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Drill Report - Atan Lake Property

D.D.H. # 12 and 13 Atan, Adair, August, Ski, Fox and Wolf Mineral Claims (Record Nos. 28358-28361, 26936-26943, 31212-31217, 26948-26964, 26935, 26927, 26929, 26931, 26933) Liard Mining Division 104-P-3

by

Richard W. Oddy Geologist Imperial Oil Limited Vancouver, B.C.

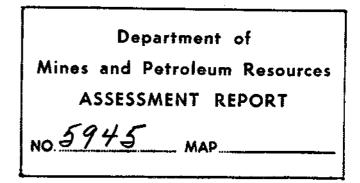


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Notice to Group (Form I) Affidavit on Application to Record Work (Form B) Core Descriptions - D.H. 12 and D.H. 13 Cost Statement Statement of Qualifications Copy of Drill Contract between Imperial Oil Limited and D.W. Coates Enterprises

MAPS

#/ Location Map - Atan Lake Property	Scale: 1:250,000
#ク Index Map of Atan Lake Claims	Scale: 1 inch = 3,000 feet
Location Map of D.H.'s 12 and 13	Scale: 1 inch = 400 feet
13	

<u>DDH # 12</u>

Property:	Atan Lake	Location:	29+00S, 4+75W
Azimuth:	045 ⁰	Claim:	Atan 4
Inclination:	-75 ⁰	Core size:	BQ
Length:	238 feet	Contractor:	D.W. Coates Enterprises
Elevation:	2,260 feet		
0 - 44'	<u>overburden</u>		

- 44' 100.3' <u>Black shaly dolomite</u> interbedded shale and dolomite, minor graphite and pyrite in shale (96'-100.3')
- 100.3' 117' <u>Silicified</u>, <u>brecciated</u>, <u>crystalline dolomite</u> with quartz and minor barite veining

117' - 238' Light grey crystalline dolomite with interbeds
and intraclasts of graphitic shale. Minor
barite veins (at 155' and 165').

R. M. Oddy

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<u>DDH # 13</u>

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Property: Azimuth: Inclination: Length: Elevation:	Atan Lake 045 ⁰ -75 ⁰ 744 feet 2,280 feet	Location: Claim: Core size: Contractor:	22+00S, 0+30E Atan 3 BQ D.W. Coates Enterprises	
0 - 34' 34' - 136'	<u>overburden</u> Light grey cryst and barite v	<u>alline dolomi</u> einlets.	<u>te</u> with minor quartz	
136' - 228'	Dark grey to black graphitic shale and interbedded shaly dolomite. Calcite veinlets and minor pyrite. Bedding at 45° to 60° to core axis.			
228' - 307'	<u>Dark to light gr</u> shale interb barite veinl	eds, quartz v	<u>mite</u> with a few einlets and minor	
307' - 490'	veins and in		<u>te</u> with a few quartz shale. Possible	
490' - 509'	<u>Dark grey silty</u> and shale in	<u>dolomite</u> , wit traclasts.	h shaly interbeds	
509' - 520'	Fault and fault	gouge - poor	recovery.	
520' - 680'	calcite vein	lets. Vug at	<u>e</u> , cut by numerous 611.6' lined with led with galena.	
680' - 744'			<u>te and brecciated</u> , - interbedded.	

R.N. Oddy

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COST STATEMENT - ATAN LAKE PROJECT

DDH's 12 and 13

Dates Drilled - June 9 to June 21, 1976 Total Len	gth: 982 feet
Direct Drilling Cost (D.W. Coates Enterprises)	
982 feet at \$21.66/ft. (includes mobilization, demobilization, moving and camp costs and fuel costs)	\$21,270.00
<u>Bulldozer Costs</u> (for preparing drill sites and moving drill)	1,541.00
4-wheel drive vehicle rental and gasoline	1,048.27
Drill Supervision	
G. Bloy, geologist - 13 days at \$45.00/day	585.00
Core Boxes	175.15
Shipping Costs (coreboxes, equipment, etc.)	89.45
	\$24,708.87

