DRILLING REPORT

on the

EXPO GROUP A

Owned by: UTAH MINES LTD. and HEINZ VEERMAN and WILLIAM G. BOTEL Located: 7 Kilometers northeast of Holberg, B.C.

NANAIMO MINING DIVISION

50° N 127° W NTS 92 L/12

FILMED

H.R. Muntanion Project Geologist Utah Mines Ltd., Vancouver February, 1983 Vancouver, B.C.

GEOLOGICAL BRANCH ASSESSMENT REPORT

11'048 Part 1282

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^{*} Drill assay logs have been submitted with a 5 year period of confidentiality

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INTRODUCTION

On Expo Group A additional diamond drilling and the construction of a drill access road were carried out from November 16 to December 22, 1982. The work was performed on the Red Dog 5, Red Dog 7 and Red Dog Fraction claims. Drilling totalled 1059m in seven holes. Short sections of existing road were upgraded and the road was extended by 580m of new construction.

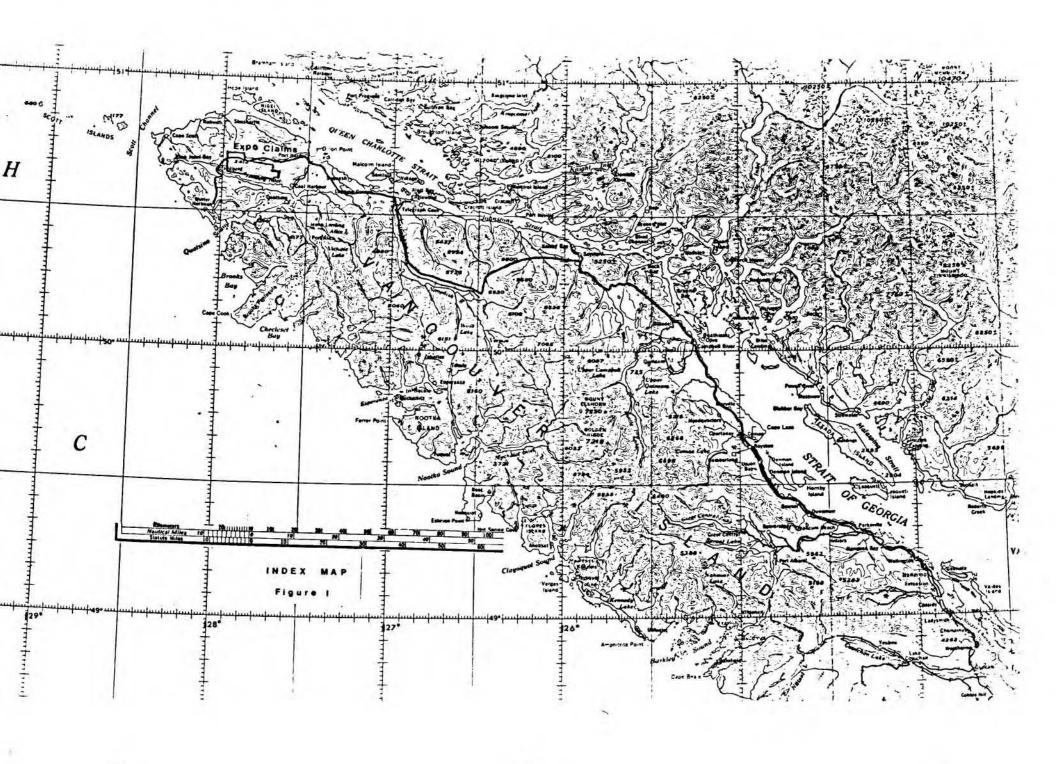
Expo Group A consists of 46 Expo claims owned by Utah Mines Ltd. and 28 Red Dog claims owned by Heinz Veerman and William G. Botel. The group is part of a large west-northwest trending claim block occupying an area of approximately 24 by 11 km.

Field work was performed or caused to be performed by Utah Mines Ltd. under the supervision of geologists H. Muntanion and J.B. Richards. Road building and drilling were contracted to Bruner Bros. and D.W. Coates Enterprises Ltd., respectively. The geological work was carried out by H. Muntanion, assisted by L. Gibbons.

