

5360

1974 DRILLING REPORT
ON THE POPLAR LAKE PROPERTY
in the OMINECA Mining Division
30 miles southwest of Houston, B.C.

54°N, 127°W, SW

Owned by F. Onucki, C. Critchlow, M.J. Callaghan
and Utah Mines Ltd.

93L/2W

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5360 M/P

by

A.J. Schmidt, P. Eng.

of Utah Mines Ltd.

1600-1050 West Pender Street

Vancouver, B.C.

Work Performed between
20th September and 29th November, 1974

JANUARY, 1975



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MAPS

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INTRODUCTION

A four-hole diamond drilling programme was conducted on the Poplar Lake prospect during October and November of 1974. The key claims were acquired by option agreement, dated 2nd October, 1974, between Utah Mines Ltd., and the three (3) prospectors who each held some interest in the claims, Messrs. Onucki, Critchlow, and Callaghan. Utah acquired a substantial number of claims surrounding the Poplar claims.

In addition to the diamond drilling, various geophysical surveys were conducted (IP, mag.) (See separate report), surface geological mapping, and a detailed transit survey of drill hole locations, grid lines, and some claim lines.

This report will claim as assessment work the diamond drilling costs, the necessary helicopter charges, necessary camp costs, and of course, geologic supervision charges related to spotting drill holes and the detailed logging of the drill core.

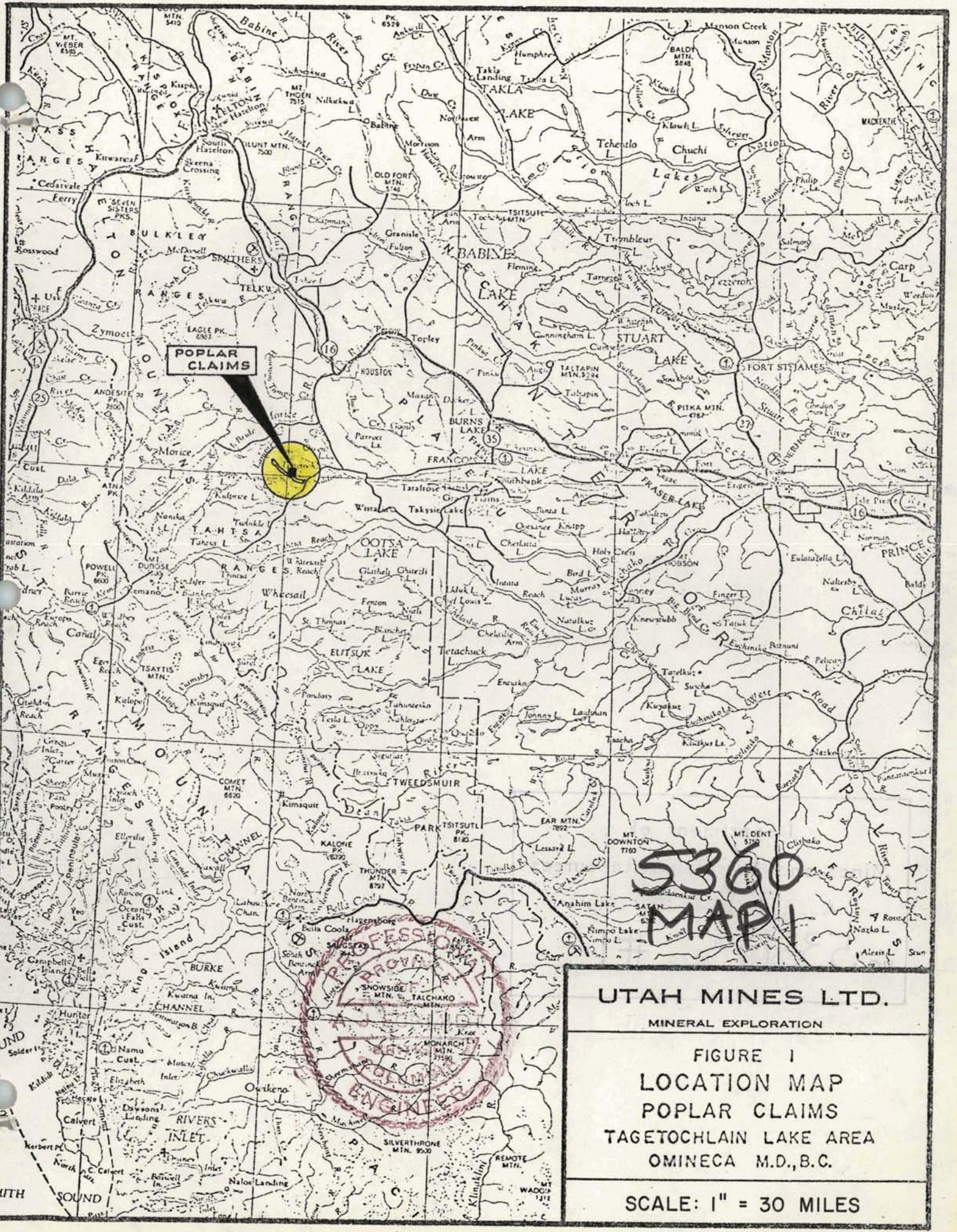
LOCATION AND ACCESS

Tagetochlain Lake (local name Poplar) lies approximately thirty (30) miles south-west of Houston, British Columbia. Vehicle access may be gained by good Forest Service roads along the Morice River and Owen Lake drainages and then by the rather poor Tahtsa Lake access road. A rough jeep road extends from the Tahtsa Lake road along the north shore of Tagetochlain Lake, through the Poplar groups of mineral claims.

Alternate access may be gained by float-equipped aircraft landing on Tagetochlain Lake, or by helicopter landings on the open meadows north of the lake shore.

DIAMOND DRILLING PROGRAMME

A contract was let to Connors Drilling Ltd. on 7th October, 1974



POPLAR CLAIMS

5360
MAMI

APPROVED FOR THE ENGINEER

UTAH MINES LTD.
MINERAL EXPLORATION

FIGURE 1
LOCATION MAP
POPLAR CLAIMS
TAGETOCHLAIN LAKE AREA
OMINECA M.D., B.C.

SCALE: 1" = 30 MILES

to perform the required diamond drilling. A BBS-1 type of drill was mobilized to the property on 11th October, 1974, and drilling commenced on 18th October, 1974. This machine was equipped to drill BQ Wireline size core holes. The four (4) man drill crew built their own drill camp during the period 13th to 15th October, 1974.

A John Deere tractor, model JD-4 was rented locally to build the necessary drill pads, and to move the drill to new drill sites.

Four (4) diamond drill holes, totalling 3,074 feet, were drilled on the property during the programme. Drilling ceased on 26th November, 1974, and the camp and equipment were demobilized on 29th November, 1974.

DIAMOND DRILL HOLE DATA

The following are the pertinent data on the four (4) diamond drill holes completed.

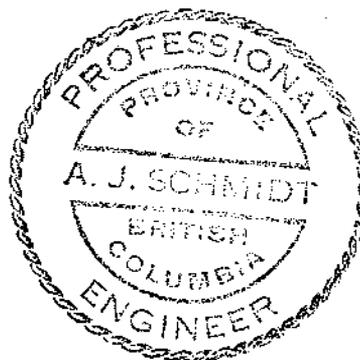
<u>HOLE NO.</u>	<u>AZIMUTH</u>	<u>INCLINATION</u>	<u>CORE DIAMETER</u>	<u>TOTAL LENGTH</u>
PC-1	--	-90°	1 7/16"	987'
PC-2	065°	-60°	1 7/16"	937'
PC-3	245°	-60°	1 7/16"	503'
PC-4	245°	-60°	1 7/16"	<u>647'</u>
				3,074'

The drill core is packed in wooden core trays and is stored in a safe storage area on the property.

ANCILLARY SURVEYS

Costs incurred by Underhill and Underhill are claimed as necessary assessment charges. These costs, while not entirely chargeable to the diamond drilling programme, were incurred simultaneously with those costs. This Engineering firm not only surveyed in

the collars of the diamond drill holes, but established a control baseline from which a geological map was constructed and from which map the diamond drill holes were spotted. As well, the survey established the grid lines over which various geophysical surveys were performed. In addition to these functions, the surveyors located and accurately measured the positions of various claim posts, and provided us with accurate maps of their various surveys.



A. Schmidt

A.J. SCHMIDT, P. ENG.
PROJECT GEOLOGIST
22ND JANUARY, 1975.

AJS/mw

Underhill & Underhill

Professional Engineers - Dominion & B.C. Land Surveyors

C. D. Underhill, P.Eng., B.C.L.S.

A. T. Holmes, P.Eng., B.C.L.S.

W. G. Robinson, P.Eng., D.L.S.,
B.C.L.S., R.L.S. Alaska

J. W. Sharpe, B.C.L.S.

J. M. Parnell, D.L.S., B.C.L.S.

D. T. Simmons, B.C.L.S.

T. E. Koepke, P.Eng., D.L.S.,
B.C.L.S., R.L.S. Alaska

1646 West 7th Avenue
Vancouver, British Columbia
V6J 1S5

Telephone (604) 732-3384

Telex 04-53339

Our File: J-7140

Your File:

28th January, 1975

Utah Mines Ltd.,
1600 - 1050 West Pender Street,
VANCOUVER, B.C.

Attention : Mr. Andy Schmidt,
Project Geologist

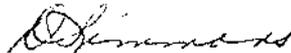
Dear Sirs,

re: POPLAR LAKE PROJECT
OMINECA MINING DIVISION

Enclosed please find our report covering transit and chain surveys
for Base Line and Grid Lines on the above property.

Yours very truly,

UNDERHILL & UNDERHILL



D.T. Simmons

DTS/cn
Enc.

R E P O R T

FOR: Utah Mines Ltd.,
1600 - 1050 West Pender Street,
Vancouver, B.C.

BY: Underhill & Underhill,
Professional Engineers,
B.C. Land Surveyors,
1646 West 7th Avenue,
Vancouver, B.C.

RE: Poplar Lake Project
Omineca Mining Division

During the period October to December, 1974, four Underhill personnel under the direct supervision of Mr. D.T. Simmons, B.C.L.S., carried out a total of 65,000 feet of transit and chain control survey for Base Line, Induced Polarization Grid, Geological Mapping and Diamond Drill Hole locations. The surveys were carried out with a Wild T-16 transit and 300 foot steel tape.

Trigonometric levels were carried and elevations established for all transit stations. Numerous location posts were tied in during the course of this survey and claim configuration is as shown on our Plans A-4, Sheets 1 & 2.

The crew, utilizing two camper trucks, headquartered at the B.C. Forest Service campground at the eastern end of the lake.

--ooOoo--

APPENDIX A

STATEMENT OF QUALIFICATIONS

R.G. POTTER

G.A. CLOUTHIER

The diamond drill core recovered from PC#1 to #4 was carefully logged by either or both of the two (2) geologists who worked on the Poplar property during 1974. They were:

- a) R.G. POTTER, M.Sc., P. Eng. (B.C.), Senior Geologist for Utah Mines Ltd., Vancouver, British Columbia.
Completed B.A. Sc. at the University of British Columbia in 1961 in Geological Engineering and M.Sc. at McGill University in 1972. Since graduation in 1961, worked as exploration geologist (base metals, asbestos, petroleum) throughout Western Canada and Spain with various companies. Has been employed by Utah Mines Ltd. since May, 1972.

- b) G.A. CLOUTHIER, B. Sc., Geologist for Utah Mines Ltd., Vancouver, British Columbia.
Completed B.Sc. at the University of British Columbia in 1970. Since graduation has worked as an Exploration geologist (base metals) in Western Canada and Alaska for Utah Mines Ltd.

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APPENDIX B

1974 DIAMOND DRILLING CONTRACT

File Attached

Underhill & Underhill

Professional Engineers - Dominion & B.C. Land Surveyors

C. D. Underhill, P.Eng., B.C.L.S.
A. T. Holmes, P.Eng., B.C.L.S.
W. G. Robinson, P.Eng., D.L.S.,
B.C.L.S., R.I.S. Alaska
J. W. Sharpe, B.C.L.S.
J. M. Parnell, D.L.S., B.C.L.S.
D. T. Simmons, B.C.L.S.
T. E. Koepke, P.Eng., D.L.S.,
B.C.L.S., R.I.S. Alaska

1646 West 7th Avenue
Vancouver, British Columbia
V6J 1S5

Telephone (604) 732-3384
Telex 04-53339

Our File: J-7140
Your File:

28th January, 1975

Utah Mines Ltd.,
1600 - 1050 West Pender Street,
VANCOUVER, B.C.

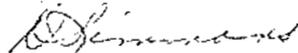
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UNDERHILL & UNDERHILL



D.T. Simmons

DTS/cn
Enc.

R E P O R T

FOR: Utah Mines Ltd.,
1600 - 1050 West Pender Street,
Vancouver, B.C.

BY: Underhill & Underhill,
Professional Engineers,
B.C. Land Surveyors,
1646 West 7th Avenue,
Vancouver, B.C.

RE: Poplar Lake Project
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--ooOoo--



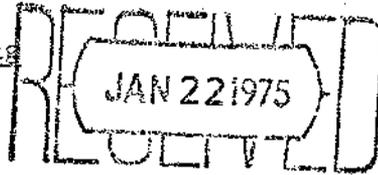
Underhill & Underhill

Professional Engineers - Dominion & B.C. Land Surveyors

Utah Mines Ltd.,
1600 - 1050 West Pender Street,
VANCOUVER, B.C.

1646 West 7th Avenue
Vancouver 9, British Columbia

Attention : Mr. M.J. Young



Telephone (604) 732-3384
Telex 04-53339

Our File: J-7140 JWS
Your File:

31st December, 1974
INVOICE No.

re: POPLAR LAKE PROJECT : OMINECA MINING DIVISION

PERIOD: October, November and December, 1974

TO: Consultations and correspondence with
Department of Lands, Forests & Water
Resources, Mining Recorders, Vancouver
and Smithers; Onucki, Critichlow and
Callaghan;

Correspondence and consultations with Messrs.
Young, Ascencios, Clothier, Potter and Davis
& Co.;

Consultations and correspondence with
Department of Recreation & Conservation;
Chief Gold Commissioner;

Field surveys to -

- (a) establish a control base line;
- (b) establish an I.P. grid line control;
- (c) establish control on and position of
Poplar M.C. 1-20, 33, 35, 37, 61-63
and 1 Fr., DON 1-13, 26-36; DAVE 1-5 Frs.;
- (d) to locate and establish the position of
diamond drill holes on the property;

Computations, plotting, drafting and printing.