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STATEMENT OF QUALIFICATIONS

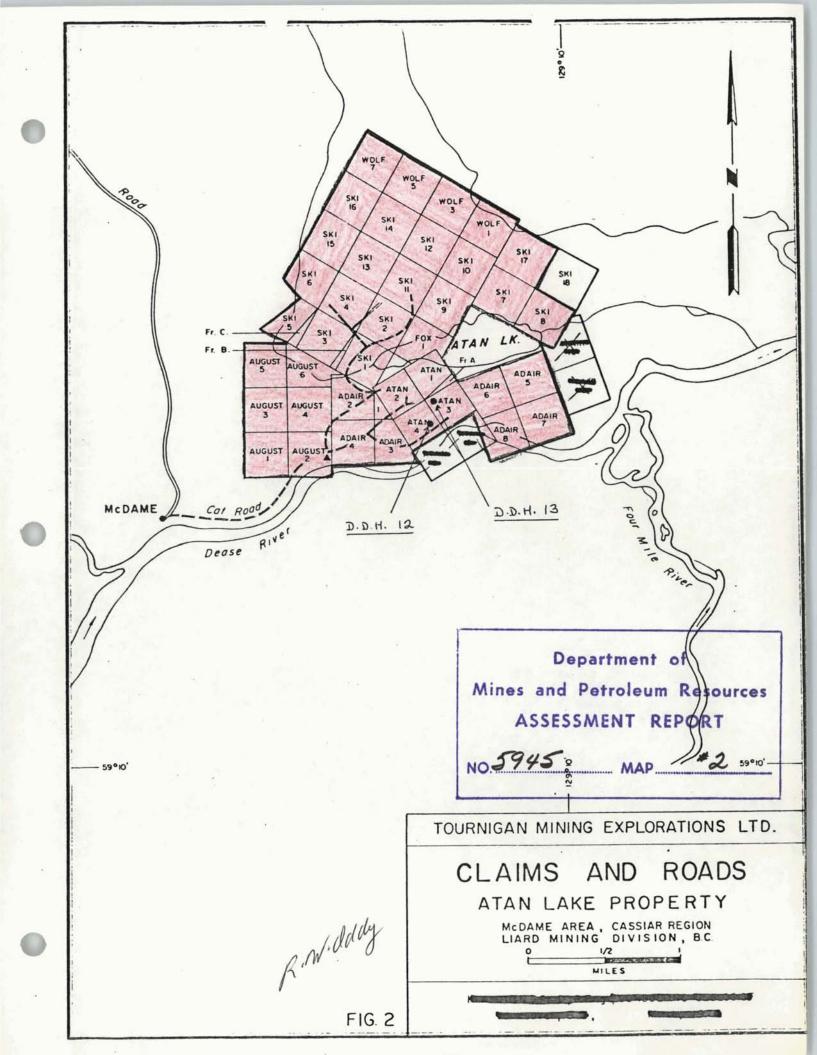
I, Richard W. Oddy, of Vancouver, British Columbia, hereby certify the following qualifications:

