CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

Dec. 5, 2002: B R X (file # 8)International Precious Metals 1996 Form 10-K
This file contains the 10-K exhibits. They consist of:

mils # 838 BRX < La Paz County file 8 of 11 tmm.

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

TOTAL NUMER OF PAGES: 203
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97 10 6009

FORM 10-K 405

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1996

OR

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____________ to ____________

Commission file number
0-16019

INTERNATIONAL PRECIOUS METALS CORPORATION

(Exact name of registrant as specified in its charter)

Ontario (Canada) (State or other jurisdiction of incorporation or organization)	86 0766060 (I.R.S. Employer Identification No.)
4633 South 36th Place Phoenix, Arizona 85040 (Address of principal executive offices)	85040 (Zip Code)

RECD S.E.C.
JUN 16 1997
158

Registrant's telephone number, including area code (602) 414-1830

PROCESSED BY
203 - 203 T
JUN 17 1997
DISCLOSURE, INC.
L4Q

Securities registered pursuant to Section 12(b) of the Act:
None

Securities registered pursuant to Section 12(g) of the Act:
Common Shares, no par value

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the proceeding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes___ No ✓ .

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

JUN 16 1997

The aggregate market value of voting stock held by non-affiliates as of March 20, 1997, was approximately $176,175,380.

Number of common shares outstanding on March 20, 1997: 16,586,090.

10(bb), 10(aa)
APPENDICIES 99(b), 99(d), 99(e)

662147.6

INTERNATIONAL PRECIOUS METALS CORPORATION
Annual Report on Form 10-K For
The Year Ended December 31, 1996

EXHIBIT INDEX

Exhibit	Description	Page
3	Articles of Incorporation and By-Laws (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
4	Specimen Stock Certificates (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(a)	Joint Venture Agreement between BP Resources Canada Limited and Platinum Exploration Canada, Inc. dated January 9, 1986 (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(b)	Joint Venture Agreement dated June 12, 1987 between Fuellstoff GmbH, International Platinum Corporation and Platinum Exploration Canada, Inc. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(c)	Joint Venture Agreement dated December 31, 1987 between Fuellstoff GmbH, International Platinum Corporation, Platinum Exploration Canada, Inc. and Jenkim Investments Ltd (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(d)	Operating Agreement dated January 12, 1987 between Quatro Energies Corporation and International Platinum (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(e)	Letter Agreement dated January 12, 1987 between Quatro Energies Corporation and International Platinum Corporation (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	

Exhibit	Description	Page
10(f)	Letter Agreement dated March 16, 1987 between Quatro Energies Corporation and International Platinum Corporation (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(g)	Letter Agreement dated June 14, 1990 between Quatro Energies Corporation and International Platinum Corporation (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(h)	Debenture Agreements between Defever Minet, Nobels & Co dated March 26, 1990 Allen & Co Incorporated and Bruce Allen dated April 27, 1990 (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(i)	Letter Agreement dated April 16, 1992 between Jamestone Platinum and International Platinum Corporation (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1992).	
10(j)	Letter Agreement dated April 1, 1993 between 1020632 Ontario Inc. and International Platinum Corporation (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(k)	Heads of Agreement (Business Terms) For Black Rock Property between International Platinum Corporation and Phoenix International Mining Corporation executed in March 1994 (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(l)	Heads of Agreement (Business Terms) For Extended Black Rock Property between International Platinum Corporation and Phoenix International Mining Corporation executed in March 1994 (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(m)	Agreement in Principal between Phoenix International Mining Inc. and Tacatura Investments Pty Ltd dated October 1, 1993, (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	

Exhibit	Description	Page
10(n)	Assignment Agreement And Acknowledgment among Tacatura Investment (Pty) Limited and New Ventures Development Corporation and Phoenix International Mining Inc. dated October 18, 1993, (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(o)	Letter Agreement between New Ventures Development Corporation and International Platinum Corporation dated October 18, 1993. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(p)	Assignment Agreement And Acknowledgment among International Platinum Corporation and New Ventures Development Corporation and Phoenix International Mining Inc. dated October 18, 1993. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(q)	Agreement dated September 7, 1993 between Falconbridge Limited and Starmin Mining Inc. and Hellens Eplett Mining Inc. and International Platinum Corporation. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(r)	Notorial Prospecting Contract dated December 17, 1990 between Jamestone Platinum (Pty) Limited and Susan Bekker. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(s)	Notorial Prospecting Contract dated December 6, 1990 between Jamestone Platinum (Pty) Limited and Alan John Wilson, (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1993).	
10(t)	Letter Agreement between Behre Dolbear and Company dated May 20, 1994. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(u)	Amendment to Letter Agreement between Behre Dolbear and Company dated May 23, 1994. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	

Exhibit	Description	Page
10(v)	Letter Agreement with Behre Dolbear and Company relating to modification of the drilling program dated July 19, 1994. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(w)	Joint Venture Revised Heads of Agreement Black Rock and Extended Black Rock Property dated April 13, 1995. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(x)	Mining Lease - Purchase Agreement between Gold Hill Mining Joint Venture Partnership and International Precious Metals Corporation dated August 18, 1995. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(y)	Convertible Debenture Agreement between Phoenix International Mining, Inc. and International Precious Metals Corporation dated November 22, 1995. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(z)	Letter Agreement between Behre Dolbear and Company relating assaying procedures dated March 25, 1996. (Incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 1995).	
10(aa)	Stock Option Plan.	80
10(bb)	Property Purchase Agreement among the Company, International Precious Metals Corporation of Arizona, and Omega Investment Corporation dated May 9, 1997.	87
21	Subsidiaries	100
99(a)	Report of Kilborn Inc. to the Toronto Stock Exchange dated April 22, 1994. (incorporated by reference from the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 194).	
99(b)	Interim Report of Behre Dolbear & Company, Inc. dated October 1994.	102
99(c)	Letter dated December 15, 1995 of Behre Dolbear & Company, Inc.	116
99(d)	Report of Roland Mountford dated February 1, 1996.	126

Exhibit	Description	Page
99(e)	Report of Drs. Julian and Susan Vearncombe dated May 1, 1996.	140

EXHIBIT 10(aa)

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INTERNATIONAL PRECIOUS METALS CORPORATION

STOCK OPTION PLAN

ARTICLE I
PURPOSE OF PLAN

1.1 The purpose of the Plan is to assist directors, officers and key employees of the Corporation and its Subsidiaries to participate in the growth and development of the Corporation and its Subsidiaries by providing such persons with the opportunity, through share options, to acquire an increased proprietary interest in the Corporation.

ARTICLE II
DEFINED TERMS

Where used herein, the following terms shall have the following meanings, respectively:

2.1 "Board" means the board of directors of the Corporation;

2.2 "Business Day" means any day, other than a Saturday or a Sunday, on which The Toronto Stock Exchange is open for trading;

2.3 "Corporation" means International Precious Metals Corporation, and includes any successor corporation thereto;

2.4 "Eligible Person" means any director, officer or employee of the Corporation or any Subsidiary;

2.5 "Exchange" means The Toronto Stock Exchange or, if the Shares are not then listed and posted for trading on The Toronto Stock Exchange, on such stock exchange on which the Shares are listed and posted for trading as may be selected for such purpose by the Board;

2.6 "Market Price" at any date in respect of Shares shall be the closing price of such Shares on the Exchange on the last Business Day preceding the date on which the Option is approved by the Board. In the event that such Shares did not trade on such Business Day, the Market Price shall be the average of the bid and ask prices in the respect of such Shares at the close of trading on such date;

2.7 "Option" means an option to purchase Shares granted under the Plan;

2.8 "Option Price" means the price per share at which Shares may be purchased under the Option, as the same may be adjusted from time to time in accordance with Article VIII hereof;

2.9 "Optionee" means a person to whom an Option has been granted;

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2.10 "Plan" means the International Precious Metals Corporation Stock Option Plan, as embodied herein, as the same may be amended or varied from time to time;

2.11 "Shares" means the common shares of the Corporation, or, in the event of an adjustment contemplated by Article VIII hereof, such other shares or securities to which an Optionee may be entitled upon the exercise of an Option as a result of such adjustment; and

2.12 "Subsidiary" means any corporation that is a subsidiary of the Corporation (as such term is defined in subsection 1(2) of the Business Corporations Act (Ontario), as such provision is from time to time amended, varied or reenacted).

ARTICLE III
ADMINISTRATION OF THE PLAN

3.1 The Plan shall be administered by the Board. The Board shall have the power, where consistent with the general purpose and intent of the Plan and subject to the specific provisions of the Plan;

(a) to establish policies and to adopt rules and regulations for carrying out the purposes, provisions and administration of the Plan;

(b) to interpret and construe the Plan and to determine all questions arising out of the Plan and any Option granted pursuant to the Plan, and any such interpretation, construction or termination made by the Board shall be final, binding and conclusive for all purposes;

(c) to determine to which Eligible Employees Options are granted and to grant Options;

(d) to determine the number of Shares covered by each Option;

(e) to determine the Option Price;

(f) to determine the time or times when Options will be granted and exercisable;

(g) to determine if the Shares that are subject to an Option will be subject to any restrictions upon the exercise of such Option; and

(h) to prescribe the form of the instruments relation to the grant, exercise and other terms of Options.

ARTICLE IV
SHARES SUBJECT TO PLAN

4.1 Options may be granted in respect of authorized and unissued Shares, provided that the aggregate number of Shares of all classes reserved for issuance under this Plan, subject to adjustment or increase of such number pursuant to the provisions of Article VII hereof, shall not exceed 2,400,000 Shares, or such greater number of Shares as may be determined by the Board and any relevant regulatory authority. Shares in respect of which Options are not exercised shall be available for subsequent Options under the Plan. No fractional shares may be purchased or 82 issued under the Plan.

ARTICLE V
ELIGIBILITY, GRANT AND TERMS OF OPTIONS

5.1 Options may be granted to Eligible Persons.

5.2 Subject as herein and as otherwise specifically provided for in this Article IV, the number of Shares subject to each Option, the Option Price, the expiration date of each Option, the extent to which each Option is exercisable from time to time during the term of the Option and other terms and conditions relating to each such Option shall be determined by the Board; provided, however, that if no specific determination is made by the Board with respect to any of the following matters, each Option shall, subject to any other specific provisions of the Plan, contain the following terms and conditions:

(a) the period during which an Option shall be exercisable shall be five years from the date the Option is granted to the Optionee; and

(b) the Optionee who is a director, officer or senior employee of the Corporation (as determined by the Board) may take up and pay for not more than:

(i) 25% of the Shares covered by the Option during the first 6 month period from the date of the grant of the Option;

(ii) 25% of the Shares covered by the Option during the second 6 month period from the date of the grant of the Option; provided, however, that if the number of Shares taken up under the Option during the first 6 month period is less than 25% of the Shares covered by the Option, the Optionee shall have the right, at any time or from time to time during the second 6 month period from the date of the grant of the Option, to purchase such number of Shares subject to the Option that were purchasable, but not purchased by him, during the first 6 month period; and

(iii) the balance of the shares covered by the Option at any time after the expiry of a 12 month period from the date of the grant of the Option;

(c) the Optionee who is not a director, officer or senior employee of the Corporation (as determined by the Board) may take up and pay for any percentage of the Shares covered by the Option at any time;

(d) If a bona fide offer (the "Offer") is made to shareholders, which Offer, if accepted in whole or in part, would result in the offeror exercising control over the Corporation (within the meaning of subsection 1(3) of the Securities Act (Ontario) (as amended from time to time)), then the Corporation shall, immediately upon receipt of notice of the Offer, notify each Optionee currently holding an Option of the Offer, with full particulars thereof; whereupon, notwithstanding Section 5.2(b) hereof, such Option may be exercised in whole or in part by the Optionee so as to permit the Optionee to tender the Shares received upon such exercise pursuant to the Offer. If the Offer is not 83
completed within the time specified therein, the Shares shall be returned by the Optionee

to the Corporation and reinstated as authorized but unissued Shares and the terms of the Option as set forth in Section 5.2 (b) shall again apply to the Option.

5.3 The Option Price on Shares that are the subject of any Option shall in no circumstances be lower than the Market Price of the Shares at the date of the grant of the Option.

5.4 In no event may the term of an Option exceed ten years from the date of the grant of the Option.

5.5 The total number of Shares to be optioned to any Optionee under this Plan together with any Shares reserved for issuance under options for services and employee stock purchase plans or any other plans to such Optionee shall not exceed 5% of the issued and outstanding Shares at the date of the grant of the Option.

5.6 An Option is personal to the Optionee and is non-assignable.

ARTICLE VI
TERMINATION OF EMPLOYMENT; DEATH

6.1 Subject to section 6.2 hereof and to any express resolution passed by the Board with respect to an Option, an Option, and all rights to purchase Shares pursuant thereto, shall expire and terminate six months after the Optionee ceases to be an Eligible Person.

6.2 If, before the expiry of an Option in accordance with the terms thereof, the employment of the Optionee by the Corporation or by a Subsidiary shall terminate for any reason whatsoever other than termination for cause, but including termination by reason of the death of the Optionee, such Option may, subject to the terms thereof and any other terms of the Plan, be exercised, if the Optionee is deceased, by the legal personal representative(s) of the estate of the Optionee during the first twelve months following the death of the Optionee, or if he is alive, by the Optionee, at any time within twelve months of the date of termination of the employment of the Optionee (but in either case prior to the expiry of the Option in accordance with the terms thereof), but only to the extent that the Optionee was entitled to exercise such Option at the date of the termination of his employment.

ARTICLE VII
EXERCISE OF OPTIONS

7.1 Subject to the provisions of the Plan, an Option may be exercised from time to time by delivery to the Corporation at its registered office of a written notice of exercise addressed to the Secretary of the Corporation, or such other person so specified by the Secretary of the Corporation, specifying the number of Shares with respect to which the Option is being exercised and accompanied by payment in full of the Option Price of the Shares to be purchased. Certificates for such Shares shall be issued and delivered to the Optionee within a reasonable time following the receipt of such notice and payment.

7.2 Notwithstanding any of the provisions contained in the Plan or in any Option, the Corporation's obligation to issue Shares to an Optionee pursuant to the exercise of an Option shall be subject to:

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(a) completion of such registration or other qualification of such Shares or obtaining approval of such governmental authority as the Corporation shall determine to be necessary or advisable in connection with the authorization, issuance or sale thereof;

(b) the receipt from the Optionee of such representations, agreements and undertakings, including as to future dealings in such Shares, as the Corporation or its counsel determines to be necessary or advisable in order to safeguard against the violation of the securities laws of any jurisdiction.

In this connection the Corporation shall, to the extent necessary, take all reasonable steps to obtain such approvals, registrations and qualifications as may be necessary for the issuance of such Shares in compliance with applicable securities laws and for the listing of such Shares on any stock exchange on which the Shares are then listed.

ARTICLE VIII
CERTAIN ADJUSTMENTS

8.1 Appropriate adjustments in the number of Shares subject to the Plan, and as regards Options granted or to be granted, in the number of Shares optioned and in the Option Price, shall be made by the Board to give effect to adjustments in the number of Shares of the Corporation resulting from subdivisions, consolidations or reclassification of the Shares of the Corporation, the payment of stock dividends by the Corporation (other than dividends in the ordinary course) or other relevant changes in the capital stock of the Corporation.

ARTICLE IX
AMENDMENT OR DISCONTINUANCE OF PLAN

9.1 The Board may amend or discontinue the Plan at any time; provided, however, that no such amendment may increase the maximum number of Shares that may be optioned under the Plan, change the manner of determining the minimum Option Price or, without the consent of the Optionee, alter or impair any Option previously granted to an Optionee under the Plan.

ARTICLE X
MISCELLANEOUS PROVISIONS

10.1 The holder of an Option shall not have any rights as a shareholder of the Corporation with respect to any of the Shares covered by such Option until such holder shall have exercised such Option in accordance with the terms of the Plan (including tendering payment in full of the Option Price of the Shares in respect of which the Option is being exercised) and the Corporation shall issue such Shares to the Optionee in accordance with the terms of the Plan in those circumstances.

10.2 Nothing in the Plan or any Option shall confer upon any Optionee any right to continue in the employ of the Corporation or any Subsidiary of the Corporation or affect in any way the right of the Corporation or any such Subsidiary to terminate his employment at any time.

ARTICLE XI
SHAREHOLDER AND REGULATORY APPROVAL

11.1 The Plan shall be subject to the approval of the shareholders of the Corporation to be given by a resolution passed at a meeting of the shareholders of the Corporation. Any Option granted prior to such approval and acceptance shall be conditional upon such approval and acceptance being given and no such Options may be exercised unless and until such approval and acceptance is given.

EXHIBIT 10(bb)

PROPERTY PURCHASE AGREEMENT

THIS AGREEMENT made as of the 9th day of May, 1997.

A M O N G S T:

INTERNATIONAL PRECIOUS METALS CORPORATION OF ARIZONA, a corporation incorporated under the laws of the State of Arizona, a wholly owned subsidiary of IPM,

(hereinafter referred to as "IPMA")

OF THE FIRST PART;

-and-

OMEGA INVESTMENT CORPORATION, a corporation incorporated under the laws of the Cayman Islands,

(hereinafter referred to as the "Vendor")

OF THE SECOND PART;

-and-

INTERNATIONAL PRECIOUS METALS CORPORATION, a corporation amalgamated under the laws of the Province of Ontario,

(hereinafter referred to as "IPM")

OF THE THIRD PART;

WHEREAS pursuant to a Joint Venture Heads of Agreement (the "JV Agreement"), dated as of the 13th day of April, 1995, Phoenix International Mining Inc. ("Phoenix") granted to IPM the right to earn certain percentage ownership interests in the property known as Black Rock and Black Rock Extended, as more fully described in Schedule "A" attached hereto, (hereinafter referred to as the "Property"), upon IPM satisfying the conditions detailed in the JV Agreement;

AND WHEREAS pursuant to an agreement made as of 7th day of May, 1997, between Phoenix and the Vendor, Phoenix transferred all of its right, title and interest to the Property, and pursuant to the JV Agreement, to the Vendor;

AND WHEREAS the parties wish to amend the JV Agreement to provide for the outright transfer by the Vendor of the Property to IPMA;

NOW THEREFORE in consideration of the mutual covenants and payments contained herein the parties hereto agree as follows:

1. All agreements between some or all of the parties hereto regarding the requirement by IPM to satisfy certain conditions, whether financial or otherwise, in order to earn any ownership interest in the Property, whether written or oral, are hereby terminated.

2. The Vendor hereby transfers, grants and conveys unto IPMA the Vendor's ownership interest in, and title to, the Property and henceforth IPMA shall own a one hundred percent (100%) interest in the Property, as at the effective date of this Agreement, without the requirement to satisfy any further conditions or obligations, whether financial or otherwise and whether in favour of Phoenix, the Vendor or otherwise, except as detailed herein.

3. The Vendor hereby represents and warrants as follows:

a) The Vendor is a subsisting corporation duly and validly incorporated and organized under the laws of the Caymen Islands.

b) The Vendor has all requisite corporate power and authority to own, lease the properties and assets now-owned by it in the State of Arizona.

c) The execution and delivery of this agreement by the Vendor and the sale and conveyance of the Property herein provided for have been duly authorized by all necessary corporate action, including, if necessary, approval of the shareholders of the Vendor, in accordance with the statutory requirements of the Vendor's incorporating jursidiction, and the Vendor has all requisite corporate power and authority to enter into this agreement and to carry out the transaction of purchase and sale herein provided for.

d) The execution and delivery of this agreement by the Vendor and the observance and performance of the terms and provisions of this agreement on the part of the Vendor to be observed and performed do not constitute a violation of applicable law or a violation or a breach of the the Vendor's charter documents or by-laws or any provision of any contract or other instrument to which the Vendor is a party or by which it is bound, or any order, writ, injunction, decree, statute, rule by-law or regulation applicable to it, or constitute a default (or would with the passage of time or the giving of notice, or both, constitute a default) under any contract, agreement or instrument to which the Vendor is a party or by which the Vendor is bound.

e) The Vendor has not committed an act of bankruptcy, is not insolvent, has not proposed a compromise or arrangement to its creditors generally, has not had any petition for a receiving order in bankruptcy filed against it, has not made a voluntary assignment in bankruptcy, has not taken any proceeding with respect to a compromise or arrangement, has not taken any proceeding to have itself declared bankrupt or wound-up, has not taken any proceeding to have a receiver appointed of any part of its assets, has not had any encumbrancer take possession of any of its property, and has not had any execution or distress become enforceable or become levied upon any of its property.

f) The Vendor is the beneficial and registered or recorded owner of a One Hundred percent (100%) interest in the Property, subject only to the interest of IPM and junior overlapping mining claims located by IPM with respect to the Property. The Property is in good standing free and clear of any and all claims, liens or encumbrances whatsoever and of any rights or privileges capable of becoming claims, liens or encumbrances, and the Vendor has the power to sell, transfer and assign good and marketable title to the Property to the IPMA, free and clear of any such claims, liens, encumbrances, rights and privilege, subject only to the paramount title of the United States of America.

g) All of the claims comprising the Property have been validly and properly located, staked, tagged and recorded in accordance with the laws of the State of Arizona, the US Bureau of Land Management and any other federal laws applicable thereto.

h) There are no actions, suits, proceedings pending or threatened against or affecting the Vendor or the Property at law or in equity or before any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign.

4. In consideration for the transfer of the Property by the Vendor to IPMA, IPMA shall pay, or caused to be paid, to the Vendor the aggregate sum of Twenty Seven Million Dollars ($27,000,000.00) (the "Purchase Price") (all dollar amounts are in US dollars), payable as follows:

a) the sum of Five Hundred Thousand Dollars ($500,000.00) on the execution of this Property Purchase Agreement;

b) the issuance of One Million (1,000,000) common shares of IPM (the "Shares") on the execution of this Agreement, which the parties hereby agree shall have an aggregate value of Ten Million Dollars ($10,000,000.00), being Ten Dollars ($10.00) per common share; and

c) the sum of Sixteen Million Five Hundred Thousand Dollars ($16,500,000.00) on July 15, 1997.

The Issuance of the Shares to the Vendor shall be subject to the terms and conditions of a formal escrow agreement, providing restrictions on the Vendor's right to sell or otherwise dispose of the Shares, the form of which is attached hereto as Schedule "B". The parties agree that such escrow agreement shall be negotiated between them in good faith and shall take into consideration the impact that the sale by the Vendor of the Shares shall have the market price of the common shares of IPM, as well as the applicable securities laws of both Canada and the United States.

In conjunction with the payments referred to in (a) and (b) above, IPMA shall cause IPM to issue Three Million (3,000,000) common shares of IPM as security for the payment of the balance of the purchase price referred to in item (c) above (the "Security Shares").

5. Payment of the balance of the Purchase Price referred to in item (c) above shall be conditional upon each of the representations and warranties contained in Section 3 above, being correct as though then given, and IPMA shall be entitled to rely on a certificate of a director or officer of the Vendor as to same on such date.

6. Failure of IPMA to pay the balance of the Purchase Price by July 31, 1997, shall result in the forfeiture of the Security Shares.

7. As a condition to the closing of the purchase by IPMA of the Property, IPMA shall receive an opinion from the Vendor's counsel in the Caymen Islands as to the matters contained in Subsections 3 (a), (c), (d) and (e) above. As a further condition of closing, IPMA shall obtain from the Vendor a recordable deed in a form acceptable to IPMA and incorporating the representations and warranties in Section 3 above.

8. Recognizing IPM's obligations as a public company required to maintain timely disclosure obligations pursuant to various regulatory regimes, the Vendor hereby acknowledges and agrees to maintain strict confidentiality as to the entering into of this agreement, or any of the contents thereof, and any public release of any information concerning the subject matter of this Agreement shall be entirely at the discretion of IPM. Any public release of any information concerning the subject matter of this Agreement shall not require the prior approval of the Vendor whether as to content or otherwise.

9. The parties hereto covenant and agree to sign such other papers, cause such meetings to be held, resolutions passed and bylaws enacted, exercise, their vote and influence, do and perform and cause to be done and performed such further and

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other acts and things as may be necessary or desirable in order to give full effect to this Agreement and every part hereof.

10. This agreement shall constitute the entire agreement between the parties hereto with respect to all of the matters herein and this agreement shall not be amended except by a memorandum in writing signed by all of the parties hereto and any amendment hereof shall be null and void and shall not be binding upon any party which has not given its consent as aforesaid.

11. This agreement shall be governed by and construed in accordance with the laws of the State of Arizona and the federal laws of the United States of America applicable thereto.

12. Save and except as otherwise provided herein, each party shall be responsible for its own legal and audit fees and other charges incurred in connection with the purchase and sale of the Property, the completion of the transaction contemplated herein and any post-closing matters in connection with the transaction contemplated herein.

13. All notices, requests, demands or other communications (collectively the "Notices") required or permitted to be given by one party to another pursuant to the terms of this Agreement, shall be given in writing by personal delivery or facsimile transmission or by prepaid registered mail addressed to the other parties and delivered or faxed to such other parties as follows:

a) To IPM or: IPMA at:

4633 South 36th Place
Phoenix, Arizona
85040, USA
Phone: (602) 414-1830
Fax: (602) 414-1831
Attention: Mr. Lee Furlong

with a copy to:

5th Floor-390 Bay Street
Toronto, Ontario
M5H 2Y2
Phone: (416) 368-1489
Fax: (416) 368-5454
Attention: David N. Kornhauser

m

b) To the Vendor at: Elizabethan Square
P.O. Box 1959G, Grand Cayman
Cayman Islands, BWI
Phone: (345) 949-7493
Fax: (345) 949-7524
Attention: Raymond Whittaker

or at such other address as may be given by one of them to the other in writing from time to time, and such Notices shall be deemed to have been received when delivered or faxed, or if mailed shall be deemed to have been received forty eight (48) hours after 12:01 a.m. on the date of mailing thereof; provided that if any such Notice shall have been mailed and if regular mail service shall be interrupted by strike or other irregularity before the deemed receipt of such Notice as aforesaid, then such Notice shall, unless earlier delivered or actually received, be deemed to have been received ninety six (96) hours after 12:01 a.m. on the date of resumption of normal mail service.