Professional Services	5,677	00	
Wages	10,973	04	
Board and Lodging	1,991	24	
Transportation	2,767	32	
Field Expenses	1,210	22	
Drafting and Printing	633	49	
			<u>\$23,253 08</u>

DRILLING AGREEMENT

THIS AGREEMENT, entered into this 7th day of
October, 19 74 by and between

UTAH MINES LTD., a
corporation, hereinafter referred to as "Owner", and

CONNORS DRILLING LTD.
#205 - 1201 West Pender Street,
VANCOUVER, B. C. V6E 2V2.

hereinafter referred to as "Contractor",

WITNESSETH:

WHEREAS, Owner desires to have Contractor carry out
a drilling program on certain lands controlled by Owner and
located XX south of Houston, B. C.

; and

WHEREAS, Contractor is desirous of performing such
drilling program for Owner and is fully equipped and capable to
perform such work;

NOW THEREFORE, in consideration of the covenants and
conditions hereinafter set forth, Owner and Contractor mutually
agree as follows:

1. WORK TO BE PERFORMED: Contractor agrees to perform
fully and completely all drilling and/or coring work requested
by Owner to be done by Contractor on the abovementioned lands,
such performance by Contractor to be in strict conformance with
the terms and provisions of this agreement and specifically in
conformance with those provisions set forth on Schedule I
attached hereto and by this reference incorporated herein.

All work to be performed by Contractor hereunder
shall be done at such times, such locations and in such manner
as requested by Owner, subject, however, to the specific provisions
set forth in Schedule I hereto.

It is understood that Owner may employ other contractors to perform work, including drilling, upon the subject property and Contractor shall conduct its operations so as to best cooperate with such other contractors, if so requested by Owner.

2. WORKMEN AND EQUIPMENT: Contractor agrees to furnish and maintain in first class operating condition the equipment, machinery, tools, and supplies specified in Schedule I hereto, or necessary to perform the work as set forth in said Schedule I hereto, and all labor, including superintendence, and all other things whatsoever required or convenient to properly perform the work specified in this agreement and within the time herein required. Owner may require Contractor to discharge from the performance of this contract any employee deemed to be in any way objectionable by Owner. No equipment furnished by Contractor hereunder for use in the performance of this agreement shall, without the prior consent of Owner, be removed from the site of the work until such time as the performance of this contract shall be completed by Contractor.

3. COMMENCEMENT AND PROGRESS OF WORK: Unless otherwise specified in Schedule I herein, Contractor shall, within seven days after being notified by Owner to start work, commence work in the field at such locations as Owner may designate and shall thereafter continue diligently in the performance of the work at such rate of progress and at such locations as may be required by Owner and shall fully complete said work to the satisfaction of Owner.

4. NO REPRESENTATIONS TO CONTRACTOR: It is understood that Contractor has satisfied itself as to the nature and location of the work, the character of the soil, rock, or other materials to be encountered, the character, kind and quantity of equipment needed for the prosecution of the work, and the conditions under which the work is to be performed and Owner has made no

representations to Contractor concerning the conditions to be encountered in the performance of the work. No verbal agreement or statement shall affect or modify any of the terms or provisions of this contract and no change, amendment, or modification of the terms or conditions of this contract shall be valid unless reduced to writing and signed by Owner and Contractor.

5. LIENS AND CLAIMS: Contractor shall discharge at once all liens, claims, stop notices, or attachments which may be filed or levied in connection with the work done by Contractor under this agreement and shall pay all taxes levied upon Contractor, its employees, equipment, property, or operations and Contractor shall hold Owner, Owner's property, and the lands upon which the work called for in this contract is being performed harmless therefrom. Contractor shall pay promptly and in full the claims of all persons, firms, or corporations performing labor upon or furnishing equipment, materials, supplies, or power used in the performance of or contributing to the work described in this agreement.

Upon completion of work under this agreement, Contractor, if required by Owner, shall deliver to the Owner a complete release of all claims for taxes, liens, claims, stop notices, or attachments arising out of this agreement or receipts in full in lieu thereof and if required in either case, an affidavit that, to Contractor's knowledge, such releases or receipts include all labor and material for which a lien, claim, stop notice, or attachment could be filed.

6. LIABILITY FOR INJURIES AND PROPERTY DAMAGE: Contractor shall save harmless Owner, Owner's property, and the lands upon which the work called for in this agreement is being performed from all liability for injury to or death of persons and for damage to property in any way arising out of Contractor's performance under this agreement.

7. PATENT RIGHTS: Contractor shall save harmless Owner, Owner's property, and the lands upon which the work called for in this agreement is being performed from any claim, damage or expense arising out of any action or proceeding for the infringement or alleged infringement of any patent arising out of Contractor's performance under this agreement.

8. PAYMENT: In consideration of the covenants of the Contractor herein set forth and the full and prompt performance of this agreement by Contractor, Owner agrees to pay to Contractor and Contractor agrees to receive and accept as full compensation for Contractor's performance of this agreement, and also for any loss or damage to Contractor arising out of this agreement or from action of the elements or from unforeseen difficulties or obstructions which may be encountered in the performance of the contract, and for all risks of every description to Contractor in connection with the work, those sums set forth in Schedule II attached hereto and by this reference incorporated herein.

An estimate will be made by Owner once each calendar month during the term of this agreement of the amount of work completed by Contractor during the preceding calendar month and Owner will, on or before the last day of each calendar month, pay to Contractor the amounts due under the terms of Schedule II hereto for such work completed by Contractor during said preceding month. The estimates and calculations made by Owner as to the amount of work done by Contractor hereunder shall be final and binding upon Contractor and shall conclusively establish the amount of work done by Contractor hereunder.

9. BOND: Contractor shall furnish a surety bond in form satisfactory to Owner, with a surety approved by Owner, in the amount of NOT APPLICABLE (\$ _____) guaranteeing the faithful performance of this agreement by Contractor and the payment by Contractor of the claims of all persons, firms or corporations performing labor upon or furnishing materials, equipment, supplies or power used in the performance

of this agreement.

No work shall be commenced under this contract until the required bond is produced and submitted to Owner. Should any surety upon the said bond become unacceptable to Owner for any reason at any time, Contractor will promptly furnish such additional surety, sureties, or security as Owner may request.

10. TERM OF CONTRACT: Unless the provisions of Schedule I shall specify a different length of time during which Contractor shall be bound to perform under the terms of this agreement, Contractor shall be obligated to perform for Owner under the provisions of this contract upon the lands hereinabove described, all drilling work requested by Owner to be performed by Contractor during a period of one (1) year from and after the date of this agreement, provided, however, that Owner may, at any time after the completion of the minimum amount of drilling work guaranteed to Contractor under the provisions set forth in Schedule I, terminate this agreement by giving notice of such termination to Contractor.

11. INSURANCE: Contractor shall obtain and carry during the period of this agreement at Contractor's sole cost the following insurance coverage:

Insurance Coverage	Minimum Limits	
Bodily Injury Liability including Contractual Liability and Completed Operations	Each person	\$100,000.00
	Each occurrence	\$300,000.00
Property Damage Liability including Contractual and Completed Operations	Each occurrence	\$100,000.00
	Aggregate	\$100,000.00
Automobile: (Including owned and non-owned automobiles)		
Bodily Injury	Each person	\$100,000.00
	Each occurrence	\$300,000.00
Property Damage	Each accident	\$100,000.00

Workmen's Compensation
and Employer's
Liability

Full Statutory Compliance
Each person \$100,000.00
Each accident \$300,000.00

No work under this contract shall be started until certificates of insurance conforming with the above minimum requirements are obtained and submitted to the Owner. Insurance companies must be satisfactory to Owner, and policies must provide that ten (10) days' written notice be given to Owner prior to cancellation or annulment.

12. COMPLIANCE WITH THE LAW: Contractor and its employees shall at all times observe and comply with all statutes, ordinances, and regulations of any nation, state, province, municipality or other governmental authority or agency having jurisdiction over the place where the work hereunder is being carried on.

13. PERMITS: Contractor shall obtain all permits and licences necessary for the performance of this contract and shall give all necessary notices and pay all fees required by governmental agencies or by other authorities in connection with the performance of this contract.

14. SUPERINTENDENT: The Contractor shall have a competent superintendent, satisfactory to Owner, on the work at all times with authority to act for Contractor. The superintendent shall not be changed except with the consent of Owner unless the superintendent ceases to be in the employ of the Contractor.

15. CONTRACTOR NOT AGENT OF OWNER: In the execution of the work to be performed hereunder, Contractor shall operate as an independent contractor and not as an agent or employee of Owner. Contractor shall hold Owner harmless from any liability which may arise by reason of any action or representation of Contractor, its agents, or employees.

16. NOTICE AND PLACE OF PAYMENT: All notices to be given to Owner by Contractor hereunder shall be delivered to

Owner's office at 1050 West Pender Street, Vancouver, B. C.

Any notice to be given by Owner to Contractor hereunder may be given by delivering such notice personally to Contractor's superintendent at the job site or, at Owner's option, such notice may be given by depositing said notice in any United States post office in an envelope, postage prepaid, and addressed to Contractor at #205 - 1201 West Pender Street, Vancouver, B. C. V6E 2V2. Such notice to Contractor shall be deemed to have been given either upon its delivery to Contractor's superintendent or by deposit in said post office as the case may be.

All moneys payable to Contractor hereunder shall be payable at Owner's office in Vancouver or at Owner's option may be mailed to Contractor in the manner hereinabove prescribed for the giving of notice to Contractor.

17. ASSIGNMENT: Contractor will not, without the previous written consent of Owner, assign this agreement nor subcontract any part or portion of the work to be performed hereunder to any other party.

18. PROTECTION OF INFORMATION: No information whatsoever regarding the conduct, records, or results of any work performed by Contractor under this agreement shall be given or discussed by Contractor or any of Contractor's agents or employees in any manner to or with any party other than the Owner without the prior written consent of Owner.

19. SUCCESSORS: This agreement and each and every provision hereof shall inure to the benefit of and be binding upon the parties hereto and their successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the date hereinabove set forth.

UTAH MINES LTD.

OWNER

By *E. J. DeMoss*

CONNORS DRILLING LTD.

CONTRACTOR

By *D. Miller*

SCHEDULE I

WORK PROVISIONS

1. The Contractor will provide equipment, supplies, and crews to operate one drilling rig, two (2) shifts per day, including, but not limited to all necessary drilling machinery, bits, associated tools, motor fuels and oils, repair parts, casing rods, core barrels, drilling muds, cement and all necessary labor and supervision. Contractor shall, at the commencement of work hereunder, at its own expense, transport all such equipment, supplies and personnel to the job site.
2. Holes will be drilled standard BQ wireline. In all instances, reasonable care shall be exercised to obtain the recovery of as high a percentage of core as the formation being drilled will reasonably permit. All such core shall be properly identified in correct order and placed in core boxes supplied by Contractor. Contractor shall furnish a log of each hole drilled, showing location and depth drilling and/or a daily record sheet with holes drilled and footage noted. Said record is to be signed by the driller and will be used in computing payment for work done.
3. The location, depth, and angle of each hole to be drilled by Contractor shall be specified by the Owner. Maximum depth of any hole shall be around 500 feet. Notwithstanding any other provision of the agreement, Owner guarantees that a minimum of 1,000 lineal feet of drilling will be required of Contractor under this agreement.
4. The Owner shall check the angle and direction of each hole in order to assure that the hole is being started at the required angle and in the required direction. The CONTRACTOR assumes no responsibility for any deviation that may occur in a hole beyond the collar. The measurement of all holes shall be taken from the top of casing, or standpipe, as the case may be, which shall be kept as close to the original contour of the ground as circumstances will permit.
5. Should cavities or loose and caving materials, or other adverse conditions be encountered, so that in the opinion of the Owner and Contractor, further drilling in a hole is not practical, the hole may be abandoned, and the Contractor shall be paid at rates specified in Schedule II attached hereto for the footage actually drilled, provided, however, that the Contractor shall not be paid when said adverse conditions are a direct result of negligence on part of the Contractor. The Contractor, at the request of the Owner, will replace any driller not achieving satisfactory core recovery.
6. The Contractor will provide and maintain a camp for its personnel, and provide board for owners personnel for \$4.00 per man, per meal.
7. The Owner will provide the required transportation to supply camp, move the drill, and transport Contractor's crews.
8. The Owner shall provide, at its own expense, all rights of way that may be required to enable Contractor to move to and from, and to operate on, the drill sites specified by Owner. Contractor shall be permitted to fell and cut such timber as may be required in the course of the work hereunder upon the property controlled by Owner, provided, however, that Contractor shall comply with all the terms of Owner's permits allowing such timber cutting. Owner shall save the Contractor harmless from any assessments for stumpage.
9. This agreement and any disputes arising hereunder shall be interpreted and determined in accordance with the laws of the Province of British Columbia.

SCHEDULE II

PAYMENT SCHEDULE

The Owner shall pay the Contractor in Canadian Funds for work completed according to the following schedule:

1. Surface Drilling

The price per foot for core drilling in bedrock, from the surface, shall be as follows:

BQ wireline, 0 - 500 feet deep, \$13.50 / foot.
500 - 1,000 feet deep, \$14.50 / foot.

2. Overburden Drilling

0 - 50 feet, at \$14.50 per foot. Beyond 50 feet, at Field Cost, if the cost of penetration exceeds \$14.50 a foot.

3. Field Cost Defined

"Field Cost" is defined for purposes of this agreement, as all direct labor, including supervision, at \$14.00 per man hour, and drill and support equipment rental at \$10.00 per drill shift hour, and all the "down the hole" tools and supplies lost or consumed during the Field Cost portion of the work, at Cost plus ten percent.

4. Casing, reaming, cementing and mud circulation operations, in overburden or bedrock, if and when required, shall be at Field Cost.

5. Pipe or Casing left in holes

Any casing, casing shoe bits, or pipe left in holes at Owner's request, shall be paid for by Owner, at the Contractor's cost, F.O.B. drill site.

6. Standby, dip testing, or delay time, or other time during which the Contractor's crews are performing services for the Owner, not otherwise covered herein, shall be paid for at Field Cost.

7. Travel Time

Should travel time between camp and drill site exceed one half hour per man, per day, the Owner agrees to reimburse the Contractor for all travel time at Field Cost Labor rates.

8. Water

Contractor will supply, install and remove, 1,000 feet of water line and a pump capable of 300 feet lift. In excess of these limits at Field Cost.

9. Moving

Moving, setting up and tearing down of drill and equipment, from truck discharge point to the first set-up, between holes, and from the last set-up to the truck loading point, at Field Cost.