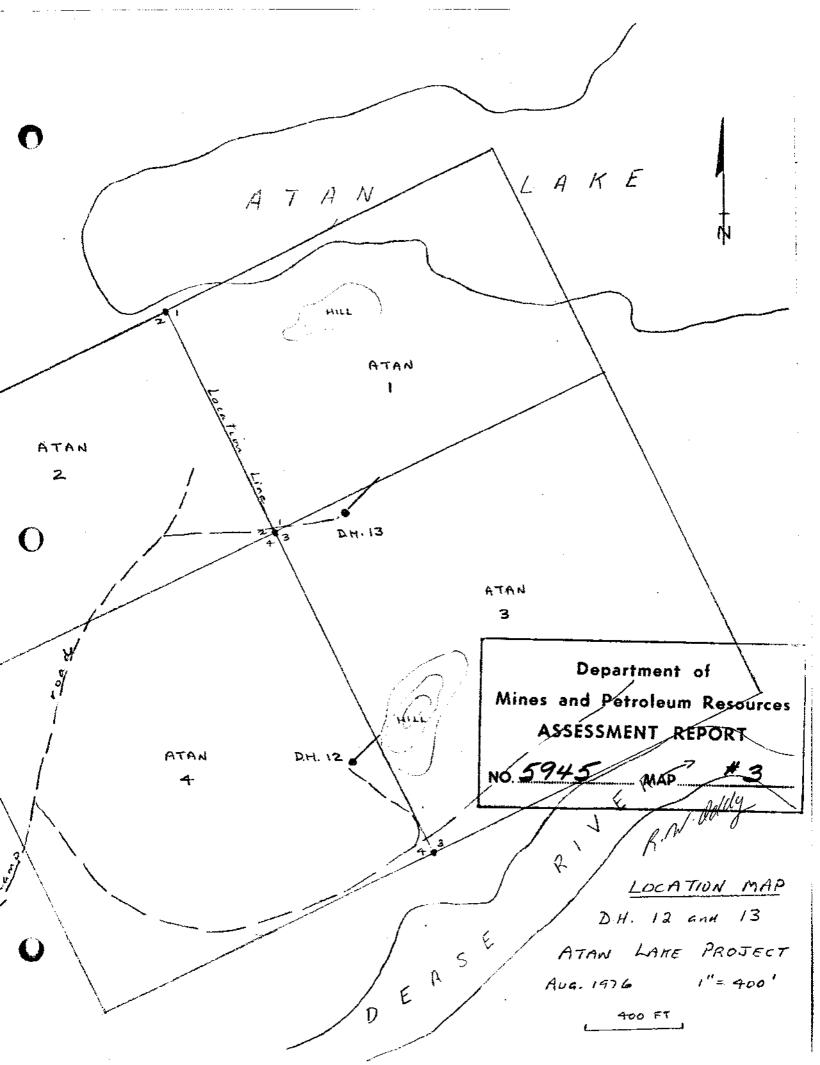
- (a) I obtained a B.Sc. degree in geology from the University of British Columbia in 1962 and a M.Sc. degree in geology from the University of Manitoba in 1966.
- (b) I have been practising my profession as a geologist in Canada for ten years.
- (c) I am a fellow of the Geological Association of Canada.

Richard N. Olda

Richard W. Oddy Geologist Imperial Oil Limited







DRILLING CONTRACT

THIS AGREEMENT made this 31st day of March , A.D., 1976.

BETWEEN:

D. W. COATES ENTERPRISES LTD.

(hereinafter called "the Contractor"),

- and -

IMPERIAL OIL LIMITED, a body corporate, with Head Office at the City of Toronto, in the Province of Ontario, (hereinafter called "Imperial").

WHEREAS Imperial desires to have a program drilled and completed at Atan Lake , as further described herein, commencing on or about the lst day of June , 1976:

AND WHEREAS Contractor represents that it has adequate equipment in good working order and fully trained personnel capable of efficiently operating such equipment with which it desires to drill for Imperial.

NOW THEREFORE the parties hereto, each in consideration of the promises and agreements of the other, mutually agree as follows:

1. WORK TO BE DONE, LOCATION, COMMENCEMENT DATE AND DEPTH:

1.1 Contractor agrees to drill and complete the hereinafter designated program in accordance with all provisions hereof and other conditions and specifications set forth in the Bid Sheet and Job Specifications, identified as Schedule A attached hereto and made a part hereof.

1.2 Contractor further agrees to commence operations for the drilling of the project at the location, on the date and to the depths agreed upon in Sections 1 and 2 of Schedule A hereof.

2. LABOUR, EQUIPMENT, MATERIALS, SUPPLIES AND SERVICES:

2.1 All labour, equipment, material, supplies and services necessary to the normal operation or maintenance of the drilling equipment shall be furnished by Contractor. Additional material, equipment, special tools, supplies and services necessary or proper to the drilling and completion of the job shall be furnished at the drill site by the party designated in Schedule A. Should tools, materials, apparatus or services, other than those set forth herein or designated in Schedule A be necessary to the drilling of the program, the cost of such tools, materials, apparatus or services and the manner in which they are to be furnished are to be agreed upon by the parties hereto.