14. The parties may by written instrument unilaterally waive any obligation of the other under this Agreement. No acceptance by the Vendor of any payment by IPMA and no failure, refusal or neglect of either the Vendor or IPMA to exercise any right under this Agreement or to insist upon full compliance by the other party with its respective obligations hereunder, shall constitute a waiver of any provision of this Agreement.

15. Words importing the singular number only shall include the plural and vice versa, words importing the masculine gender shall include the feminine and neuter genders and words importing persons shall include firms and corporations and vice versa.

16. This Agreement shall enure to the benefit of and be binding upon the parties and their respective successors, legal representatives and assigns.

17. Time shall be the essence of this Agreement and every part herein and no extension or violation of the Agreement shall operate as a waiver of this provision.

18. The parties shall, without further consideration, from time to time execute and deliver further instruments and assurances as may be reasonably required for

registering or recording changes in ownership of the Property or to effectuate the provisions of this Agreement.

IN WITNESS WHEREOF the parties have duly executed this Agreement as of the date first written above.

SIGNED, SEALED and **DELIVERED** in the presence of	)	INTERNATIONAL PRECIOUS METALS CORPORATION Per: ______________
	)	INTERNATIONAL PRECIOUS METALS CORPORATION OF ARIZONA Per: ______________
	)	OMEGA INVESTMENT CORPORATION Per: ______________

94.

Agreement number 4 (four) of 4 (four)

AGREEMENT

THIS AGREEMENT made as of the 9th day of May, 1997.

A M O N G S T:

INTERNATIONAL PRECIOUS METALS CORPORATION OF ARIZONA, a corporation incorporated under the laws of the State of Arizona, a wholly owned subsidiary of IPM,

(hereinafter referred to as "**IPMA**")

OF THE FIRST PART;

-and-

OMEGA INVESTMENT CORPORATION, a corporation incorporated under the laws of the Cayman Islands,

(hereinafter referred to as the "**Vendor**")

OF THE SECOND PART;

-and-

INTERNATIONAL PRECIOUS METALS CORPORATION, a corporation amalgamated under the laws of the Province of Ontario,

(hereinafter referred to as "**IPM**")

OF THE THIRD PART;

-and-

PHOENIX INTERNATIONAL MINING INC., a corporation incorporated under the laws of the State of Nevada,

OF THE FOURTH PART;

WHEREAS pursuant to a Joint Venture Heads of Agreement (the "**JV Agreement**"), dated as of the 13th day of April, 1995, Phoenix International Mining Inc. ("**Phoenix**") granted to IPM the right to earn certain percentage ownership

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interests in the property known as Black Rock and Black Rock Extended, as more fully described in Schedule "A" attached hereto, (hereinafter referred to as the "Property"), upon IPM satisfying the conditions detailed in the JV Agreement;

AND WHEREAS pursuant to an agreement (the "Transfer Agreement") made as of 7th day of May, 1997, between Phoenix and the Vendor, Phoenix transferred all of its right, title and interest to the Property, and pursuant to the JV Agreement, to the Vendor;

AND WHEREAS pursuant to an agreement (the "Property Purchase Agreement") made as of 9th day of May, 1997, between IPMA, IPM and the Vendor, the Vendor transferred all of its right, title and interest to the Property, and pursuant to the JV Agreement, to IPMA;

AND WHEREAS in consideration of IPM and IPMA agreeing to fulfil the terms and conditions imposed on IPM and IPMA pursuant to the Property Purchase Agreement, IPM and IPMA required that Phoenix provide certain representations and warranties regarding its ownership of the Property immediately prior to the transfer by Phoenix of the Property to the Vendor pursuant to the Transfer Agreement;

NOW THEREFORE in consideration of the sum of Ten Dollars ($10.00) now paid by each of the parties to the others and for other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged by each of the parties hereto), the parties hereto agree as follows:

1. Phoenix hereby represents and warrants that as at the time immediately prior to the transfer of the Property to the Vendor pursuant to the terms and conditions of the Transfer Agreement:

   a) Phoenix was a subsisting corporation duly and validly incorporated and organized under the laws of the State of Nevada.

   b) Phoenix had all requisite corporate power and authority to carry on its business in the State of Arizona and to own, lease and operate the properties and assets then-owned, leased and operated by it and was duly qualified to do business and to own, lease and operate its properties and assets and was in good standing in the State of Arizona.

   c) The execution and delivery of the Transfer Agreement by Phoenix and the sale and conveyance of the Property therein provided for had been duly authorized by all necessary corporate action, including, if necessary, approval of the shareholders of Phoenix, in accordance with the statutory requirements of the Phoenix's incorporating jurisdiction, and Phoenix had all requisite corporate power and authority to enter into the Transfer Agreement and to carry out the transaction of purchase and sale therein provided for.

d) The execution and delivery of the Transfer Agreement and this agreement by Phoenix and the observance and performance of the terms and provisions of the Transfer Agreement and this agreement on the part of Phoenix to be observed and performed, did not, and do not, constitute a violation of applicable law or a violation or a breach of the Phoenix's charter documents or by-laws or any provision of any contract or other instrument to which Phoenix is a party or by which it is bound, or any order, writ, injunction, decree, statute, rule by-law or regulation applicable to it, or constitute a default (or would with the passage of time or the giving of notice, or both, constitute a default) under any contract, agreement or instrument to which Phoenix is a party or by which Phoenix is bound.

e) Phoenix has not committed an act of bankruptcy, is not insolvent, has not proposed a compromise or arrangement to its creditors generally, has not had any petition for a receiving order in bankruptcy filed against it, has not made a voluntary assignment in bankruptcy, has not taken any proceeding with respect to a compromise or arrangement, has not taken any proceeding to have itself declared bankrupt or wound-up, has not taken any proceeding to have a receiver appointed of any part of its assets, has not had any encumbrancer take possession of any of its property, and has not had any execution or distress become enforceable or become levied upon any of its property.

f) Phoenix was the beneficial and registered or recorded owner of a One Hundred percent (100%) interest in the Property, subject only to the interest of IPM and junior overlapping mining claims located by IPM with respect to the Property. The Property is in good standing free and clear of any and all claims, liens or encumbrances whatsoever and of any rights or privileges capable of becoming claims, liens or encumbrances, and Phoenix had the power to sell, transfer and assign good and marketable title to the Property to the Vendor, free and clear of any such claims, liens, encumbrances, rights and privilege, subject only to the paramount title of the United States of America.

g) All of the claims comprising the Property have been validly and properly located, staked, tagged and recorded in accordance with the laws of the State of Arizona, the US Bureau of Land Management and any other federal laws applicable thereto.

h) There are no actions, suits, proceedings pending or threatened against or affecting Phoenix or the Property at law or in equity or before any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign.

2. As a condition of the purchase by IPMA of the Property, IPMA shall

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receive an opinion from Phoenix's counsel in Nevada as to the matters contained in Subsections 3 (a), (c), (d) and (e) above, within 30 days subsequent to the date of the first payment on account of the purchase of the Property by IPMA to the Vendor.

3. Recognizing IPM's obligations as a public company required to maintain timely disclosure obligations pursuant to various regulatory regimes, Phoenix hereby acknowledges and agrees to maintain strict confidentiality as to the entering into of this agreement, or any of the contents thereof, and any public release of any information concerning the subject matter of this Agreement shall be entirely at the discretion of IPM. Any public release of any information concerning the subject matter of this Agreement shall not require the prior approval of Phoenix whether as to content or otherwise.

4. The parties hereto covenant and agree to sign such other papers, cause such meetings to be held, resolutions passed and bylaws enacted, exercise, their vote and influence, do and perform and cause to be done and performed such further and other acts and things as may be necessary or desirable in order to give full effect to this Agreement and every part hereof.

5. This agreement shall constitute the entire agreement between the parties hereto with respect to all of the matters herein and this agreement shall not be amended except by a memorandum in writing signed by all of the parties hereto and any amendment hereof shall be null and void and shall not be binding upon any party which has not given its consent as aforesaid.

6. This agreement shall be governed by and construed in accordance with the laws of the State of Arizona and the federal laws of the United States of America applicable thereto.

7. Words importing the singular number only shall include the plural and vice versa, words importing the masculine gender shall include the feminine and neuter genders and words importing persons shall include firms and corporations and vice versa.

8. This Agreement shall enure to the benefit of and be binding upon the parties and their respective successors, legal representatives and assigns.

9. Time shall be the essence of this Agreement and every part herein and no extension or violation of the Agreement shall operate as a waiver of this provision.

10. The parties shall, without further consideration, from time to time execute and deliver further instruments and assurances as may be reasonably required for

DAR

registering or recording changes in ownership of the Property or to effectuate the provisions of this Agreement.

IN WITNESS WHEREOF the parties have duly executed this Agreement as of the date first written above.

SIGNED, SEALED and DELIVERED in the presence of

INTERNATIONAL PRECIOUS METALS CORPORATION

Per: ____________________

INTERNATIONAL PRECIOUS METALS CORPORATION OF ARIZONA

Per: ____________________

OMEGA INVESTMENT CORPORATION

Per: ____________________

PHOENIX INTERNATIONAL MINING INC.

Per: ____________________

EXHIBIT 21

SUBSIDIARIES

Name	*Place of Incorporation*
International Precious Metals of Arizona	Arizona
1020632 Ontario Limited	Ontario (Canada)

758972-1

EXHIBIT 99(b)

INTERNATIONAL PLATINUM CORPORATION

INTERIM REPORT
INTERNATIONAL PLATINUM CORPORATION
BLACK ROCK PROPERTY, ARIZONA

OCTOBER 1994

PREPARED BY:

Behre Dolbear & Company, Inc.
1601 Blake Street
Suite 301
Denver, Colorado 80202
303/620-0020

3-0282

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INTERNATIONAL PLATINUM CORPORATION
BLACK ROCK EXPLORATION PROJECT, ARIZONA

1.0 INTRODUCTION

Behre Dolbear & Company, Inc. was engaged by International Platinum Corporation (IPC) on July 19, 1994, to conduct tests to determine if gold in recoverable quantities was present on IPC's Black Rock Property, Arizona. The following constitutes an interim report of findings to date. This report will form the basis of a detailed and final summary report to be provided IPC in the near future.

Behre Dolbear wishes to acknowledge the cooperation provided by IPC management. During the course of the project, Behre Dolbear had the opportunity to observe IPC management. IPC management was cooperative at all times and did not attempt to influence or interfere with Behre Dolbear's completion of the project. Behre Dolbear was impressed with the professionalism displayed and the obvious straightforward desire of IPC's management to determine whether or not the BRX project has economic potential.

2.0 BACKGROUND

IPC has extensive mineral-interest holdings located approximately 97 miles west of Phoenix, Arizona. The interests held under lease agreements by IPC are located on Public Domain under jurisdiction of the U.S. Bureau of Land Management (BLM). The specific area addressed in the work completed by Behre Dolbear is located approximately 3 miles south of Interstate 10, in Section 35, Township 3 North, Range 31 West. Access to IPC's Black Rock Exploration Project (BRX) is gained over approximately 5 miles of unpaved road from the Hovatter exit, Exit 53.

IPC has reported on the basis of exploration work completed to date, the presence of an apparently extensive and high-grade gold geochemical anomaly in alluvial material. A great deal of time, expense and effort has been made by IPC in obtaining samples and in the completion of analytical work. Initial samples obtained by IPC were subjected to methods of analysis generally applied in geochemical exploration including Atomic Absorption Spectrography (AA), Inductively-Coupled Plasma (ICP), and X-Ray Fluorescence (XRF). Resultant analyses consistently showed high gold-contents. In addition, sample-splits from composite bulk samples were submitted to experimental testing utilizing a chloride leach procedure and also a smelting process similar to that of a fire assay using a rhodium inquart. The average grades for the samples as determined by the gold recovered by each process, were 0.317 ounces of gold per ton (opt) and 0.557 opt, respectively.

A major point of concern to IPC has been the apparent inability to corroborate the instrumental analyses, and those of the two extraction procedures, through use of standard methods of fire assaying. It is believed by IPC that the gold-bearing minerals because of their physical and chemical nature may be the source of difficulty in obtaining analytical results by fire assay. In some instances, standard methods of fire assay did not indicate measurable gold values in samples although some free gold was apparently being recovered in the concentrating plant contracted by IPC.

IPC has therefore initiated research work to determine an optimal technique of fire assaying for direct analysis of the BRX material. Research is concentrating on two approaches that may make the material more amenable to fire assay methods. One is pretreatment procedures of the sample prior to fire assay; the other is possible modifications of the required fluxes. Results thus far have been limited, but are encouraging.

In addition, questions arose relating to the mineral dressing procedures in the plant used for treatment of the exploration samples provided by IPC. The process and the equipment used are primarily those for gravity concentration but several stages of pretreatment of a proprietary nature are supposedly required for effective recovery of the gold by the concentrating plant.

On July 19, 1994, IPC assigned Behre Dolbear the tasks of completing an extended sampling program using a drill, followed by the treatment of the samples in the concentration plant used by IPC for processing of their earlier samples. The primary objectives of the assignment were to:

(1) verify that measurable amounts of gold were being recovered by the concentration plant although fire assay methods might not show measurable amounts in the plant feed; and

(2) determine, after employing certain pretreatment procedures on sample-splits, if standard fire assay methods would show measurable amounts of gold in the samples.

It is believed by IPC that in the absence of an optimized method of assaying the gold-content of raw samples, the recovery of gold by the gravity concentration plant or by other methods, e.g., chlorine leach, is in itself, firm evidence of possible economically recoverable gold on the BRX property.

Behre Dolbear's work in the completion of the assignment was limited solely to the two objectives noted. In no way were their efforts intended or directed to either establish or verify ore grades or ore reserves.

3.0 PROJECT STATUS

A drilling program consisting of eight holes 50-feet in depth was completed under the direction and supervision of Behre Dolbear. A hollow-stem auger drill employing an enclosed sampling tube was used to obtain the samples. Each sample consisting of a core 5-inches in diameter and approximately 5-feet in length was logged, photographed, and placed in a separate and sealed plastic container. All samples were transported to the gravity-concentration plant of DCRS (US) LTD in the vicinity of Congress, Arizona for further splitting and pretreatment procedures of sample splits prior to fire assaying. In addition, the major portion of each sample was pretreated over a period of 7 days in preparation for concentration in the DCRS plant using procedures specified by the operator. Behre Dolbear was not requested by IPC to judge the merits of the DCRS concentrating plant or the validity of the pretreatment procedures completed under the direction of DCRS.

A total of 76 samples with an average dry weight for each sample of 50.8-pounds, were processed in a miniature DCRS concentrator designed for testing small samples. The concentrates were amalgamated and the resultant amalgams parted using nitric acid. In all instances the remaining residue consisted of varying amounts of extremely fine-sized particles of gold. The recovered gold was dried, weighed and for record purposes, mounted on microscope slides.

For the purpose of obtaining an approximation of the percent recovery to be expected of the DCRS processing plant, Behre Dolbear added to five samples known amounts of 999.9-fine gold, the amounts ranging from 64 mg to 228 mg in weight. The gold was added directly to the samples prior to their processing in the DCRS plant.

Behre Dolbear maintained total 24-hour per day security of the samples during all stages of sampling, transportation, pretreatment and concentration. Behre Dolbear personnel were trained and completed the processing of all samples under the close supervision of DCRS personnel. The amalgamation of resultant concentrates was also completed by a Behre Dolbear senior professional. With the exception of eight amalgams that were parted by DCRS personnel for instructional purposes, all amalgams were parted by Skyline Labs using nitric acid in accordance with DCRS specified procedures and the resultant residues weighed. Full control and security of the amalgams while at the DCRS plant site was maintained by Behre Dolbear professionals.

A total of 76 head samples were subjected to standard methods of fire assaying. Sample splits were sent to both the Iron King Laboratory (IKL) and the Mobile Lab Services (MLS) facilities in Humboldt, Arizona. In addition, selected sample splits from those sent to IKL and MLS were also sent to Cone Geochemical, Inc., Lakewood, Colorado, and to Skyline Labs, Wheat Ridge, Colorado.

4.0 RESULTS

Although all assays performed by registered assayers indicated only traces or nil amounts of gold in the plant feed, gold was recovered by the amalgamation of concentrates produced by the processing of BRX samples in the DCRS plant. Restraints imposed by the inherent design of the plant, made it impractical to collect concentrate tailings and consequently, the gold losses in the tailings were not determined. A conservative approximation of the gold collected from each of the 76 samples is then equal to the gold recovered directly from the amalgams plus that determined by fire assay that was lost in the amalgamation tailings. The total amounts thus obtained vary from grades of 0.0007 ounces per ton (opt) to 0.0300 opt, with a weighted average for the 76 samples of 0.0082 opt. The grades for the individual samples are contained in Table 1.1.

5.0 DISCUSSION OF RESULTS

All assays from IKL were noted "Tr" or "Trace"; those from MSL were all noted as <0.005 opt; those of Skyline were all <0.002 opt. No laboratory reported any measureable amounts of gold, i.e., all standard fire assays performed by registered assayers yielded only trace or nil amounts. Apparently the DCRS specifically proscribed pretreatment of sample splits prepared for fire assay had no noticeable effect on the assay results.

Surprisingly, parting of the amalgams for the samples altered ("salted") by Behre Dolbear produced no abnormal amounts of gold. The appearance and weights of the recovered gold were in keeping with those from the other 71 samples of fine-sized gold particles. On the assumption that perhaps the rapid amalgamation process employed at the DCRS plant had not recovered the particles of added gold because of their slightly greater size, the amalgamation tailings were assayed. These too failed to show abnormally high amounts of gold. The amounts found were well with the range of those in the amalgamation tailings of the other 71 samples.

The reason for loss of the added gold is not known at present. It is apparent that the DCRS plant for some unknown reason failed to recover the gold and it must be assumed that it was lost in the tailings from the concentrator. This then poses the question of why the plant consistently recovers extremely small-sized gold particles even though the plant feed contains no gold detectable by standard fire assays, but then apparently failed completely in recovering the known and substantial amounts of clean gold.

TABLE 1.1 DRILL PROGRAM ANALYSES					
SAMPLE NO.	DRY WT (lbs)	Au AMALGAM (mg)	Au A.T. (mg)	Au TOTAL (mg)	SAMPLE GRADE (opt)
1-0:5	51.17	3.9960	0.000	3.996	0.0050
1-5:10	55.85	0.5274	0.762	1.290	0.0015
1-10:15	53.47	4.9120	3.816	8.728	0.0105
1-15:20	49.21	0.9304	0.655	1.585	0.0021
1-20:25	59.38	1.5783	1.074	2.653	0.0029
1-25:30	50.59	1.4724	0.479	1.952	0.0025
1-30:35	45.13	2.3000	1.463	3.763	0.0054
1-35:40	51.06	4.1580	1.224	5.382	0.0068
1-40:45	43.70	1.6253	0.827	2.453	0.0036
1-45:50	44.18	3.8950	0.997	4.892	0.0071
2-0:5	53.34	7.6000	0.608	8.208	0.0099
2-5:10	50.98	7.5180	4.044	11.562	0.0146
2-10:15	38.84	6.1210	2.593	8.714	0.0144
2-15:20		2.6590	1.744	4.403	
2-20:25	55.28	5.4720	5.567	11.039	0.0128
2-25:30	50.72	4.2740	2.420	6.694	0.0085
2-30:35	52.96	2.9110	0.530	3.441	0.0042
2-35:40	47.24	2.3270	2.298	4.652	0.0063
2-40:45	50.35	4.1390	4.854	8.993	0.0115
2-45:50	53.51	4.3380	0.881	5.219	0.0063
3-0:5	53.44	7.7370	5.233	12.970	0.0156
3-5:10	59.56	15.3080	0.263	15.571	0.0168
3-10:15	54.11	1.8933	1.237	3.131	0.0037
3-15:20	44.64	3.1600	0.135	3.295	0.0047
3-20:25	60.68	2.9500	3.500	6.450	0.0068
3-25:30	52.07	2.6410	2.119	4.760	0.0059
3-30:35	53.88	3.0570	0.952	4.009	0.0048
3-35:40	37.11	4.4200	0.553	4.973	0.0086
3-40:45	60.15	7.3000	0.626	7.962	0.0085
3-45:50	55.34	7.5130	0.000	7.513	0.0087
4-0:5	49.40	4.0150	1.056	5.071	0.0066
4-5:10	57.95	4.8740	0.486	5.360	0.0059
4-10:15	48.45	2.7800	0.698	3.478	0.0046
4-15:20			0.000	0.000	
4-20:25	51.78	0.9000	0.757	1.657	0.0021
4-25:30	50.59	0.9100	1.274	2.184	0.0028
4-30:35	51.30	4.8980	0.185	5.083	0.0064
4-35:40	49.16	0.4016	0.233	0.635	0.0008
4-40:45	49.88	5.9010	0.225	6.126	0.0079
4-45:50	50.83	10.5070	2.890	13.973	0.0169

TABLE 1.1 (continued) DRILL PROGRAM ANALYSES					
SAMPLE NO.	DRY WT (lbs)	Au AMALGAM (mg)	Au A.T. (mg)	Au TOTAL (mg)	SAMPLE GRADE (opt)
5-0:5	52.59	1.0229	0.227	1.250	0.0015
5-5:10	56.76	2.5450	0.397	2.942	0.0033
5-10:15	49.79	2.4070	8.262	10.669	0.0139
5-15:20	58.66	2.9210	0.763	3.684	0.0040
5-20:25	51.54	2.4220	21.615	24.037	0.0300
5-25:30	49.40	1.5890	0.422	2.011	0.0026
5-30:35	46.04		0.000	0.000	
5-35:40	45.84	1.2002	0.772	1.972	0.0028
5-40:45	49.33	20.5900	1.719	22.309	0.0291
5-45:50	50.35	5.0000	1.434	6.434	0.0082
6-0:5	50.72	0.3607	0.225	0.586	0.0007
6-5:10	52.19	1.1881	0.299	1.487	0.0018
6-10:15	55.75	9.8000	1.598	11.398	0.0131
6-15:20	50.99	6.5270	1.872	8.399	0.0106
6-20:25	56.53	10.0830	0.000	10.083	0.0115
6-25:30	51.44	2.8020	2.385	5.187	0.0065
6-30:35	44.96	7.5290	2.129	9.658	0.0138
6-35:40	51.76	5.3560	0.000	5.356	
6-40:45	60.07	6.1590	2.750	8.909	0.0095
6-45:50	43.61	4.6780	0.385	5.063	0.0075
7-0:5	54.43	13.1560	0.553	13.709	0.0162
7-5:10	54.86	5.3000	2.787	8.087	0.0095
7-10:15	47.74	8.3740	0.777	9.151	0.0123
7-15:20	45.55	4.0830	0.000	4.083	0.0058
7-20:25	55.81	1.4332	0.153	1.586	0.0018
7-25:30	52.96	4.8280	0.852	5.680	0.0069
7-30:35	49.64	10.9790	3.872	14.851	0.0192
7-35:40	47.50	2.2100	0.801	3.011	0.0041
7-40:45	47.69	3.8650	1.530	5.395	0.0073
7-45:50	40.24	3.1950	0.438	3.633	0.0058
8-0:5	53.44	10.5000	1.819	12.319	0.0148
8-5:10	51.06	2.3670	1.808	4.175	0.0053
8-10:15	47.26	1.4329	0.462	1.886	0.0026
8-15:20	52.01	2.2090	1.757	3.966	0.0049
8-20:25	49.40	17.4270	0.994	18.421	0.0240
8-25:30	45.13	2.7530	0.237	2.990	0.0043
8-30:35	46.55	2.4460	0.308	2.754	0.0038
8-35:40	43.56	0.2769	0.740	1.017	0.0015
8-40:45	48.93	1.7819	0.537	2.319	0.0030
8-45:50	53.20	8.5440	4.587	13.131	0.0159

It is not known whether or not the pretreatment procedures used before processing the samples in the DCRS plant had any bearing or influence on the observed gold recovery.

In addition to the fire assays for head-grade, fire assays were completed on all amalgamation tailings. Behre Dolbear suspected that the amalgamation procedure used by DCRS had definite shortcomings and that losses of both mercury and gold had occurred. Assays of the amalgamation tails by Skyline Labs and Cone Geochemical verified the suspected losses.

6.0 CONCLUSIONS

It is concluded that the objectives set by IPC and included in Behre Dolbear's assignment have been achieved. Behre Dolbear has determined that measureable amounts of gold were in fact recovered from all the 76 samples obtained under their direction and supervision at the BRX property and later processed in the DCRS concentrating plant by Behre Dolbear personnel. Behre Dolbear believes that in consideration of the extraordinary security measures taken during all stages of the sampling and treatment procedures including possible contamination from the water supply or reagents used in the pretreatment and processing operations, that intentional contamination of the samples is unlikely.

Although material from the BRX property does not respond to standard fire assay techniques, Behre Dolbear has verified that the DCRS process does recover gold from the material. No conclusions are made concerning the effectiveness of the process but only the acceptance that the process demonstrates that measureable amounts of gold are present in the material from the BRX property of IPC. Although not characteristic of the average amounts of gold recovered in the samples, one sample did show recovery of gold equivalent to a grade of 0.030 opt (1 gram per metric ton). Thirty percent (24) of the samples recovered gold equivalent to or greater than a grade of 0.010 opt (0.34 grams per metric ton).

Behre Dolbear personnel received sufficient training to allow their direct operation of the plant for the processing of the BRX samples. On the basis of present information relating to the loss of known amounts of gold placed in the samples, it is concluded that there may be deficiencies in the plant's recovery parameters. The losses may be attributed to Behre

Dolbear's limited operational experience with the plant and the inability to make adjustments for maximum recovery. It is also possible that the losses may be the result of some basic fault in the plant's design but more probably, they are from less than ideal operating conditions related to water flow, rate of feed, etc. This may also be a partial explanation for the markedly higher recoveries of gold obtained in the samples submitted earlier by IPC, i.e., the plant was operated by experienced DCRS personnel. Behre Dolbear has no personal knowledge of the earlier samples and the conditions under which they were obtained, pretreated and processed. Therefore, this is simply a speculation made based upon Behre Dolbear's limited operational experience of the plant. It is not an assessment of the effectiveness and the validity of the DCRS process or the correctness of the gold recoveries from those IPC samples.