10. Camp

The Contractor will supply and maintain a camp for its personnel. Installation and removal of camp will be for the Owner's account, at Field Cost Labor rates.

11. Core Boxes

Contractor will supply core boxes at \$3.00 per box, 25 foot capacity. Core box lids at \$1.00 per lid.

12. Truck/Helicopter Rental

The Owner will provide the required transportation to transport crews and supply camp.

13. Mobilization and Demobilization

For equipment and crews from Contractor's base of operations to transport discharge point, and return, a total sum of \$2,500.00.

APPENDIX C

DIAMOND DRILL LOGS

PC#1, 2, 3, 4

HOLE NO. *PC-1*PROJECT: *FOPLAR*PAGE NO: *2* OF *17*

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: *October 17, 1974*

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: *October 27, 1974*SCALE: *1" = 10'*INCLINATION: *-90°*

BEARING:

TOTAL DEPTH: *987'*LOGGED BY: *C.A. CLOUTZIER*

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sulphate	Biotite	Anhydrite											
60															
							<i>ANDESITE TUFF Cont.</i>								
							<i>2" Dior Porph Stringer</i>			<i>3 1/2</i>		<i>75</i>		<i>60</i>	
							<i>20' - 100' consistent MoS₂ mineralization, mostly on fractures or near stringers. Strong vertical fracture belt often with quartz veining</i>					<i>75</i>		<i>77108</i>	
70															
							<i>75' - 120' carbonate c.c. zone</i>			<i>3</i>		<i>100</i>		<i>70</i>	
80															
										<i>3</i>		<i>100</i>		<i>88</i>	
90															
							<i>7 Carb. SF</i>								
100															
										<i>3</i>		<i>100</i>		<i>80</i>	
110															
							<i>4" shear zone</i>								
										<i>3</i>		<i>100</i>		<i>80</i>	
										<i>3</i>		<i>100</i>		<i>80</i>	
										<i>3</i>		<i>100</i>		<i>83</i>	

80 (wireline)

HOLE NO. 100-1

PROJECT: POPAAR

PAGE NO: 3 OF 17

S&S COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: -2°

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G.A. CLOUTIER

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS: <i>Mossy and consistent 100% S.S. (100%)</i>	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	F M
120													120		
							ANDESITE TUFF (cont.) very uniform rock and Cu - No mineralization as previously described 2° Bi still moderate to strong, carbonate coatings more common in fractures. Pyrite mostly on fracture faces 2° Bi strongest as envelopes in fractures + QU		3/4	5	100		77114		0
130										5	90		130		
							Thin QU in brittle envelopes		3/4	4 1/2	100		77115		0
140										2 1/2	80		140		
							QU 1/4" with w/cp + Bi. Envelops			2	90				
150							Minor shear		3	5	95		77116		0
										5	95		150		
160							154-234' Rock colour changes over this interval to a light buff-gray probably due to stronger siliceous clay + Zn. The grain size is larger with some frag up to 1/2 cm visible 2° Bi slightly weaker			5	100		77117		0
													160		
170							Greenish siliceified frag.		2 1/2	5	100		77118		0
										2	100				
							Mossy on minor shear zone - 1/2"			3	100		170		
									3	5	100		77119		0
										5	110				

HOLE NO. PC-1

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION:

GROUND ELEV.:

N.

E.

BEARING:

PROJECT: Poplar

DATE STARTED: October 17, 1974

DATE FINISHED: October 27, 1974

TOTAL DEPTH: 987'

PAGE NO: 7 OF

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G.A. Chulther

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Sulphide	Serpentine	Chalcopyrite	Other										
180														
							<p><u>ANDESITE TUFF (cont.)</u></p> <p>182'-237' Strong Fracturing to strongest sec within 15° of core axis - streak-work of Qtz, Qtz-K-spar, Qtz-Serpentine, Talc + Sulfide veins</p>							
190						<p>Very soft white waxy mineral in fractures (Talc)</p>		2 1/2	5	100			180	
									4	81			190	
200						<p>2' zone of fault by W rounded frag. Mostly py on fractures. Minor Cpy</p> <p>Possible minor K-spar in QU</p>		2 1/2	2 1/2	60			182	
									5	90			190	
210						<p>Cpy veinlet 1/8"</p> <p>MoS2 in Qtz vein 1/4"</p> <p>Cpy 9F 1/8"</p> <p>ground Mo on</p>	<p>206'-223' 2° Bi Occurs as disseminations and xl. clusters in fine tufts</p>	2 1/2	5	100			200	
									5	95			210	
220								2 1/2	5	105			220	
									5	100			230	
230						<p>Qtz - Ser vaining ~ 2" thick w/ Cpy planes 1/2" long</p> <p>No + Cpy in QU</p>	<p>223'-231' Pervasive Buff-gray alt'n probably stronger Sil, Ser Clay</p>	3 1/2	5	100			230	
									5	95			235	
240							<p>1 strong No Cpy in QU</p>	5	5	100			240	
							<p>235 1/2 - 248' <u>DIORITE PORPHYRY</u> See P.1 39 1/2 - 49' Strong clay alt'n of feldspars</p>						240	
250													250	

BQ (wireline)

HOLE NO. 10 1

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: - 20°

GROUND ELEV.:

N. E.

BEARING:

PROJECT: POPLAR

DATE STARTED: October 17, 1974

DATE FINISHED: October 27, 1974

TOTAL DEPTH: 987'

PAGE NO: 5 OF 17

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G.A. CLOUTIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	OR RECY
	Silica	Serpentine	Argillic	Biogenic											
240					Strong			DIORITE PORPHYRY cont.						240	
250								<p>0.5" wide with Calcite vug fillings, Strong MOB2 on fractures</p> <p>248'-251' ANDESITE TUFF Mod. Sil Ser, Argillic ATN</p>		2 1/4	5	95		250	
260								<p>Stichensides</p> <p>1/8" cpy veinlet</p> <p>257-271 1/2' ANDESITE PORPHYRY and/or PORPHYRETIC ANDESITE TUFFS. Gray Grn. matrix w/ white plag phenos up to 3mm long. Strong Ser-Argillic ATN with mod to wk 2° B. Strong diss. Ep. Mo., P. Mineralization, some Fg fragments visible.</p>		3 1/2	5	95		260	
270										3 1/2	5	97		270	
280										4%	5	95		280	
290								<p>279 1/2-313 1/2' ANDESITE TUFF Strongly diss. ATN occurring as small but visible diss. KILLS Strong sericitic ATN core is very soft.</p> <p>Vuggy Qz = good Mo2 Mineralization ~ 1"</p> <p>Calcite Fracture Filling</p>		3 3/4	5	100		290	
										5	10			290	
										5	77			77131	
										5	100			77129	
														77128	
														77127	
														77126	

HOLE NO. 00-1

PROJECT: 4444

PAGE NO: 7 OF 17

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: 0°

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G.A. Southier

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: <i>My</i> * Soft transparent unknown (Pyrophyllite?) (gypsum)	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL
	Silica	Sericite	Biotite	Argillic										
360														360
							<p>→ Rounded porphyritic And frag.</p> <p>→ Diorite Porphyry</p>							
370					Strong									
							<p>→ Strong Mo on veinlet</p>							
380							<p>369-397' <u>HYBRID ZONE</u> Gradual transition from f.g. altered Andesite tuff to Q.F.P. characterized by gradual color change from gray-grn to pink due to K-spar flooding. There is also a gradual shift from a fine volcanic texture to a porphyritic intrusive texture. Strong Cpy Py Mo min as disshs + s.p. chloritized bi occur as xl clusters.</p>							
390														
							<p>* 369-447' Soft transparent white mineral in fractures elongate xls growing in from both walls of fractures Hardness 1-2, does not bubble in HCl although minor carbonate also occurs near fractures (possibly pyrophyllite) or (gypsum)</p>							
400							<p>397-413½' <u>QUARTZ FELDSPAR PORPHYRY (QUARTZ MONZONITE)</u> Aphanitic pink matrix w/ greenish white feldspar phenos up to 4mm or 2mm smaller rounded quartz phenos grayish to white clots or xl clusters of biotite mostly altered to chlorite, 35% feldspar phenos, 20% quartz, 10% mafics 35% matrix Strong quartz veining w/ pinkish feldspar envelopes (probably K-spar Strong Cpy py mo mineralization as dis. tuff.</p>							
410							<p>→ cp Mo py Fracture fillings</p>							
							<p><u>AMYGDALOIDAL BASALT</u> 413½' - 416½' (Fine Grained maroon rock w/ soft white (gross. zeolite amygdolals Bleached to a buff colour at margins</p>							
420							<p>316½' - 509' <u>ALTERED TUFF</u></p>							

BQ (wireline)

HOLE NO. BC-1PROJECT: W-14PAGE NO: 8 OF 17

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 13, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: October 27, 1974SCALE: 1" = 10'INCLINATION: -70°

BEARING:

TOTAL DEPTH: 487'LOGGED BY: S.A. CLOUTIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y	
	Silica	Sericite	Biotite	Argillic												
420														420		
								<u>ALTERED COARSE GRAINED ANDESITE TUFF cont.</u> Light gray rock w darker angular to sub-rounded fragments up to 1cm. Strong pervasive argillite-sericite with some quartz veining. Little or no a ⁺ bi. generally weaker sulfide mineralization ghostly plagioclase, completely argillized visible in some sections of core. Minor chloritized mafics left.								
430								<u>cpy Mo</u>			3	5	100		77144	
								<u>cpy Mo veinlet ~1/4"</u>				5	100		430	
								<u>cpy Mo veinlets</u>				5	100		77145	
440								<u>Strong Mo Min on QU Ass. K-spar</u>				5 1/2	100		440	
								<u>fault zone w 1' dark clay gouge, prob ground sulf.</u>				5	100		77146	
450								<u>Shear zone 3"</u>				6	89		450	
												5	100		77147	
460												5	100		460	
												5	100		77148	
470								<u>cpy Mo on QU and PP</u>				5	75		470	
												5	20		77149	
												5	2			

HOLE NO. PC-1

BASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -90°

GROUND ELEV.:

N.

E.

BEARING:

PROJECT: POPLAR

DATE STARTED: October 17, 1974

DATE FINISHED: October 27, 1974

TOTAL DEPTH: 987'

PAGE NO: 9 OF 17

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. CLOUTZIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL
	Silica	Sericite	Biotite	Argillic										
480														
								<p>QU w Cp Ms 2" wide</p> <p>ALTERED COARSE GRAINED ANDESITE TUFE cont. w altered plag. phenos. up to 5mm in some sections</p>		3/4	5	100		480
490											5	95		490
										3/4	5	100		77201
500								<p>shear zone w quartz</p>			5	95		500
								<p>QU w Cp Ms 5" wide</p>		3/4	5	100		77202
510								<p>Ser in fracture</p>			5	92		510
								<p>ALTERED FELDSPAR PORPHYRY 508'- light gray matrix, locally pinkish-buff w white altid plag phenos a minor chloritic fragments or patches. w biotite also occurs in patches of along fractures quartz veining common pervasive sericitic argillic altid w local silica floating, textures are obscure but the appearance of occasional fragments, the shape of the plagioclase and the uniformly fine matrix suggest a volcanic rather than an intrusive porphyry. Sections of the core from 316 1/2 - 508 are composed of a similar porphyry.</p>		2 1/4	5	100		508
520								<p>coarse sericite plates on fracture</p>			5	90		520
										2 1/4	5	100		77204
530								<p>shear zone No Py 2"</p>			5	92		530
								<p>QU w py in clots or blebs</p>		3 1/2	7	97		77205
								<p>536'- Stronger 2° Bi results in overall dk gray colour small more numerous plag phenos.</p>						

BQ (wireline)

HOLE NO. PC-1

PROJECT: POPLAR

PAGE NO: 10 OF 17

SETTING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: -90°

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. CORE INT.
	Silica	Sericite	Biotite	Argillic											
540								<u>ALTERED FELDSPAR PORPHYRY cont.</u> 550-572' Pinkish envelopes around qu. possibly K-spar		3 1/4	8	98		540	
550							→ Strong Mo min assoc. w quartz			2 3/4	10	100		550	
560							→ 2" vein self transparent mineral looks like gypsum			3 3/4	10	97		560	
570					Moderate		→ Hematitic stained gypsum looks like open space filling wedge shaped at aschm	566-987 Hematite (specular) diss + pp in core < 0.5%		2 1/4	10	97		570	
580					CPY Py Mo (Hematite)		→ Quartz vein w 1/8" py stringer and epidote clots	570' Greenish cast to plag phenos		2 1/4	10	97		580	
590							→ Hematite? in stringer (poss. cinnabar)			2 1/4	10	97		590	
							→ Cpy Mo veinlet 1/6"			2 1/2	10	96		590	
							→ Cpy Py Mo in 3/4" QV			10	98			590	
														77206	
														77207	
														77208	
														77209	
														77210	
														77211	

80 (wireline)

HOLE NO. PC-1

PROJECT: POPLAR

PAGE NO: 11 OF 17

GAGING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION:

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G. A. Clouthier

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Biotite	Argillic										
600							<u>FELDSPAR PORPHYRY</u> cont.						600	
610							Gypsum stringers	2 1/2					60	
620							K-spar stringer 1/2"	2 1/2	10	99			60	
630					Moderate	Cpx Py Mo (Hematite)		3	10	99			620	
640							635'-652' Hematite Diss ~ 0.3%						630	
							637'-650' Porphyritic w altered gnrish plag phenos						630	
650							Spinel Hem no ground on slickensides cp+Mo on QU						640	
							K-spar veinlet	2 3/4	9 1/2	100			640	
							K-spar + K-spar Qtz veinlet						650	
								2 1/4	10	100			650	
													77217	
													77215	
													77214	
													77213	
													77212	
													77211	

HOLE NO. PC-1

PROJECT: POPLAR

PAGE NO: 12. of 12.