2.2 Should Contractor purchase for Imperial, at Imperial's request, any materials, supplies or equipment which Imperial is obligated to furnish under the terms of this Contract, Imperial agrees to pay Contractor within Sixty (60) days after date of receipt of Contractor's invoice the actual cost of such materials, supplies or equipment. Contractor agrees to furnish Imperial copies of suppliers', vendors' or third party invoices covering such materials, supplies or equipment.

3. FOOTAGE RATE, HOURLY RATE, STAND-BY RATE, BASIS OF DETERMINING AMOUNTS PAYABLE TO CONTRACTOR:

3.1 Subject to all of the other provisions hereof, Imperial agrees to pay Contractor for the work performed, services rendered and the materials, equipment and supplies furnished by Contractor, a sum computed as hereafter prescribed.

3.2 For work performed on a footage basis, Contractor shall be paid the rate agreed upon and specified in Schedule A, multiplied by

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the linear footage of hole drilled. Such linear footage of hole drilled shall be determined in the manner specified in Schedule A.

3.3 For work performed on an hourly basis, the hourly rate shall be as agreed upon in Schedule A.

3.4 In determining the amount of hourly time for which Contractor is to be compensated, it is agreed that such day work time shall begin when Contractor suspends normal drilling operations being conducted on a footage basis, and shall include the time required to restore the hole to the same drilling conditions which existed when operations on a footage basis were suspended.

4. ACCESS:

Imperial shall provide, at no cost to the Contractor, all rights of ingress and egress to all lands that may be required to enable the Contractor to carry out the specified work.

5. DRILLING SITES:

The Contractor agrees to case and drill on the sites and at angles and azimuths selected by Imperial's representative, and to follow the instructions of Imperial's representative relating to place and time of drilling.

Imperial and Contractor respectively agree to comply with all laws, rules and regulations, Federal or Provincial, which are now or may become applicable to operations covered by this Contract and any work order issued in connection herewith. If any of the terms hereof are in conflict with any applicable rule, regulation, order or law of a Provincial or Federal Regulatory Body, the terms of this Contract so in conflict shall not apply and the applicable Provincial or Federal rule, regulation, order or law shall prevail.

6. CAVITIES:

In the event that permafrost, cavities or loose and caving material is encountered of such a nature as to prevent the successful completion of any holes, the Contractor does not under such conditions guarantee to drill to a predetermined depth, and in the event that it becomes necessary to abandon the holes, Imperial agrees to pay for such uncompleted holes, and the cost of all material unretracted from said holes. Should Imperial request that further work be carried out in the hole beyond this point, then the Contractor shall continue work in the hole and such continuing work shall be at Field Cost rates.

7. LOSS OR DAMAGE:

In addition to all other indemnifying provisions contained herein, the Contractor represents and warrants that the use or construction of any and all tools and equipment furnished by the Contractor and used in the work provided for herein does not infringe on any license or patent which has been issued or applied for, and the Contractor agrees to indemnify and hold Imperial harmless from any and all claims, demands and causes of action of every kind and character in favour of or made by any patentee, licensee or claimant of any right or priority to such tool or equipment, or the use or construction thereof, which may result from or arise out of furnishing or

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use of any such tool or equipment by the Contractor in connection with the work under this Contract and applicable work orders.

8. INDEMNIFICATION:

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Contractor shall:

- (a) be liable to Imperial for all loss, costs or damages and expenses whatsoever which Imperial may suffer, sustain, pay or incur; and
- (b) indemnify Imperial against all actions, suits,
 claims, costs and demands, loss, damages and
 expenses which may be brought against or suffered

by Imperial or which it may sustain, pay or incur, by reason of any matter or thing arising out of or in any way attributable to the negligence of the Contractor, its agents or employees, or the breach by Contractor of any of its covenants hereunder.