Accommodation for Utah personnel and the drill crew was found at the Trails End Motel in Holberg and meals were provided by Glenora's Kitchen. Statements of qualifications and costs, together with contractors' invoices, are included in this report in Appendices A and B, respectively.

Location and Access

The area of interest is located 34 km west of Port Hardy and 7 km north-northeast of Holberg on Vancouver Island (Fig. 1). It is



accessible on Western Forest Products logging road NE 62 and spur roads 62 H and 62 B (Plate 1).

Daily flights originating from Vancouver service Port Hardy. A helicopter charter service is available at the Port Hardy airport.

Physiography

Within Claim Group A elevations range from about 240m to 560m. The topography is generally rugged with steep slopes incised by streams. Maximum relief is about 320m above the Goodspeed River Valley which crosses the claim group. The Red Dog claim is dominated by a northeast trending hill which attains an elevation of about 560m.

North of the logging road NE 62 and west of the south-flowing tributary, which joins the Goodspeed River on the Red Dog 12 claim, the area has been logged off and is littered with slash. Secondary growth is heavy, particularly on the south facing slopes. Gulleys and several landslides have developed on some of the steeper slopes. A few small swamps occur in the river valley. This area lies within the Western Forest Products Tree Farm Licence.

At Holberg the average annual precipitation is about 400 cm. At sea level snow rarely remains for more than a few days at a time but depths increase rapidly with an increase in altitude. At elevations of 600m the cummulative annual snowfall is about 240 cm. The period from mid June to early September is normally relatively dry. Mean daily temperatures range from a few degrees above zero centigrade in January to about 14 degrees centigrade in July.

History

The first report on the geology of Northern Vancouver Island was published by the Geological Survey of Canada in 1887. Since then, both the Geological Survey of Canada and the British Columbia Department of Mines have sponsored field parties in the region at various times. In 1962, the Department of Mines released data from an airborne magnetometer survey of Northern Vancouver Island which generated an interest in a search for iron deposits. During 1963 and 1964 copper exploration programs consisting mainly of stream sediment sampling were conducted by numerous companies. No significant discoveries were made, however, and by 1965 very little interest was being shown in the region.

Following the discovery of the Island Copper deposit the Red Dog claims were staked by Westcoast Mining Co. in 1967. The surrounding Expo claims were staked by Utah Mines Ltd. in the same year with a few additions in 1972 and 1974. During the spring of 1982 Utah staked the Expo 900 claims, consisting of eight units, adjoining the northwestern end of the claim block.

Between 1967 and 1969 the claim block was covered with detailed soil sampling and was geologically mapped on a scale of 1 inch to 1,000 feet. Between 1970 and 1973 areas of primary interest, totalling 70.4 sq.km., were mapped on a scale of 1 inch = 200 feet and covered by magnetometer surveys on lines spaced 400 ft. (120m) to 500 ft. (150m) apart. The bulk of this area was also covered by induced polarization surveys. About 10 holes, mostly XRT, were drilled between 1968 and 1974 to test several of these anomalies.

The Red Dog Cu-Mo claims were geologically mapped on a scale of 1 inch to 400 ft., soil sampled and covered by magnetometer and EM surveys. From 1968 to 1970 24 holes were diamond drilled. From 1972

to 1977 the property was optioned by City Services Ltd., and remapped. An additional six holes were also drilled.

During the summer of 1982 Utah Mines Ltd. conducted 10.2 line kilometres of I.P. survey on these claims. In addition, five holes were diamond drilled. The 1982 activity has been documented in a previous assessment report.

Claim Status

Expo claim expiry dates range from 1983 to 1988. The Red Dog claims are valid until 1989. In May 1982, Utah Mines Ltd. entered into an option agreement with H. Veerman and W.G. Botel for the Red Dog claims.