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: -90

BEARING:

TOTAL DEPTH: 937'

LOGGED BY: G.A. Clouthier

SECTION	ALTERATION				MINERAL GEOLOGY	COMMENTS: Pyrite content appears to be increasing as a percentage of the total sulfides at the expense of cpv	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP. INT.
	Silica	K-spar	Serpentine	Biotite									
660												660	
						<u>FELDSPAR PORPHYRY Cont.</u>							
						660- Minor Diss. Specular Hematite, Pyrite content slightly increased with textural evidence indicating partial replacement of py by cpv		2 1/2				670	
670						→ K-spar stringer - 1/4"			10	100		670	
								3 1/2				680	
680						→ MoS ₂ on QU			10	97		680	
						Mo. Py sp in QU		3				690	
690												690	
								3 1/2	10	97		700	
700												700	
												710	
710												710	
												720	
												720	
												730	
												740	
												750	
												760	
												770	
												780	
												790	
												800	
												810	
												820	
												830	
												840	
												850	
												860	
												870	
												880	
												890	
												900	
												910	
												920	
												930	
												940	
												950	
												960	
												970	
												980	
												990	
												1000	

Moderate
Cpv Py Mo (Hematite)

700-710' Strong g.u.ing in this interval w high MoS₂ mineralization

BQ (wireline)

HOLE NO. PC-1

PROJECT: POPLAR

PAGE NO: 13 OF 17

BASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: -90°

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP. INT.
	Silica	Sericite	Biotite	Argillic											
720								<u>FELDSPAR PORPHYRY</u> cont. Diss specular hematite stringer ~ 0.5% hard to distinguish from Mo in small flakes		2 1/2				720	
730							QU & Kspat envelopes				10	99		730	
740							QU 1/2"				3 1/4			740	
750							Py ~ 1/4" on QU				10	97		750	
760											3			760	
770							Cp Py Mo (Hematite)				2			770	
							Cp Mo on QU				10	97		780	
											10	97		790	
											10	100		800	
								<u>DIORITE PORPHYRY</u> See P.1						810	
								<u>ALTERED FELDSPAR PORPHYRY</u> 774-987' see page 9.						820	
											10	99		830	

BQ. (wireline)

HOLE NO. RC-1

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -90°

GROUND ELEV.:

N. E.

BEARING:

PROJECT: OSPLAR

DATE STARTED: October 17, 1974

DATE FINISHED: October 22, 1974

TOTAL DEPTH: 987'

PAGE NO: 15 OF: 17

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Biotite	Argillite											
840								ALTERED FELDSPAR PORPHYRY (cont)						840	
							Thin py veinlets			3 1/2				77236	
850							QU & K-spar Envelops				10	47		850	
							Minor Shear			2 1/4				77237	
860							qu - 1/8"				10	66		860	
										2 1/4				77238	
870								871' - 905' pinkish pervasive coloration of rock. Could be due to K-spar flooding, pervasive silicification stronger			4	87		870	
							qu & k-spar envelope			3 1/2		6	97	77239	
880							specularite in qu 1/4"				10	99		880	
										3				77240	
890											10	99		890	
										3				77241	
							veinlet soft transparent min ephiphrilite or spangum				10	100			

HOLE NO. PC-1

PROJECT: POPLAR

PAGE NO: 16 OF 17

CASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 17, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: October 27, 1974

SCALE: 1" = 10'

INCLINATION: -90°

BEARING:

TOTAL DEPTH: 987'

LOGGED BY: G.A. Cloutier

SECTION	ALTERATION				MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED*	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Biotite	Amphibole									
900						py veinlet 1/8" Min Hem or QU 1/8"						98	
								2 1/4				77242	
910								2 1/4	10	97		96	77243
												96	77244
920						Py veinlet ~ 1/8"			10	96		96	77245
						Strong Diss cpy		2				96	77246
930						QU 2" wide 1/8" band py			10	97		96	77247
								2				96	77248
940									10	97		96	77249
								2				96	77250
950									10	97		96	77251
								2				96	77252

BQ wireline

Py Cpy Mo (hematite)

at Diss also in QU

HOLE NO. PC-1

GAUGING COLLAR ELEV.:

COORDINATES:

INCLINATION: -90°

GROUND ELEV.:

N.

E.

BEARING:

PROJECT: POPLAR

DATE STARTED: October 17, 1974

DATE FINISHED: October 27 1974

TOTAL DEPTH: 987'

PAGE NO: 17 OF 17

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. Cloutier

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Biotite	Argillic											
960								<u>ALTERED FELDSPAR PORPHYRY (cont.)</u>							
970							quartz - 3/16"				10	94	BA wireline	77248	
980							py veinlets with quartz ~ 1/4"							77249	
987							quartz py ~ 1"				10	100		77250	
								987' END OF HOLE							

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 1 OF 16

BASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE: 1"=10'

INCLINATION: -60°

BEARING: 065°

TOTAL DEPTH:

LOGGED BY: G.A. CROUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: 1/2 Chlomite 2/3 Sericite unless otherwise labeled also K-spar + jarosite 2/3 Gypsum + poss. pyrophyllite	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y CAMP INT
	Silica	Sericite	Biotite	Argillic											
0														0	
10														10	
20														20	
30					Strong						1/2	6	75	27051	
35					Moderate						5	90		27052	
40					Strong						1/2	5	100	27052	
45					Strong Py Mo						5	80		27053	
50					Moderate						1/2	5	80	27053	
55											5	92		27054	
60											1/2	5	90	27054	
65											4	75		27054	

DESCRIPTIVE GEOLOGY

0'-3' STICK UP
3'-20' OVERBURDEN.

20'-141' FELDSPAR BIOTITE PORPHYRY

Gray grn. matrix w/ greenish white plag phenos up to 4mm long au. a 2mm and greenish black partly chloritized biotite phenos up to 3mm long, au 2mm. Matrix is fg with fine biotite and altered feldspars. Biotite in matrix is probably a recrystallization product but could be 2° Alth varies from wk chlorization of mafics and clay alt'n of feldspars in some sections to strong argillic sericite alt'n in volung almost complete removal of mafics and a general lightening of the rock color and obscuring of 1° textures. Strong is strong w/ major set at 30° to core axis. Cpy Py and Mo both diss + ff. Mo strongest in and near QU. Metal Estimate: 20-40% plag phenos 5-15% Fe and rest mafics Hematite also present in minor amounts.

* QU probably near vertical, based on info from PC-1

18q (wireline)

HOLE NO. C-2

PROJECT: POPLAR

PAGE NO: 2 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE: 1" = 10'

INCLINATION: -60°

BEARING:

065°

TOTAL DEPTH:

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: $\frac{1}{2}$ Chlorite	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Biotite	Argillic											
6															
70					Moderate			<p>→ Horiz. QU offset by vert.</p> <p>→ 1/2" Show Hem on faces</p> <p>→ 2° QU</p> <p>→ 2° QU w py</p>		1/2	2	90		6	
80					Strong					1/2	5	94		70	27055
90								<p>→ 1/2" QU w mosz</p> <p>→ Hairline py cpy veinlets</p>		1/2	5	84		70	27056
100										1/2	5	92		80	27056
110								<p>Strong qu.s ave 1/4" min py cpy mo, some</p> <p>→ Shearing also to veins</p>		1/2	5	96		80	27057
										1/2	1.5	80		90	27057
										1/2	3.5	86		90	27057
										1/2	5	94		90	27058
										1/2	5	98		180	27058
										2	5	90		180	27058
										2	5	98		110	27059
										1 3/4	5	94		110	27059
										1 3/4	5	95		27060	27060
										1 3/4	5	90		27060	27060

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 3 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE: 1" = 10'

INCLINATION: -50°

BEARING: 065°

TOTAL DEPTH:

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS: 1/2 Carbonate where labeled with usually sericite	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
120														
130							<p>→ QU ± Hem cpy Py Mo</p> <p>→ QU ± cpy</p> <p>→ 1/2 QU ± minor carbonate</p>		2	5	94		130	27061
140							<p>→ cpy and qu</p>		2	5	92		140	27062
141-146'				Strong	Cpy Py Mo Hematite		Carbonate veins		3/4	5.5	80		146	27063
146-268'				Moderate	Nil					5.5	88		150	27064
160										5	94		160	27065
170										5	86		170	27066
										5	94			
										5	96			
										5	96			
										3	86			

HOLE NO: PC-2

PROJECT: P3PLAE

PAGE NO: 7 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE: 1" = 10'

INCLINATION: -60°

BEARING: 065°

TOTAL DEPTH:

LOGGED BY: G. A. Cloutier

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Serice	Bisulphite	Argill.											
180															
								QUARTZ FELDSPAR PORPHYRY cont							
190								complex fracturing over 8"		100	7			27067	
														190	
														27068	
200														200	
														27069	
														210	
210														210	
														27070	
														220	
220														220	
														27071	
								Minor Shear w/ minor clay on fracture						230	
230														230	
														27072	
														27073	
														27074	
														27075	
														27076	
														27077	
														27078	
														27079	
														27080	
														27081	
														27082	
														27083	
														27084	
														27085	
														27086	
														27087	
														27088	
														27089	
														27090	
														27091	
														27092	
														27093	
														27094	
														27095	
														27096	
														27097	
														27098	
														27099	
														27100	

HOLE NO. PC-2

PROJECT: ROPLAR

PAGE NO: 5 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: November 4, 1974

SCALE: 1" = 10'

INCLINATION: -60°

BEARING: 065°

TOTAL DEPTH: 937'

LOGGED BY: GA. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Serucite	Biotite	Argillic											
240								QUARTZ FELDSPAR PORPHYRY cont. pervasive argillic alt'n		400				240	
250					Moderate					400	10	92		250	
260					Moderate					400	10	98		260	
270					Strong	Py, Ab, Hrn		Sheared contact	FAULT BECCIA 268-275' Appears to be an extremely altered + sheared section of the volcanic or Subvolcanic Feldspar Biotite porphyry enclosing the Fresh QFP. Py, Cp + Mu + hematite are present	0.25				270	
280					Moderate			Sheared contact. Wireline QV w py, cp, mo Min.	RHYO-DACITE PORPHYRY 275'-327' The rock has a gray-buff coloured aphanitic groundmass w alt'd plag. phenos, subrounded fragments up to 2cm long and minor rounded qtz eyes and/or amygdals. The fragments or inclusions are generally fq w colours ranging from gray to white to greenish and maroon tinges. Feldspar inclusions are common throughout the matrix locally exhibiting a weak foliation at 15° to the core axis. There is moderate pervasive argillic alt'n which is strong along fractures. Finely diss. shiny black min common. It's non-magnetic	0.80				280	
290					Moderate			Minor shears w slickensides in clays		0.10				290	
								shear rounded greenish fragments up to 1/4 cm		200		9	40	290	
								Fault zone minimum 8'		5				293	
													30 (wireline)	27073	
														27074	
														27075	
														27076	
														27077	
														27078	

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 6 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 23, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: November 4, 1974

SCALE: 1" = 10'

INCLINATION: -60°

BEARING: 065°

TOTAL DEPTH: 937'

LOGGED BY: G. A. CLOUTYER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: 1/3 Soft-Transparent Mineral (ferrophyllite?)	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Biotite	Amphibole											
300															
310					Moderate			Shear zone w carb. veining Hematitic frag. up to 5mm		0.01	6	97		27079	
320								ft. zone ~6" w clay gouge.		0.01	10	100		27080	
330								Fault Bre at contact cpy Py Mo Mn Str. Spec. Hem Qtz-K-spar veinlet 2"		0.20	105	100		27081	
340					Strong			Qtz-K-spar veinlet w cpy + py cpy + py veinlet 1/16"		1.5	4.5	100		27082	
350								Broken Core		2	8.5	100		27083	
											1	80			
											1	90			
											1 1/2	66			
								Qtz (pyrophyllite) veinlet Patches + veinlets of pink alt'n probably K-spar		2	8	90		27084	
								352' - 492' FELDSPAR BIOTITE PORPHYRY See P. 1 20'-191'			4	100			

RHYO-DACITE PORPHYRY cont.

FINE GRAINED ANDESITE TUFFS 327'-352'

Gray w greenish and brownish tinges due to chlorite and 2° biotite respectively. Generally fine grained with very few larger fragments. Pervasive Ser-clay, silica alt'n w strong Qtz-Ser (K-spar?) veining strongest at 35° to core axis. Mineralization:

89 (wireline)

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 7 OF

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: November 4, 1974

SCALE: 1" = 10'

INCLINATION: -60°

BEARING: 065°

TOTAL DEPTH: 937'

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Biotite	Amphibole										
360							→ Qtz K-spar veinlet 1"						360	
							→ Minor Fault w/ clay gouge						27085	
370							→ Qtz K-spar veinlet 1/2"		1.25	6	71		370	
							→ Hairline Py cp veinlets over 2'		2.2	10	92		27086	
							→ cp Py veinlets			2	80		27087	
380							→ minor shear ground sulfides		2	8	9.7		380	
							→ Strong QUing						27088	
390							→ cp Py 1/4" QU		2.6	10	100	30 (wireline)	390	
							→ MoS ₂ on QU						27089	
400							→ cp Py QU 1/4"		3	10	98		400	
							→ QU vuggy w/ rhombohedral xls pass. zed. (Sample)						27090	
410									27	10	100		410	
													27091	
									10	99				

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 8 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: November 4, 1974

SCALE: 1" = 10'

INCLINATION: -60°

BEARING: 065

TOTAL DEPTH: 737'

LOGGED BY: G. A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Serpentine	Biotite	Amphibole											
420								<p>1/2" QU w cpy mo & py → Minor shear</p> <p><u>FELDSPAR BIOTITE PORPHYRY</u> cont. biotite phenos very rare, probably mostly removed by alt'n</p>		1/25				420	
430								<p>→ cpy & py hairline</p> <p>Minor shear w mo → soft transparent min (pyrophyllite 1/4" thick)</p>		1/4	1	100	95	430	27091
440								<p>→ pyrophyllite 3/4" thick</p>		1		92	440	27092	
450								<p>→ whitish K-spar veins 1/3"</p>		1	9.5	100	450	27093	
460								<p>→ py cp in hairline QU</p>		1 1/2	2.5	100	460	27094	
470								<p>→ py mo in QU</p>		3/4	10	99	470	27095	
								<p>→ pyrophyllite veins 1/2"</p>		2 1/4	10	100	470	27096	

BA (wireline)

HOLE NO. PC-2

PROJECT: POPLAR

PAGE NO: 9 OF

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 29, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED: November 4, 1974

SCALE: 1" = 10'

INCLINATION: -10°

BEARING: 065°

TOTAL DEPTH: 237'

LOGGED BY: GA. Cloutier

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Serpentine	Biotite	Amphibole										
480							2 x 4 K" Q K-spar envelopes						480	
							Qtz K-spar veined Gypsum veinlet 1/8"						490	
490							Hardline veinlets cpy Py						490	
							QU min cpy			10	100		27098	
							Mo on shear w streaksides						27098	
500							Py cpy FF						508	
							Spec, Mo on sheared QU			10	97		27099	
510							Gypsum veinlet 1/4"						510	
							Hardline py stringer						27100	
520							Py cpy FF						520	
							Calcite stringer 1/8"						27101	
530							very thin 2/2 Py cpy veinlets			10	100		530	
							shear zone 11' wide						27102	
							531'-538' ALTERED FINE GRAINED TUFFS Buff to white coloured aphanitic rock w strong fracturing along + cpy stringers			10	100		27102	
							538'-547' FELDSPAR BIOTITE PORPHYRY			10	96			

HOLE NO. PC-2

BASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -60°

GROUND ELEV.:

N.