On the basis of Behre Dolbear's evaluation of data obtained to date, it is concluded that the BRX property displays anomalous gold values and continued assessment is warranted. Of prime importance, IPC must address the development of an optimal technique of fire assay for the BRX material and must also evaluate other potential recovery processes in addition to that of DCRS. Behre Dolbear is already under assignment from IPC to address the next step of assay optimization.

Bernard J. Guarnera

Bernard J. Guarnera
President and Chief Operating Officer
BEHRE DOLBEAR & COMPANY, INC.

EXHIBIT 99(c)

Minerals Industry Consultants

1601 Blake Street
Suite 301
Denver, Colorado 80202

TEL: (303) 620-0020
FAX: (303) 620-0024

December 15, 1995

International Precious Metal Corporation
4625 S. Ash Avenue, Suite J-1
Tempe, Arizona 85282

Gentlemen:

Behre Dolbear has been engaged in an ongoing program to aid IPM in a precious metals evaluation of the BRX project. Onsite observation of the drilling program, including the collection, handling and security of the samples was completed. Additionally, Behre Dolbear observed and monitored IPM's sample preparation laboratory to verify that preparation and treatment procedures consistently followed previously established accepted methodology. All of the above was subject to close scrutiny and given Behre Dolbear's approval.

It is evident that IPM is executing a well-planned program. Behre Dolbear notes no shortcomings in equipment, operating procedures, or security measures in either phase of the program. Both the sample preparation and laboratory personnel are well trained and supervised.

The analytical results of approximately 103 samples submitted to two independent and industry-recognized laboratories were made available to Behre Dolbear. On the basis of the currently available analyses, it is concluded that the IPM-developed leaching procedure is extracting measurable amounts of gold from the BRX material. This has been verified by correlation of the analytical results from the two independent laboratories.

Behre Dolbear noted with interest that other precious metal values, including PGE's, were reported by the laboratories. Behre Dolbear, however, has not evaluated the significance of these other precious metal values and recommends further study of the part of International Precious Metals Corporation.

Sincerely,

BEHRE DOLBEAR & COMPANY, INC.

Bernard J Guarnera

Bernard J. Guarnera
President and Chief Operating Officer

BJG:aom
3-0339

2.0 BACKGROUND

Behre Dolbear has been assisting IPM in the evaluation of gold at its BRX property since mid-1994. Behre Dolbear, as part of this ongoing effort, recently completed a program of monitoring and evaluating the current exploration and metallurgical testing program of IPM. Six days were spent from October 25, 1995, through October 30, 1995, at the start of the recently completed resource drilling program. Tasks included critical evaluation of the care taken in the handling, preparation and security of the samples from the initial sample at the drill rig through its storage in sealed and marked containers at the IPM laboratory in Goodyear, Arizona. Recommendations made to IPM personnel for procedural changes in the handling, splitting, security and preparation of the samples were fully agreed to by IPM. The provisions employed to guarantee full security and integrity of the samples prior to testing were verified. The suitability and adequacy of the sample preparation equipment that was being installed was also evaluated.

Behre Dolbear closely reviewed the current leaching procedures of IPM. In addition, a Senior Associate of Behre Dolbear completed the leaching of six samples, carefully duplicating the IPM procedure employed on previous samples.

Samples were prepared by Behre Dolbear and all reagents were supplied from sealed and previously unopened containers. The handling of samples, reagents and resultant leach solutions were under the full control of Behre Dolbear throughout the procedure including final measurement of the solutions and the splitting into individual samples for analysis by laboratories chosen by Behre Dolbear. Behre Dolbear handled the forwarding of the samples to the laboratories.

A second visit was made to the IPM sample preparation and metallurgical testing laboratory from December 10, 1995, through December 12, 1995. At this time a program of sample preparation and metallurgical treatment was being conducted on a well organized and full time basis, with up to 60 samples being treated per day. Since the earlier visit, a specific leaching procedure had been adopted

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as the standard treatment for all samples. It was observed that the sealed 5-gallon containers were opened just prior to sample preparation and placement in the mixers for blending. The remaining steps of splitting the entire sample with a rotary splitter, a 1/12 split then pulverized and final preparation of sample of approximately 600-grams in weight, correctly labeled, were completed in a well organized and timely fashion. No unsealed sample containers are allowed to remain overnight, i.e., once the seal is broken on sample containers, the contents are carried through the sample preparation procedures immediately.

Behre Dolbear observed in detail all steps in the sample preparation including proper operation of sample preparation equipment, cleanliness of equipment before and after use in the preparation of each sample, and the systematic recording of data relating to weight, sample number and sample fraction. The keeping of records is detailed and allows prompt recovery of sample splits. Numbering of samples is such that no correlation between samples is possible by the analytical laboratories to which the leach solutions are sent. This includes a blank sample that is inserted in each days production run.

Close monitoring of IPM laboratory personnel was completed by Behre Dolbear during the sample leaching procedures. Points observed ranged from use of reagents from sealed containers, cleaning of all equipment and glassware between samples, strict adherence to the quantities of sample material and reagents used, to the careful timing of the successive steps in the leaching procedure.

Extraordinary care in the training and supervision of personnel was evident in all instances. The laboratory is well equipped and it appeared that IPM was taking extreme care in all respects.

Behre Dolbear carefully observed the leaching procedure completed on sample splits from six samples that had been subjected to treatment the previous day. Resultant leach solutions were split, packaged for shipment and forwarded for analysis by Behre Dolbear.

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IPM also requested that the laboratories undertake analyses for other precious metals. Behre Dolbear notes that other precious metals, including platinum-group elements were reported in some analyses. Behre Dolbear has no opinion as to these occurrences but recommends further evaluations be performed.

3.0 CONCLUSIONS

Sampling procedures from the initial drilling through the final preparation for leaching are excellent. Equipment selection, operation and recording of data are well planned and in detail. Labor is well trained and supervised.

Security measures were of primary concern and Behre Dolbear concludes that adequate provisions have been provided by IPM throughout the sampling and leaching phases of the program.

Several hundred samples have been treated with the IPM-designed leaching procedure. On the basis of analytical results of 104 samples released to Behre Dolbear, it is concluded that an apparent strong correlation has been established between the analytical results from two industry-recognized laboratories.

Figure 1, illustrates in graphic form the correlation between the analytical results from the two laboratories noted as "IC" and "CT" on the graph, and provided to Behre Dolbear. Analytical data from both laboratories and which forms the basis of the graph, are contained in Table 1.

Table 2 summarizes the analytical data relating only to gold-content data from the IC laboratory and shows the correlation of the individual assay results with the location of each 5-foot sample interval within the drill holes.

Behre Dolbear recommends further evaluation to determine the significance of the PGE's reported in some of these analyses.

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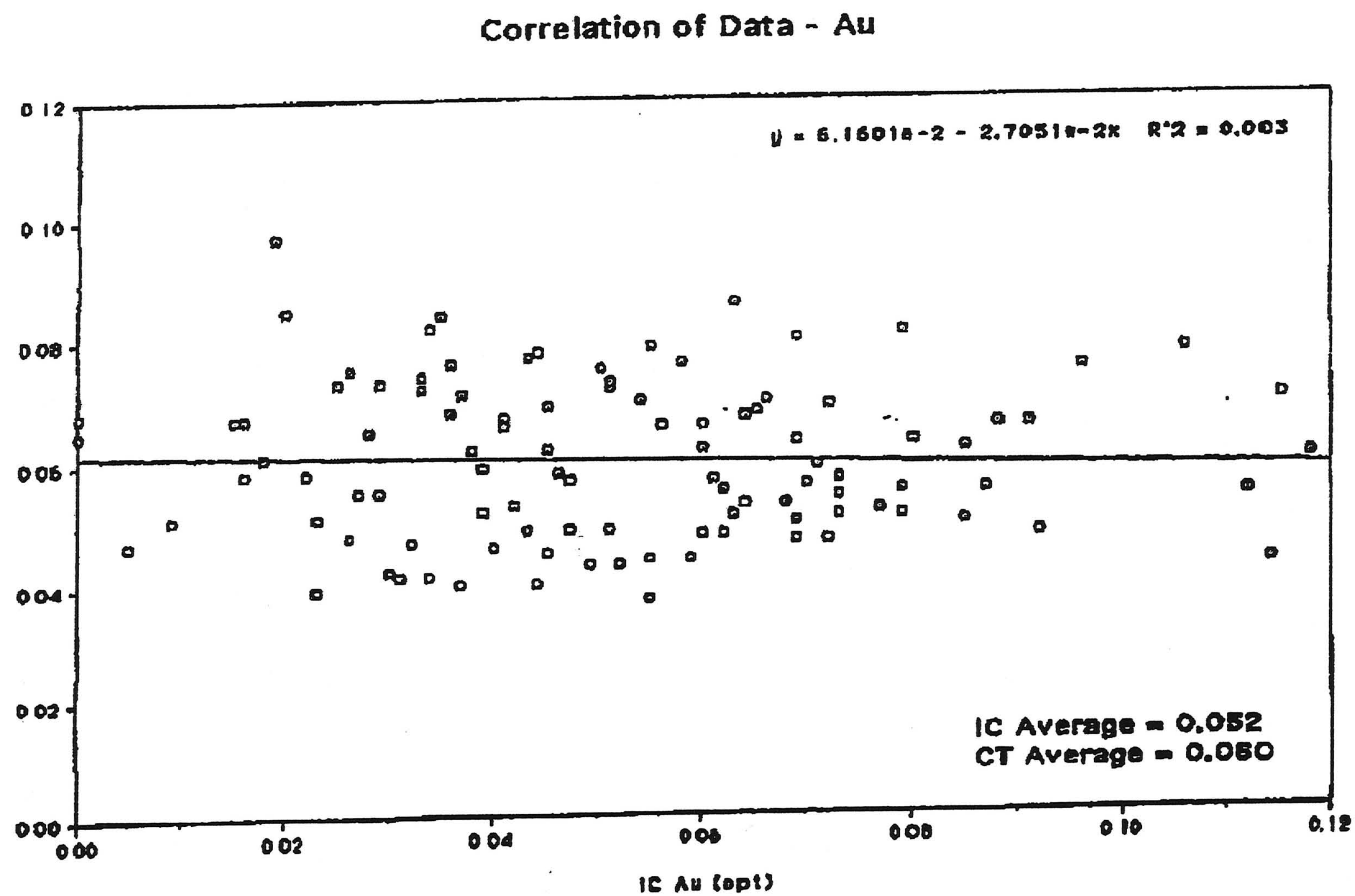
Figure 1


Correlation of Data - Au
y = 6.1601e-2 - 2.7051e-2x R^2 = 0.003
IC Average = 0.052
CT Average = 0.050
CT Au (opt)
IC Au (opt)
0.00
0.02
0.04
0.06
0.08
0.10
0.12

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Correla[illegible]

Sample No.	Lab 1	Lab 2
1	0.114	0.043
2	0.055	0.044
3	0.033	0.074
4	0.022	0.058
5	0.073	0.054
6	0.077	0.052
7	0.026	0.075
8	0.034	0.082
9	0.018	0.061
10	0.070	0.056
11	0.073	0.051
12	0.051	0.072
13	0.000	0.065
14	0.087	0.055
15	0.072	0.069
16	0.062	0.055
17	0.041	0.067
18	0.040	0.046
19	0.061	0.057
20	0.112	0.054
21	0.063	0.086
22	0.059	0.044
23	0.020	0.085
24	0.025	0.073
25	0.069	0.063
26	0.118	0.060
27	0.115	0.070
28	0.036	0.076
29	0.079	0.055
30	0.038	0.062
31	0.066	0.070
32	0.091	0.066
33	0.079	0.081
34	0.064	0.053
35	0.069	0.050

Sample No.
36
37
38
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[illegible] Diet [illegible]	
Lab 1	Lab 2
0.114	0.043
0.055	0.044
0.033	0.074
0.022	0.058
0.073	0.054
0.077	0.052
0.026	0.075
0.034	0.082
0.018	0.061
0.070	0.056
0.073	0.051
0.051	0.072
0.000	0.065
0.087	0.055
0.072	0.069
0.062	0.055
0.041	0.067
0.040	0.046
0.061	0.057
0.112	0.054
0.063	0.086
0.059	0.044
0.020	0.085
0.025	0.073
0.069	0.063
0.118	0.060
0.115	0.070
0.036	0.076
0.079	0.055
0.038	0.062
0.066	0.070
0.091	0.066
0.079	0.081
0.064	0.053
0.069	0.050

Sample No.	Lab 1	Lab 2
36	0.069	0.080
37	0.023	0.039
38	0.033	0.072
39	0.085	0.062
40	0.085	0.050
41	0.029	0.073
42	0.028	0.065
43	0.088	0.066
44	0.019	0.091
45	0.016	0.067
46	0.015	0.067
47	0.027	0.055
48	0.047	0.057
49	0.060	0.066
50	0.045	0.045
51	0.032	0.047
52	0.041	0.066
53	0.043	0.049
54	0.052	0.046
55	0.065	0.068
56	0.054	0.070
57	0.036	0.068
58	0.047	0.049
59	0.063	0.051
60	0.092	0.048
61	0.000	0.068
62	0.106	0.078
63	0.042	0.053
64	0.044	0.078
65	0.031	0.041
66	0.058	0.076
67	0.039	0.059
68	0.044	0.040
69	0.016	0.058
70	0.046	0.058
71	0.029	0.055
72	0.039	0.052

ab 1	Lab 2
0.069	0.080
0.023	0.039
0.033	0.072
0.085	0.062
0.085	0.050
0.029	0.073
0.028	0.065
0.088	0.066
0.019	0.097
0.016	0.067
0.015	0.067
0.027	0.055
0.047	0.057
0.060	0.066
0.045	0.045
0.032	0.047
0.041	0.066
0.043	0.049
0.052	0.043
0.065	0.068
0.054	0.070
0.036	0.068
0.047	0.049
0.063	0.051
0.092	0.048
0.000	0.068
0.106	0.078
0.042	0.053
0.044	0.078
0.031	0.041
0.058	0.076
0.039	0.059
0.044	0.040
0.016	0.058
0.046	0.058
0.029	0.055
0.039	0.052

Sample No.	Lab 1	Lab 2
73	0.055	0.079
74	0.080	0.063
75	0.096	0.075
76	0.043	0.077
77	0.056	0.066
78	0.079	0.051
79	0.071	0.059
80	0.064	0.067
81	0.055	0.037
82	0.061	0.057
83	0.068	0.053
84	0.060	0.062
85	0.051	0.049
86	0.073	0.057
87	0.030	0.042
88	0.037	0.040
89	0.005	0.047
90	0.062	0.048
91	0.060	0.048
92	0.023	0.051
93	0.072	0.047
94	0.045	0.069
95	0.050	0.075
96	0.051	0.073
97	0.026	0.048
98	0.009	0.051
99	0.034	0.041
100	0.099	0.047
101	0.049	0.043
102	0.045	0.062
103	0.035	0.084
104	0.037	0.071
Average	0.052	0.060

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Black Rock (BRX) Project
Arizona, U.S.A.

Exploration Status Report

For: Le Furlong & Alan Doyle
International Precious Metals Corporation

1st February 1996

By: B.R. Mountford, BSc (Hons) MAusIMM
Hawkeye Resources Pty Ltd

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Black Rock Project (BRX), Arizona, USA

1. Introduction

B.R. Mountford (BRM) of Hawkeye Resources Pty Ltd was contracted to carry out a ten day investigation of the BRX Project from 22/01/96 to 01/02/96. The commission was to assess the status of the alluvial Au & PGE exploration program and to initiate exploration for a possible hard rock source.

A field visit was made to the area of alluvial deposit drilling where 1km x 1km has been auger drilled to 30m, and for which about 25% of results are available. Subsequent events limited the author's ability to make detailed investigation of the alluvial project, however some of the analytical complexities have been assessed and some recommendations are made herein regarding future exploration.

As part of the exploration for a hard rock source for Au & PGE's, BRM carried out a brief investigation of the nearby Eagletail and Little Harquahala Mountains. The Eagletail Mountains were observed to consist of relatively fresh and unaltered Tertiary felsic volcanics. The Little Harquahala Mountains, by contrast, were found to contain a sedimentary and volcanic sequence which has been subject to significant structural disruption and in places intense epithermal style alteration (probably acid-sulphate class). Rock chip sampling of some of the altered sequences revealed a wide zone of remarkably high Au & PGE values, e.g. sample 0001 contains over 0.7 oz/ton Au & PGE, 0002 contains over 1.5 oz/ton Au & PGE. These results refocused the attention of BRM's program to this zone.

2. General

Location, access, tenement details and previous exploration are not documented in this report.

3. Geology

3.1 Regional

The BRX Project is located in SW Arizona in the Basin and Range geological and physiographic province. NW-SE normal faulting during mid-Tertiary regional extension has produced a series of prominent mountain ridges with intervening sediment-filled half grabens. At BRX, the Little Harquahala Mountains and Eagletail Mountains separate two Tertiary basins i.e. the Harquahala and Ranegras Basins.

12%

SW Arizona is underlain by the Paleozoic North American craton. During Jurassic-Cretaceous times an E-W basin containing 1km thick platform sediments was formed i.e. McCoy Mountains Formation. These sediments were deposited over a Jurassic volcanic substrate and complex Paleozoic sequence. N-S compressional movements created thrusts which verged towards the basin axis. A relatively undisturbed zone of the northern part of this tectonic unit is preserved in the Maria Fold and Thrust Belt (MFTB), which lies to the north of BRX and includes the Little Harquahala Mountains. The Paleozoic and Mesozoic strata of the MFTB underwent tectonic burial and metamorphism followed by late Jurassic early Tertiary erosion, uplift, cooling and extrusion of extensive acid (minor mafic) volcanics.

During early to mid Miocene, NE-SW crustal extension associated with the formation of metamorphic core complexes occurred. In the BRX area, NW-SE normal faulting produced the Little Harquahala and Eagletail Mountain horst block separating the Renegras and Harquahala basins. The latter are probably half-grabens formed by upper plate strata rotation over deep listric faults at 22-20my BP. There is also evidence for the presence of NE-SW shear/fault structures which may reflect on older late Cretaceous to early Tertiary zone of structural weakness. Miocene to Oligocene 38-15my BP felsic (to mafic) volcanism was widespread in the area. Pre-faulting felsic volcanics outcrop in the Eagletail and Little Harquahala Mountains. Regional gravity and magnetic maps reflect broad NW-SE Basin and Range horst and graben structures. Several large NE-SW gravity lows occur in areas of linear granite intrusion along late Cretaceous-early Tertiary faults/shears. There is evidence that one of these extends beneath the BRX area SW from Wickenburg.

3.2 Project Area

Time constraints prevented all but a cursory appraisal of BRX Project geology. The Eagletail Mountains outcrop to the SE and are predominantly comprised of Tertiary felsic volcanics, including biotite-rhyolite, rhyolite, vitrophyre and feldspar porphyry rhyolite in the area of the radio tower. Further SE basaltic and volcaniclastic units appear. A mostly consistent NE dip at 20°-30° has been imparted to the bedding, with local steepening or reversal near faults. No significant hydrothermal alteration, structural deformation or brecciation was observed in the Eagletail Mountains.

The lithology and structure of the Little Harquahala Mountains is more complex than that of the Eagletail Mountains. Only the far SE part of this range was investigated during this visit. A sedimentary sequence containing shales with a possible fine grained tuffaceous component with some carbonate cemented sandstone and conglomerate lenses occurs below a rhyolitic volcanic pile south of the track which crosses the range. The shale/volcaniclastic unit which has been observed over a 150m wide outcrop and about 500m strike is gray-green in colour and often intensely silicified and pyritised and contains irregular patches and nodules of brown carbonate (ref. addendum). Dips within the sandstone conglomerate horizons are about 45°SW, but other less certain bedding indicators suggest variable SW to NE dips. The shales/volcaniclastics are in sheared contact with overlying felsic volcanics. Within the shear zone, kaolinisation and pyritisation of the felsic volcanics accompanied by weak copper oxide development with haematitic alteration and quartz veining occurs. The main body of felsics consists of welded crystal tuffs, flows, intrusive dykes, breccias and coarse volcaniclastics which are mostly only weakly hydrothermally altered. Patches of propylitic alteration with some lesser kaolin-haematitic alteration accompanied by quartz veining occurs. At the southern extremity of the Little Harquahala Mountains a small isolated hill is composed of felsic tuffs and breccias which have been intensely hydrothermally altered. Two south dipping zones of quartz stockwork veining accompanied by a filigree network of silica replacement occurs. These rocks are heavily weathered, however there also appears to have been fine grained argillic and pyritic alteration i.e. typical epithermal alteration assemblage of the acid-sulphate variety.

The more complex structural and hydrothermal alteration seen in the Little Harquahala Mountains versus that in the Tertiary volcanics of the Eagletail Mountains indicates that they are probably older i.e. Jurassic or Cretaceous. The presence of intense silica pyrite alteration, kaolin-haematitic quartz vein development, and quartz stockwork veining with silicification and argillic alteration over 1.5km of the southern Little Harquahala Mountains indicates that a large epithermal alteration system has operated there. This viewpoint is also supported by geochemical analyses which reveal high Au, PGE's, Se, Ag, Te and Hg with lesser As and Sb. Note: The presence of substantial PGE's in an epithermal deposit is very unusual. However, if a developing epithermal fluid had access to PGE-bearing ultra-mafic/mafic units or platiniferous black shales (e.g. Kupferschiefer, Poland) there is a probability that PGE's would be extracted. Also a research report in the Journal of Exploration Geochemistry (uncertain date) on the Carlin deposits of NW Nevada strongly inferred that much of the Au, Ag, Sb, Se and Hg in those deposits was derived from a particular suite of metal anomalous black shales.

3.3 <u>Sampling</u>

In a first pass attempt to assess the metal potential of the hydrothermally altered units located in the Little Harquahala Mountains, seven rock chip samples were collected. Each sample weighing about 2kg was collected from outcrop over about 20m radius and marked by flagging tape. Two samples, BRM/BRX/0001 & 0002, were collected from about 500 metres south of the track which crosses the Little Harquahala Mountains of silicified and pyritised shale/volcaniclastics; one sample, 0003, of sheared kaolinised and pyritic felsic volcanics at the western contact of the shale/volcaniclastic unit; one sample, 0004, from 400 metres south of 0003, kaolinised, haematised and quart veined felsic volcanics; and three samples 0005, 0006, 0007 of intensely quartz vein stockworked and silicified felsic volcanics from the far south of the Little Harquahala Mountains. For detailed geochemical results, refer to Table 1.

As a result of the high grade precious metal results achieved, particularly in samples 0001 and 0002, a brief search northward was made which revealed the presence of pyritised and silicified shales/volcaniclastics for another 500m. However, although the host unit appears to continue northward, the zone of alteration reduces in thickness and intensity. The author has not had time to visit outcrops even further to the north, but the presence of numerous old mine workings is very encouraging and the area must be the subject of geological and geochemical investigation. Gold may have been remobilised from the silicified and pyritised shale/volcaniclastic unit into quartz veins which made it amenable to conventional treatment.

As yet, a complete discussion of the analyses is inappropriate due to the small number of samples and incomplete results. However, the results to date clearly indicate that high grade combined Au and PGE's are associated with the silicified and pyritised shale/volcaniclastic unit over significant widths. This unit and other similarly altered units probably formed the hard rock source for the alluvial deposit located 2km to the ESE. Sample 0001 contained 0.219 oz/ton Au, 0.200 oz/ton Pt, in total exceeding 0.7 oz/ton precious metals (excluding Ag). Sample 0002 contained 0.186 oz/ton Au, 0.419 oz/ton Pt, 0.306 oz/ton Pd and 0.501 oz/ton Ir in a total exceeding 1.5 oz/ton precious metals (excluding Ag). Sample 0003 contained 0.259 oz/ton Au and Sample 0004 contained 0.093 oz/ton Au and 0.318 oz/ton Ir. Samples 0001 and 0002 were also strongly anomalous in Te and Se and moderately anomalous in As and Sb.

4. Conclusions and Recommendations

The southern Little Harquahala Mountains have been subjected to strong structural disruption and widespread hydrothermal alteration of an epithermal style. Au, PGE's, Te and Se are strongly anomalous in a pyritised and silicified shale/volcaniclastic unit over an outcrop width of 150 metres. The zone of mineralisation appears to thin and weaken 500 m north of the discovery outcrop, although the presence of numerous old mine workings even further to the north suggest good potential in that direction. Given the large volume of mineralised alluvium so far outlined, there clearly had to be a large hard rock source. The dimensions of the mineralised shale/volcaniclastic unit suggest that it could have been the main hard rock source, and it is clear that exploration for extensions of this unit further north and under alluvial cover is now a high priority.

The first requirement is to establish appropriate hard rock mineral exploration tenements over the Little Harquahala Mountains as far north as the canal and south beyond the gas pipeline. The eastward extension should include the main alluvial deposit area. Coverage to the west need only go 0.5 km from the mountain edge.

A detailed low level helicopter operated magnetic survey over an area extending at least 1 km outside the tenement boundaries will be necessary. A line spacing on E-W lines of 200 m is recommended with 30m-40m ground clearance and continuous magnetic readings to 0.2 nano-tesla. N-S tie lines at 1 km intervals will ensure accuracy.

A gravity survey over the same area as the magnetics survey will be required. The station spacing should be mostly 200m x 200m with 100m x 100m in areas of most interest and possibly at 500m x 500m in the outer areas.

All future geological mapping should emphasise structural and hydrothermal alteration features. Mapping should be carried out on clear overlays on 1:5,000 and smaller scale air photos and mosaics. Emphasis should be placed on mapping the Little Harquahala Mountains.

Electrical geophysics should be used to identify extensions of the mineralised unit(s) under alluvial cover. An orientation study to assess the effectiveness of IP, EM and other electrical methods is recommended.

Depending upon the success of the other geophysical methods, a seismic survey may be useful to identify or clarify major basin features for deep drilling purposes.