Geological Setting

The Expo/Red Dog claim block is underlain by volcanic and sedimentary rocks of the Vancouver Group, which consists of Karmutsen basic volcanic rocks of Triassic age overlain successively by Quatsino limestone, of Triassic age, Parson's Bay sediments of Upper Triassic age and Bonanza volcanics of Upper Triassic-Lower Jurassic age. The above rocks are intruded by several isolated stocks which are part of a belt of intrusive stocks extending from Rupert Inlet, northwesterly, to the mouth of the Stranby River. In proximity to the northwesterly trend of acid intrusive stocks are zones of silicified (+ pyrophyllite) breccia bodies, apparently crosscutting Bonanza rocks.

Dominant fault and shear trends in Bonanza rocks are northwest and northeast, with subordiante east-west and north-south trends. Most major faults have a northwest trend. Pyrite is the most widespread and abundant sulphide mineral. Sulphides, including chalcopyrite, occur as disseminations and in veinlets in the Bonanza volcanics. At Red Dog, two mineralized zones are known. One of these has an indicated surface dimension of 450m east-west and 200 to 300m north-south. It is hosted by very silicified and magnetite-enriched volcanics in contact with the Red Dog Porphyry stock of intermediate to felsic composition. A Cu-Mo zone is centred on the Red Dog 1 claim and has a surface extent of about 350 by 300m. The mineralization is somewhat erratic and appears to be controlled by steeply dipping, narrow leucocratic dikes and fracture zones.

DIAMOND DRILLING

Drilling was restricted to Red Dog Hill to test Cu-Mo porphyry mineralization hosted in a quartz-magnetite breccia unit. This is a follow-up on a drilling program conducted earlier in 1982.

Drilling was performed by D.W. Coates Enterprises Ltd. using a skid-mounted Super "38" drill unit equipped to drill BQ, NQ and HQ core sizes. The drill was operated by two 2-man crews each working ten to twelve hour shifts seven days per week.

All drill sites are accessible by road. Minor repair work was required on logging roads NE 62H and NE 62B. The latter road was extended by 580m and a 50m spur was constructed to provide access to DDH-140 (Plate 2). An excess of 5000 yards of surfacing rock was used. This work was contracted to Bruner Bros. Contracting Ltd.

Below is a summary of the holes drilled. Locations are plotted on Plate 2.

Hole Number	Located on Claim	Elev.	Angle	Azimuth	Total Depth
Number	Oli Olami				
EC-133	Red Dog 5	357.4m	-450	1800	203m (666')*
EC-139	Red Dog Fraction	393.8m	-900		183m (600')
EC-140	Red Dog Fraction	374.5m	-620	0000	178.5m (586')
EC-141	Red Dog 7	373.9m	-450	0000	117.5m (386')
EC-142	Red Dog 7	376.5m	-900		163.5m (536.5m)
EC-143	Red Dog 7	390.4m	-900		166.7m (547')
EC-144	Red Dog 7	389.5m	-570	000o	199m (653')

^{*} drill hole deepened from 152m to 203m

Drill holes EC-133 and EC-139 generally encountered moderate to good ground conditions, with average core recovery in the 90 to 95% range. The volcanics in the steeper parts of the south-facing slope of the hill are generally badly broken, particularly near the surface. Average core recoveries in drill holes EC-140 to EC-144 are fairly poor ranging from 51 to 79%. To improve recovery, EC-143 and EC-144 were drilled with HQ equipment from surface to depths of 66.9 and 61.0m, respectively. In EC-141, at a depth of 93m, it was necessary to reduce to BQ equipment which succeeded in extending the hole for only an additional 24.5m.

Core was logged by a Utah geologist, then split in half. Half the core was sent for analyses to Chemex Labs Ltd. in North Vancouver via Padific Coach Lines. The remainder was placed in storage in the core storage facility located on Expo claim No. 237.

Drilling data, accompanying the report in Appendix D, consists of complete diamond drill logs for holes EC-139 to EC-144 and the bottom 5lm (166') of EC-133. A copy of the drilling contract is given in Appendix C. The drill logs submitted in Appendix D were done by H. Muntanion whose signature is given below to cover all log sheets.