E.

BEARING: 065°

PROJECT: P3242

DATE STARTED: October 29, 1974

DATE FINISHED: November 4, 1974

TOTAL DEPTH: 337'

PAGE NO: 10 OF

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Serpentine	Biotite	Argillite											
540								Spinelite in QU							
								→ Abrupt intrusive contact							
550								547' - 625' ALT'D FINE GRAINED TUFFS see R 6		1/2					
								327' - 352' Fine brittle fracturing w qtz			9	108			
								+ Sulf P.P., Ser envelopes common on QU.		1/2					
560								→ Minor shear			9	110			
										1/2					
570								→ QU veinlet (8")		10	100				
								Ground sulf. in QU 2" wide		1/2					
580								→ Calcite vein 2" wide		10	96				
										2 1/2					
590										3	87				
										5	100				
										2	100				
										12	90				

HOLE NO.: 02-2

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -40

GROUND ELEV.:

N. E.

BEARING: 025°

PROJECT: OJPLAR

DATE STARTED: October 27, 1977

DATE FINISHED: November 9, 1977

TOTAL DEPTH: 237'

PAGE NO: 1 OF

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. BOUTHER

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Biotite	Amphibole										
600							ALT'D FINE GRAINED TUFF cont.							
610							py cpy 1/8"		3					
620							Pyrite in sec. - K-spar veinlet Fault zone at contact 3" dry gouge		3	6	100		510	
630							625-638' FELDSPAR BIOTITE PORPHYRY		3	4	102			
640							638-736' ALTERED FINE GRAINED TUFF with minor feldspar porphyritic sections		3	10	97		620	
650							Py veinlet 1/8" Py Mo in Qvs Gypsum veinlet 1/8" cpy bleb 7 mm long cpy Py hairline veinlet minor slip to Mo py cpy in Qu 1/4" no dics in Qu		3	10	100		630	
									2 3/4					
									1 1/2					
									3	10	98		640	
										10	97		650	

HOLE NO. PC-2

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -60°

GROUND ELEV.:

N.

E.

BEARING: -065

PROJECT: POPLAR

DATE STARTED: October 29, 1974

DATE FINISHED: November 4, 1974

TOTAL DEPTH: 937'

PAGE NO: 12 OF

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G.A. CLOUTIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Biotite	Amphibole											
660								Mo Py							
								ALT'D FINE GRAINED TUFFS cont.							
670								Mo in series of thin Qz's		2 3/4					
								Minor shear			8	99			
680								K-spar in fracture 1/8"		3	2	120			
								Specks of berrite in veinlet			10	97			
690								Many Hairline py veinlets w minor apy		3					
700								Ung-w qtz xls and tabular soft xls as rhombs + apy mo cavellite + py			10	102			
								irregular qz. up to 1" wide		3					
710								fault zone 8" minimum			5	106			
720										3	8	100			

BQ (wireline)

HOLE NO. PC-2

BASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -60°

GROUND ELEV.:

N.

BEARING: 065°

PROJECT: PSPLAR

DATE STARTED: October 29, 1974

DATE FINISHED: November 4, 1974

TOTAL DEPTH: 937'

PAGE NO: 13 OF

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: G. A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Biotite	Amphibole										
720							Shear zone 3"							
							Carbonate stringer 1/4"							
730							vuggy QU w gypsum		3	10	100			
							Narrow QU w Cpy							
							offset							
							Felsite							
740							Minor shears w ground		2 3/4	10	100			
							Sulphides							
							carbonate stringer 1/4"							
750							736'-737' FELSITE Fine Grained buff coloured							
							rock intruding tuff, unmineralized, probably							
							related to the Rhyo-dacite porphyry							
							737'-741' ALT'D FINE GRAINED TUFF		3	6	96			
							741'-742' RHYO-DACITE PORPHYRY see p. 5							
							275'-327'							
							742'-749' ALT'D FINE GRAINED TUFF		1 1/2	10	100			
760							Shear w slickensides							
							Carbonate stringer 3/8"							
							porphyritic section 6"		3	10	100			
							and to plug phenos							
770							QU w Kspar envelopes							
							Shear zone 3"		3	10	100			
							QU w Cpy mo							

8a (wireline)

HOLE NO. 02-2

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -30°

GROUND ELEV.:

N.

E.

BEARING: 065°

PROJECT: POPLAR

DATE STARTED: October 29, 1979

DATE FINISHED: November 4, 1979

TOTAL DEPTH: 937'

PAGE NO: 17 OF 16

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: C.A. CLONINGER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Serussite	Biotite	Annite											
780								DESCRIPTIVE GEOLOGY							
								ALT'D FINE GRAINED TUFF cont.						780	
								→ Gypsum xls in wuggy QU		3 1/2					
790								791-795' FELDSPAR BIOTITE PORPHYRY See Notes p. 1 and p. 8			9	97		790	
								→ Shear zone obscuring contact		3 1/2					
								795-869' ALT'D FINE GRAINED TUFF			4	90		800	
800															
								→ fault zone 3" wide		3	7	97			
810															
								→ QU w hem + Mo		3 1/4	10	100		810	
820															
								→ Shear Zone A"		3 1/2	9	95		820	
830								→ Minor faults 1-3"							
											10	100		830	
										1 1/2					
											10	100			

BQ wireline

HOLE NO. DC-2

PROJECT: POPLAR

PAGE NO: 16 OF 16

MISSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: October 19, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: November 4

SCALE: 1" = 10'

INCLINATION: -50°

BEARING: 065°

TOTAL DEPTH: 937'

LOGGED BY: G.A. CLOUTHIER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Biotite	Argillie											
900								<p><u>QUARTZ FELDSPAR PORPHYRY (QUARTZ MONZONITE) cont.</u></p> <p>Qz w k-spar envelopes</p> <p>1/4" py veinlet</p> <p>K-spar on QU 1/4"</p> <p>Carb stringer 1/4"</p> <p>Carbonate on shear</p> <p>Mo on Shear.</p> <p>cpy py Mo in Qz honey coloured min assoc w Mo</p>						900	
910										10	100			910	
920					Moderate					10	100			920	
930					cpy py Mo					10	99			930	
940								End of Hole 937'							

HOLE NO. PC-3

PROJECT: POPLAR

PAGE NO: 1 OF 8

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: Nov 11/74

REF. TO CLAIM CORNER:

COORDINATES:

N. 19323.73 E. 37,043.36

DATE FINISHED: Nov 19/74

SCALE: 1"=10'

INCLINATION: -60°

BEARING: 245°

TOTAL DEPTH: 503 feet

LOGGED BY: F. BUTTER

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS: No copper mineralization, moderate to strong phyllic (Qtz/sericite) alteration, pervasive & fine. Much disc. & fine pyrite. Fracture pyrite & Qtz/ser envelopes developed mainly on steep frac.	AVE CORE RECY/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP INT	ESTIMATED
	Silicification	Sericitization												
0														
						0-2.5' STICK-UP								
						25'-55' OVERBURDEN					BQ			
						55'-207' FELDSPAR PORPHYRY		2 1/2	5	80		27143		
						Grey to bleached white, mostly well frac. Remnant feldspar phenos upto 5mm. commonly 2-3 mm. Locally has banded texture or indistinct patchy fragmental appearance (haaled frac or bx; or remnant primary frag volc textures?)		2	100					
						Alteration - Moderate to strong pervasive; silicification & sericitization (phyllic alt ^o) Sericite commonly fg. waxy lustre, translucent Rare patches of green sericite. Feldspar rarely shows clearcut ang. alt ^o (chalky) Qtz. veining not present as such but represented by fine siliceous halos along fractures. Much pyrite both disc and along frac. Fractures commonly calcareous		2 1/2	5	100		27144		
						banded		5	94					
								2 1/2	5	100		27145		
								5	96					
								2 1/2	5	100		27146		
								5	100					
								2 1/2	5	100		27147		
								5	94					

HOLE NO. PC-3

PROJECT:

PAGE NO: 2 OF 8

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED
	silicification	oxidization												
100														
110														
120														
130														
140														
150														
160														

moderate

strong

moderate

119-149 Core badly broken

quite un 1/4" th

DESCRIPTIVE GEOLOGY

HOLE NO. PC-3

PROJECT:

PAGE NO: 3 OF 8

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED
	silicification	sericitization	2° biotite											
160						FELDSPAR PORPHYRY cont.								
170				Shear		pyrite w/ 1/2" th		4 1/2	5	100		27/54		
180								3	5	100		27/55		
190						qtz w/ py & calcite		4 1/2	5	100		27/56		
200						shear w/ calcite		3	5	100		27/57		
210				Shear		207-220 FELDSPAR PORPHYRY						27/58		
						Grey to dark brown, color varying with content of fg. 2° biotite Other alt ⁿ includes silic ^o & ser ^o as above. (ser ^o decreasing with increase in bi) Epidote patches (2mm) over 3" @ 218' Frac commonly carry calcite		4 1/2	5	100		27/59		
								5	5	100				

HOLE NO. **PC-3**

PROJECT:

PAGE NO: **4** OF **8**

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED
220							<p>220-397 FELDSPAR PORPHYRY</p> <p>As first unit above. Bleached grey to white. Strong phyllic alt². Diss & frac. pyrite. Pyrite tends to be concentrated in steep fracture set. Qtz sericite alt² developed strongly on some frac (mostly steep)</p>								
230				moderate				2 1/2	5	100			27160		
									5	100					
								2 1/2	5	100			27161		
240									5	100					
								2 1/2					27162		
250															
								2	5	98			27163		
260									5	98					
								2	5	100			27164		
270								5	98						
							2	5	100			27165			
								5	100						

py alt 1/2"

256-257 shear with calcite & alunite

py in shear

HOLE NO. PC-3

PROJECT:

PAGE NO: 5 OF 8

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	ESTI-MATED
	Silicification	Sericification												
280														
289-298						relatively fresh		2 1/2	5	100		27166		
290									5	97				
300								2	5	100		27167		
310						silic. fac. enveloped			5	97				
320								2	5	100		27168		
									5	98				
								2 1/2	5	98		27169		
									5	60				
								2	5	100		27170		
330								2						
									10	100				
												27171		

HOLE NO. PC-3

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION:

GROUND ELEV.:

N. E.

BEARING:

PROJECT:

DATE STARTED:

DATE FINISHED:

TOTAL DEPTH:

PAGE NO: 7 OF 8

REF. TO CLAIM CORNER:

SCALE:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP INT.	ESTI-MATED
	Silicification	Sulfidation											
400													
410			WEAK		397-418.5 TUFF - crystal lithic tuff, mostly fine grained with rare lithic frags to 1cm. Scattered qtz eyes. light green to dark brown. Dark color due to fine spec hem and biotite. Some coarse fresh biotite 402-405. Light areas are fine envelopes (silicified) Pervasive light green sericite. Trace of pyrite		TR	10	100		27178		
420							TR	5	100		27179		
430					418.5-503 FELDSPAR PORPHYRY		1 1/2	10	99		27180		
430				430-432 Sheared of bx	418.5-427 pink hematitic staining of feld. remnants numerous fracs with qtz / ser envelopes								
430					430-432 Sheared of Bx - avg. alt ⁿ		3	10	100		27181		
430					432-464 well developed qtz / ser envelopes								
440			STRONG		464-503 Decrease in qtz ser envelopes Avg ⁿ of feld phenos (white cherty): 467-469 477-479 482-495 497-499		10	10	98		27182		
440				← 2" py un									
450				qtz/pyrite vein running along core	474-475 calcite ults with alunite		2 1/2	10	100		27183		

HOLE NO. **PC-3**

PROJECT:

PAGE NO. **8** OF **8**

ASSIGNING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTI-MATED	
	silicification	sericitization	pyritization												
460						<p>FELDSPAR PORPHYRY cont.</p> <p>avg. feld</p> <p>avg. feld</p> <p>avg. feld</p> <p>avg. feld</p>		2	7	97		27184			
470									10	100					
480				STRONG				2	3	100			27185		
490								1/2	10	99			27186		
									6	97			27187		
500				MODERATE				1/2	10	100			27188		
							1/2					27188 →			

HOSE NO. PC-4

PROJECT: POPLAR

PAGE NO: 1 OF 11

ASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: Nov 22, 1974

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED: Nov. 26, 1974

SCALE: 1"=10'

INCLINATION: -60°

BEARING: 245°

TOTAL DEPTH: 647'

LOGGED BY: R POTTER

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y
	SILICIFICATION	SERICITIZATION	BIOTITE	ARGILLIZATION											
0								0-2' STICK-UP							
10								2-27 - OVERBURDEN							
30								27-49 BIOTITE PORPHYRY		1/2	3	50	BQ		
								27-49 Core indly broken oxidized			2	70			
								Dark gray, medium grained, phenos of fresh biotite to 3mm, silicified, some sericite; Py & Cpy in frac & diss, mostly the latter.		1/2	4	60			
								mal on frac			3	90			
40								mal on frac			6.5	60			
										1/2	3.5	80			
50								49-68 Scattered oxidized frac.			3	75			
								49-92.5 FELDSPAR PORPHYRY			5	98			
								Coarse Cpy (Py)		1	5	95			
								Gray-green, Feldspar phenos to 5mm Feldspars generally argillized to soft light green material.							