A geochemical survey involving rock chip sampling of the main units of interest in the Little Harquahala and Eagletail Mountains should be carried out. In addition a 200m x 200m surveyed grid for soil sampling should be established throughout the tenements which will also be essential for geological mapping control. An orientation survey should be undertaken whereby the elements to be routinely analysed for can be established. Au, Pt, Pd, Ag, Te, Se, Hg, and W should be tested for in the orientation survey.

Drill targets will fall into two obvious categories i.e. hard rock and alluvial. Hard rock drilling will depend very much on the results from the geological structural analysis of the geophysical and geochemical surveys as outlined. However, diamond drilling is preferred to characterise the structure of the hard rock resource. If similar grades to those found at surface persist drilling to 300m will be necessary. The alluvial deposit will be better characterised if some wide diameter diamond holes can be drilled which may also need to go to 300m depth.

XRD and possibly SEM-EDS work on the clay mineralogy should be carried out on the alluviul deposit. This may help determine the location and style of PGE mineralisation and characterise the deposit. Note: There is a possibility/probability that the alluvial deposit has been subject to geologically recent, very low temperature hydrothermal reworking as evidenced by the SEM photo of very delicate radiating gold crystal clusters. Also, the nearby Coyote Peak is a recent cinder cone which indicates possible ground water heating. The main Harquahala Basin is a known low temperature geothermal resource area.

In summary, I recommend a major extension of the exploration program at Black Rock to include hard rock and alluvial deposit outline and definition. This program should permit scale of magnitude estimates to be made.

Addendum

A 1:24,000 regional geological map of the Little Harquahala Mountains has become available to the author since completion of the main report. This map indicates that most of the BRX part of the Harquahala Mountains is underlain by Jurassic and Cretaceous volcanics, volcaniclastics and sediments.

The western felsic volcanic sequence is considered to be part of the Jurassic age Black Rock volcanics Jbv, a silicic to intermediate suite of ash-flow tuffs, flows, hypabyssal intrusions and volcaniclastic sediments.

The eastern shale/volcaniclastic unit is ascribed to the Lower Sandstone Unit of the Ranegras Member (Jkrl) of Jurassic-Cretaceous age. Its description is of sandstone, conglomerate, calcareous sandstone and siltstone.

It is not considered that the so-called Jkrl unit need be the only mineralised unit, however, given the results so far recovered, any Jkrl mapped exposures should be carefully investigated.

Table 1

ASSAY DATA, BRX HARDROCK SAMPLES of R. Mountford

Sample #	Au	Ag	Pt	Pd	Ir	Rh	Os	Ru	Cu	Zn	Pb	Te	Se	Sb	As
	Oz/t								PPM						
0001	0.219	0.038	0.200	0.102	0.091	0.160	0.014	0.008	4.9	27.2	544.1	378.2	204.0	26.0	61.2
0002	0.186	0.029	0.419	0.306	0.501	0.153	0.011	0.003	2.8	24.9	1.36	551.2	326.5	14.6	40.8
0003	0.259	0.044	0.036	0.146	tr	0.080	-	tr	5.5	20.4	tr	74.6	83.7	19.3	63.5
0004	0.095	0.051	tr	0.077	0.318	0.050	0.078	0.020	8.6	14.7	72.5	48.7	62.0	23.8	58.9

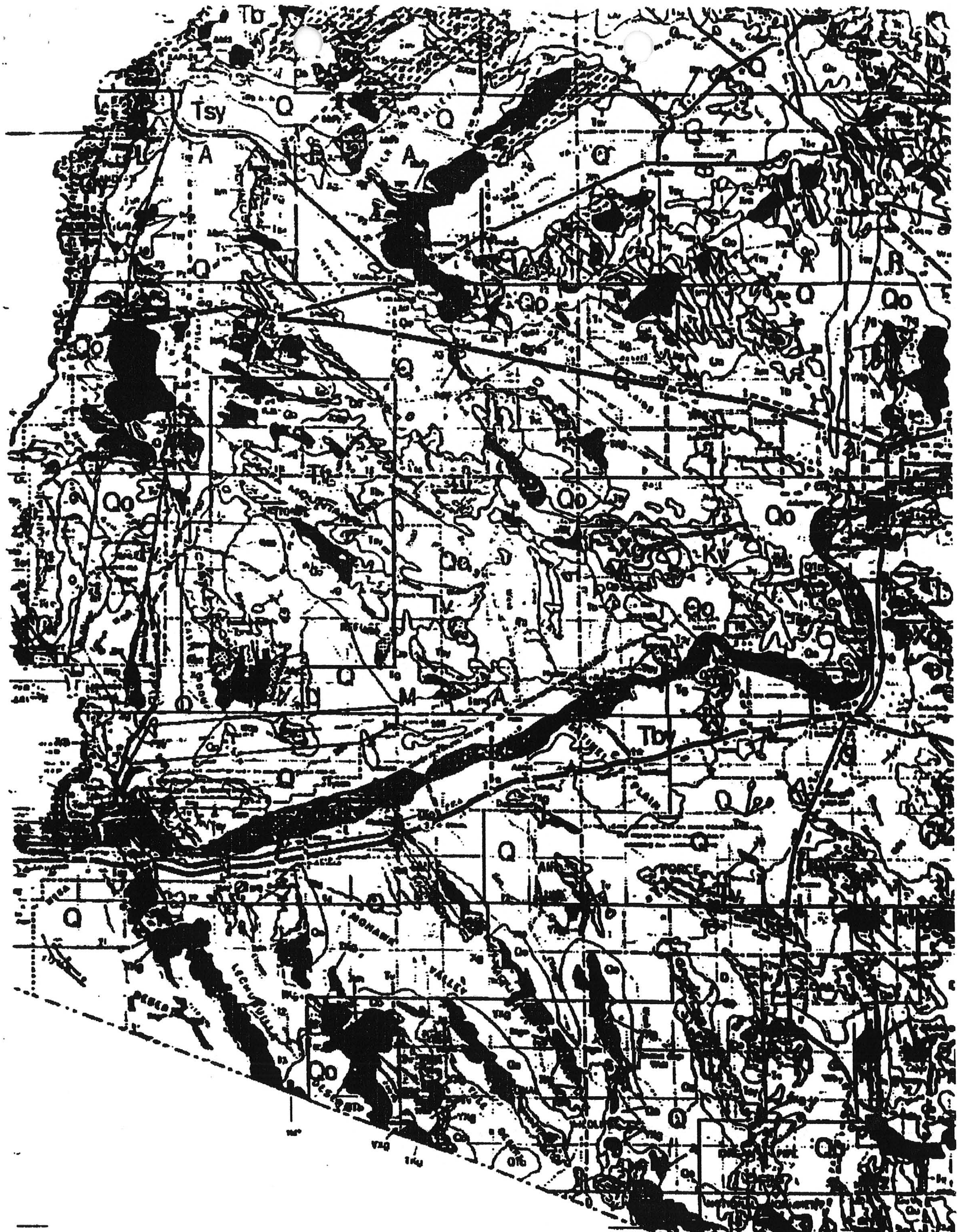
Sample 0001 and 0002 are from pyritized and silicified shale/volcaniclastic unit.

Sample 0003 is from the sheared margin of the above unit within a kaolinitic and pyritic felsic volcanic.

Sample 0004 is from kaolinized and haematitic felsic volcanics with quartz veins.

N.B. Each sample is comprised of surface rock chips from an area of approximately 20 metre radius.

30 Jan. 1996



GEOLOGIC MAP OF ARIZONA

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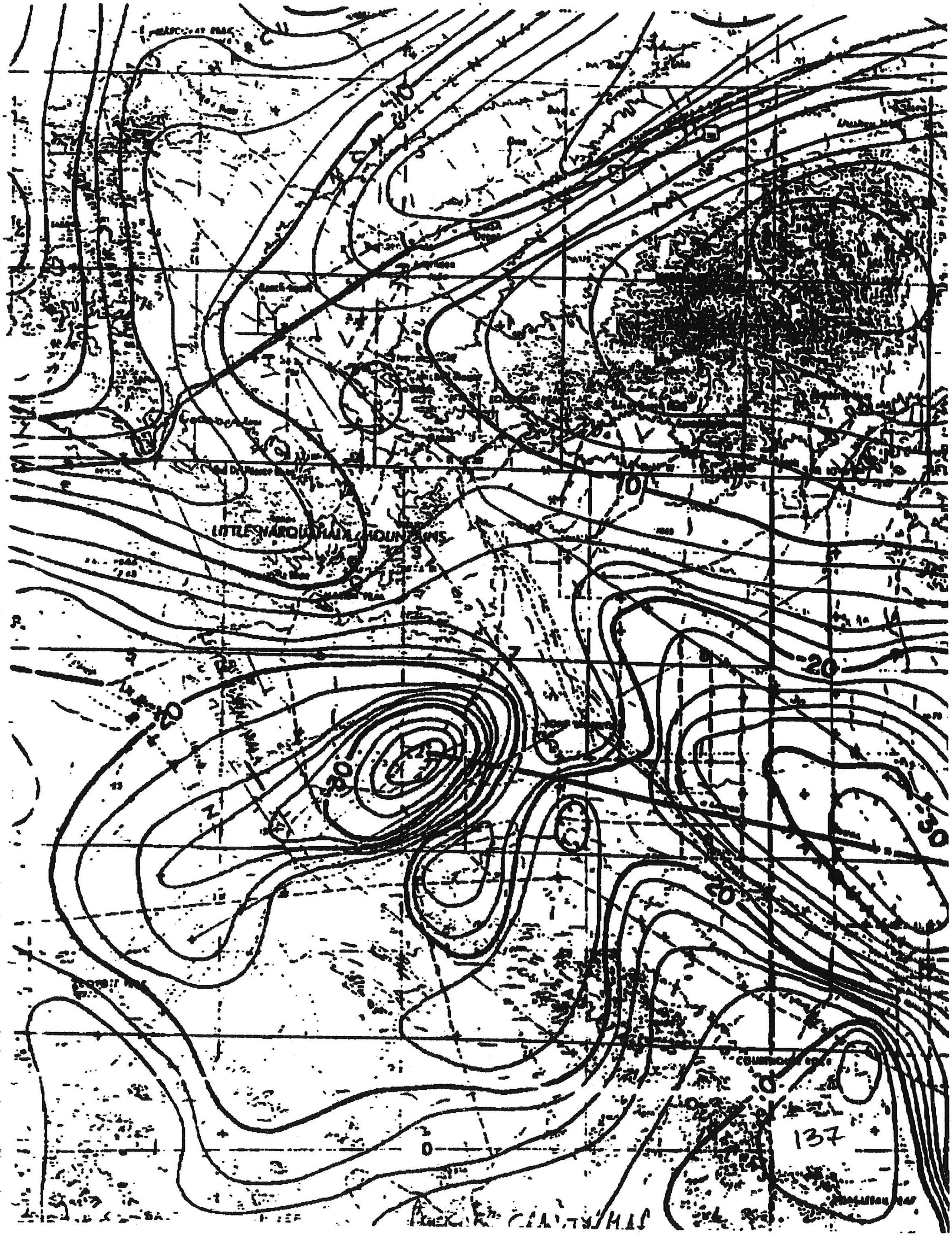
REGIONAL GEOLOGY.

Fig 2.


LITTLE VAROUTHAIX MOUNTAINS
10
20
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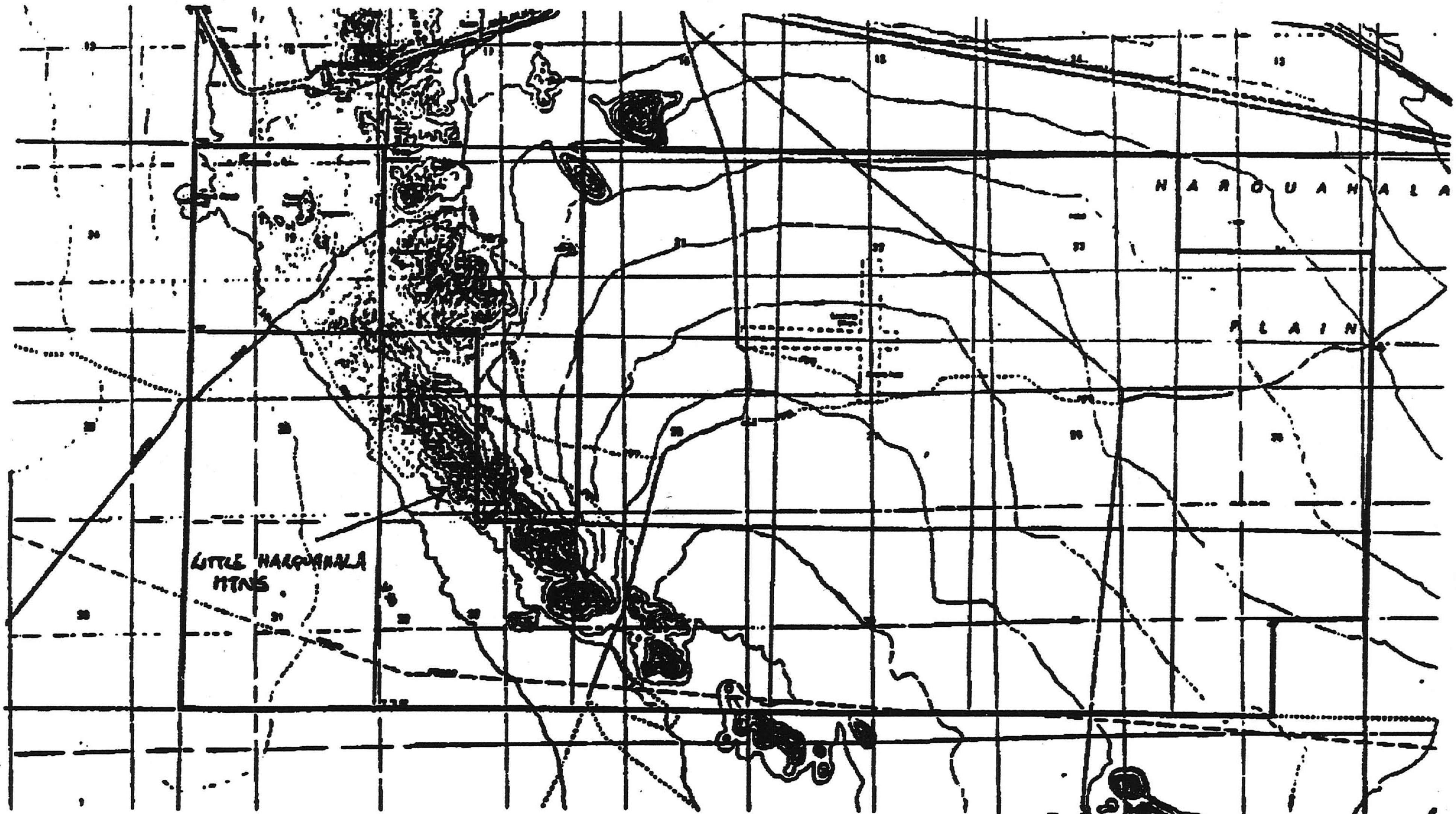
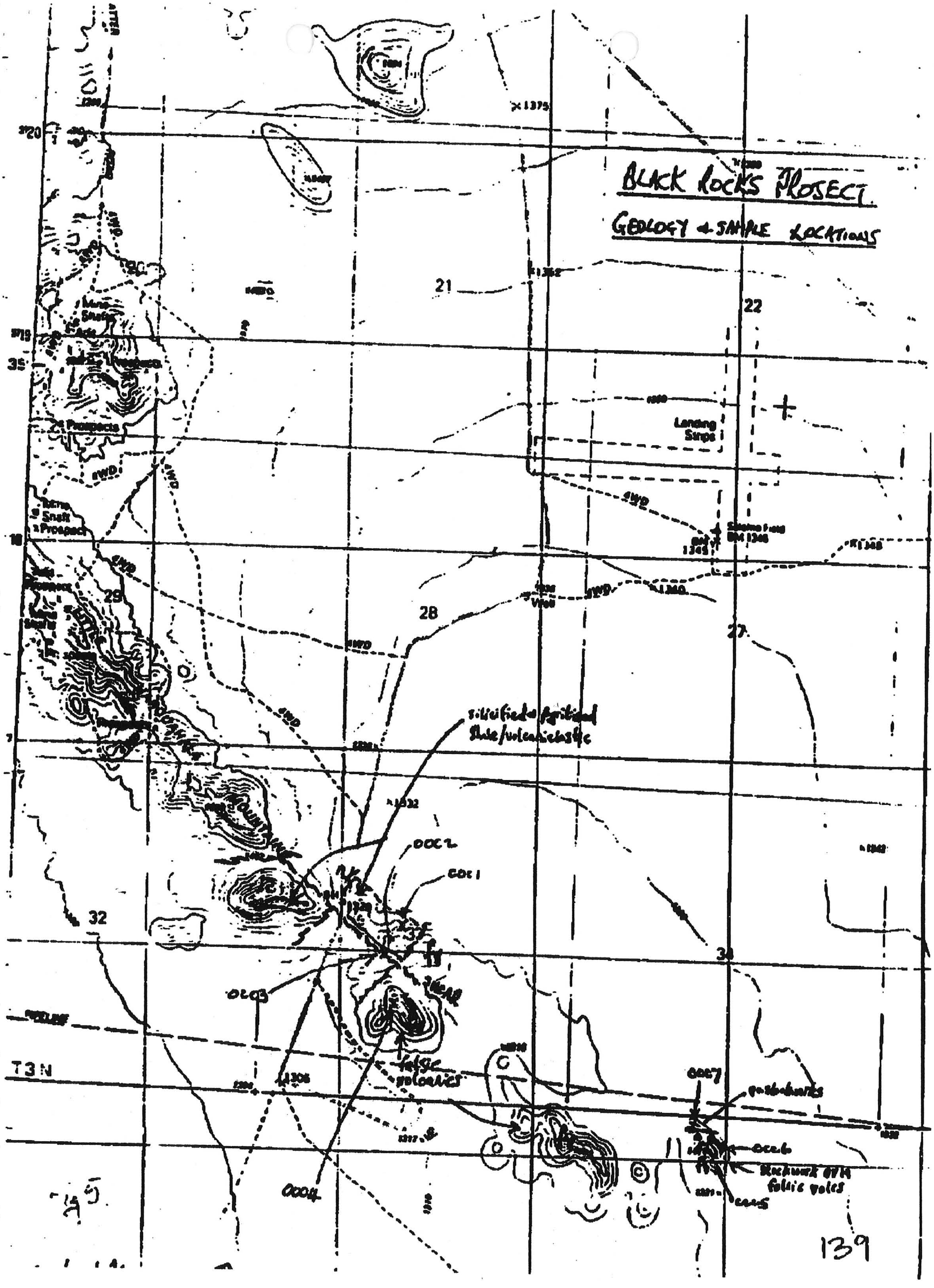
137

F. 4.



TENEMENT PLAN



BLACK ROCKS PROJECT
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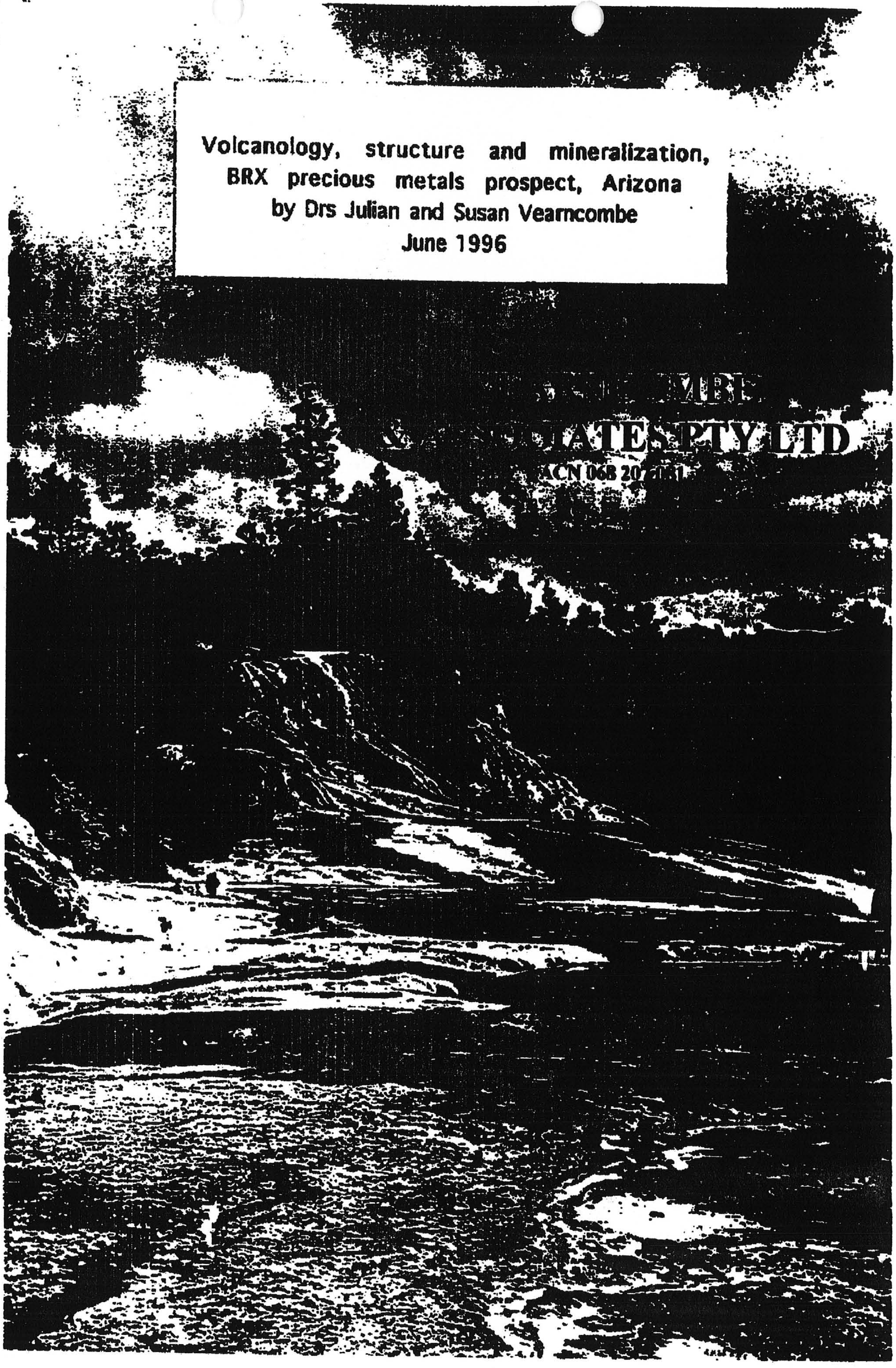
Volcanology, structure and mineralization, BRX precious metals prospect, Arizona

by Drs Julian and Susan Vearncombe

June 1996



Volcanology, structure and mineralization,
BRX precious metals prospect, Arizona
by Drs Julian and Susan Vearncombe
June 1996

Volcanology, structure and mineralization at the BRX precious metals prospect, southern Little Harquahala Mountains and Eagletail Mountains, Arizona

Report to International Precious Metals Corporation
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EXECUTIVE SUMMARY

The BRX prospect is located between the 160°-trending southern Little Harquahala Mountains and the 140°-trending Eagletail Mountains, in the Basin and Range Province, Arizona. The style of mid-Tertiary extension deformation changes between listric faults with large displacements linked to recumbent detachments with exposure of midcrustal rocks in the Little Harquahala Mountains, and, in the Eagletail Mountains, steeper partly listric faults which dismembered the upper crustal rocks, but lack exposure of the midcrustal rocks. Between these two styles of mid-Tertiary extension is a transfer zone up to 5km wide comprising structures which trend between about 060° and 080°. Mineralization at the BRX prospect is located within and on the margins of the transfer zone.

Reflecting the different styles of extension and level of crustal exposure, the BRX prospect can be divided into three domains. The northern domain of the southern Little Harquahala Mountains comprises locally mylonitic granites unconformably overlain by immature sediments comprising conglomerates and a siltstone-sandstone sequence, unconformably capped by a volcanic basalt unit. Structure in the northern domain is dominated by northeast-dipping normal listric faults.

The central domain comprises intrusive porphyry with quartzites, a siltstone-sandstone sequence and felsic volcanic rocks. Structures from the northern domain rotate to an about 080°-trend in the central domain where they are part of the transfer zone which concentrated porphyry intrusion and mineralization. Quartz vein stockwork in the felsic volcanic rocks has the characteristics of a large epithermal system, and pyrite alteration in siltstone-sandstone rocks has yielded assay results for gold and platinum group elements (PGEs) at economic levels.

The southeastern domain, comprising part of the Eagletail Mountains, has dacite-rhyolite volcanic rocks. Faults in this domain are steeply southwest dipping although displacements on exposed faults are in tens of metres. A quartz stockwork similar to that of the central domain has been recognised in the southeastern domain.

On-going geological studies include rock sampling, geophysical surveys and geochemical exploration work aimed at defining the extent of mineralization and providing critical drill targets.

The recommendations are detailed on page 41. In summary form they are:

- The alluvial resource is open in five directions. Drilling should be on a 1km grid, and centred on the known alluvial resource, two lines north/south and east/west should be drilled out at a 500m spacing. Subsequent drilling will depend on the results of this reconnaissance drilling. To test the depth extent one or more deep RC holes should be drilled.

- A major drilling program aimed at specific hard rock targets is required. The priority targets in * ranking are: 5* Stockwork Hill; 4* siltstone-sandstone-hosted gold and PGE in central domain; 4* Eagletail Stockwork; and 2* all other siltstone-sandstone-hosted gold and PGE throughout the tenement.

- At the time of our geological mapping exercise there was considerable discussion about the assay results for the alluvial samples. This material would have a very large nugget effect, but samples of hardrock would be expected to have a lower nugget effect. IPM should engage the services of a geostatistical consultant familiar with the problems of sampling, sample handling and splitting, and producing homogenous samples.

- To assist with the handling of exploration data and the geostatistical analysis of sampling problems (especially the nugget effect) a suitable easy to use computer package is required.

- Future target generation in Arizona should concentrate on the definition of transfer zones and their coincidence with a geology similar to that at BRX.

STATEMENTS

- The conclusions and recommendations expressed in this report represent the opinions of the authors based on data available to them. The opinions and recommendations provided from this information are in response to a request from International Precious Metals Corporation and no liability is accepted for commercial decisions or actions resulting from them.