9. <u>CORE</u>

The drilling shall be conducted so as to produce as high a percentage of core as the nature of the ground being drilled shall allow. All core recovered shall be delivered to Imperial's representative, carefully marked. Core shall be placed in boxes, legibly marked as to hole and depth of such intervals, as designated by Imperial.

10. HOLE DIRECTION AND DEPTH:

The Contractor does not guarantee the direction of the hole beyond the collar, nor guarantee to drill any hole to any specified depth. The Contractor will, however, expend every reasonable effort to complete ell holes to the satisfaction of Imperial.

11. IMPERIAL'S REPRESENTATIVE:

Imperial will have a representative on site authorized to approve the Contractor's charges on a daily basis. Contractor shall provide complete daily drilling reports, if requested by Imperial, and deliver them daily to Imperial's representative on site.

12. SECRECY:

The Contractor will not give out any information regarding drill results or permit any access to drill core to any individual other than Imperial's representative, except upon specific written permission of Imperial's officials.

13. DISCIPLINE:

The Contractor shall at all times enforce discipline and maintain good order among its employees and shall not retain on the job any person not skilled in the work assigned to him.

Any employees of the Contractor who are objectionable or unsatisfactory to Imperial shall be removed from the job and replaced by an employee satisfactory to Imperial.

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14. LIENS:

The Contractor shall indemnify and save Imperial harmless from any and all liens whatsoever arising out of the work performed by the Contractor hereunder.

15. PAYMENTS:

Imperial shall pay the Contractor for the work and/or equipment or materials furnished by the Contractor at the rate stipulated in this Contract, subject to the same being accepted by Imperial as fully complying with all the terms, conditions, specifications and requirements of this Contract, provided the Contractor shall have satisfied Imperial that there are no liens or claims on or against Imperial or its property by reason of the operations of the Contractor hereunder. In the event the Contractor shall fail or refuse to pay claims or indebtedness incurred by the Contractor, or its employees, agents or sub-contractors, in connection with the drilling of the hole herein contracted for, or any other hole or holes :drilled by the Contractor for Imperial, Imperial shall have the right to pay said claims or indebtedness, or any of them, out of any money due or payable or to become due or payable to the Contractor by Imperial.

16. ECOLOGY AND SANITATION:

During the course of the work the Contractor shall keep the site of any drilling and camp areas free from accumulation of waste materials, rubbish or garbage and upon completion of the work shall remove all tools, scaffolding, surplus materials, rubbish and garbage and leave the working and camp site in a clean condition. In addition upon completion of the work, the Contractor shall rake, fertilize and seed the disturbed portions

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of the work area and in general endeavour to leave the entire premises and associated rights of way as near to their original state as is reasonably possible, in conformity with the British Columbia "Reclamation Guidelines for Exploration". The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires and sanitation in the bush and shall bear all costs arising from any violation thereof.

17. INSURANCE:

The Contractor further covenants and agrees while this Contract remains in force:

17.1 Without in any way limiting the liability of the Contractor "under this Contract, it shall be the responsibility of the Contractor to maintain and keep in force during the term of this Contract the following insurance:

> (i) <u>Automobile Liability Insurance</u> - covering all vehicles used in connection with operations under this Agreement. In respect of such vehicles not owned by Contractor, it shall maintain and keep in force as aforesaid non-owned automobile liability insurance protecting its liability, including that assumed under this Contract. The limits of insurance under this provision shall be not less than:

> > Bodily Injury (including Passenger Hazard) and Property Damage: \$1,000,000 inclusive any one accident, or equivalent limits.

(ii) <u>Comprehensive General Liability Insurance</u> - covering all operations in connection with this Agreement (other than the operation of automobiles), including employer's liability, the Contractor's contingent liability with to the operations of subcontractors, and contractual liability as respects the liability assumed by Contractor under this Agreement. The policy or policies shall not contain any exclusion as respects loss or damage to property arising from fire, explosion or blowout. The limits of such insurance shall be not less than:

Bodily Injury and Property Damage: \$1,000,000 inclusive any one accident, or equivalent limits;

and shall, upon request, deliver to Imperial evidence of such insurance.