← 27187

27190

27191

27192

SECTION	ALTERATION			FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP INT	m
120						<p>FELDSPAR PORPHYRY cont.</p> <p>The two rock types show distinct alteration assemblages. They are separated under the alteration column:</p> <p>1. Silicified feldspar porphyry - light grey, qtz, sericite alteration Diss of frac. Py, Cpy and minor moly Scattered spec. hematite</p> <p>2. Biotitic feldspar porphyry light to dark brown with increasing biotite content. Secondary biotite fine-grained, felty, dark brown to black. Feldspars tend to be argillized to light green soft material Diss of frac Cpy, py & spec hem</p> <p>Fine qtz stringers are common throughout the unit with greatest concentration in the siliceous rocks. Cpy slightly concentrated in biotite rich zones No confined to siliceous zones</p>	1	5	100		27199			
130							2	10	100		27200			
140					← 1/2 py stringer in qtz/kaob un.			5	98					
150							15	5	100		27201			
160								5	97					
							15	5	98		27202			
								5	94					
							15	5	100		27203			
								5	96					
170								1	5	98		27204		
								5	95					

HOLE NO. PC-4

PROJECT:

PAGE NO: 4 OF 11

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
180					DESCRIPTIVE GEOLOGY		1.5	5	100		27205	
								5	90			
190							1.0	5	100		27206	
								5	97			
200							.5	5	98		27207	
								5	98			
210							.8	5	100		27208	
								5	80			
220							.8	5	90		27209	
								5	95			
230							1	5	100		27210	
								5	94			

SILICIFIED FELDSPAR PORPHYRY - as below

HOLE NO. PC-4

PROJECT:

PAGE NO: 6 OF 11

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.
300														
310									.8	5	100		27217	
										5	100			
									.8	5	100		27218	
320														
										10	98			
									.7				27219	
330							3295-32 Dyke Dark green, fine grained, pyroclitized (chlorite, carbonate) no sulphides							
							carbonate vlt's		.7	10	100		27220	
340														
									.7	10	100		27221	
							only in vlt's							
350									.8					
										8	100		27222	
							357-363 Feldspar porph. Ang. feld phen's, bleached							

HOLE NO. PC-4

PROJECT:

PAGE NO: 7 OF 11

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP INT.
360														
370				STRONG	Ep, Py, Mo		Strong disc Mo in 1/4" qtz st.		.8				27223	
									10	100			27224	
380							376-378.5 DYKE — post mineralization Fine grained, biotite rich (dark brown) bleached along contacts and fine fractures		6	100			27225	
							broken core		10	6	90		27226	
390							378.5-484 SILICIFIED FELDSPAR PORPHYRY As above: numerous qtz stringers min 20 biotite Disc Ep, py, min Mo Miner frac sulphides Spec from holes on some Ep grains			2	90		27227	
							biotite brecciated core			2	60		27228	
400				STRONG	Ep, Py, Mo		Ep, Py, Mo stringers		10	10	100		27229	
									10	6	90		27230	
410										7	90			
									12	10	100			

HOLE NO. **PC-4**

PROJECT:

PAGE NO: **8** OF **11**

BASSING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y
420													
430								15	9	100		27229	
440								10	10	100		27230	
450								10	10	100		27231	
460								13	4	95		27232	
470								12	10	100		27233	
								15	10	100		27234	
								10	100				

STRONG

Pz Sp4 M6

HOLE NO. PC-4

PROJECT:

PAGE NO: 9 OF 11

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
480													
						484-501.5 BIOTITE FELDSPAR PORPHYRY		15				27235	
490						Dark brown with prominent bleached recrystallized feld Felsy dark brown 2° biotite, minor sil ² & ser ² Disc Cpy & minor py & moly		18	10	100		27236	
500						501.5-524.5 SILICIFIED FELDSPAR PORPHYRY		18	9	100		27237	
510						As above, light to medium gray 2° biotite below 518' darker color Cpy throughout increasing with biotite Numerous qtz stringers, pervasive sil ² & ser ²		15	10	100		27238	
520						524.5-544.5 ANDESITE		17	9	100		27239	
530						Fine grained, dark grey to brown Same fg 2° bi, decrease in qtz in from above unit. Numerous fine gypsum vlt. moderate pervasive sil ² & ser ²		17	11	100		27240	
									10	100			

HOLE NO. PC-4

PROJECT:

PAGE NO: 10 OF 11

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARING:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION		FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP. INT.
540						ANDESITE CONT.							
550						544.5 - 647 BIOTITE PORPHYRY		1.2				27241	
						Dark brown, hard, massive, minor qtz veining Numerous fine gypsum vlt's and frac fillings. Mostly of porphyritic tex. with prominent remnant Bi phenos (primary?) and short sections having moderately altered white feldspar phenos strongly silicified, minor sericite			10	100		27242	
560								1.5				27243	
									11	100		27244	
570								1.2				27245	
									10	100		27246	
580								1.2					
									10	100			
590								1.2					
									10	100			
								1.3					
									10	100			

HOLE NO. PC-4

PROJECT:

PAGE NO: 11 OF 11

BASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N.

E.

DATE FINISHED:

SCALE:

INCLINATION:

BEARINGS:

TOTAL DEPTH:

LOGGED BY:

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
600							BIOTITE PORPHYRY CONT.		1.3				27247	
610									1.5	10	100		27248	
620									1.2	10	100		27249	
630									1.2	10	100		27250	
640									1.0	10	100		27251	

END OF HOLE 647

APPENDIX D

INVOICES OF EXPENSES INCURRED

Alpine HELICOPTERS LTD.

P.O. BOX 698, KELOWNA, BRITISH COLUMBIA V1Y 7P4

RECEIVED
OCT 24 1974

UTAH MINES,
#412 - 510 W. HASTINGS,
VANCOUVER, B.C.

37

INVOICE No.: K 4471
DATE: October 9, 1974
CONTRACT No.: K-800
WORK ORDER No.:

TO: CHARGE FOR HIRE OF BELL 206B HELICOPTER IN THE HOUSTON AREA

CF-ALF October 4, 1974 Flight Report #13353 1.0 hours

1.0 hours @ \$285.00/hr	\$285.00
24 gal. fuel @ .80¢/gal	<u>19.20</u>
TOTAL THIS INVOICE	\$304.20

UTAH MINES LTD. -- EXPLORATION DEPT.					
DISTRIBUTION					
Location	Major	Minor	Act.	Exp.	Amount
30 00	4000	2880	40	40	304.20
00		0	0	0	
00		0	0	0	
00		0	0	0	
00		0	0	0	
Date Received			Invoice Amount		304.20
Ext. & Prices			Discount		
Approved by			Amount Payable		
			Check No.		

Poplar

[Signature]

OKANAGAN HELICOPTERS LTD.

740
 HEAD OFFICE
 439 AGAR DRIVE
 INTERNATIONAL AIRPORT SOUTH
 VANCOUVER, B.C. V7B 1A5
 TELEPHONE (604) 278-5502 TELEX 04-5088 83
 CHARTERER'S BILLING ADDRESS

UTAH MINES LTD

1600 - 1050 W. PENDER

VANCOUVER, B.C. V6E 2N7

ACCOUNT NUMBER	85316	7217				
INVOICE DATE	DEC 06 1974	FLIGHT DATE	DAY	MONTH	YEAR	TYPE OF FLY
AIRCRAFT TYPE	206B	BASE	SMITHERS			BASE NO
TYPE OF CONTRACT - X		FLIGHT LOCATION	"			FLIGHT LOCAT
IND. CLASS	AIRCRAFT REG. NO.	PILOT 1.	VEIDEMAN			PILOT 1.
NO. OF PASSENGERS	FREIGHT LBS.	PURCHASE ORDER NO.	STATE OF AIRCRAFT - X			PILOT 2.
3			UNSERVICABLE			STORED

OPERATION	TAKE-OFF	LAND	FLYING TIME
Smithers → Houston → Poplar Lk.	0920	1000	0.6
Slings out Poplar Lake Camp.	1015	1530	4.7
Poplar Lk → Houston → Smithers	1555	1630	0.6
			5.9

"OUR TERMS ARE NET 30 DAYS - Interest of 1 1/2% per month will be charged if not paid within 30 days."

EXTRA CHARGES OR ADJUSTMENTS	AMOUNT	NON. REV. HRS.	REVENUE HOURS	TARIFF	AMOUNT
			5.9	28500	1681.50
			OHL FUEL		
			39.8 GALS. @	65	2587
			OHL FUEL		
			90 GALS. @	90	8100
			OHL OIL		
			5.9 HRS. @	150	885
			OHL FUEL		
			HRS. @		
EXTRA CHARGES OR ADJUSTMENTS					
OHL - 017/0674-10					\$ 1797.22

CHARTERER BY
 SIGNED FOR OKANAGAN HELICOPTERS LTD. BY
W. Veideman

INVOICE

UTAH MINES LTD. - EXPLORATION DEPT.					
DISTRIBUTION					
Location	Major	Minor	Act.	Exp.	Amount
3000	4000	2880	40	40	1797.22
00		0	0	0	
00		0	0	0	
00		0	0	0	
00		0	0	0	
Date Received	Invoice Amount		1797.22		
Ext. & Prices	Discount				
Approved by	Amount Payable				
	Check No.				

30 DAYS - INTEREST OF 1 1/2% PER MONTH



Underhill & Underhill

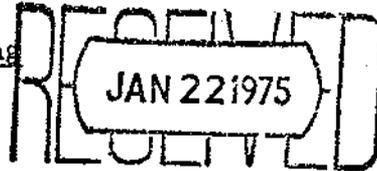
Professional Engineers - Dominion & B.C. Land Surveyors

Utah Mines Ltd.,
1600 - 1050 West Pender Street,
VANCOUVER, B.C.

1646 West 7th Avenue
Vancouver 9, British Columbia

Telephone (604) 732-3384
Telex 04-53339

Attention : Mr. M.J. Young



Our File: J-7140 JWS
Your File:

31st December, 1974
INVOICE No.

re: POPLAR LAKE PROJECT : OMINECA MINING DIVISION

PERIOD: October, November and December, 1974

TO: Consultations and correspondence with
Department of Lands, Forests & Water
Resources, Mining Recorders, Vancouver
and Smithers; Onucki, Critichlow and
Callaghan;

Correspondence and consultations with Messrs.
Young, Ascencios, Clothier, Potter and Davis
& Co.;

Consultations and correspondence with
Department of Recreation & Conservation;
Chief Gold Commissioner;

Field surveys to -

- (a) establish a control base line;
- (b) establish an I.P. grid line control;
- (c) establish control on and position of
Poplar M.C. 1-20, 33, 35, 37, 61-63
and 1 Fr., DON 1-13, 26-36; DAVE 1-5 Frs.;
- (d) to locate and establish the position of
diamond drill holes on the property;

Computations, plotting, drafting and printing.

Professional Services
Wages
Board and Lodging
Transportation
Field Expenses
Drafting and Printing

5,677 00
10,973 04
1,991 24
2,767 32
1,210 22
633 49

\$23,253 08

Alpine HELICOPTERS LTD

P.O. BOX 698, KELOWNA, BRITISH COLUMBIA V1Y 7P4

DEC 2-1974

Receipt

UTAH MINES,
412 - 510 WEST HASTINGS STREET,
VANCOUVER, B.C.

INVOICE No.: K 4520

DATE: November 4, 1974

CONTRACT No.: K-300

WORK ORDER No.:

TO: CHARGE FOR HIRE OF BELL 206B & BELL 47G3B1 HELICOPTER
IN THE HOUSTON AREA

CF-ALP	October 5, 1974	Flight Report #12412	2.3 hours
	October 6, 1974	Flight Report #12413	2.6 hours
	October 8, 1974	Flight Report #12415	3.4 hours
	October 9, 1974	Flight Report #12418	3.0 hours
	October 10, 1974	Flight Report #12420	1.5 hours
	October 11, 1974	Flight Report #12423	5.5 hours
	October 12, 1974	Flight Report #12424	3.6 hours
	October 18, 1974	Flight Report #13143	1.3 hours
	October 20, 1974	Flight Report #13143	.9 hours
			24.7 hours
CF-SPE	October 4, 1974	Flight Report #12411	1.5 hours
	October 15, 1974	Flight Report #13140	1.0 hours
	October 16, 1974	Flight Report #13140	1.1 hours
			3.6 hours

24.7 hours @ \$285.00/hr	\$7,039.50
592.8 gal. fuel @ .80¢/gal	474.24
3.6 hours @ \$165.00/hr	594.00
57.6 gal. fuel @ .95¢/gal	54.72
	54.72

TOTAL THIS INVOICE \$8,162.46

*K-4517
4526*

Nov 9 1974
 CH # 014463
 9257.58

*D.M.
Thank you.*



Subsidiary of
Bow Valley Industries Ltd.

Suite 205 - 1201 West Pender Street
Vancouver, B.C. V6E 2V2

JOB: 1-513

INVOICE NO: 5400

DATE: December 20, 1974

Utah Mines Limited
1600 - 1050 West Pender St.
Vancouver, B.C.

SURFACE DIAMOND DRILLING
South of Houston, B.C.
December 20, 1974

TRUCK RENTAL CHARGES & GAS (Copy attached)

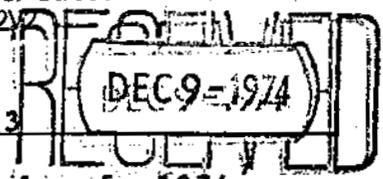
Avis Rental	Inv. # T-101909	49.14	
Avis Rental	Inv. # T-101928	99.23	
Charter Truck	Inv. # 98859	287.22	
Charter Truck	Inv. # 98853	849.66	
Bulkley Valley	Inv. # 1368	144.00	
Standard Oil Co.	Inv. # 368	<u>24.53</u>	1,453.78

rs Drilling Ltd.

subsidiary of
 Valley Industries Ltd.

Suite 205 - 1201 West Pender Street
 Vancouver, B.C. V6E 2V7

Copy



JOB: 1-513

INVOICE NO: 5361

DATE: December 5, 1974

Utah Mines Limited
 1600 - 1050 West Pender Street
 Vancouver, B.C.

SURFACE DIAMOND DRILLING
 SOUTH OF HOUSTON, B.C.
 November 16 - 30, 1974

FOOTAGE FEE

D.D. Hole #	PC-3	257' - 500'	243'	@	13.50	3,280.50	
		500' - 503'	3'	@	14.50	43.50	
	PC-4	0' - 34'	34'	@	14.50	493.00	
		34' - 500'	466'	@	13.50	6,291.00	
		500' - 647'	147'	@	14.50	2,131.50	12,239.50
			<u>893'</u>				

FIELD COST WORK

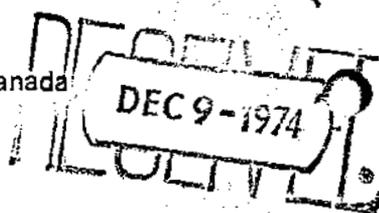
DATE	SHIFT	MAN HRS	DRILL HRS	REMARKS
Nov. 16/74	Day	30	0	Building dry for camp
Nov. 17/74	Day	4	2	Hooking up waterline
Nov. 18/74	Day	20	10	Hooking up waterline
Nov. 19/74	Day	10	5	Tear down & build road
Nov. 19/74	Night	20	10	Pull rods & tear Down
Nov. 20/74	Day	40	10	Work on setup #4
Nov. 21/74	Day	40	10	Moving to hole #4
Nov. 22/74	Day	20	5	Complete move & set-up
Nov. 26/74	day	40	10	Tear down drill site
Nov. 27/74	Day	40	10	Prepare for moving out
Nov. 28/74	Day	40	0	Tear down camp & ready for helicopter move
Nov. 29/74	Day	46	0	Flying equipment out
		<u>350</u>	<u>72</u>	

TOTAL MAN HOURS	350	@	14.00	4,900.00	
TOTAL DRILL HOURS	72	@	10.00	<u>720.00</u>	5,620.00

Connors Drilling Ltd.