- This report has been prepared specifically for International Precious Metals Corporation as the Client. Neither the report nor its contents may be referred to or quoted in any statement, study, report, prospectus, loan, thesis, other agreement or document, without the express approval of International Precious Metals Corporation and Vearncombe and Associates Pty Ltd.

ACCOMPANYING MAP

Map at a scale of ~1:10,000 showing the geology of the BRX project area.

The map was compiled by geological field mapping on overlays of aerial photographs at scale 1:9600. Mapping was by Julian and Susan Vearncombe. The map was compiled on an aerial photograph mosaic. Due to distortion in the photographs and non-exact matching on the photographic mosaic angular errors as large as 5° and distance errors of up to 150m are possible.

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INTRODUCTION

The Black Rock (BRX) prospect is located in southwest Arizona in the Basin and Range Province. The prospect is 92km from Phoenix, immediately south of Interstate Highway 10 on the Hovatter Road turn-off. The BRX anomalies are 6km due south of the Highway.

The BRX prospect is located about the break in mountains between the southern Little Harquahala and the Eagletail Mountains. The mountains separate two Tertiary basins, the Harquahala and the Ranegras Basins.

This project

The brief for this consultancy was to document the hard rock geology of the BRX project site, make recommendations concerning the next phase of exploration, speculate on the controls on mineralization and comment on possible similar targets in Arizona.

The project was conducted over a three week period in March and April 1996 by both authors.

Acknowledgments

This study was facilitated by Le Furlong, Paul Mentzer, and Roland Mountford. Roland first recognized the hard rock mineralization in the project area (Mountford, 1996) and suggested this project. Logistic assistance of Jake Henneman and his crew is greatly appreciated. Many thanks to Le and the crew for supplying us with an "emergency hamper".

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TECTONIC SETTING OF THE BRX PROSPECT

The BRX prospect is located on the southern limit of deformation of the Jurassic fold and thrust deformation of the Maria Belt (Figure 1). The Maria Belt comprises folds and thrusts in a narrow belt of Mesozoic crustal shortening that trends east-west across west central Arizona and adjacent California. It is characterized by generally south vergent folds and thrusts that commonly displace Proterozoic crystalline rocks over deformed and metamorphosed Paleozoic and Mesozoic strata.

The BRX prospect is located between the southern Little Harquahala Mountains and the Eagletail Mountains, in the Basin and Range Province, Arizona (Figure 1). In the Little Harquahala Mountains, the style of mid-Tertiary extension deformation was listric faults with large displacements linked to recumbent detachments which favors exposure of midcrustal rocks (Figure 2). In contrast, in the Eagletail Mountains are steeper partly listric faults which dismembered the upper crustal rocks, and lack exposure of the midcrustal rocks. In the gap between the two mountain ranges is a transfer fault oriented between about 080° and 060°, and this structure may be a critical control on the location of mineralization.

The adjacent extensional basin, the Harquahala Basin, has a prominent gravity low, probably reflecting the great depth of the basin (or a significant granite body). The anomaly is oriented to about 050° close to the line of the possible transfer zone.

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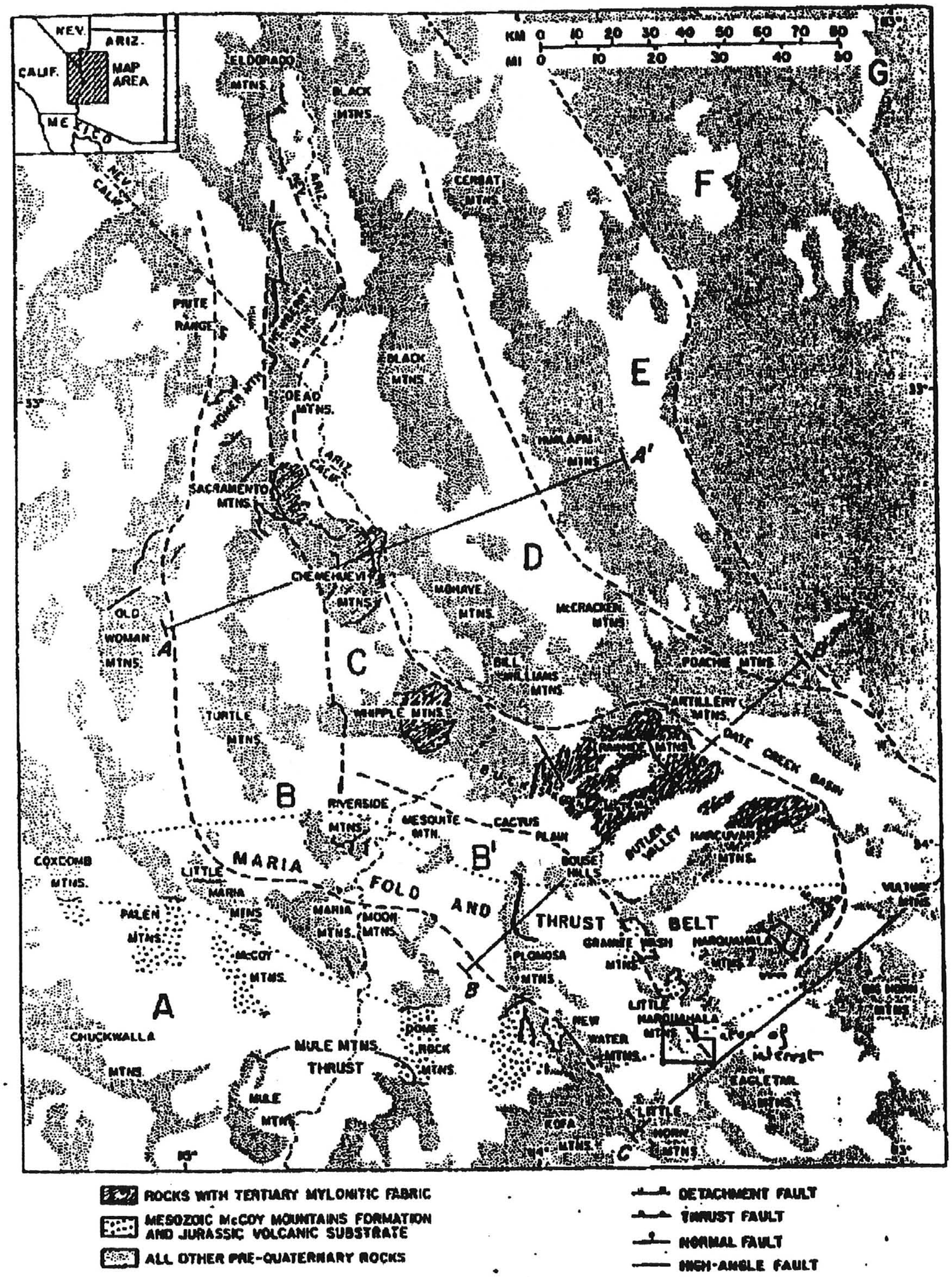

Figure 1

Generalized tectonic map for mid-Tertiary structures in southern California and Arizona. A = area of minor extension at surface levels, B = synformal keel of distended upper-plate rocks above warped regional detachment fault, C = zone of arch-like uplifts of lower plate rock forming metamorphic core complex, D= wedge-shaped extensional allochthon of moderately to highly tilted and extended upper-plate rocks, E = area of slight to moderate extension characterized by large fault blocks with little or no tilt, F = transition zone, and G = Colarado Plateau. From Spencer and Reynolds (1990).

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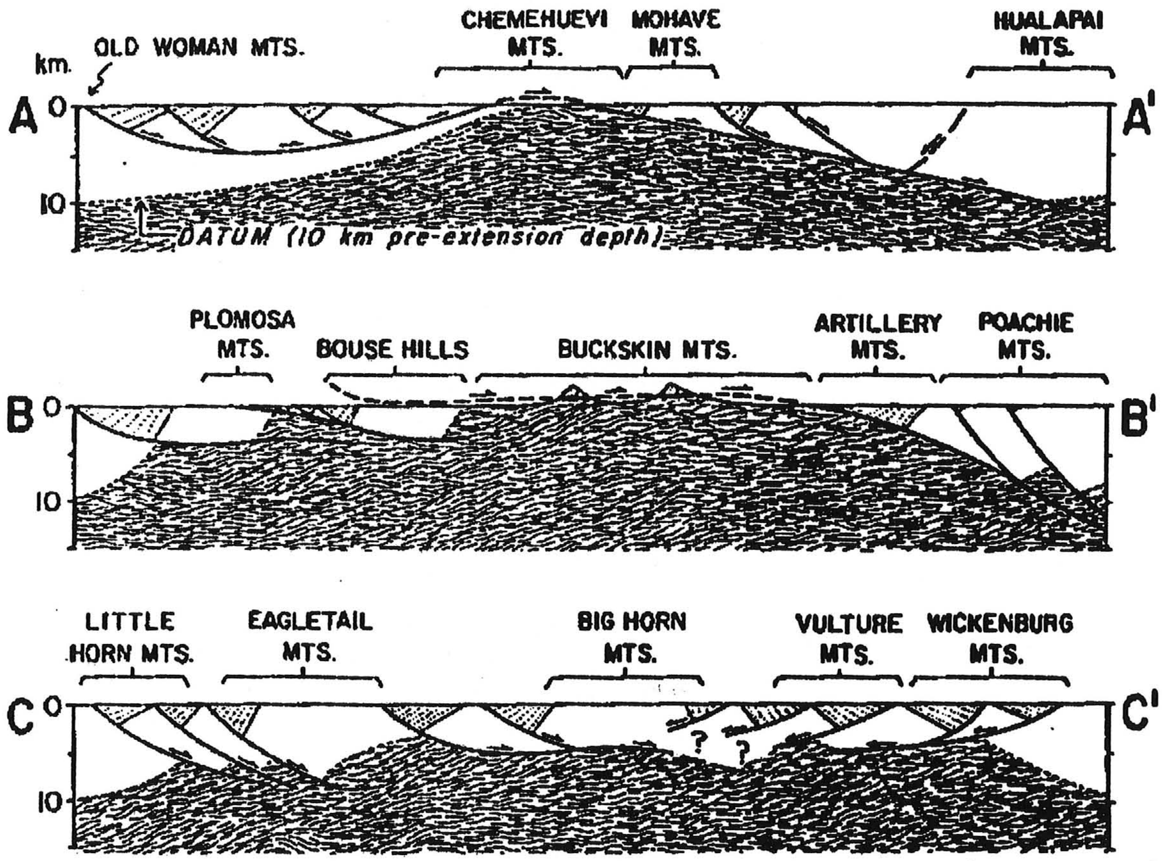

Schematic cross sections illustrating different structural styles of extension along the Colorado River extensional corridor. Wavy line pattern indicates rocks that were below the brittle-ductile transition zone before extension. See Figure 1 for location of cross sections (east end of cross section C-C' is off map).

Figure 2

Cross-sections showing the difference between extension in the Little Harquahala Mountains (section B-B') and the Eagletail Mountains (section C-C'). From Spencer and Reynolds (1990).

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LITHOLOGY AND STRATIGRAPHY

Three distinct domains with their own characteristic lithological assemblages, structure and mineralization styles are identified. These are the northern domain (in the southern Little Harquahala Mountains) of granites, siltstone-sandstone and overlying volcanic basalts, a central domain of porphyry, quartzite, siltstone-sandstone and felsic volcanic rocks and a southeastern domain (in the Eagletail Mountains) of felsic volcanic rocks.

Mappable units

The mappable rock units in the BRX project area (comprising all three domains) are:

	Rock code
UNDEFORMED AND OVERLYING UNITS	
Alluvium and colluvium	
Mafic agglomerate/lahar	Ma
Mafic lavas (including fragmental units)	Ml
Mafic dikes	Md
?UNCONFORMITY	
MID-TERTIARY VOLCANICS OF THE EAGLETAIL MOUNTAINS	
Flow banded and spherulitic rhyolite	Rb
Vitrophyre	Rv
Volcanic Fragmental rocks	Rf
Dacite/rhyolite volcanic rocks	Rd
MESOZOIC OR TERTIARY ROCKS OF THE SOUTHERN LITTLE HARQUAHALA MOUNTAINS	
Quartz veins	q
Quartz porphyry	Pq
Feldspar porphyry	Pf
Quartzite (associated with porphyry)	Qt
Dacite/rhyolite volcanic rocks	Dr
Siltstone and sandstone (with conglomerate and shale)	Ss
UNCONFORMITY	
Granites	Gr

The following describes each mappable unit, its lithology, petrology, and stratigraphic and/or intrusive relationships where these are known. For detailed petrographic descriptions see Appendix 1.

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Granites

In the southern part of the southern Little Harquahala Mountains, the granite is medium grained, comprising quartz- plagioclase and alkali felspar phenocrysts-biotite-muscovite. The quartz is characteristically rounded. The granite is altered, locally intensely veined with quartz and haematite, attesting to significant movement of hydrothermal fluids through the granite. Alteration-related zeolites of the epidote family of minerals and sericitized felspar are locally present. Small quartz veins with associated Cu (malachite, azurite) are located characteristically within the granite, and at the granite-sediment contact. The quartz-Cu veins appear to increase in size northward towards the Interstate Highway. This corresponds to a change in the granite from a fine to medium-grained quartz dominated granite with distinct quartz and felspar phenocrysts, to an altered coarse-grained felspar-dominated monzogranite lacking significant phenocrysts. In the northern part of the southern Harquahala Mountains (near the Interstate Highway), the coarse granite shows a propylitic alteration assemblage of chlorite-epidote-carbonate-sericite, and a micro-phenocryst assemblage of plagioclase and alkali felspars-quartz-biotite-amphibole-titanite-magnetite; locally these rocks are intensely chloritized and brecciated. This is probably an internal effect which may be related to the copper mineralization. The granite of the southern part of the southern Little Harquahala Mountains has a more porphyry-like appearance in contrast to the granite of the northern part.

Siltstone and sandstone (with conglomerate and shale)

The base of the sedimentary sequence is a conglomerate, up to 10m thick comprising granite clasts, in a matrix of detrital minerals eroded off a granite. The conglomerate sits directly on granite and the contact is an unconformity. Above the granite-clast conglomerate, siltstones and sandstones with local shales and conglomerates (Figure 3) form an immature package of sedimentary rocks. They locally show graded bedding and erosion surfaces which indicate that the rocks are right way up, but these indicators are generally of poor quality. The sedimentary rocks are carbonated, and comprise mostly carbonate-quartz-felspar-chlorite-mica-opaques in a sericitic-clay matrix. Dolomites are developed patchily in the siltstone and shale. They are probably diagenetic in origin.

Conglomerates occur throughout the exposed sequence indicating a rapidly eroding immature terrain. If the sediments are Jurassic as stated by Spencer et al. (1985) then they probably represent a Jurassic molasse derived from the uplifted Maria Fold and Thrust Belt. However, no proof of a Jurassic age has been identified in this study, and it is possible that they are a fault-controlled basin fill developed during mid-Tertiary extension.

Grey siltstones are fissile, and variously pyritic and carbonated, locally containing fine veins. Many of these rocks have returned significant PGE and Au assay results.

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Dacite/rhyolite volcanic rocks of the southern Little Harquahala Mountains

The dacite-rhyolite rocks of the southern Little Harquahala Mountains are pink to grey quartz-felspar-pyroxene-mica extrusive flows conformable on the underlying sedimentary rocks and in fault contact with porphyroblastic granitic rocks. These rocks are weakly altered with the destruction of pyroxenes, and presence of minor carbonate and epidote. Microscopically, these dacite/rhyolite rocks are spherulitic, similar to the spherultic and flow banded rhyolitic rocks of the Eagletail Mountains. The volcanic rocks dip to the northeast at about 60°.

The relationship of the dacite-rhyolite rocks of the southern Little Harquahala Mountains with the dacite-rhyolite and banded rhyolitic rocks of the Eagletail Mountains is unclear. Previous mapping (Spencer et al., 1985; Spencer and Reynolds, 1990) distinguished the dacite-rhyolite rocks on the southern side of the southern Little Harquahala Mountains as Jurassic in age, and those on the northern side, together with those in the Eagletail Mountains, as Tertiary. The dacite-rhyolite rocks of the southern Little Harquahala are conformable with siltstone and sandstone units, and the volcanic rocks of the Harquahala and Eagletail Mountains may be of comparable mid-Tertiary age.

Quartzite

Quartzites comprise interbeds within the sedimentary-dominated sequence, and also within the quartz porphyry. The quartzites are clean, white, massive and lack bedding and younging indicators. Within the quartzite locally, there are veins of specular hematite and quartz.

Felspar and Quartz porphyries

The felspar and quartz porphyries are restricted to the transitional zone (central domain) between the southern Little Harquahala and Eagletail Mountains. The quartz porphyry is fine-to medium-grained, characterized by rounded quartz phenocrysts and traces of felspar. Microscopically, the quartz porphyry contains an alteration assemblage of carbonate-white mica-sericite. Carbonate replaces plagioclase felspar. The felspar porphyry is coarse-grained, and felspar-rich. The quartz and felspar porphyries intrude the quartzite and are likely correlatives with the mid-Tertiary volcanic rocks. The porphyries are similar compositionally and texturally to the granites in the southern part of the southern Little Harquahala Mountains, and may represent apophyses or fractionated equivalents of the granite.

Flow banded and spherulitic rhyolite in Eagletail Mountains

Flow-banded (Figure 4) and spherulitic rhyolite (Figure 5) is the dominant lithotype in southwest domain, and is also present at Stockwork Hill (central domain). The spherulitic bands represent the gaseous flow tops of the banded flows, and in weathered outcrop have a distinct appearance (Figure 5). The flow-banded rhyolite comprises compositionally alternating layers of felsic (felspar-quartz-biotite-clinopyroxene-titanite-apatite-zircon, devitrified radiating sphericules) and glassy material.

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Vitrophyre

Rhyolite vitrophyre (Figure 6) is restricted to the southwestern domain, located above coarse-grained volcanic derived fragmental rocks, and below the banded and spherulitic rhyolite. Large clasts of vitrophyre are present within the underlying volcanic fragmental unit, attesting to earlier flows of vitrophyre. The vitrophyre is a massive, black to green glassy rock with plagioclase and alkali felspar-quartz phenocrysts-biotite-clinopyroxene-epidote. This unit dips approximately 36° northwest.

Figure 6 shows a view looking northwest, of the vitrophyre unit, as black blocky outcrops dipping beneath pink rhyolite-dacite.

Volcanic Fragmental rocks

Volcanic fragmental rocks (Figure 7) in the Eagletail Mountains are present immediately south of the microwave tower, in fault contact with the flow-banded rhyolite, and directly beneath the vitrophyre unit. The volcanic fragmental rocks contain large clasts of vitrophyre, fragments of pumiceous and rhyolite-dacite rocks (Figure 7). Clasts are up to 0.5m, and angular to rounded.

Dacite/rhyolite volcanic rocks

The dacite-rhyolite rests conformably on the vitrophyre unit. Dacite-rhyolite rocks comprise two sub-units: a) a fine-grained, pink-red, quartz-eye rock, comprising quartz-biotite-felspar-clinopyroxene-apatite in a quartz-felspar groundmass; b) an upper grey, medium grained rock with coarse felspar phenocrysts (to 0.5cm), quartz, and subordinate clinopyroxene and biotite. This sub-unit is locally bedded. On the prominent hill immediately northwest of the microwave tower, the contact between the two sub-units is clearly visible.

Mafic dikes

There are two types of mafic dikes, a) a massive red-brown, fine-grained, vesicular mafic unit; b) dark green, fine- to medium-grained intermediate unit. Both dike types are undeformed. The fine-grained mafic dikes intrude the felsic extrusive (Figure 8) and granitic intrusive rocks, and are oriented along the trend of the belt, in the range 130°-160°. Microscopically, these dikes comprise quartz-felspar-biotite-clinopyroxene±amphibole. The pyroxenes are few and altered, but were probably aegirine-augites. Chilled margins are present (Figure 9). The intermediate dikes are similarly orientated, undeformed, are associated with porphyries, and may be correlative with them. Microscopically, these dikes show a propylitic alteration assemblage of epidote-carbonate-sericite, and probably represent hypabyssal microdiorites.

Mafic lavas (including fragmental units)

Mafic lavas comprise black to dark green, highly vesicular to massive basaltic / basaltic-andesite flows which appear to rest unconformably on the granites (cf. Spencer et al., 1985 who suggested a thrust contact) in the northernmost part of the tenement area, and as inliers in the alluvial 150 plane. Minerals in the mafic lava include felspar laths-calcic clinopyroxene-olivine, and additional micro-biotite-orthopyroxene-carbonate-titanite-brown glass. The presence of olivine and interstitial brown glass are indicative of olivine tholeiites. The base of these lavas includes a fragmental unit (Figure 10). These lavas are not cut by dikes or quartz veins which affect the sediments and the granites, thus are undeformed, and may represent the youngest volcanic rocks in the area. It is possible that this volcanic event was synchronous with the mineralization, a relationship which would need testing with isotopic dating methods.

Mafic agglomerate/lahar

Mafic agglomerates are part of the mafic volcanic rocks. The agglomerate (Figure 11) comprises primarily large mafic clasts up to 50cm in size, and subordinate felsic clasts in a coarse-grained, primarily mafic matrix. The agglomerate is restricted to the northern part of the tenement area near the Interstate Highway, and may represent a lahar.

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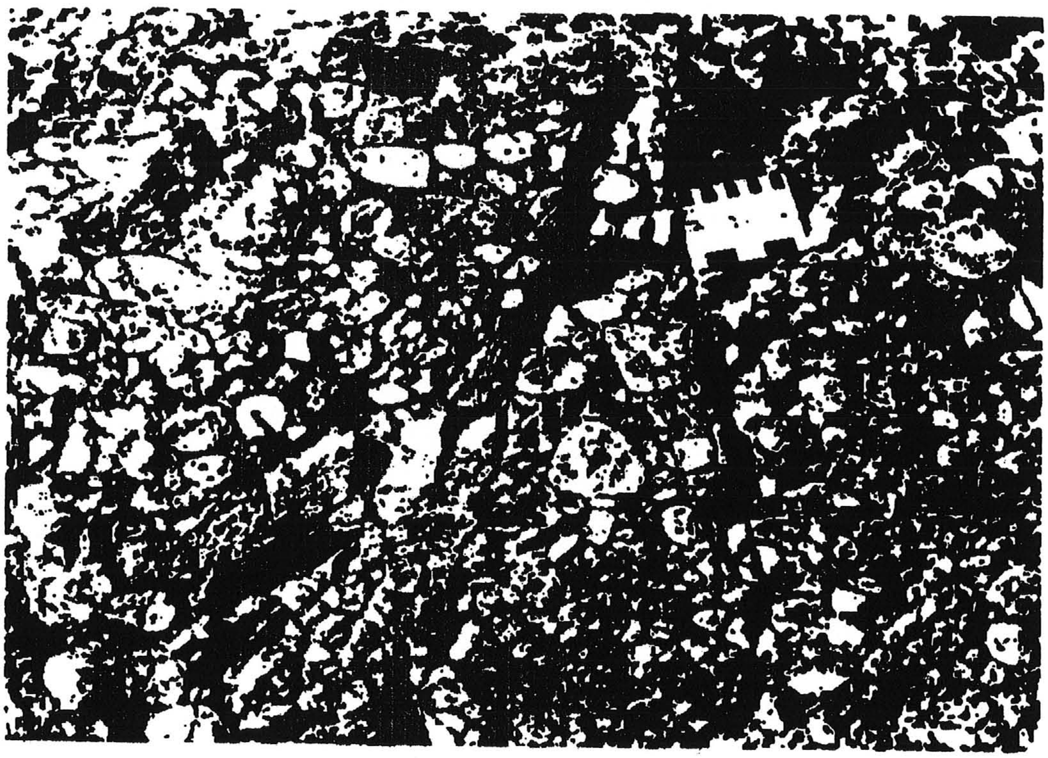

Figure 3

Coarse pebble conglomerate of vein quartz. This is a part of the siltstone-sandstone package of immature sediments. This outcrop is from the northern domain. Note the azurite and malachite float.

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Figure 4

Flow banded rhyolite in the southeast domain, near Microwave Tower.

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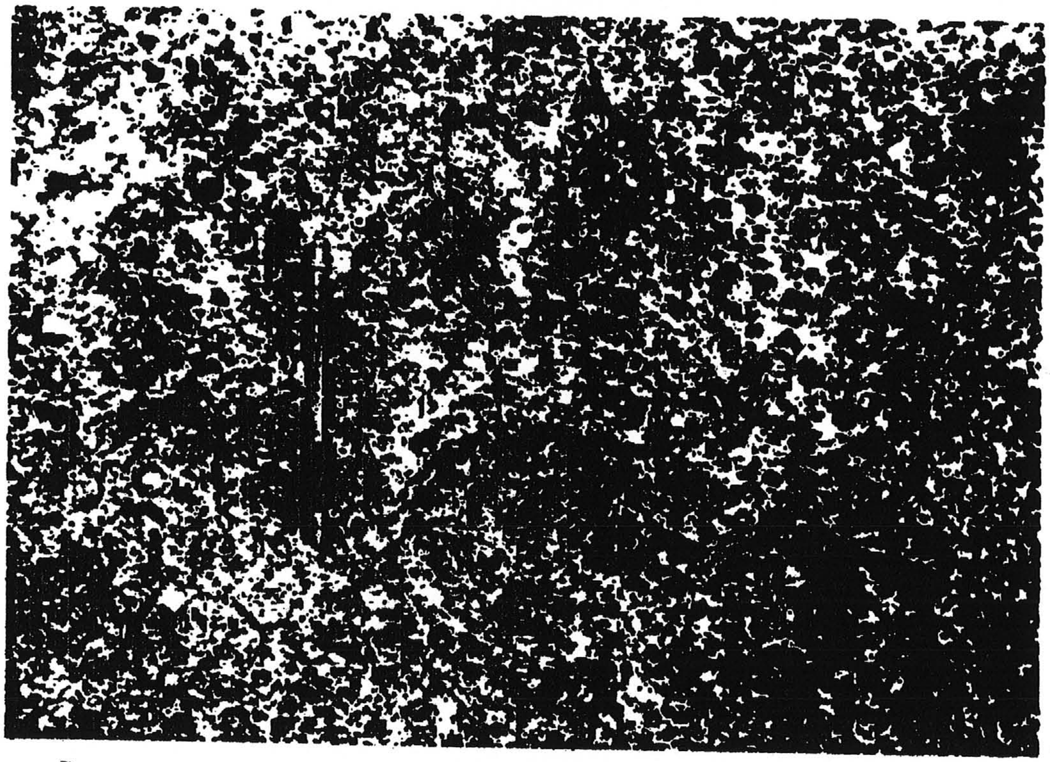

Figure 5

Spherulites in flow banded rhyolite, southeast of the Microwave Tower, southeast domain.