17.2 Any insurance carried by the Contractor the cost of which is chargeable to Imperial shall contain a waiver of subrogation in favour of Imperial and all other Contractors engaged in the work.

17.3 Subject to the other provisions of this Contract, the Contractor shall provide at its own expense any other insurance which it is required by law to provide or which the Contractor or Imperial considers necessary.

17.4 To comply with all requirements of the Workers' Compensation Act, Unemployment Insurance Act, Hours of Work and Vacations with Pay Act and generally all Federal and Provincial Acts and Regulations applicable to the Contractor's operations.

17.5 To take all necessary precautions against fire, and any fire due to the Contractor's negligence or the operation of faulty equipment will be the Contractor's sole responsibility. 17.6 All such insurance shall be carried in a company or companies acceptable to Imperial and shall be maintained in full force and effect during the term of this Contract, and shall not be cancelled, altered, or amended without Ten (10) days' prior written notice having first been furnished to Imperial.

18. RIGHT TO VACATE:

Upon completion of the work herein contracted to be performed, the Contractor shall have the right to remove within a reasonable length of time all temporary buildings and other fixtures including trade fixtures, machinery, equipment and appliances placed by the Contractor upon such lands.

19. DISPUTES:

This Contract and any dispute arising hereunder shall be inter-

In the event there is a conflict between the provisions hereof and any papers or documents which may have been executed or passed between the parties hereto in connection with the subject matter hereof, it is understood and agreed that the provisions hereof shall be controlling.

20. FORCE MAJEURE:

Neither Imperial nor the Contractor shall be liable to the other for any delays or damages or any failure to act due, occasioned or caused by reason of Provincial laws or the rules, regulations or orders of any public body or official purporting to exercise authority or control respecting the operations covered hereby, including the use of tools and equipment or due, occasioned or caused by strikes, action of the elements, or causes beyond the control of the elements, or causes beyond the control of the parties affected hereby and delays due to the above causes, or any of them, shall not be deemed to be a breach of or failure to perform under this Contract.

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21. NOT ASSIGNABLE:

It is mutually agreed that this Contract shall be binding upon and enure to the benefit of the parties hereto, their respective successors and permitted assigns, but shall not be assignable by either party without the consent in writing of the other party first had and obtained.

22. MAILING ADDRESSES:

Any notice required to be given hereunder shall be properly given if mailed by registered letter addressed to Imperial as follows:

> IMPERIAL OIL LIMITED Minerals Section 314 - 1281 W. Georgia St. Vancouver, B.C. V6E 3J7

or to the Contractor by registered letter addressed as follows:

D. W. COATES ENTERPRISES LTD. 256 A Simpson Road Richmond, B.C. V6X 2P9 This Contract constitutes the entire agreement between the parties hereto and no changes, alterations or modifications hereof shall be effective unless in writing.

24. TIME IS OF THE ESSENCE:

Time is expressly declared to be the essence of this Contract. If either party hereto defaults in the performance of this Contract of work commenced under work orders as provided for herein, the other party has the option to terminate his Contract and the work order involved.

25. INDEPENDENT CONTRACTOR:

It is understood and agreed between the parties that no oral agreement or provision of this Contract shall be construed so as to constitute the Contractor, the agent, servant or employee of Imperial and the instruction, management and control of the Contractor's employees shall always remain in the Contractor, and the Contractor shall be deemed to be an independent contractor.

IN WITNESS WHEREOF the parties hereto have duly executed this Contract as of the day and year first above written.

IMPERIAL OIL LIMITED

SCHEDULE A

BID SHEET AND JOB SPECIFICATIONS

1. DESCRIPTION OF WORK:

The work is to consist of a series of drill holes, drilled at locations specified by Imperial. A total minimum footage of ______ feet shall be drilled, but total footage may be extended by mutual consent. Maximum depth of any hole shall not exceed <u>1200</u> feet and minimum depth shall be 200 feet. The Contractor will not be called upon to drill any hole at a flatter angle than _____ degrees. Measurement of all holes shall be taken from the top of the casing pipe. If holes of a greater depth than feet are desired, such drilling shall be performed only upon such conditions and at such rates as may be agreed upon before commencement of such drilling.