H. Muntanion, B.Sc.

Project Geologist

REFERENCES

- DAWSON, G.M. 1886

 Geology of Rupert Inlet, AnnualReport, Geological Survey of Canada.
- MULLER, J.E. 1971

 Chemistry and Petrology of Some Mezozoic Volcanic Rocks of Vancouver Island, British Columbia, G.S.C. Paper 71-1B, p. 5.
- NORTHCOTE, K.E. 1970

 Geology, Exploration and Mining in British Columbia, B.C.

 Department of Mines and Petroleum Resources pp. 267 269.
- MULLER, J.E., NORTHCOTE, K.E., CARLISLE, D. 1973

 Geology and Mineral deposits of Alert Bay-Cape Scott Map Area

 (92 L 1021) Vancouver Island, British Columbia.
- MUNTANION, H.R., WITHERLY, K.E.

 Geophysical, Geochemical and Drilling Report on the Expo Group
 A, 1982.

APPENDIX A

STATEMENT OF QUALIFICATIONS

Field work for the report was done by H. Muntanion whose qualifications are outlined below:

H. Muntanion, Project Geologist for Utah Mines Ltd., Vancouver, B.C.

Completed B.Sc. in 1970 at the University of Manitoba; employed by: Canadian Nickel Co. in the summers of 1969 and 1971 as a student and field geologist, respectively; Amax, Vancouver, B.C. during the summer of 1970 as a geological assistant in the Yukon; The Manitoba Mines Branch during the 1972 field season as a field geologist; Hudson Bay Oil and gas Ltd., Toronto, Ontario during May to December, 1973 as a temporary geologist; Mindeco Ltd., Lusaka, Zambia from May 1974 to May 1977 as a geologist; Canadian International Development Agency, Ottawa, Ontario from August, 1977 to December, 1979 as geologist in Malaysia; Utah Mines Ltd. from April, 1980 to present under the supervision of A.J. Schmidt, P. Eng.

APPENDIX B

STATEMENT OF COSTS AND INVOICES

Road Building and Drill Site Preparation

Road Construction (Dec. 1 invoice)	\$	22,892.89
Road Repair (Dec. 1 invoice)		400.00
Salaries (supervision):		
J.B. Richards Sr. Geologist 7 days @ \$175.00/day		1,225.00
H. Muntanion Proj. Geologist 5 days @ \$119.23/day		596.15
Accomodation:		
12 man days @ \$40.20/man day	_	482.40
Total	\$	25,596.44

Diamond Drilling

Drilling (Invoices 2396, 2400, 2401, 2411)	\$ 112,170.88
Bulldozer Rental (Dec. 15, 22, Jan. invoices)	3,100.00
Drill Mobilization (Dec. 1, 15, 22, Jan invoices)	2,125.00
Core Assays:	
(Analyses: 251 Cu, 219 Mo, 251 Au, 92 Ag)	4,459.40
Core Geochemical Analyses:	
(72 Cu, 42 Mo, 52 Au, 5 Ag)	569.62
Salaries (supervision and geology):	
H. Muntanion Proj. Geologist 37 days @ \$119.23/day	4,173.05
J.B. Richards Sr. Geologist 9 days @ \$175.00/day	1,225.00
L. Gibbons Assistant 41.5 days @ \$65.00/day	2,697.50
Accomodation (including 4-man drill crew):	
174 man days @ \$40.20/day	6,994.80

Total \$ 137,515.25

Miscellaneous Costs

Gasoline		\$	192.00
Vehicle Repairs			55.92
Airfares:			
7 airfares @	\$86.40 each		604.80
Map Reproduction			38.49
Report Preparation	:		
H. Muntanion	3 days @ \$119.23/day		357.69
R. Gopal	1 day @ \$100.00/day		100.00
F. Haworth	0.5 day @ \$100.00/day	-	50.00
	Total	\$	1,398.90
	GRAND TOTAL	\$ 1	164,510.59

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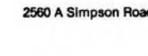
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2560 A Simpson Road, Richmond, B.C. V6X 2P9

Phone: (604) 273-0985 Telex No.: 04357618

INVOICE NO .: 2396

JOB NO.: 474

DATE: Dec. 2, 1982

D.W. COATES

ENTERPRISES LTD.