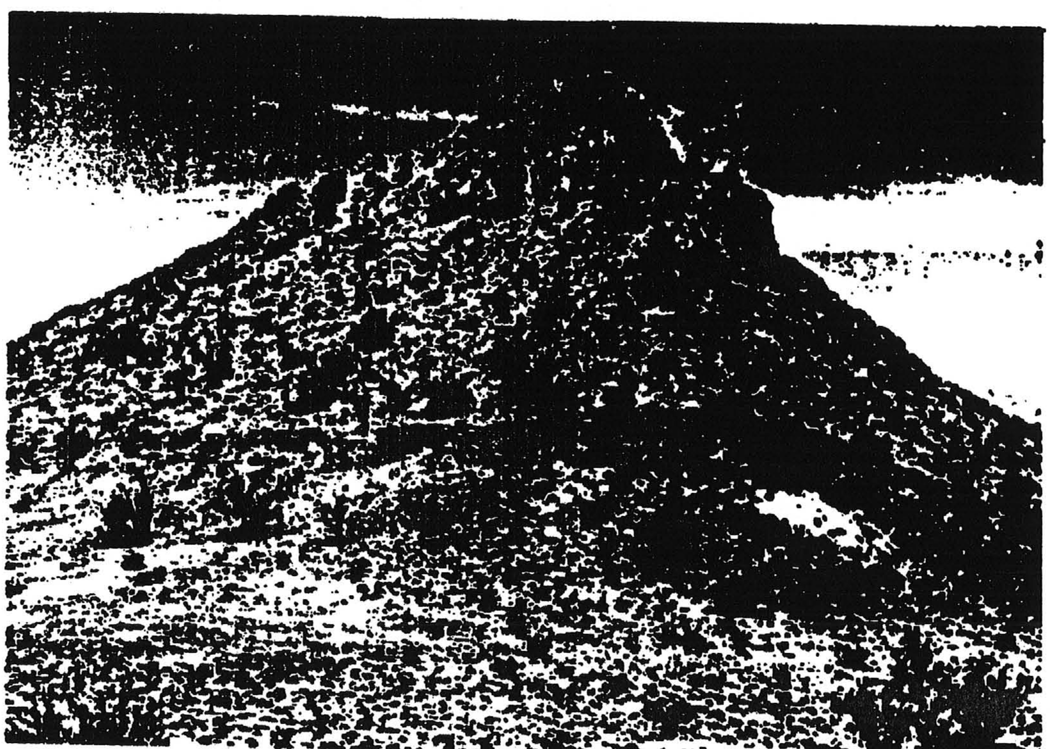

Figure 6

View looking northwest, of the vitrophyre unit, as black blocky outcrops dipping beneath pink rhyolite-dacite.

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Figure 7

The volcanic fragmental rock containing fragments of pumiceous and rhyolite-dacite rocks. 160

Figure 8

Looking west in the southeast domain (Eagletail Mountains), a mafic dike parallel to a fault in the rhyolite fragmental rock.

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Figure 9

Cross-cutting undeformed mafic dike showing chilled margin. This dyke in the northern domain is intrusive into granite.

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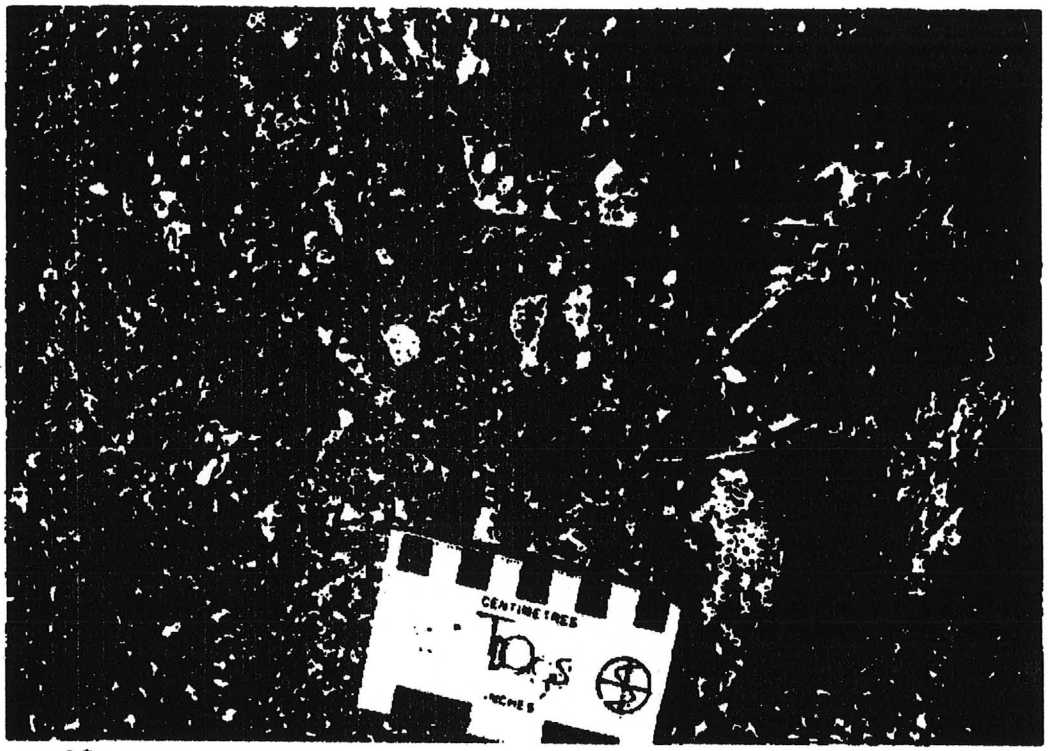

Figure 10

Fragmental unit at the base of the mafic lavas, near their contact with underlying granite.

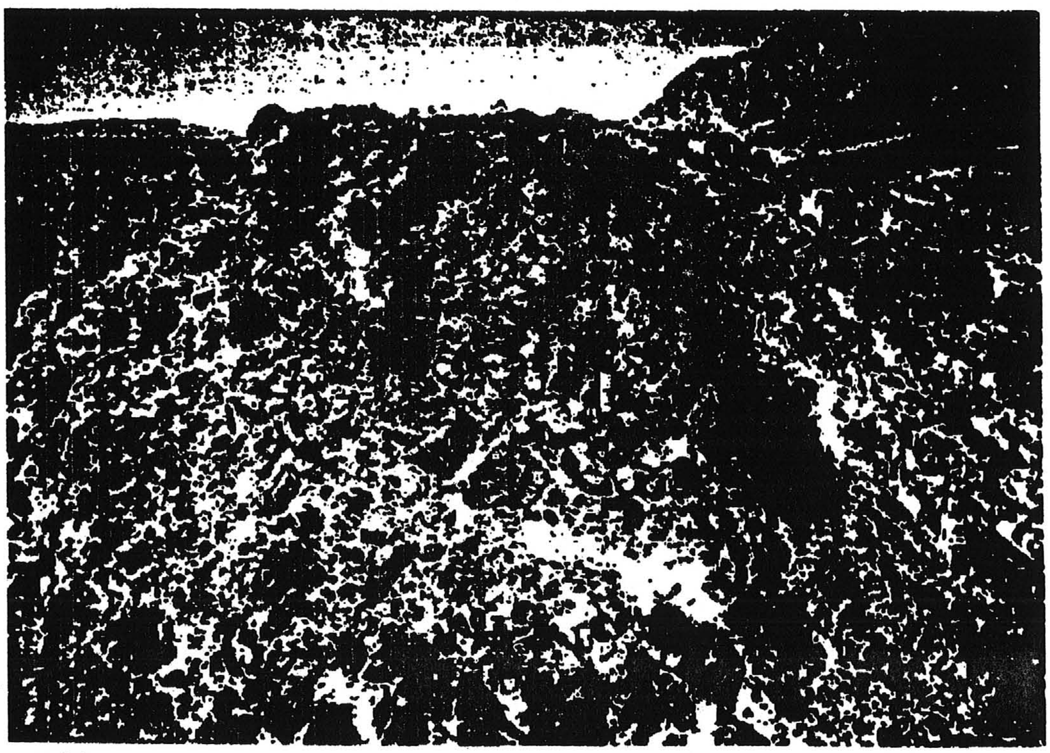

Figure 11

The agglomerate comprising large mafic clasts up to 50cm in size, and subordinate felsic clasts in a coarse-grained, primarily mafic matrix. Near the Interstate Highway.

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STRUCTURAL GEOLOGY

Bedding-parallel slip features in the sediments

The contact between granite and overlying bedded siltstone and sandstone sediments on Copper Mine Hill comprises a zone about 2m wide of intensely foliated siltstones about 2m above the unconformity between granite and overlying conglomerate of granite clasts. A foliation in the sediment has well developed curving fabrics and ramp-flat geometries suggesting reverse (thrust-type) motion with apparent movement directed towards the northeast (Figure 12). This deformation cannot be directly related to the southward thrusting on the Jurassic Maria Thrust belt (Spencer and Reynolds, 1990) or the Tertiary extensional deformation, and the feature is recognized in only one locality. The origin of this structure is not known although its timing is clearly prior to normal faulting as the bedding-parallel slip zones are cut by normal faults.

Faulting

Faults in the northern domain are normal, northeast-dipping and related to the major mid-Tertiary extensional deformation of the area. The faults are listric and merge with the granite mylonite. Fabrics in the granite comprise both a fracture cleavage (Figure 13) and, locally, a mylonitic foliation. Both dip to northeast (Figure 14). Mineral lineations on the mylonite trend towards about 060° (Figure 15). No unambiguous kinematic indicators have been recognized in the granites. An important fault on the northeast side of Copper Mine Hill is more or less coincident with the slope of the hill. The listric faults have a geometry which results in major back rotation of the strata which now dip to the southwest (Figures 16 and 17). Figure 18 is an example of small-scale faults adjacent to the old copper working on Copper Mine Hill.

Faults in the southeastern domain are mostly steeply southwest dipping (Figure 19), with some subordinate northeast-dipping faults (Figure 20). The southwest-dipping faults have normal movement with highly variable vertical displacement, from a few metres to tens of metres. At least one fault has a small reverse movement. The main faults are invariably accompanied by sympathetic parallel faults, in which a spaced cleavage curves into the fault plane. In contrast to the fault pattern in the northern and central domains, the faults are steep, non-listric and dip south rather than north. These faults are brittle structures, and are locally associated with mafic dikes.

The change in the dip direction of faults between the Eagletail and southern Little Harquahala Mountains, together with a transitional lithological change, confirms a major orthogonal corridor through the central domain. Faults recognized in the central domain include one 080°-trending fault in a small copper working and some south to southwest dipping (?antithetic) faults on Stockwork Hill. Faults from the northern domain appear to curve into an 080°-trend into the central zone.

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Possible transfer structure between Eagletail and southern Little Harquahala Mountains

The style of mid-Tertiary extension deformation changes (Figure 2) between listric faults with large displacements linked to recumbent detachments which favors exposure of midcrustal rocks in the Little Harquahala Mountains (the northern domain), and, in the Eagletail Mountains (the southeastern domain), steeper partly listric faults which dismembered the upper crustal rocks, but lack exposure of the midcrustal rocks. To accommodate this change in deformation a transfer zone is a geometric necessity. At BRX the transfer zone is about 5km wide comprising structures which trend between about 060° and 080°, intrusive porphyries which are absent throughout the rest of the area and the stockwork mineralization. The sediment hosted pyrite-related mineralization and the Eagletail stockwork are on the margin of this transfer structure.

Significance of transfer zones as a control on mineralization

Mid-Tertiary extension in Arizona was directed to about 060°, and transfer zones would be similarly oriented. We are aware of no clear statement in the literature that known tectonic lineaments such as the Holbrook and Bright Angel lines (Figure 21), or that the 060°-trending lines of both porphyry copper (Figure 21) and hydrothermal vein-type mineralization (Figure 22) are transfer faults. However, 060° appears to be a very important direction.

The BRX prospect is not along a named lineament, lying midway between, but parallel to the Holbrook and Bright Angel lines. However the lineament passing through BRX extends in both directions as a break in topography and with geological features such as the belt of Tertiary volcanic rocks in Peeples Valley aligned along the lineament.

Summary

Literature on the southern Little Harquahala Mountains has emphasised thrusting of Jurassic age directed southward (Spencer et al., 1985). We can find no evidence of southward directed movements and most of the structures recognized by us are related to mid-Tertiary extension. The faults are listric and, in the northern domain, responsible for the back-rotation of the strata. A transfer zone (central domain) separates contrasting styles of deformation between the northern and southeastern domains.

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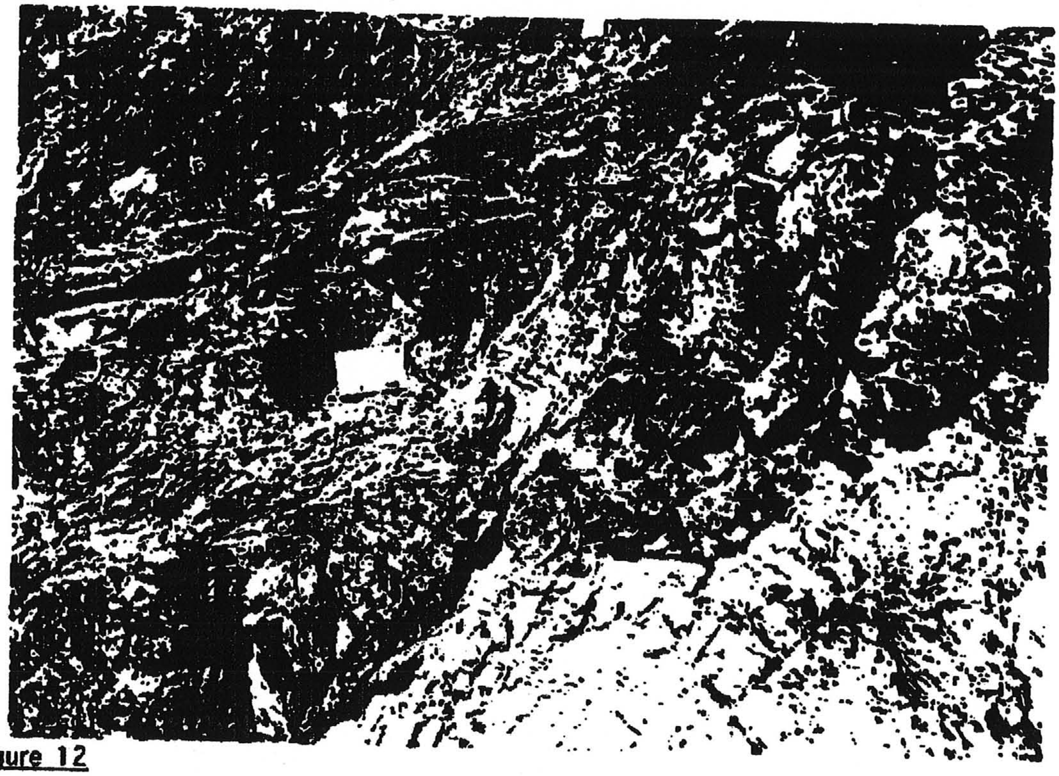

Figure 12

Reverse motion ramp-flat slip features in siltstone immediately above the granite-conglomerate of the unconformity, northern domain. Motion is north directed.

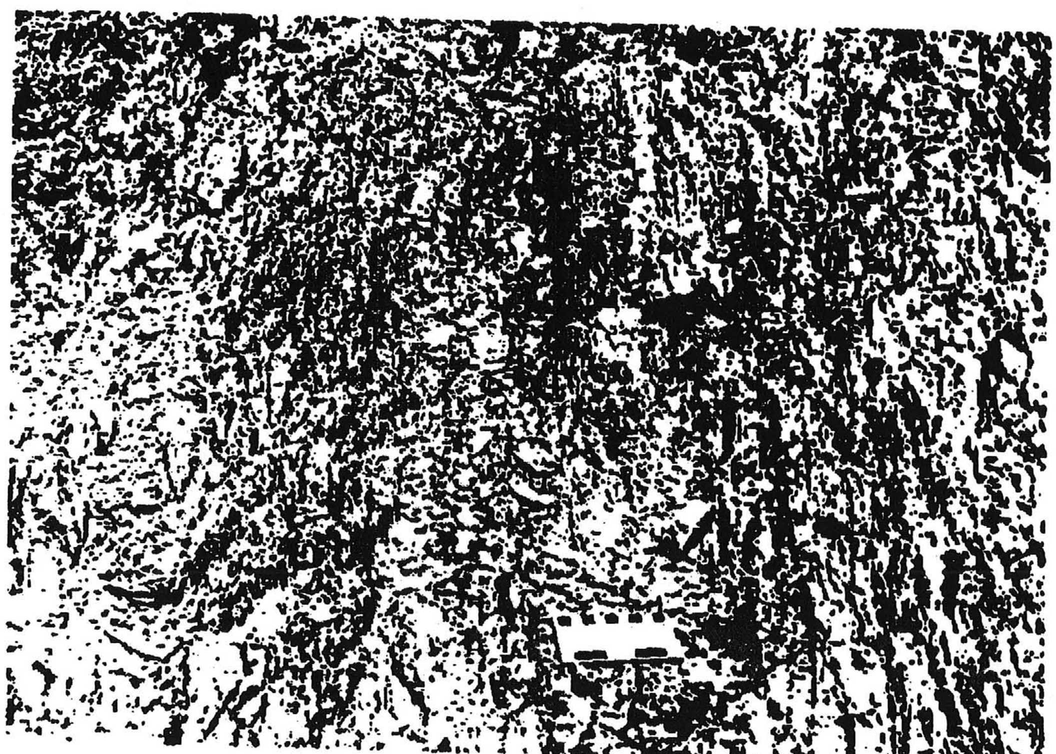

Figure 13

Fracture cleavage in granite, Copper Mine Hill.

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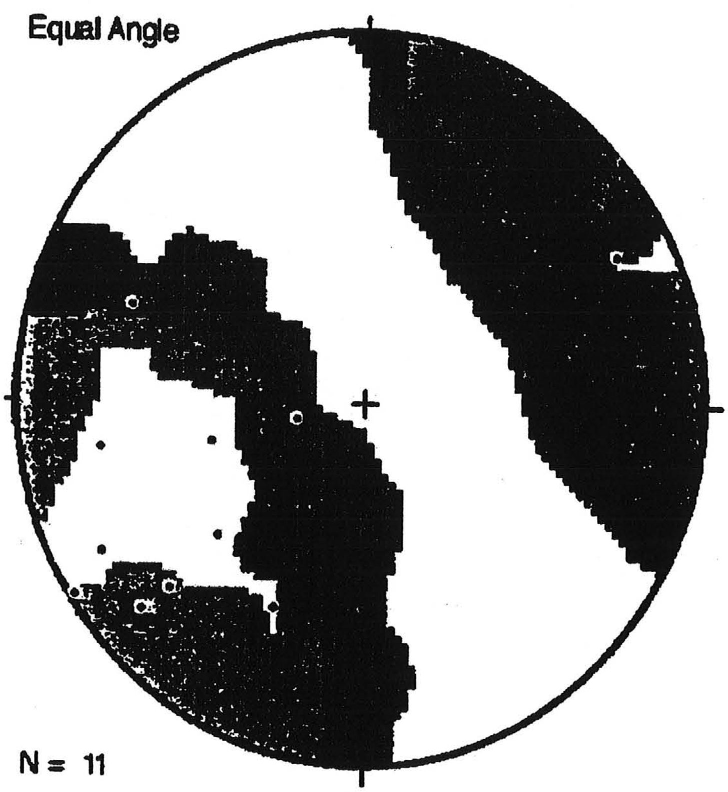

Figure 14

Stereonet of poles to fracture cleavage and mylonite in the granite.

167

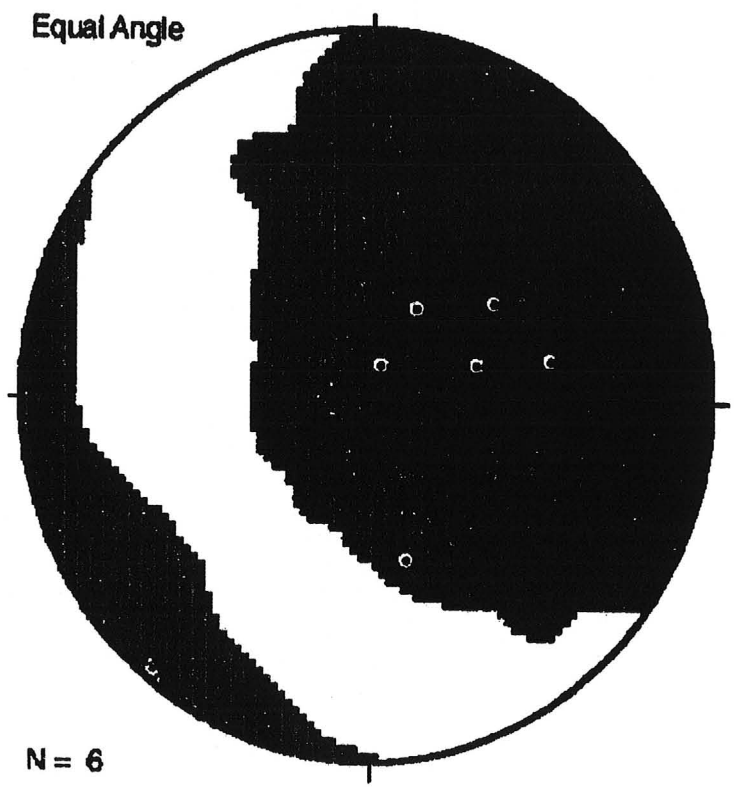

Figure 15

Stereonet of lineations measured in the BRX project area.

168

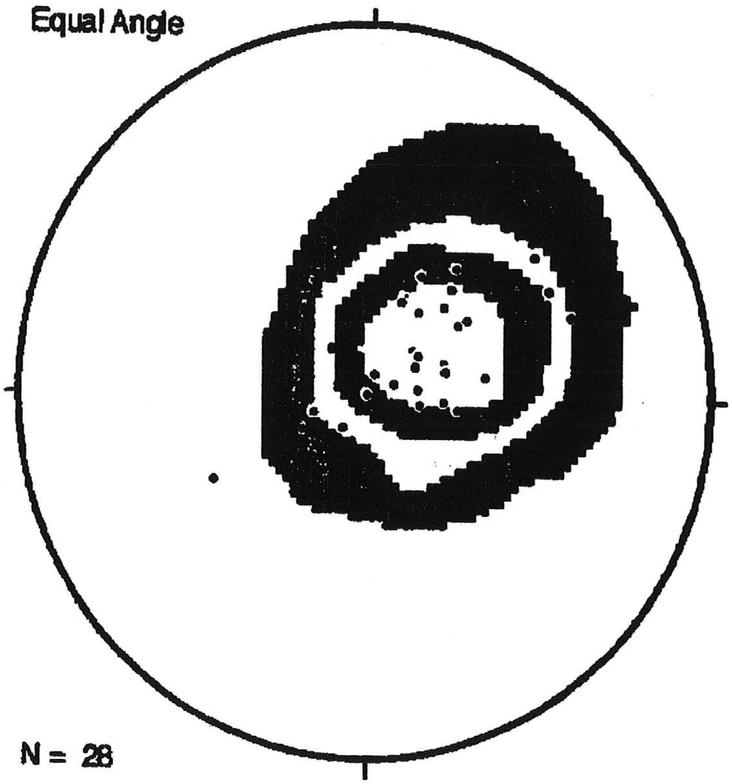

Figure 16

Stereonet of poles to bedding in back-rotated portion of the northern domain.

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Schematic cross-section: southern Little Harquahala Mountains

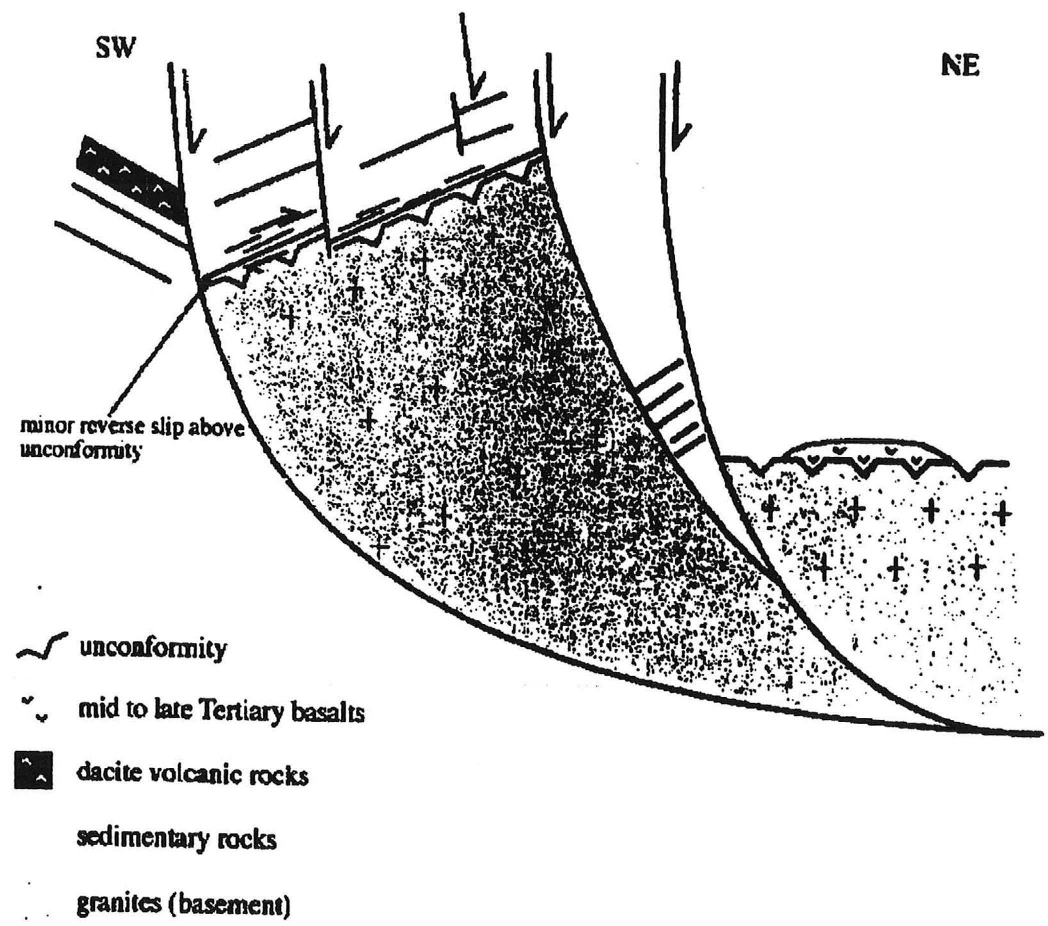

Figure 17

Diagrammatic structural cross-section through the BRX project area.