Subsidiary of
Bow Valley Industries Ltd.

155 West 3rd Avenue Vancouver 10, B.C., Canada
Area Code 604/872-1675



To • **Utah Mines Limited**
• **1600 - 1050 West Pender Street**
• **Vancouver, B.C.**

• **DATE December 5, 1974**
• **INVOICE NO. 5361**
• **Job: 1-513**

MEALS SERVED YOUR PERSONNEL

Nov. 16-28, 1974 48 Meals @ 3.00 144.00

SUPPLIES LEFT IN HOLES (# PC-3)

26 - Pieces BW-2' casing @ 16.15 419.90
1 - BW casing shoe #71185 131.35
 Hole #PC-4
12 - Pieces BW-2' casing @ 16.15 193.80
1 - BW casing shoe #I42W-165 131.35

5% Tax 876.40
 43.82 920.22

TRACTOR RENTAL & HAULING

Finning Tractor Invoice # 6007 (copy attached) 1365.00
Bulkley Valley Transport Inv. # 1273 (copy attached) 120.00 1,485.00

TRUCK RENTAL & GAS

Avis Transport Invoice # 101928 (copy attached) 88.74
Standard Oil Invoice # 090 (copy attached) 5.71
Standard Oil Invoice # 669 (copy attached) 29.30
Gas Purchase (CR Cards) (copy attached) 109.28 233.03

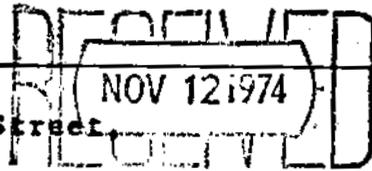
\$20,641.75

Connors Drilling Ltd.

Subsidiary of
Bow Valley Industries Ltd.

Suite 205 - 1201 West Pender Street
Vancouver, B.C. V6E 2V2

8
15



Utah Mines Ltd.,
1050 West Pender Street,
Vancouver, B. C.

JOB: 1-513

INVOICE NO: 5328

DATE: November 8, 1974

SURFACE DIAMOND DRILLING
SOUTH OF HOUSTON, B.C.
October 16 - 31, 1974.

271

FOOTAGE FEE

D. D. Hole # PC-1	0' - 2' - 2'	@\$14.50	\$ 29.00	
	2' - 500' - 498'	13.50	6,723.00	
	500' - 987' - 487'	14.50	7,061.50	
-2	0' - 20' - 20'	14.50	290.00	
	20' - 454' - 434'	13.50	5,859.00	\$19,962.50
	<u>1441'</u>			

FIELD COST WORK

<u>Date</u>	<u>Shift</u>	<u>Man Hrs.</u>	<u>Drill Hrs.</u>	<u>Remarks</u>
Oct. 16/74	Day	40 ✓	10 ✓	Cutting trail & moving drill
Oct. 17/74	Day	30 ✓	5 ✓	Complete set-up & cut trail to next set-up.
Oct. 18/74	Day	4 ✓	2 ✓	Move rest of equipment
Oct. 24/74	Night	16 ✓	0 ✓	Waiting for rods
Oct. 25/74	Day	16 ✓	0	Waiting for rods
Oct. 27/74	Day	8	4	Hole completed and tear down
Oct. 27/74	Night	20	10	Tear down drill
Oct. 28/74	Day	40	10	Move to next set-up
Oct. 29/74	Day	4	2	Complete setting up.
		<u>178</u>	<u>43</u>	

TOTAL MAN HOURS	178	@\$14.00	\$2,492.00	
TOTAL DRILL HOURS	43	10.00	<u>430.00</u>	2,922.00

ors Drilling Ltd.

Subsidiary of
Bow Valley Industries Ltd.

15

Suite 205 - 1201 West Pender Street
Vancouver, B.C. V6E 2V2

Utah Mines Ltd.

RECEIVED
NOV 12 1974

DATE November 8, 1974

INVOICE NO. 5328
JOB: 1-513

PAGE 2

MEALS SERVED YOUR PERSONNEL

Oct. 24-31/74 28 Meals @ \$3.00 ✓ 84.00

CORE BOX COVERS

40 Covers @ \$1.00 \$40.00 ✓
5% Tax 2.00 42.00

\$23,010.50

UTAH MINES LTD. -- EXPLORATION DEPT.					
DISTRIBUTION					
Location	Major	Minor	Act.	Exp.	Amount
3000	4100	2880	40	30	23,010.50
00		0	0	0	
00		0	0	0	
00		0	0	0	
00		0	0	0	
Date Received			Invoice Amount		
Ext. & Prices			Discount		
Approved by			Amount Payable		
			Check No.		

LA Cloutier

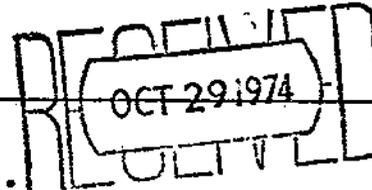


Connors Drilling Ltd.

Subsidiary of
Bow Valley Industries Ltd.

155 WEST 3rd. AVENUE, VANCOUVER, B.C. CANADA V5Y 1E8

AREA CODE 604/872 - 1675



JOB :# 1 - 513

INVOICE NO: 5270

DATE: October 28, 1974

Utah Mines Ltd.
1050 West Pender St.
Vancouver, B.C.

SURFACE DIAMOND DRILLING
South of Houston, B.C.
October 11 - 15, 1974

MOBILIZATION & DE-MOBILIZATION (Lump Sum) 2500.00

FIELD COST WORK

<u>Date</u>	<u>Man Hrs.</u>	<u>Drill Hrs.</u>	<u>Remarks</u>
Oct. 11/74	30	10	Flying in Equipment
Oct. 12/74	38	8	Flying in Equipment
Oct. 13/74	38	0	Wait for weather & build tent
Oct. 14/74	8	0	Wait for chopper
Oct. 14/74	38	2	Build camp & assemble drill
Oct. 15/74	44	9	setting up
Oct. 15/74	4	0	Work on camp
	<u>200</u>	<u>29</u>	

TOTAL MAN HOURS	200 @ 14.00	2800.00	
TOTAL DRILL HOURS	29 @ 10.00	<u>290.00</u>	<u>3090.00</u>
			5,590.00

Inors Drilling Ltd.

Subsidiary of
Bow Valley Industries Ltd.

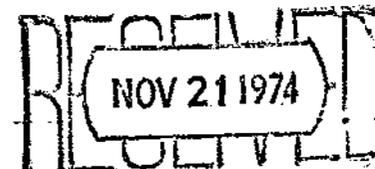
Suite 205 - 1201 West Pender Street
Vancouver, B.C. V6E 2V2

JOB: 1-513

Utah Mines Ltd.,
1600 - 1050 West Pender Street,
Vancouver, B. C.

INVOICE NO: 5340
DATE: November 20, 1974

SURFACE DIAMOND DRILLING
SOUTH OF HOUSTON, B. C.
November 1 - 15, 1974.



FOOTAGE FEE

D. D. Hole #	PC-2	454' - 500' - 46'	@\$13.50	\$ 621.00	
		500' - 937' - 437'	14.50	6,336.50	
	-3	0' - 52' - 52'	14.50	754.00	
		52' - 257' - 205'	13.50	<u>2,767.50</u>	
		740'			\$10,479.00

FIELD COST WORK

Date	Man Hrs.	Drill Hrs.	Remarks
Nov. 4/74	8	4	Tear down.
Nov. 5/74	20	0	2 men hauling fuel.
Nov. 6/74	20	0	2 men hauling fuel.
Nov. 7/74	20	0	Bring tractor & fuel.
Nov. 8/74	36	10	Build road & move drill.
Nov. 9/74	24	6	Setting up drill.
Nov. 10/74	20	10	Build road to creek.
Nov. 12/74	6	3	Work on waterline.
Nov. 15/74	28	0	Hauling equipment to drill site.
	<u>182</u>	<u>33</u>	

TOTAL MAN HOURS	182	@\$14.00	\$2,548.00	
TOTAL DRILL HOURS	33	10.00	<u>330.00</u>	2,878.00
<u>MEALS SERVED YOUR PERSONNELS</u>	55 - Meals	@\$3.00		165.00
<u>TRUCK RENTAL AT HOUSTON</u>	- Avis Rent-A-Truck- Inv.# 101909 (Copy attached)			<u>49.14</u>
				\$13,571.14

APPENDIX E

STATEMENT OF EXPENSES INCURRED

The following is a complete statement of the expenses incurred during the 1974 drilling programme at Tagetochlain Lake:

1) DIAMOND DRILLING

Connors Invoice #5270	\$ 5,590.00	
Connors Invoice #5328	\$23,010.50	
Connors Invoice #5340	\$13,571.14	
Connors Invoice #5361	\$20,641.75	
Connors Invoice #5400	<u>\$ 1,453.78</u>	
	\$64,267.17	\$ 64,267.17

2) HELICOPTER MOBILIZATION

Alpine Invoice #4471	\$ 304.20	
Alpine Invoice #4520 - only 11th and 12th October totals 9.1 hrs. @ \$285.00 per hour	\$ 2,593.50	
Okanagan Invoice #72173	<u>\$ 1,797.22</u>	\$ 4,694.92

3) ANCILLARY SURVEYS

Underhill & Underhill Invoice #J-7140		
	\$23,253.08	\$ 23,253.08

4) UTAH PERSONNEL SALARIES

a) R.G. Potter, P. Eng., Geologist 5th to 15th October, 5th to 30th November, 26 days @ \$72.75 per day	\$ 1,891.50	
b) G.A. Clouthier, B.Sc., Geologist 4th October to 12th November 40 days @ \$48.20 per day	\$ 1,928.00	
c) B.A. Isaac, Geologist's Assistant 8th October to 30th November 54 days @ \$29.80 per day	\$ 1,609.20	\$ 5,428.70

5) VEHICLE RENTALS

1973 GMC "Jimmy" 4 WD 4th October to 30th November 58 days @ \$6.00 per day	\$ 348.00	
1973 GMC "Jimmy" 4 WD 20th to 30th November 11 days @ \$6.00 per day	\$ 66.00	
1970 Jeep Wagoneer 4 WD 4th October to 30th November 58 days @ \$2.25 per day	\$ <u>130.50</u>	
	\$ 544.50	\$ 544.50

6) RADIO EQUIPMENT

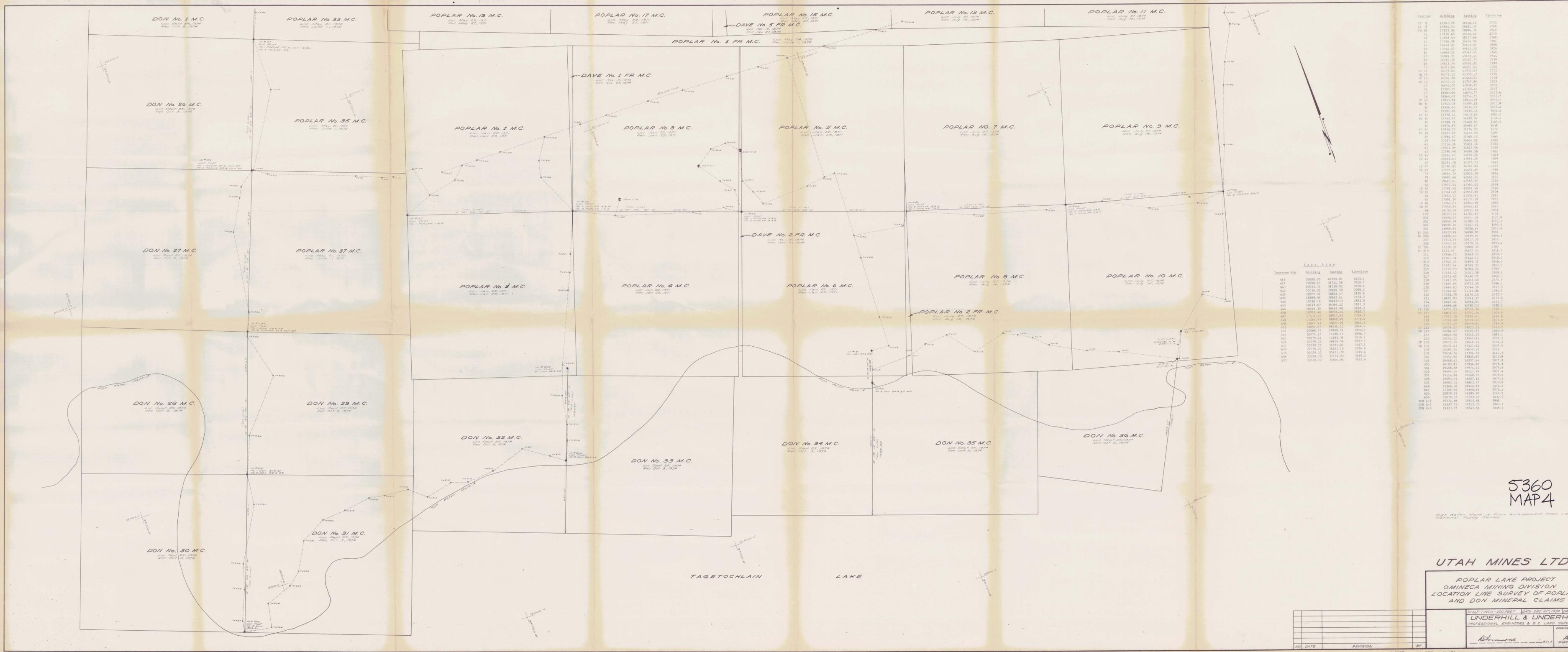
Spillsberry-Tindel SBX11 Radio 4th October to 30th November 58 days @ \$2.00 per day	\$ 116.00	\$ 116.00
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7) CAMP COSTS