DIAMOND DRILLING CONTRACTORS

Utah Mines Ltd. 1600 - 1050 West Pender Street Vancouver, B.C. V6E 3S7

IE:	Holberg, B.C. Drilling	
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	DRILLING DETAIL	26,914.30
	MOBILIZATION	4,408.00
	MOVING BETWEEN HOLES	1,134.00
	WATER SUPPLY	500.50
	REAMING AND HOLE STABILIZING	1,664.00
	MATERIAL LEFT IN HOLES	994.87
	DRILLING WITH MUD	8,983.14
	TRAVEL TIME	517.00
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UTAH MINES LTD. EXPLORATION DEPT.

Telex No.: 04357618



Utah Mines Ltd. 1600 - 1050 West Pender St. Vancouver, B. C. VUE 357

INVOICE NO.: 2400 JOB NO.: 474

DATE: December 22/82

RE: FERIOD:

Hollarg, B. C. Drilling

December 1 - 15, 1992

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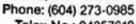
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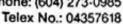
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D.W. COATES

DIAMOND DRILLING CONTRACTORS

Utah Mines Ltd. 1600 - 1050 West Pender St. Vancouver, B. C. V6E 3S7

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2401

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474

DATE: Dec. 23/82

RE:

Holberg, B. C. Drilling

PERIOD:

December 16 - 21, 1982

Drilling Detail Demobilization Moving Between Holes Water Supply Hole Stabilizing Material Left in Holes Drilling with Mud Travel Time Standby .

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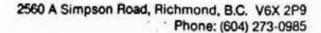
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D.W. COATES
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DIAMOND DRILLING CONTRACTORS

Telex No.: 04357618

Utah Mines Ltd. # 1600 - 1050 West Pender Street Vancouver, B.C. V6E 3S7

1/13/13

INVOICE NO.: 2411

JOB NO.: 474

DATE: Jan. 12, 1983

RE:

Holberg, B.C. Drilling

PERIOD:

December 16 - 22, 1982

DRILLING DETAIL

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APPENDIX C

DIAMOND DRILLING AND ROAD CONSTRUCTION

CONTRACTS

AGREEMENT

of November , 1982 by and between

Utah Mines Ltd.

corporation, hereinafter referred to as "Owner" and

Bruner Brothers Contracting Ltd. P.O. Box 193 Port Hardy, B.C.

hereinafter referred to as "Contractor",

WITNESSETH:

. WHEREAS, Owner desires to have Contractor carry out a work program on certain lands controlled by Owner and located in British Columbia, specifically on the Red Dog claims, near Holberg, about 25 miles west of Port Hardy.

; and

WHEREAS, Contractor is desirous of performing such work 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 work requested by Owner to be done by Contractor on the above mentioned 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 upon the subject property and Contractor shall conduct its operations so as to best cooperate with such other contractors, if so requested by Owner.

- furnish and maintain in first class operating condition the equipment, 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 by 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 three (3) 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.
- 9. TERM OF CONTRACT: Unless the provision 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 work requested by Owner to be performed by Contractor during a period of six (6) months from and after the date of this agreement, provided, however, that Owner may, at any time after the completion of the minimum amount of work guaranteed to Contractor under the provisions set forth in Schedule I, terminate this agreement by giving notice of such termination to Contractor.
- 10. INSURANCE: Contractor shall obtain and carry during the period of this agreement at Contractor's sole cost the following insurance coverage:

Comprehensive Liability
Bodily Injury and Property Damage Liability
including Contractual Liability and
Completed Operations Each (

Each Occurrence \$500,000.00 Aggregate \$500,000.00

Automobile Liability (Including Owned and Non-owned automobiles) Bodily Injury and Property Damage Liability Eac

Each Occurrence \$500,000.00

Workers' Compensation and Employer's Liability Statutory Each Accident

\$100,000.00

MG 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.

- 11. 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.
- 12. PERMITS: Contractor shall obtain all permits and licenses 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.
- 13. 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.

- 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.
- 15. NOTICE AND PLACE OF PAYMENT: All notices to be given to Owner by Contractor hereunder shall be delivered to Owner's office at #1600 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 post office in an envelope, postage prepaid, and addressed to Contractor at P.O. Box 193, Port Hardy, B.C.