170

Figure 18

An example of small-scale listric normal faults adjacent to the old copper working on Copper Mine Hill.

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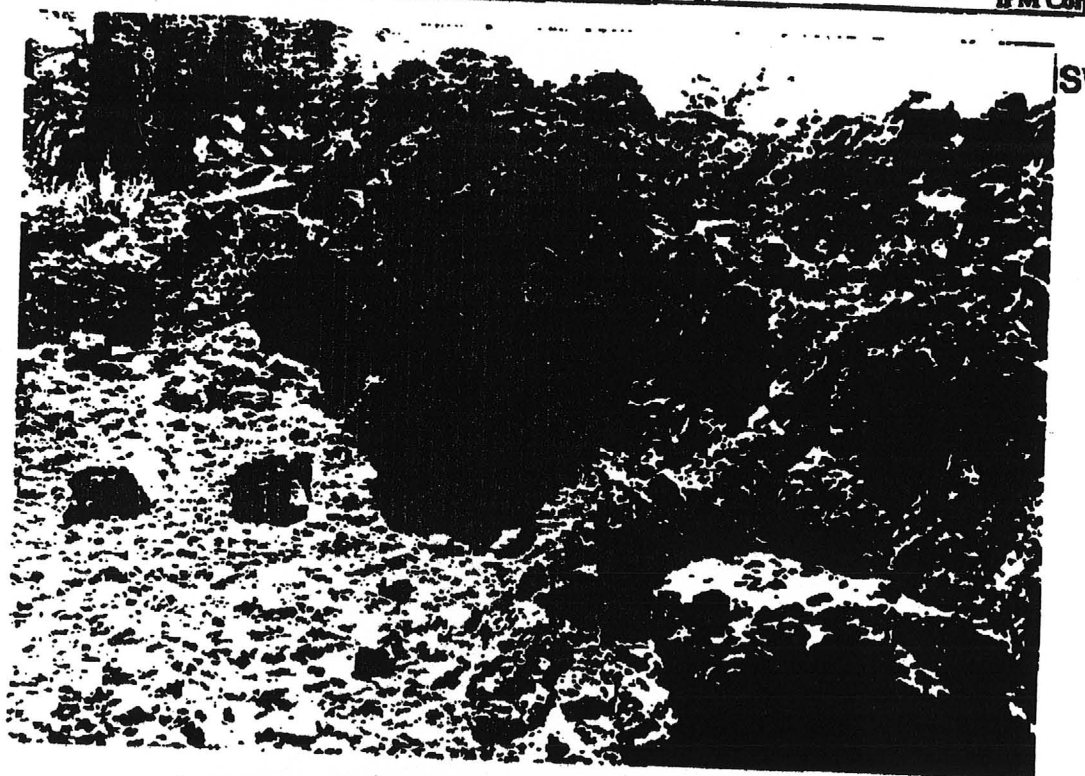

Figure 19

Two photographs showing southwest dipping faults in the southeastern domain (Eagletail Mountains).

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Figure 20

Northeast-dipping fault on the prominent ridge immediately north of the Microwave tower, southeast domain, Eagletail Mountains.

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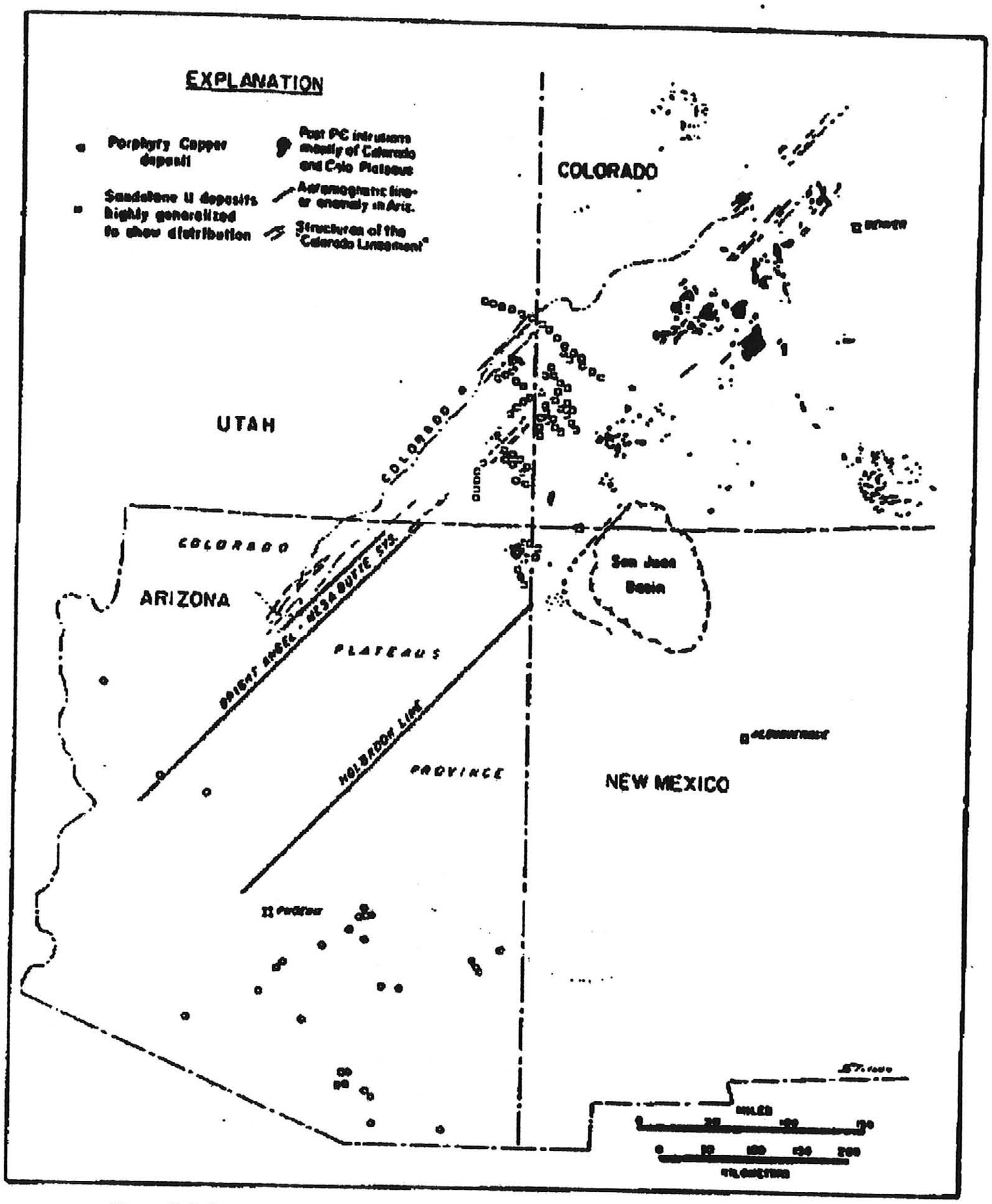

. Map of Arizona and adjacent states showing the trends of magnetic lineaments of the Colorado Plateau, the intrusions of the Colorado Mineral Belt, the trend of boundaries of the San Juan Basin, and the porphyry copper deposits of southeastern and central Arizona. Basement rocks of the Colorado Mineral Belt are of about the same age and nature as the rocks exposed in basement between the Bright Angel and Holbrook lines in central Arizona (see, Figs. 3 and 5). Sandstone Uranium deposits of the Colorado Plateau lie close to or along projections of the linear magnetic anomalies.

Figure 21

Lineaments and porphyry copper deposits of Arizona and adjacent States. From Titley (1981).

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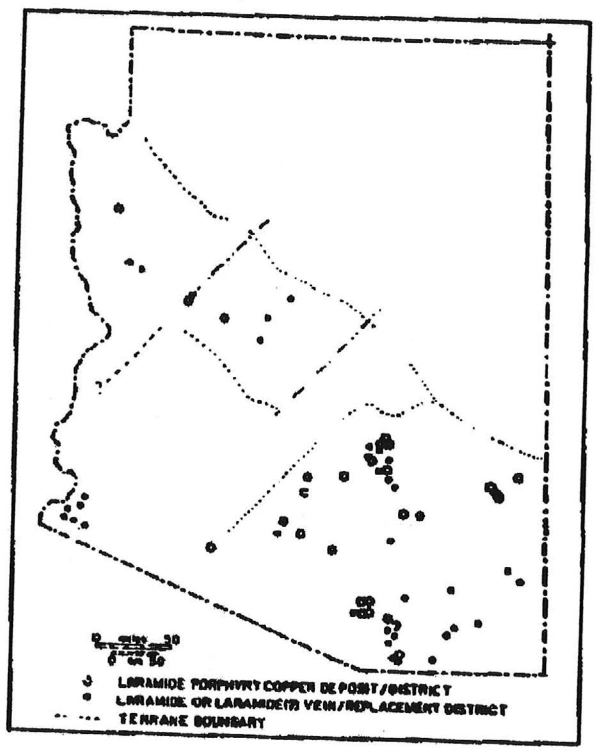

Figure 22

Distribution of vein/replacement (hydrothermal) deposits in Arizona. Note the 060°-trending lines of these deposits. From Titley (1986).

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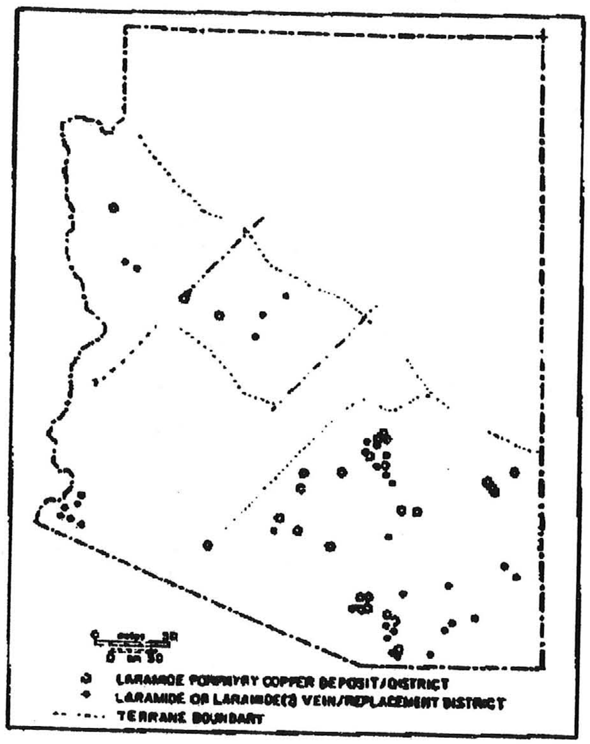

Figure 22

Distribution of vein/replacement (hydrothermal) deposits in Arizona. Note the 060°-trending lines of these deposits. From Titley (1986).

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MINERALIZATION

Epithermal stockwork

Epithermal-type stockwork mineralization is identified within rhyolitic rocks in two localities: a) at the south end of the southern Little Harquahala Mountains (Stockwork Hill) and b) at the west end of the Eagletail Mountains in the southwestern domain (Eagletail Stockwork). The stockwork development at Stockwork Hill (Figure 23) is substantially larger and better developed than the Eagletail Stockwork (Figure 24). Both localities show classic epithermal-type textures with crustiform and locally colloform chalcedony, and cockade quartz. Alteration includes felspar breakdown to clays, alteration-related brecciation, and hydrothermal brecciation. Visually the stockwork has an appearance similar to that of highly mineralized rock seen in epithermal mines such as Waihi, New Zealand.

Veining at Stockwork Hill is most intense on the east and northern side of the hill, passing into intense, almost micro-scale veining, and alteration-brecciation, on the north side of the hill. Pyroclastic-fragmental rocks drape the stockwork volcanic rocks on the northwestern side of the hill. Veins show a variety of orientations (Figure 25) with two clusters dipping very steeply to 190° and at moderate to steep angle to the 250°. The orientation of the drape pyroclastic-fragmental unit, the strike of the mountain range, and the prominent vein set dipping to 250° at about 50° suggests that the exploration drilling should be oriented at about 060° at an angle of 60°.

Fewer veins at the Eagletail Stockwork result in a smaller stereographic data base (Figure 25). The available data are similar to Stockwork Hill although the southerly dipping veins are less prominent. Drilling should be oriented in the same way as at Stockwork Hill.

Stockwork Hill is about 300m in length and surface outcrop demonstrates a continuity in the veining over that distance. However, these epithermal ore bodies are vertically zoned, and drilling is required to determine the depth extent of mineralization.

Alteration minerals associated with the rocks of the area, including Stockwork Hill and Eagletail Stockwork of biotite-chlorite-epidote-?smectite-carbonate-white mica, together with quartz vein textures of crustiform, colloform, chalcedonic and banded types, are indicative of low sulfidation epithermal systems. These observations are based on a very limited dataset, and further observational work from drill core into the stockworks, and from the characteristics of the alluvial area, are required to confirm that the epithermal mineralisation is a low sulfidation system. This is important because the style of epithermal deposit will govern significantly the exploratory methods adopted. The principal characteristics of low and high sulfidation systems are summarized in Table 1 where observations relevant to BRX are indicated. 177

Quartz vein copper

Quartz-copper (now malachite and azurite) veins are well developed in the northern domain, they are locally present in the central domain but are absent in the southeastern Eagletail domain. In the northern domain veins occur commonly in granites, but also in the siltstone-sandstone unit. The largest old mine working appears to be related to a fault cutting the contact between granite and the sedimentary unit. In the granite the quartz-copper veins trend to about 060°, but veins along the granite-sediment contact and within the sediment are oriented at about 160° along the strike of the belt.

In the central domain, the quartz vein-Cu mineralization is in porphyry and associated with south-dipping faults.

Sediment-hosted gold-PGE

The siltstone-sandstone rocks of the central domain, and to a lesser extent the same rocks of the northern domain, have irregular but commonly developed pyrite, and some have a fine microscopic quartz veining. These rocks have been sampled prior to this consultancy and some samples have yielded Au and PGE grades at economic levels. This is an unusual style of mineralization for precious metals although it is common for base metals. There is currently some discussion about the reproducibility of these results (see Recommendations), but if these rocks prove to be mineralized with PGEs and Au they will represent a new style of economic deposit.

Several rock types appear to be mineralized, siltstones are the most commonly mineralized, and sandstone, conglomerate and shale are less well mineralized but still return significantly elevated assays. Controls on the mineralization are difficult to determine. The samples showing elevated results were all collected from back rotated near normal faults. The micro-veining suggests that a hydrothermal fluid altered the rocks.

Alluvial

We were asked to examine the results of the alluvial drilling. However, an analysis of the drilling results proved difficult due to the high variability in the results and problems generating contour plots. Much more work on the directions of continuity of mineralization is required.

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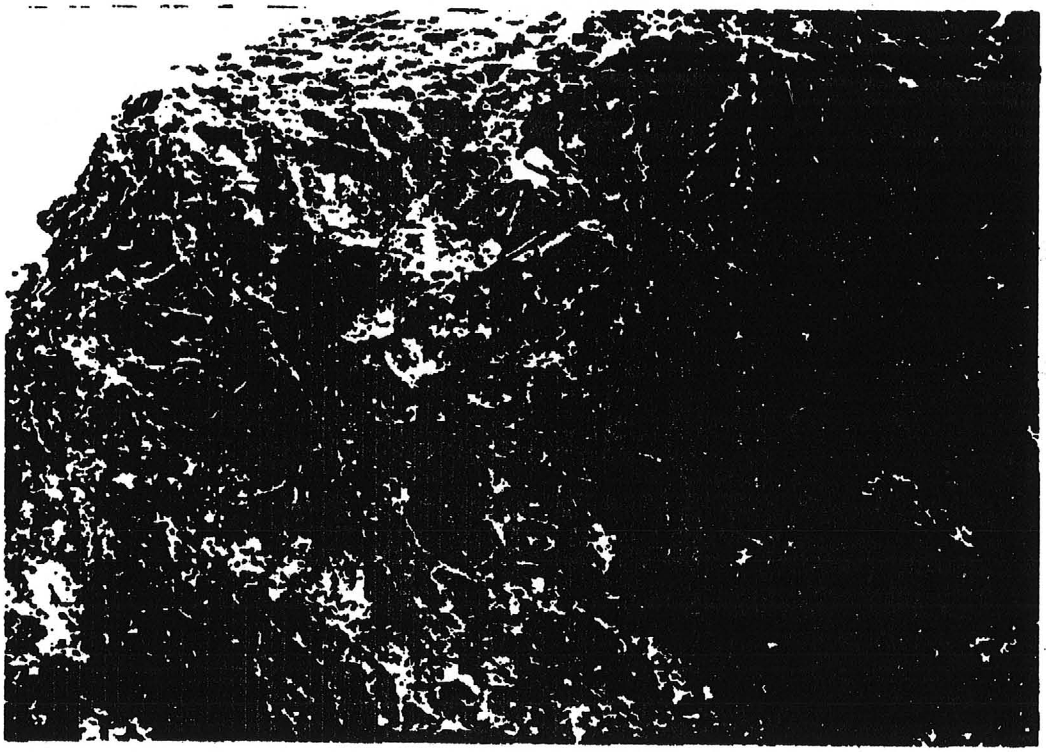

Figure 23

Stockwork veining in spherulitic rhyolites. The veins comprise chalcedony and quartz and have crustiform and cockade textures typical of epithermal deposits.

Figure 24

Stockwork veining in felsic volcanics of the southeast domain, Eagletail Mountains.

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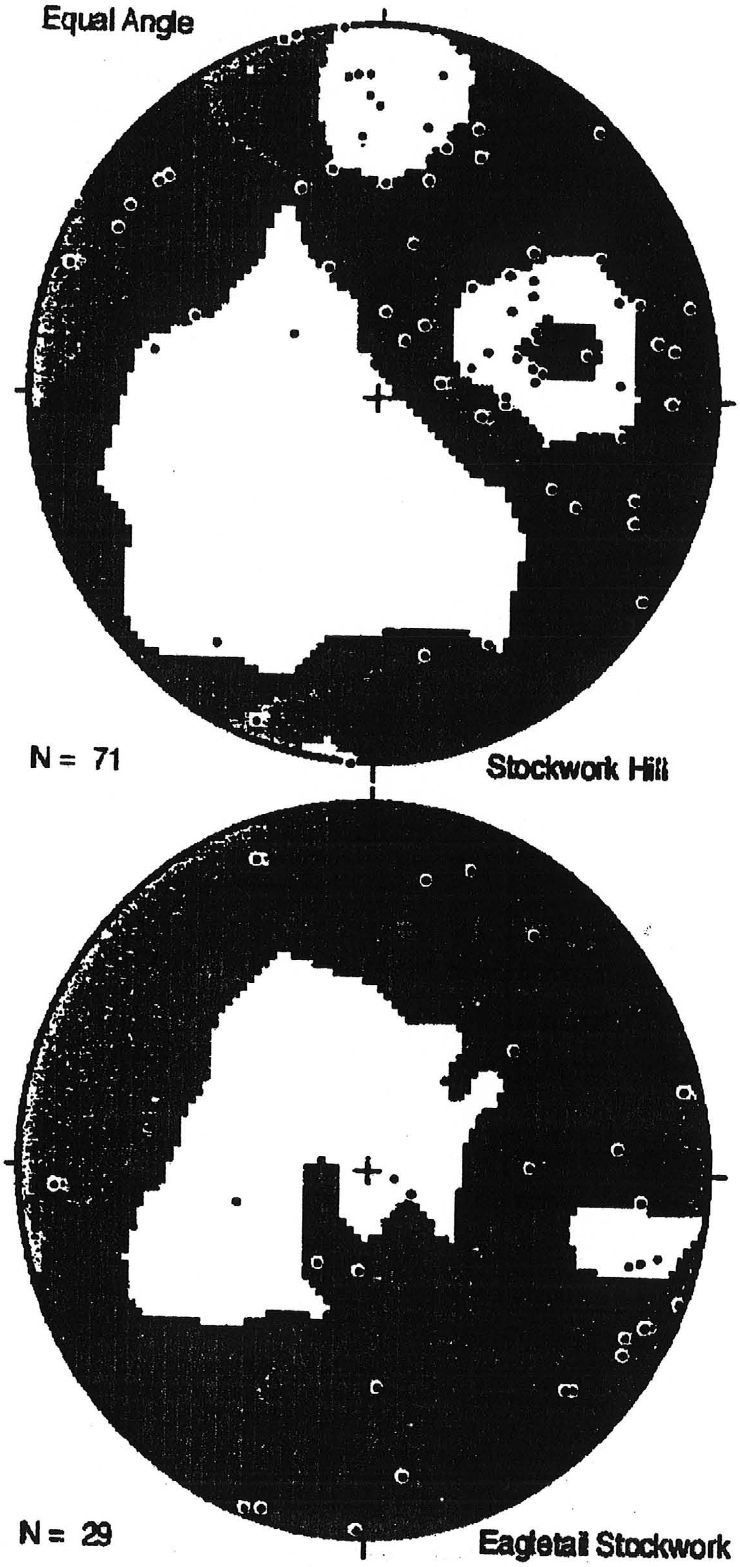

Figure 25

Stereonet of poles of veins in the two stockworks.

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Table 1

Summary of characteristics of low and high sulfidation epithermal systems

Modified from White and Hedenquist (1995).

✓ = feature at BRX indicating a low sulfidation system.

Table 1A

Form of Deposit

Low Sulfidation	High Sufidation
adularia-sericite ✓	acid sulfate
open-spaced veins dominant ✓	veins subordinate, locally dominant
disseminated ore minor	disseminated ore dominant
replacement ore minor ✓	replacement ore common
stockwork ore common ✓	stockwork ore minor

Table 1B

Gangue Mineralogy

	Low Sulfidation	High Sulfidation
Quartz	ubiquitous ✓	ubiquitous
Chalcedony	common ✓	common
Calcite	common ✓	absent
Adularia	common	absent
Illite	common	uncommon
Kaolinite	rare (except as overprint)	common
Pyrophyllite-Diaspore	absent (except as overprint)	common
Allunite		common
Barite	common to very minor)	common

Table 1C

Ore Minerals in Gold-Rich Ore

	Low Sulfidation	High Sulfidation
Pyrite	ubiquitous ✓	ubiquitous
Sphalerite	common	common
Galena	common	common
Chalcopyrite	common	common
Enargite-Luzonite	rare	ubiquitous
Tennantite-Tetrahedrite	common	common
Covellite	uncommon	common
Stibnite	uncommon	rare
Orpiment	rare	rare
Realgar	rare	rare
Arsenopyrite	common	rare
Cinnabar	uncommon	rare
Electrum	common	uncommon
Native Gold	common	common

Table 1D

Hydrothermal Mineral Assemblage

Low Sulfidation	High Sulfidation
smectite	marcasite
illite/smectite ✓	kaolinite
illite	illite
chlorite/smectite	pyrophyllite
chlorite	dickite
biotite ✓	diaspore
amphibole	zunyite, topaz
mordenite	sulfur
laumontite	jarosite
wairakite	alunite
epidote ✓	
adularia	
calcite ✓	
quartz ✓	quartz
cristobalite	cristolalite
pyrite ✓	pyrite

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Table 1E

Geochemical Associations

	Low Sulfidation	High Sulfidation
Anomalously High	Au, Ag, As, Sb, Hg, Zn, Pb, Se, K, Ag/Au	Au, Ag, As, Cu, Sb, Bi, Hg, Te, Sn, Pb, Mo, Te/Se
Anomalously Low	Cu, Te/Se	K, Zn, Ag/Au

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RECOMMENDATIONS

1. Alluvial target drilling

At the moment the alluvial resource is open in four directions. Drilling to establish the extent of this deposit is arguably the most important requirement at this stage in the project. Following results of discussion with IPM staff, we support the suggestion that the complete tenement be drilled on a 1km grid, and, centred on the known alluvial resource two lines north/south and east/west be drilled out at a 500m spacing. Subsequent drilling will depend on the results of this reconnaissance drilling.

To test the depth extent of the mineralization we support the suggestion that one or more deep RC holes be drilled within the area of known mineralization. These holes should aim to reach 200m, although the exact depth required will depend on the results of logging the drill chips.

2. Drilling hard rock resource

There is a need to establish a hard rock resource, and a major drilling program aimed at specific targets is required. Drilling should be a combination of RC and diamond core drilling, core is especially important to characterize the nature of the mineralization, identify alteration and any zoning within the ore body. The priority targets in * ranking are:

5* Stockwork Hill epithermal-type mineralization (selected because of similarity to known deposits and proven surface continuity in the mineralization)

4* siltstone-sandstone-hosted gold and PGE in central domain (selected because of the high assays obtained on surface samples)

4* Eagletail Stockwork epithermal-type targets (selected because of similarity to known deposits)

2* all other siltstone-sandstone-hosted gold and PGE throughout the tenement.