Construction of Core Racks and Core Logging Shed	\$ 2,766.50	\$ <u>2,766.50</u>
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TOTAL REPORT		<u>\$101,070.87</u>
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Station	Northing	Easting	Elevation
10	1787.78	38744.40	7773
11	1895.20	38811.17	7768
12	17153.06	38694.40	2769
13	17118.47	39227.86	2769
14	1786.59	38744.40	2801
15	17922.07	38923.25	2816
16	18964.26	38964.45	2864
17	18999.71	41645.51	2844
18	16782.56	40387.73	2759
19	16621.76	40386.01	2788
20	16174.02	41312.53	2772
21	16712.22	41156.17	2770
22	16526.20	41668.81	2776
23	16737.44	41787.96	2813
24	16642.20	41979.22	2836
25	17390.75	42188.40	2907
26	18931.88	38990.71	2922.4
27	18864.07	38734.72	2913.7
28	18851.86	38841.28	2916.4
29	18741.38	37909.18	2970.9
30	18958.42	37636.77	2976.4
31	18958.42	36613.18	3051.2
32	19251.67	36479.89	3164.3
33	18948.21	36488.60	3165.4
34	18975.85	36485.12	3439
35	18948.21	35760.42	3460
36	19211.87	35222.18	3599
37	21944.47	35760.42	3640
38	21281.84	35184.02	3790
39	21281.84	35061.14	3533
40	21302.09	34647.56	3538
41	21302.09	34609.58	3562
42	20656.67	33976.22	3203
43	20656.67	33981.28	3209
44	21284.78	34377.73	3345
45	21760.85	34381.83	3317
46	22095.42	34482.89	3390
47	22994.20	42803.28	3344
48	18683.64	42842.32	3571
49	18495.81	42566.51	3564
50	17977.14	42391.02	2999
51	17961.58	42241.46	2958
52	17961.58	41992.80	2929
53	17661.32	41559.91	2891
54	17861.30	41177.28	2855
55	17962.63	40849.69	2888
56	17959.85	40689.82	2922
57	18133.28	40935.88	2891
58	19107.23	42787.13	3146
59	18908.67	38471.08	3125.9
60	18849.19	38399.52	3119.1
61	18696.91	38327.44	3095.4
62	18669.93	38058.99	2917.6
63	18622.99	38086.80	2903.1
64	18624.19	35939.87	2896.5
65	17943.18	35812.35	2855
66	17420.24	35870.59	2833.4
67	17239.39	35800.40	2787
68	1732.47	35677.31	2816.3
69	17466.75	35463.56	2810.7
70	17361.34	35444.13	2810.7
71	17364.43	34895.31	2816.3
72	17485.46	34825.30	2817.7
73	17333.53	34504.24	2790
74	17455.52	34361.58	2808.6
75	17473.65	34140.21	2842.3
76	17487.95	34031.49	2875.9
77	17460.84	33751.99	2886.2
78	17446.83	33544.99	2857.1
79	17324.02	33322.86	2795.1
80	17072.78	33176.45	2815.5
81	16870.93	32961.37	2812.5
82	16823.21	32881.66	2813.7
83	16468.08	32789.12	2830.1
84	16364.90	32654.98	2858.2
85	16011.65	32535.74	2860.9
86	16205.23	32333.74	2794.4
87	15972.78	32159.61	2816.6
88	15206.88	32108.11	2833.9
89	15206.88	32049.81	2792.9
90	16056.57	32023.13	2776.2
91	16386.67	31820.55	2816.9
92	16829.90	31549.23	2881.1
93	16242.22	31440.93	2921.5
94	16275.55	31454.74	2924.2
95	16351.43	31527.62	2930.4
96	16341.34	31634.50	2991
97	22546.54	31764.11	3111.3
98	20541.91	31881.67	3142.9
99	16068.60	30551.64	2977.8
100	16183.91	30561.90	2978.3
101	16488.68	30774.42	2975.6
102	16494.14	30817.96	2979.4
103	16316.98	30148.53	2976.6
104	16955.03	30207.16	2970.3
105	16962.11	30862.47	2930.9
106	18366.50	30648.58	2958.2
107	17264.83	30608.96	2776.4
108	20079.22	30585.85	3147.1
109	20079.22	30792.92	3437.5
110	16374.89	3015.86	2988
111	19387.73	30212.23	2965.1
112	19323.77	37043.56	3049.3

TRAVELER'S LOG

Station	Northing	Easting	Elevation
101	20000.00	42000.00	3015.4
102	20098.13	39751.58	3010.7
103	20234.13	39256.93	3015.1
104	20536.02	38899.58	3000.0
105	18902.31	38862.67	2930.9
106	18897.58	38962.61	2832.7
107	18310.14	38943.13	2851.0
108	18246.63	39396.12	2851.3
109	18366.90	39464.98	2858.2
110	18096.69	39839.24	2828.2
111	17512.72	39517.63	2784.1
112	17264.91	39003.68	2775.4
113	17044.93	38627.49	2962.5
114	16964.41	38306.12	2844.4
115	16968.47	37998.32	2952.9
116	20079.22	37180.13	2996.1
117	20079.22	37183.08	3016.1
118	20079.22	36926.54	3057.4
119	20079.22	36585.85	3147.1
120	20079.22	36181.18	3304.6
121	20079.22	35935.79	3384.4
122	20079.22	35792.92	3437.5
123	20079.22	35600.84	3431.4

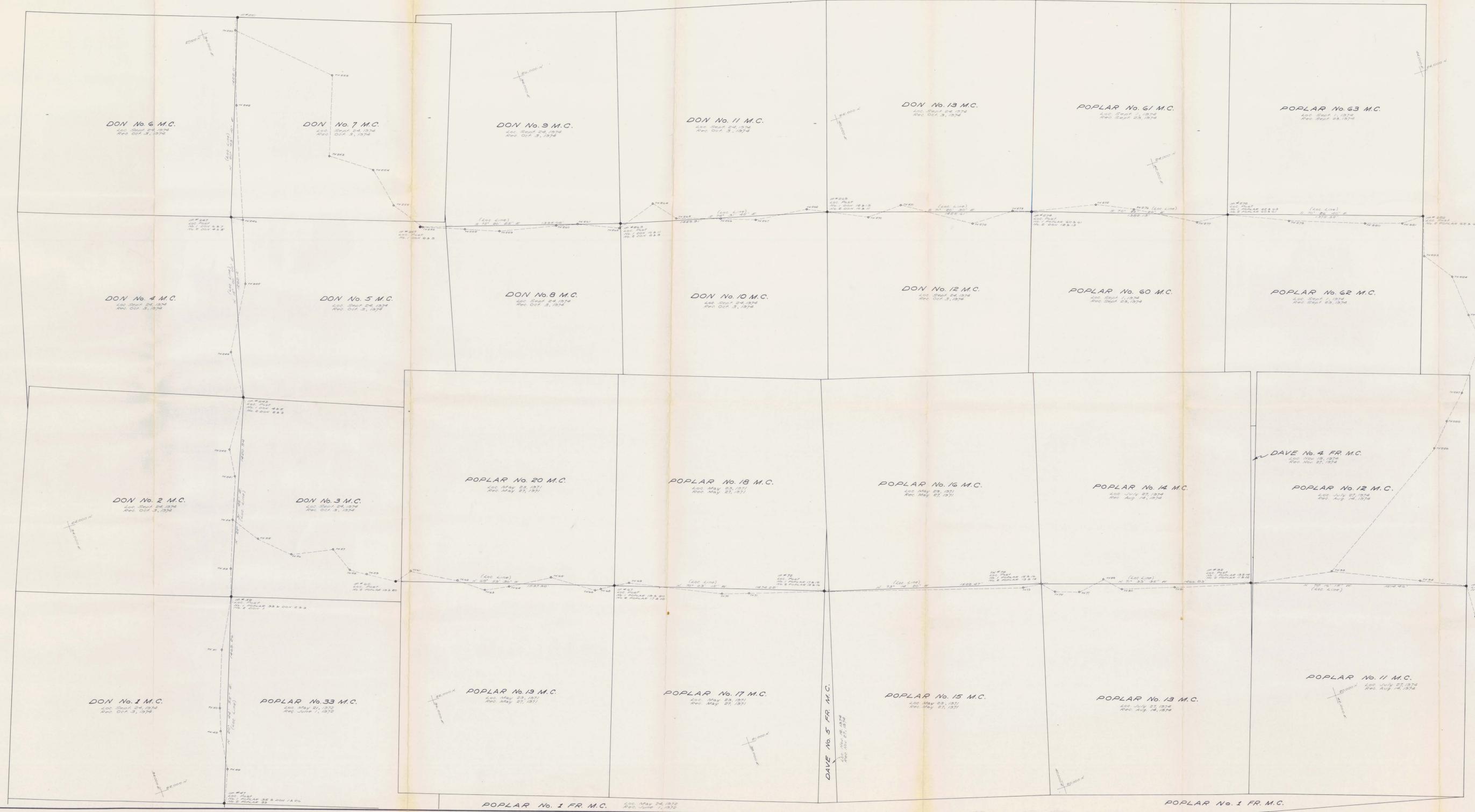
5360
MAP 4

High Water Mark is from enlargement from 1:50,000
National Grid System

UTAH MINES LTD.
POPLAR LAKE PROJECT
OMINECA MINING DIVISION
LOCATION LINE SURVEY OF POPLAR
AND DON MINERAL CLAIMS

NO.	DATE	REVISION	BY

SCALE 1/4"=100 FEET DATE DEC 17, 1974 DRAWN BY JH
UNDERHILL & UNDERHILL
PROFESSIONAL ENGINEERS & S. C. LAND SURVEYORS
DRAWING NUMBER A-4
SHEET 2 OF 2



Station	Bearing	Distance	Elevation
1P 47	21789.85	34381.83	3317
1P 48	22293.42	34882.89	3390
49	22272.20	34327.47	3341
50	22425.47	34774.22	3211
51	22329.55	34718.07	3097
52	23154.82	34902.35	3090
53	23281.37	34864.06	3086
54	23667.33	35088.02	3073
55	23478.51	35211.79	3115
56	23289.00	35429.83	3179
57	23219.17	35689.97	3243
58	23062.33	35752.64	3299
59	22994.31	35786.32	3334
60	22881.23	36027.65	3345
61	22913.27	36111.68	3323
62	22759.19	36442.71	3311
63	22621.24	36694.17	3299
64	22387.33	36782.03	3273
65	22596.65	37049.33	3115
66	22371.46	37331.60	3110
1P 67	22355.24	37472.19	3077
1P 68	22366.89	37373.30	3099
69	22342.97	37575.53	3070
70	22281.20	38165.64	3097
71	22092.11	38347.09	3094
1P 72	21823.33	38657.98	3082
1P 73	21433.31	40174.76	3067
74	21413.28	40115.77	3079
75	21311.55	40382.06	3037
77	21276.31	40544.90	3059
80	21309.89	40735.10	3057
90	21212.42	40835.72	3053
91	21095.44	41127.05	3051
92	20949.30	41707.29	3042
93	20846.20	42261.09	3070
94	20591.29	42878.26	3110
1P 95	20416.07	43137.86	3112
1P 96	20213.36	43314.16	3102
97	19933.51	43103.25	3131
98	19898.26	43042.62	3134
99	19398.70	42931.34	3160
243	19398.54	43227.00	3078
242	20141.75	43272.52	3044
1P 243	24467.32	43444.74	3064
244	24802.01	43483.02	3041
245	25227.70	43511.26	3038
246	25662.41	43541.82	3041
1P 247	25703.70	43578.63	3044
1P 248	26448.79	43604.48	3052
250	26960.46	43631.70	3084
1P 251	27335.79	43651.71	3086
1P 252	28437.09	43675.42	3048
253	28880.35	43689.12	2943
254	29391.14	43688.92	2947
255	29421.14	43685.04	3074
256	29291.92	43704.97	3108
1P 257	29268.46	43709.33	3114
1P 258	29596.26	43702.09	3130
259	29001.67	43723.09	3131
260	24950.14	43741.93	3109
261	24880.02	43657.62	3103
262	24726.48	43524.81	3059
1P 263	24781.26	43538.72	3055
1P 264	24841.04	43599.09	3167
265	24697.33	43721.21	3068
266	24591.09	43616.87	3098
267	24507.91	43487.90	3102
268	24445.82	43405.35	3104
1P 269	24398.49	43316.09	3103
1P 270	24275.42	43599.74	3145
271	23921.16	43524.69	3166
272	23991.42	43676.41	3143
273	23981.16	43766.48	3154
1P 274	23942.39	43886.72	3153
1P 275	23852.46	43734.43	3151
276	23732.08	43774.96	3139
277	23702.10	43169.27	3146
1P 278	23678.10	43288.05	3182
1P 279	23301.67	42780.99	3187
280	23106.06	42880.17	3213
281	23020.80	43528.79	3216
1P 282	23017.75	43646.67	3213
1P 283	22752.35	43602.31	3290
284	22743.72	43763.04	3286
285	22255.55	43764.55	3488
286	22046.91	43761.34	3465
287	21742.27	43534.57	3281
288	21586.46	43372.42	3251
289	21430.39	43271.55	3257

5360
MAP 3

UTAH MINES LTD.

POPLAR LAKE PROJECT
OMINECA MINING DIVISION
LOCATION LINE SURVEY OF POPLAR
AND DON MINERAL CLAIMS

SCALE 1 INCH = 200 FEET DATE DEC 10/1974 DRAWN BY J.W.
UNDERHILL & UNDERHILL
PROFESSIONAL ENGINEERS & S. C. LAND SURVEYORS
DRAWING NUMBER
A-4
SHEET 1 OF 2

NO.	DATE	REVISION	BY



A. Schmidt
 PROFESSIONAL ENGINEER
 PROVINCE OF BRITISH COLUMBIA
 A. J. SCHMIDT
 BRITISH COLUMBIA ENGINEER
 JUN 29 1975

5360
 MAP 1

Department of Mines and Geoscience Resources
 A. J. SCHMIDT
 NO. 5360 MAP #2

- SYMBOLS**
- Shore line
 - ~ Creek continuous/intermittent
 - ~ Swampy areas
 - ✦ Claims, surveys, showing post
 - Transit lines & hubs
 - Pocket lines
 - Drill holes, vertical/inclined



Plate 2

UTAH MINES LTD.
 EXPLORATION DEPARTMENT
 VANCOUVER BRITISH COLUMBIA

POPLAR PROPERTY
 DIAMOND DRILL HOLE LOCATIONS

OMINECA M.D. BRITISH COLUMBIA

Work by: C. Donohue	Date: Dec 1974	NTS Ref: CU 93 L-2
Drawn by: C. Donohue	Revised:	

200 0 200 400 600
 SCALE IN FEET