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.

- 16. ASSIGNMENT: Contractor will not, without the previous written consent of Owner, assign this agreement nor subcontract any part or portion of work to be performed hereunder to any other party.
- 17. 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.
- 18. SUCCESSORS: This agreement and each and every provision hereof shall insure 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 Mi	nes Ltd.		
	Ву		_
		Contracting	Ltd.
<u>CONTRAC</u> Bruner		Contracting	Ltd.

SCHEDULA: I

WORK PROVISIONS

Bruner Brothers Contracting Ltd. agrees to comply with the following work provisions to efficiently complete the road building program on the Red Dog claims:

- The Contractor will supply an experienced road building crew and suitable equipment in good repair (buildozer, trucks, etc.).
- Approximately 2,000 feet of sub-grade will be built, as previously indicated to the Contractor by the Owner's representatives, extending westerly from the end of the existing logging spur.
- This sub-grade will be covered by approximately 18 inches
 of crushed, broken rip-rap rock, hauled by truck to site,
 and distributed over the sub-grade.
- 4. The completed road will be approximately 12 feet in width, with a shallow drainage ditch on the higher side. The surface will be compacted smooth, and will be suitable for travel by 2-wheel drive pick-up trucks.
- Some minor road maintenance work is also planned for the access road leading to the construction site. This work to be done at the hourly rate.
- Where needed, culverts will be installed by Contractor's crews working on an hosely rate.
- The Contractor's 0-6 bulldozer will remain on site for the use of the Owner's drilling Contractor for the movement of one diamend drill between holes.
- The tack will start on or about November 16, 1982. The work will be supervised and inspected by the Owner's field representatives.

SCHEDULE I (cont'd)

- of way that may be required to enable Contractor to move to and from, and to operate on the 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.
- 10. This Agreement and any disputes arising hereunder shall be interpreted and determined in accordance with the laws of the province of British Columbia.
- During the course of the work, the Contractor agrees at all times to keep operations free from accumulation of waste material, rubbish and garbage, and upon completion of the work, shall remove all tools, surplus materials and rubbish, and leave sites in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires and sanitation.

SCHEDULE II

PAYMENT PROVISIONS

- It is agreed that the 2,000 feet of sub-grade will be built at a cost of \$3,000.00.
- It is agreed that suitable quality road surfacing rock will be delivered to the site and spread and smoothed at a cost of \$3.70 per cubic yard. Approximately 4,000 cubic yards are anticipated to be used (Contractor's verbal estimate).
- Other road maintenance and culvert installation work shall be done at a cost of \$50.00 per hour.
- 4. The D-6 bulldozer shall be rented to Utah for its drilling Contractor's use at a cost of \$700.00 per week, plus \$50.00 per operating hour.
- These above costs include all mobilization and demobilization, and all other transportation costs, as well as all fuel costs.
- 6. Contractor shall submit all invoices to the Owner at Utah Mines Ltd. twice monthly, that is for the period from the 1st to the 15th day and the 16th day to the last day of the month. Invoices shall be due and payable within thirty (30) days of receipt of an invoice by the Company. Payment shall be made to the Contractor in accordance with Paragraph 8 of this agreement. The prices set forth in this SCHEDULE II shall include all applicable taxes.

AGREEMENT

of April , 1982 by and between

Utah Mines Ltd.

corporation, hereinafter referred to as "Owner" and

D.W. Coates Enterprises Ltd.

hereinafter referred to as "Contractor",

WITNESSETH:

whereas, Owner desires to have Contractor carry out a work program on certain lands controlled by Owner and located in British Columbia, specifically the Expo Project near Holberg, B.C.

, and

WHEREAS, Contractor is desirous of performing such work 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 work requested by Owner to be done by Contractor on the above mentioned 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 sttached 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 upon the subject property and Contractor shall conduct its operations so as to best cooperate with such other contractors, if so requested by Owner.