Decisions regarding drilling targets have to be on-going and reflect the results of previous holes but should aim at maximising the projects impact by the generation of a resource and should not be too widely scattered around the prospect. Most hard rock drilling should be directed to 060° at 60°.

All drill results should be logged on site synchronous with drilling. Lithology, alteration, mineralization and structure should all be recorded in detail and entered in a suitable computer exploration database. Diamond core should be oriented and structural features (faults, veins, fractures etc.) logged prior to splitting and assaying.

3. Low Sulfidation versus High Sulfidation System

It is important to confirm the style of epithermal mineralisation, ie., low or high sulfidation system (Table 1). This can be achieved via the observation from outcrop samples, but more particularly from drill core samples and petrology of mineral gangue, hydrothermal mineral assemblage and ore mineral assemblage, and geochemical assemblage. These characteristics are summarized in Table 1.

4. Possible analytical and/or sampling problems

At the time of our geological mapping exercise there was considerable discussion about the assay results. In particular the PGE assays are not always reproducible and some laboratories were not able to detect any PGEs. Most effort to resolve this problem has been directed towards the quality of the assay. However, the largest group of samples, assayed to date, are the alluvial auger drill samples. This material would have a very large nugget effect, the sample assayed is very small and may not be perfectly homogenized. Testing of the analytical methods on the hardrock material which is expected to have a smaller nugget effect may assist problem solving.

It is possible that a significant contribution to the problem of non-reproducibility in the alluvial samples is the nugget effect. We recommend that IPM engage the services of a geostatistical consultant familiar with the problems of sampling, sample handling and splitting, and generating homogenous samples. This would be a short-term consultancy which could establish a set of standard procedures to be followed throughout the life of the project.

5. Computer handling of exploration data

To assist with the handling of exploration data (recommendation 2) and the geostatistical analysis of sampling problems, especially the nugget effect (recommendation 4) a suitable easy to use computer package is required. The package should handle flitch (level) plans and sections in selected search windows, contours plots, drill log data including structural features and variographic analysis. Unfortunately, there are no suitable packages for IPM's favored system, the Macintosh. Suitable packages are: Vulcan, Medsystems, Datamine, Micromine and Surpac. In our experience, Micromine is one of the simpler to use and cheaper packages, and would be suitable for the project at this early stage. Micromine data can be readily transferred to a larger more sophisticated system at the time of mine design.

6. Regional target generation

Mid-Tertiary extension in Arizona was directed to about 060°, and transfer zones of that orientation may include the Holbrook and Bright Angel lines and the 060°-trending lines of both porphyry copper and hydrothermal vein-type mineralization. The BRX prospect is along an unnamed 060°-trending lineament which may be the fundamental control on the location of mineralization. Future target generation in Arizona should concentrate on the definition of transfer zones and their coincidence with a geology similar to that at BRX. This will require a

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major review of the regional tectonics, volcanology and geophysics, with follow-up field work and target sampling.

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APPENDIX 1

Samples for thin-sectioning and petrographic analysis. Localities of all samples are given on the Accompanying Map.

001	Spherulitic rhyolite, southeastern domain
003	Dacite-rhyolite, southeastern domain
004	Vitrophyre, southeastern domain
005	Mafic dike, southeastern domain
008	Granite, central domain
009	Mafic lava, northern domain
011	Quartz porphyry, central domain
014	Mafic dike, central domain
015	Flow banded rhyolite, southeastern domain
033	Granite, medium grained, central domain
036	Pyritic sandstone, central domain
038	Pyritic siltstone, central domain
048	Stockwork quartz vein, Stockwork Hill, central domain
62-42A	Stockwork quartz vein, Stockwork Hill, central domain
62-44A	Dacite, northern domain
62-45A	Granite, coarse grained, northern domain
62-46A	Mafic lava, northern domain

BRX Petrography Report

Rocks of the Black Rock Project area comprise tholeiitic mafic, and felsic extrusive volcanic rocks, felsic intrusive rocks or monzogranites which are closely related to the porphyries in the area, and mafic dikes in the southern domain. Many of these rocks are altered, variably showing potassic and propylitic alteration, sericitic and carbonate alteration. The granite and porphyry samples have similar mineralogies and textures, and are likely to be related genetically. The host rocks to mineralization at Stockwork Hill, and the spherulitic and flow banded rhyolites of the northern Eagletail Mountains are interpreted to be part of the same sequence. The rhyolites of the central domain are spherulitic, and may well be part of the same volcanic sequence (cf. Spencer et al., 1985), rather than an older (Jurassic) volcanic sequence. The sedimentary sequence is largely volcaniclastic, and possibly derived from the felsic lavas. The mafic lavas of the northern domain are distinctly fresher and less altered than the felsic volcanic rocks and intrusive rocks, indicating that they represent the youngest part of the stratigraphy. The felsic volcanic and intrusive rocks all show varying degrees of alteration, related to mineralisation.

Mineral percentage estimates given below are "eye-ball" estimates only, and not the result of point counting.

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001 Spherulitic Rhyolite, southeastern domain

devitrified spherulites and groundmass	75%
quartz	20%
felspar (plagioclase)	2-3%
clinopyroxene (augite)	<1%
biotite (oxy-biotite)	<1%
opaques	minor
apatite	minor
zircon	trace
titanite	trace
carbonate	trace
crystallites (rutile)	trace

The groundmass comprises radiating acicular and concentrically banded spherulites, devitrified glass and micro-crystalline quartz, and areas of crystal accumulation in the form of microdiorite. Perlitic textures and micro-fracturing are common within the groundmass. Quartz phenocrysts are mostly embayed, anhedral to subhedral, and the felspars, which are principally plagioclase, contain melt and glass inclusions. Biotites are high Fe-bearing. Clinopyroxenes are found within the spherulites.

003 Dacite-Rhyolite, southeastern domain

plagioclase±quartz lath groundmass	65%
felspar (zoned plagioclase)	20-25%
biotite (+ alteration rims)	3-5%
quartz, zoned and embayed quartz	<3%
opaques	<1%
clinopyroxene (?augite)	<=1%
Fe-oxides	minor
apatite	minor

Biotite replaces earlier minerals, possibly clinopyroxenes, and both the biotites and clinopyroxenes contain Fe-rich alteration rims. Crystal content is much greater than sample 001. The groundmass is a mass of unoriented, mostly felspar laths as expected of a volcanic rock intermediate composition.

004 Vitrophyre, southeastern domain

brown devitrified glassy matrix	60%
felspar (plagioclase, minor alkali [sanidine])	25-30%
biotite	5%
quartz	3-5%
clinopyroxene (augite)	2-3%

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opaques	<1%
fine epidote clusters	minor

This sample is biotite-rich, with some biotite present as rims around clinopyroxene. The original flowage textures are evident in the groundmass.

005 Altered Basaltic or Tinguaite Dike, southeastern domain

groundmass of felspar, clinopyroxenes±amphiboles±quartz	80-85%
Fe-oxides	5-10%
quartz	3-5%
mica (fine biotite)	<1%
felspar	<1%
clinopyroxene (augite)	<1%
olivine	minor

The groundmass is crystalline, rich in oxidising opaques which appear to have replaced pyroxenes, felspars±quartz±epidote. The sample is fine grained and minerals largely unidentifiable, excepting some plagioclase, mica and pyroxene. The pyroxene may have been aegirine-augite. The felspars are zoned, have reaction rims, and quartz is fine-grained, strained and fills amygdales. This rock is transitional between a phonolite and a trachyte (tinguaite), thus has indications of being part of an alkaline suite of rocks.

008 Sericitic-altered Granite, central domain

Groundmass of sericite and carbonate, felspar pseudomorphs and mica	55-60%
quartz	15-20%
felspar (plagioclase and alkali)	15-20%
mica (biotite pseudomorphs and muscovite)	1-2%

Much of the primary mineralogy has been variously destroyed due to sericitic and carbonate alteration of felspars. Micas are also partially destroyed and remnant white micas remain. Many of the quartz phenocrysts are broken or resorbed. Large embayed and fractured quartz phenocrysts give the intrusive unit a volcanic-like appearance. Phenocrysts of plagioclase and alkali felspars (microcline and orthoclase) are sausseritized and sericitized, and occur as ghosts in the groundmass. The felspars have partially altered to carbonate. There are many pseudomorphs after biotite which have altered to white mica, and the complete destruction of minerals to (?smectite) clays. This suggests some potassic alteration. The granite is medium grained and sericitic.

009 Olivine Tholeiitic Basalt, northern domain

plagioclase phyric laths	50%
clinopyroxene, some twinned	25-30%
brown glass	10-15%
olivine	2-3%
carbonate	1%

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biotite	minor
orthopyroxene	minor
titanite	trace

Completely crystalline plagioclase-clinopyroxene-olivine rock with 100% phenocryst content. Some of the pyroxenes have Fe-alteration rims, appear calcic and may be closer to a pigeonite composition. The olivines are zoned. This sample is much fresher than the other rocks, with less alteration. The brown glass in the matrix is a good indicator of tholeiites.

011 Sericite-Carbonate-altered Quartz Porphyry, central domain

groundmass of sericite and carbonate, felspar pseudomorphs and mica	45-50%
quartz	25-30%
felspar (plagioclase and alkali)	15-18%
mica (muscovite)	1-2%
opaques	1%
?fine pyroxene±amphiboles	minor

Embayed quartz phenocrysts, plagioclase felspar, carbonate, opaques, oxides, trace biotite and ?pyroxene/amphiboles, are present in a matrix of sericite and carbonate. Carbonate has variably replaced plagioclase felspars. There is a larger proportion of quartz relative to felspar and there are trace mafic minerals. The quartz porphyry is very similar to the granite samples 008 and 033. However, there is more carbonate in the groundmass and more quartz than in sample 008. Sample 011 shows extensive alteration to carbonate and sericite.

014 Epidote-Carbonate Altered Microdiorite Dike, central domain

epidote-carbonate-sericite matrix (including pseudomorphed felspars [60%])	95%
quartz	<5%
opaques	2%
remaining felspars	<1%
chlorite	<1%
altered amphiboles±pyroxene (destroyed)	?

This mafic dike has a different texture to that of the southern domain. The southern domain dike is finer grained and phonolitic, whereas the central domain dyke has coarse-grained, largely destroyed felspar phenocrysts in an epidote-carbonate ±sericite matrix. There are some radiating acicular crystallites. The epidote-carbonate-sericite matrix is indicative of propylitic alteration. This dike is probably hypabyssal and an intermediate composition dolerite or microdiorite.

015 Flow Banded Rhyolite, southeastern domain

quartz	20%
felspar (plagioclase, alkali)	5%
biotite	<1%

amphibole (hornblende)	<1%
clinopyroxene	<1%
opaques/Fe-oxides	<1%
titanite	<1%
zircon	tr

This sample has a matrix of devitrified glass and microcrystalline quartz and spherulites, and textures of the original glassy groundmass. Quartz is mostly embayed. The alkali felspars are mostly sanidine. No flowage textures are evident. This sample is most similar to, but less spherulitic than sample 62-44A.

033 Sericite, Carbonate Altered Granite, central domain

sericitic matrix	55-60%
plagioclase felspar	10-15%
quartz (embayed)	10-12%
carbonate	8-10%
mica -(biotite-chlorite-muscovite)	2-3%
zircon	trace

Felspars are saussuritized, and partially altered to sericite and carbonate. Carbonate (sometimes rhomboid) is present in veins and as disseminations. This sample, is similar to samples 003 and 008, and has the same volcanic appearance in thin-section. Mafic minerals have been destroyed.

036 Volcaniclastic Pyritic Sandstone, central domain

quartz	45-50%
carbonate	45-50%
felspar (plagioclase)	2-3%
opaques	<1%
chlorite	minor
mica	trace

Mostly volcanic quartz and lesser plagioclase felspar in a carbonate matrix. Quartz is mostly anhedral to subhedral; there is trace white mica and biotite. This sediment is unlikely to have been eroded far from a felsic source.

038 Carbonate and Pyritic Altered Siltstone, central domain

matrix	60%
quartz	30%
carbonate	5-6%
mica	<=1%
opaques	1%
pyroxene	trace
chlorite	trace

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Fine grained quartz, biotite, carbonate, and white mica in a sericitic matrix. This sample varies from the sandstone in that there is less carbonate and less evidence of any felspar. Carbonate is present mostly as rhombs (diagenetic) and has alteration rims of more Fe-rich material; carbonate appear as overgrowths. The large carbonate rhombs may have been mistaken for opaques/pyrite in hand specimen.

048 Stockwork Quartz Vein, Stockwork Hill, central domain

Similar to sample 62-42A. Carbonate occurs within, and cut across the quartz veins. The host rock has classic perlitic textures. The quartz in the veins comprises crustiform, colloform, chalcedonic, and banded varieties. Biotite is very Fe-rich. There are no remaining felspars in the host rock, and similarly, clinopyroxene is absent. Silica alteration is extreme.

62-42A Stockwork Quartz Vein, Stockwork Hill, central domain

Perlitic, spherulitic rhyolite, with quartz veins containing coarse quartz grains and fine micro-crystalline quartz and spherulitic quartz.

groundmass	80%
quartz	5-10%
felspar	minor
biotite	<1%
Fe-oxides	1%
veining	5%

Veins comprise altered chalcedony and micro-crystalline quartz, and sericite. Some of the veining is very fine. Feldspars are mostly altered to sericite. Sample 62-42A is very similar to the spherulitic and flow banded rhyolites of the Eagletail Mountains, showing coarse concentric and radiating spherulites in the host rock to the stockwork.

62-44A Dacite Lava, northern domain

spherulitic (radiating acicular) groundmass	80-85%
opaques	minor
quartz	3-5%
felspar (plagioclase and alkali)	3-5%
altered pyroxene	1-3%
mica	1-2%
carbonate	<1%
titanite	minor
epidote	minor
amphibole	?

Glassy spherulitic groundmass is partly crystallised to quartz. Quartz is mostly embayed, characteristic of felsic volcanic rocks, and felspar is mostly alkali with lesser plagioclase. Some Fe-enrichment. Spherulites fine-grained relative to sample 001. This rhyolite is probably 193 related to the rhyolites of the southern Little Harquahala Mountains. Sample is very similar to sample 015.

62-45A Chlorite-Epidote Altered Monzogranite, northern domain

felspar (plagioclase, alkali)	35-38%
quartz	25-30%
sericite	10-15%
chlorite	5-10%
biotite (3-5%)	destroyed
amphibole	destroyed
titanite	2-3%
carbonate	1-2%
epidote	1-2%
opaques	<1%

Biotite precursors have altered to chlorite, and amphibole (hornblende) to carbonate-sericite. Feldspars are saussuritized, and/or altered to sericite; some are completely altered to clays. Magnetite has alteration rims of chlorite, and variably altered to chlorite. Many of the quartz and felspar are interlocking grains. This sample also contains carbonate veins.

62-46A Sericitic and Carbonate Altered Tholeiitic Lava, northern domain

carbonate/sericite/chlorite	40%
felspar (plagioclase)	30-35%
quartz	20-25%
opaques	<=1%
?altered clinopyroxene±olivine	<=1%
amygdales	tr

Sericite and carbonate partially replace felspars, and has replaced the pyroxenes/olivines completely leaving pseudomorphic outlines. This rock is very fine-grained, largely sericitized and carbonated, with remnant felspar (plagioclase), minor quartz, ?pyroxene/olivine±mica.

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APPENDIX 2

NEXT PAGE

Copy of letter accompanying samples for Total Rock Characterization at University of Saskatchewan. The samples referred to in the accompanying table have their locations given on the Accompanying Map.

International Precious Metals Corp
4625 S Ash Avenue
Suite J-1, Tempe, Arizona, 85282.
Tel: (602) 413-9715
Fax: (602) 413-9716
Email: 73071.2143@Compuserve.com

15th April 1996

Professor. R. Kerrich
Dept of Geological Sciences
University of Saskatchewan
114 Science Place
Saskatoon SK S7N 5E2
Canada.

Hi Rob,

Enclosed are details of the hard rock samples for analysis (Total Rock Characterization). Paul Mentzer will add some alluvial samples and he will no doubt add a letter providing sample numbers and any comments he may have. The number of hard rock samples is less than you would ideally like, but I hope it will be enough to sort out the PGE puzzle.

Analysis of limited hard rock samples, and alluvial samples by IPM has shown significantly elevated Pt/Pd in association with gold mineralization, and repeatability of analyses (Ag and Pt/Pd) has been problematic.

We need to understand why there are high PGEs in association with Au in what appears to be both epithermal-style and sediment-hosted Au-PGE mineralization. Confirmation of the PGEs, the source of the PGEs, and comments on the PGE-Au association is an essential point of the exercise.

The mineralized felsic volcanic samples S/043, S/044 and S/050 come from the epithermal-style mineralization. The mineralized samples S/035, S/036, S/037 and S/038 are sandstones and siltstones from the sediment-hosted-style mineralization. Unmineralized samples of each type are also included.

In your interpretation of the data can you please comment on:

- confirmation of the PGEs,
- the source of the PGEs,
- on the PGE-Au association
- alteration,
- petrogenesis, and
- tectonic environment.

This project is in its very early phase and IPM are keen that the information remains confidential. Please don't hesitate to contact me (at the Perth address) with any questions.

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We would appreciate three copies of the report:

1 copy to S. Vearncombe, 14A Barnett St, Fremantle, 6160, Western Australia

2 copies to Mr P. Mentzer, Vice President of Operations, International Precious Metals (IPM), 4625 S. Ash Avenue, Suite J-1, Tempe, Arizona 85282.

Invoices can also be sent to Paul Mentzer.

Best wishes

Susan Vearncombe

cc. P. Mentzer, copy direct to R.K, Copy in sample bin

Samples for Total Rock Characterization

Granite	S/020	altered
	S/022	altered
	S/028	
	S/033	
Sandstone	S/026	
	S/029	
	S/036	mineralized
Siltstone	S/030	
	S/035	mineralized
	S/037	mineralized
	S/038	mineralized
Rhyolite/Dacite	S/027	oxidized pyrite
	S/034	possible weak alteration
	S/049	
Rhyolite	S/045	
	S/046	
Quartz Porphyry	S/032	
	S/039	
Feldspar Porphyry	S/040	
	S/041	
Basalt/Andesite	S/047	
	S/048	
Mineralized Stockwork	S/043	highly mineralized and altered
	S/044	
	S/050	

Number of hard rock samples = 25

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APPENDIX 3

During this project we collected the following composite samples from breccia in granite (sample 021), a pyritic siltstone in the zone of reverse slip immediately above the granite-conglomerate unconformity (sample 031), and from several of the disused old copper workings (all other samples). These samples are for analysis by IPM for precious metals to determine the potential of examining these old workings and the quartz veins for exploration.

Samples are

021
023
024
025
031
042
051

Localities are given on the Accompanying Map.

In addition, we established four lines for trenching. One line is parallel to but 2m away from existing Line C1 and is designed to test the reproducibility of the results. Two lines are across the Eagletail Stockwork. The forth line is across unaltered and fresh rhyolite east of the Microwave Tower which we do not expect to be mineralized. As an unusually large number of previous samples have proved anomalous, this line is included to check that the sampling and analytical methods are capable of providing consistent low assays in barren rock.

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APPENDIX 4

Copy of short abstract and figure delivered to IPM April 1996.

SHORT ABSTRACT

The BRX precious metals prospect, southern Little Harquahala Mountains and Eagletail Mountains, Arizona

by
Julian R. Vearncombe BSc, PhD, FGS, MAusIMM and Susan Vearncombe BSocScl, MSc, PhD

VEARNCOMBE & ASSOCIATES PTY LTD
Geological Exploration Consultants
14A Barnett Street, Fremantle, 6160 Western Australia

for

International Precious Metals Corporation
4625 S Ash Ave, Suite J-1, Tempe, AZ 85282

Quartz vein stockwork in felsic volcanic rocks and pyrite alteration in silty sedimentary rocks in the BRX exploration project area are at the break in mountains between the southern Little Harquahala Mountains and the Eagletail Mountains, 92km west of Phoenix, Arizona. The southern Little Harquahala Mountains are of granites and granite mylonite, unconformably overlain by immature sediments comprising conglomerates and a siltstone-sandstone sequence, capped by a volcanic andesite-basalt unit. Faults in this domain are listric, northeast-dipping and responsible for back-rotation of the strata.

A transitional domain between the southern Little Harquahala and Eagletail Mountains comprises intrusive porphyry with quartzites, a siltstone-sandstone sequence and conformable dacite-rhyolite volcanic rocks. The Eagletail Mountains comprise banded, spherulitic and coarse-grained fragmental dacite-rhyolite volcanic rocks and vitrophyre. Faults in this domain are planar and steeply southwest-dipping.

The mid-Tertiary extensional style of deformation changes between listric faults with large displacements linked to recumbent detachments in the southern Little Harquahala, as compared to steep planar faults in the

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Eagletail Mountains which lack exposure of the granites and related midcrustal rocks.

Quartz stockwork mineralization in the transitional domain and, in the Eagletail Mountains, show hydrothermal brecciation, chalcedony, crustiform and cockade quartz veining, and adularia-sericite alteration characteristic of classic low sulfidation-style epithermal systems. Mineralization was mid- to late-Tertiary in age. These epithermal systems, as demonstrated elsewhere in the world, have the potential to be large precious metal producers. Pyroclastic-fragmental rocks drape the stockwork volcanic rocks in the transitional domain where surface outcrop demonstrates a continuity in the stockwork veining over 300m in length. Assay results from surface rock chip samples have yielded gold-platinum group element results at potentially economic levels. This style of deposit is typically zoned vertically, and drilling is required to determine depth extent of mineralization.

Siltstone-sandstone rocks of the southern Little Harquahala Mountains and the transitional domain with widespread pyrite alteration have also yielded assay results for gold and platinum group elements at potentially economic levels. This style of mineralization is well known for base metal occurrences, but is unexpected for precious metals and may represent a previously unrecognized style of mineralization.

On-going geological studies include rock sampling, geophysical surveys and geochemical exploration work aimed at defining the extent of mineralization and providing critical drill targets.

Attached:
Simplified geolgical map of the BRX project area.

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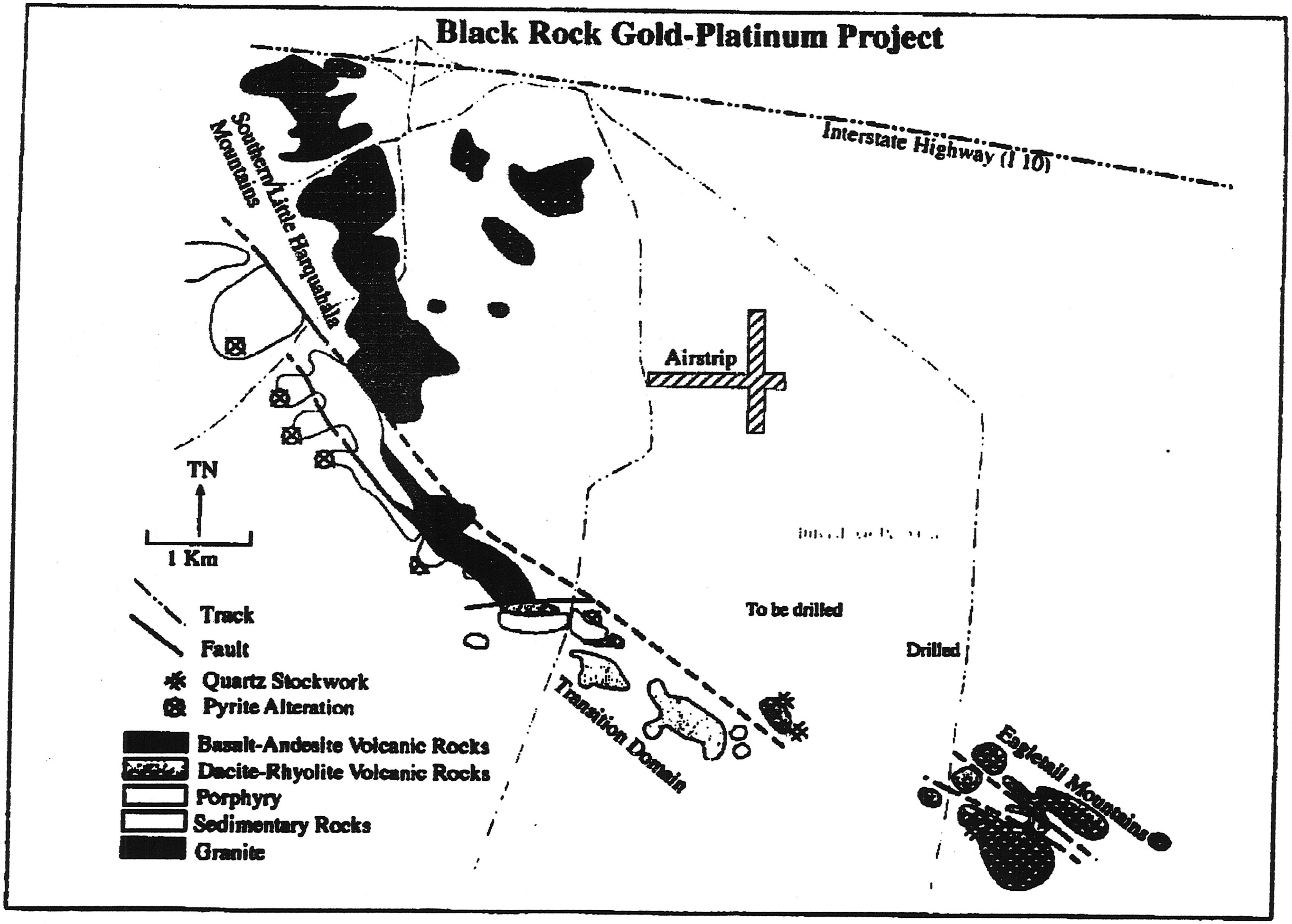
Black Rock Gold-Platinum Project
Interstate Highway (I 10)
Southern/Little Harquahala Mountains
Airstrip
TN
1 Km
Track
Fault
Quartz Stockwork
Pyrite Alteration
Basalt-Andesite Volcanic Rocks
Dacite-Rhyolite Volcanic Rocks
Porphyry
Sedimentary Rocks
Granite
To be drilled
Drilled
Transition Domain
Eagletail Mountains

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