on my personal field examination of the Dora Group between October 3 and 9, 1993, plus reference to data listed in Appendix II.
- 6. Neither Westore Engineering Ltd. nor myself have or expect to receive direct or indirect interest in the Dora Group nor in the securities of PMA Resources Inc.
 - PMA Resources Inc. has my permission to use this report for its corporate purposes as long as any statement in the report is not taken and used out of context so as to change its meaning.

Dated at Vancouver, British Columbia, this 25 day of October 1993.

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Scott W. Smith, P. Geol.

WESTORE ENGINEERING LTD.

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#703 - 1112 West Pender Street Vancouver, B.C. V6E 2S1 (604) 681-4101

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INVOICE: W93-08

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PMA Resources Inc. Attn: Michael Cassidy P.O. Box 548 100 Mile House, B.C. VOK 2E0

November 2, 1993 DATE

GST REGISTRATION NUMBER R105650709

WE CHARGE YOUR ACCOUNT AS FOLLOWS:	AMOUNT
FOR WORK NE OF LAC LA HACHE ON DORA AND JACK CLAIMS	
Services: Scott Smith October 03-09/93 (field) October 12-26/93 (office) 12 days @ \$300	\$ 3,600.00
Expenses (pre-GST): Drafting Assays Assessment reports Report holders Field expenses	257.85 65.60 26.92 17.60 <u>979.87</u>
	4,947.84
G.S.T.	345,79
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Less advance	(2,000.00)
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THIS INVOICE IS PAYABLE ON RECEIPT	



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Chalcopyrite		
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ALTERATION

Epidote

Claim Boundary Clearcut Limits Skid Road Fault, Assumed (inferred)

5758000 SCALE: 1:10,000 92 P/14 NTS: MAP: 1 DRAWN BY: Neil Martin dora.dwg FILE: Sept. 29 1994 DATE: AUTOCAD - DIGITIZING by: GEOLOGICAL BRANC FOTAL COMPUTING SERVICES ASSESSMENT REPOR TOWG.TITLE PMA RESOURCES INC DORA CLAIM GROUP JACK & DORA CLAIMS CLAIM MAP - 575700 620000