- furnish and maintain in first class operating condition the equipment, 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 by Owner, be removed from the site of the work until such time as the performance of this contract shall be completed by Contractor.
- 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.
- 9. TERM OF CONTRACT: Unless the provision 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 work requested by Owner to be performed by Contractor during a period of 6 months from and after the date of this agreement, provided, however, that Owner may, at any time after the completion of the minimum amount of work guaranteed to Contractor under the provisions set forth in Schedule I, terminate this agreement by giving notice of such termination to Contractor.
- 10. INSURANCE: Contractor shall obtain and carry during the period of this agreement at Contractor's sole cost the following insurance coverage:

Comprehensive Liability
Bodily Injury and Property Damage Liability
including Contractual Liability and
Completed Operations

Each O

Each Occurrence \$500,000.00 Aggregate \$500,000.00

Automobile Liability (Including Owned and Non-owned automobiles) Bodily Injury and Property Damage Liability Each

Each Occurrence \$500,000.00

Workers' Compensation and Employer's Liability Statutory Each Accident

\$100,000.00

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.

- 11. 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.
- 12. PERMITS: Contractor shall obtain all permits and licenses 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.
- 13. 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.

THE PROPERTY OF THE PARTY OF

- 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.
- in said post office as the case may be.

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

hereunder to any other party.

- 17. 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.
- 18. SUCCESSORS: This agreement and each and every provision hereof shall insure 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.

OWNER

Ву

CONTRACTOR

v

D.W. Coates President

- 7 -

SCHEDULE I

WORK PROVISION

- 1. The Contractor will provide equipont, supplies and order to operate one Louise Squar 38 Smilling rig, equipped for tractor on believater rown, two ten hour shifts per day, including, but not limited to all name any dmilling weatherry, bits, associated tools, and oils, repair parts, ossing, role, coreberrals, equipment required for purping water, presented and all necessary labour and supervision. Contractor shall at the conserver at of work bareaution, traceport all such equip at, supplies and creek to a discharge point, as near as practical to the lamb up... with the dmilling programme is to begin.
- 2. Holes will be drilled NO wireline. In all instances, researable care shall be exercised to obtain the recovery of as high a percentage of one as the forestion being drilled will researably permit. All such core shall be properly identified in correct order and placed in core boxes provided by Contractor. Contractor shall furnish 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. Boles shall have a maximum depth of one thousand five hundred (1500) feet. The Owner guarantees four thousand (4000) feet of NO drilling under this agreement.
- 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 shell be paid at the rates specified in Schedule II attached hereto for the footage actually drilled, provided however, that the Contractor shall

SCHEDULE II

PAYMENT SCHEDULE

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

1. Schedule of Rates - Coring: NO

			Inclinations
			-45 to -90
From		To	Price/Foot
0'	-	500' in depth	\$19.40
500*	-	1000' in depth	\$20.55
1000'	-	1500' in depth	\$22.40

The schedule of rates includes a \$3.00 per foot diamond allowence for core bits, shells and casing shoes. Due to the potential for encountering extremely hard and broken quart-magnetite breccias, all diamonds consumed in excess of \$3.00 per foot shall be charged to the Owner. Diamond bits "burned" due to operator neglect shall not be included in the diamond coet. All other labour coets and other operating expenses shall be for the Contractor's account, except when reimbursed to Contractor by Owner as hereinafter provided.

2. Overburden: Triconing and Setting Casing:

Prom		<u>To</u>		Price/Foot
0'	-	501	in depth	\$19.50
501	_	100'	in depth	\$20.50
100' plus	_			Field Cost

It is understood that all holes are to be left cased unless the Owner specifically orders casing to be removed. The Contractor shall employ used HQ rod as casing when it is available and charge the Owner at its depreciated value.

Moving Between Holes - Setting Up - Tearing Down:

All time spent tearing down, moving the drill and equipment between sites, and setting up shall be charged to the Company on a field cost basis for all labour, plus standby rates for the drill equipment.

The Company shall supply a suitable tractor or helicopter as required to aid in soving between sites at no cost to the Contractor.

4. Water Supply:

The laying, maintaining and removing of the waterlines and supply pump shall be performed on a field cost basis.

5. Mobilization - Demobilization:

The Contractor shall move his men, drill, equipment and supplies from his base to truck unload point and return from truck load point to his base for the lump sum of \$7,500.00.