2. SCHEDULE OF RATES:

Imperial agrees to pay the Contractor for footage drilled and other services performed as follows:

(a) Coring at Bedrock

Depth Intervals		Size	Size
0 - 500 Ft.	\$ 16.30	/Ft. \$	/Ft.
500 - 1000 Ft.	\$ 16.90	/Ft. '\$	/Ft.
1000 - 1500 Ft.	\$ 17.80	/Fi. \$	/Ft.
Ft.	\$	/Ft. \$	/Ft.

(b) Casing of Overburden

Depth Interval

0		50	Ft.	\$	16.5	0	/Ft.
50		100	Ft.	\$	18.0	0	/Ft.
	-		Ft.	\$			/Ft.

(c) The following services will be provided on an operating Field Cost basis:

Casing of overburden over 100 1. ft.

- Reaming and setting casing for borchold reduction, borchole 2. stabilization, and control of return water.
- 3. Drilling caved or broken ground.
- 4. All cementing operations, excluding setting time but including drilling of set cement.
- 5. Supplying water to the drill when water --- Chronet and /og---£-6--

- 6. Recovering pipe and/or casing at Imperial's request.
- 7. Nole orientation tests.
- 8. Setting of wedges, at Imperial's request, for the purpose of directional drilling.

Where operating Field Costs are defined as:

Operating Field Costs

Labour (incl Tractor	uding Supervision		per man hour.
Water Truck	(excluding driver)		per hour.
Equipment Drills	Туре	3	Operating Hourly Rate
34	<u>Longyear</u>	· · · ·	\$10.00
Pumps	Туре	3	Operating Hourly Rate
_420	<u> </u>		
Other	Туре	3	Operating Hourly Rate
· · · · · · · · · · · · · · · · · · ·	Mud Mixe	<u>er</u>	\$.75

While operating on a Field Cost basis, supplies consumed or damaged beyond use, including diamond articles, mud ingredients, cement, rods, core barrels, etc. shall be for Imperial's account at site replacement value plus <u>15</u>%. However, if due to Contractor negligence, or through poor drilling practices, equipment is damaged or lost and hole is not completed, then these costs shall be for Contractor's account.

(a)

The following services would be provided on a non-operating Field Cost basis:

- 1. Setting time for cement.
- 2. Delays caused by Imperial.

Where non-operating Field Costs are defined as:

Non-Operating Field Costs

Labour (including supervision)		per	man hour.
	\$ 5.00	per	drill hour.
Tractor - operating		per	hour.
Tractor - non-operating		per	hour.

(e) Travelling Time

Imperial agrees to pay for travelling time from <u>camp</u> to drill site and return per shift on the following basis:

Labour	\$12_00	\mathbf{per}	Hour
Vehicle	\$ 7.00	per	de Hour

(f) Mobilization and Between Hole Moves Moving between holes is at field cost - labour \$15.00 per man hour.

(g) Room and board for Contractor's personnel will be provided by

per man day.

Contractor will provide meals and accommodation for up to 2 of Imperial's representatives at a price of \$16.00 per day. per man. Room and board will be provided by Imperial to Contractor at

- (h) Core boxes, including lids, will be provided by <u>Company</u> . Contractor's rates for core boxes on site shall be \$
- (i) Core splitter to be supplied by <u>Contractor</u> Contractor to supply core splitter at <u>\$30.00</u> permonth.
- (j) Standby Rental

It is agreed that, at the completion of the present active drilling program, Imperial may retain the Contractor's drilling equipment at the drill area for a rental rate of N/Aper _____ per drilling unit. The standby rental charge will cease to apply upon commencement of continuous drilling program, or on the giving of a written notice to the Contractor by Imperial that the drilling equipment is no longer required.