The movement of men, drill, equipment and supplies from truck unload point to first hole site and return from last hole site to truck load point, including unloading and loading, shall be performed on a field cost basis.

The Company shall supply a suitable tractor or if necessary a helicopter to aid in mobbing and demobbing and for continuing supplies as the job progresses, at no cost to the Contractor.

6. Drill Sites:

The Owner shall prepare the access roads, and level suitable drill sites and pumping stations at no cost to the Contractor.

7. Reaming Casing and Cementing:

If ever necessary to help prevent cave-ins and maintain circulation, reaming casing and cementing shall be performed on a field cost basis.

8. Mud and Additives:

The mid and additives required to help penetrate the overburden and/or aid in core recovery if ever necessary, shall be supplied at cost on job site, plus twelve percent. Time spent mixing mud and/or stabilizing the hole if ever necessary shall be charged on a field cost basis.

9. Core Boxes:

The Schedule of rates includes the supply of NO core boxes complete with a lid for each.

10. Fuel:

The achedule of rates includes the fuel required for operation of the drill and equipment.

11. Board and Lodging:

The Company would supply free room and board to the Contractor's personnel in the Company's camp.

12. Tests:

If requested by the Company, the Contractor shall take acid tests at the rate of three feet drilled at the depth the test is taken. Other surveys shall be performed at the field cost rate.

13. Travelling Time:

The schedule includes the first one-half hour spend travelling from the lodging site to job site and return per man per shift. Should the time be greater than one-half hour per man per shift, the "over" would be charged on a field cost basis.

14. Operating Field Costs:

When functions as noted above are performed on a field cost basis, the following schedule shall apply:

\$23.50 per man hour

38 Drill with Tower—\$23.00 per hour

Pump—\$2.50 per hour, per pump

Mud Mixer (when applicable)—\$1.50 per hour

4 x 4 Truck (when applicable)—\$10.00 per hour

Materials Consumed—At cost on job site + 128

15. Standby Rate:

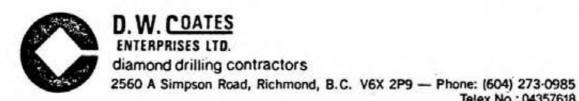
Naiting for instructions from the engineer, waiting for cement to set, or other delays beyond the Contractor's control:

Labour (max. 8 hrs/man/shift)———\$20.00 per man hour Drill & Equipment (max. 8 hrs/day)———\$18.00 per hour

16. Billing and Payment:

Contractor shall submit all invoices to the Owner at Utah Mines Limited. Payment shall be made to the Contractor in accordance with Parabraph 8 of this agreement form. The prices set forth in this Schedule II shall include all applicable taxes and insurance.

Telex No.: 04357618



November 9, 1982

Mr. J. B. Richards Senior Geologist Utah Mines Ltd. # 1600 - 1050 W. Pender Street Vancouver, B.C. V6E 3S7

Dear Byron:

Re: Addendum to the Agreement Between Utah Mines Ltd. and D.W. Coates Enterprises Ltd., for diamond drilling at the Red Dog Property

As per our meeting and discussion of November 8, 1982 regarding further drilling at the Red Dog project under the terms of our present agreement, we enclose for your perusal and approval three copies of the following addendum made necessary due to the present winter climatic conditions:

Reference: Agreement Dated 27th day of April, 1982

Schedule II, PAYMENT SCHEDULE

Item 4. Water Supply

add:

The Owner agrees that should it become necessary to heat water due to freezing conditions, the Contractor would employ a coil stove and charge the Owner at the rate of \$1.50 per hour of actual use plus the fuel consumed.

There are no further addenda to the agreement.

Should this addendum meet with your approval, would you kindly so signify by returning one signed copy and retain two copies for your files.

Should you have any questions, please do not hesitate to contact us.

Yours very truly,

D. W. COATES ENTERPRISES LTD.

For J. R. Forsythe

Accepted on Behalf of UTAH MINES LTD.

Accepted on Behalf of D. W. COATES ENTERPRISES LTD.

A. Lee At.

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