1976 Assessment Report

TITLE

Percussion Drilling Report NITHI MOUNTAIN PROPERTY

CLAIMS

MOLLY 1-14 and 17-18

DAD 1-3 FR., 4-15, 16-17 FR., 19, 21, 24-37,

52, 54-55, 107-108, 109 FR. and 110

COMMODITY

Мо

LOCATED

Five miles south of Fraser Lake Latitude 53°59'N Longitude 124°51'W Omineca Mining Division 93 F 15

BY

4

F.R. Harris

FOR.

AMAX Potash Limited

WORK PERIOD

Work was carried out during May 27 - June 20, 1976.

MOLLY, DAD 93 F/15 W

AMAX Vancouver Office

Department of Mines and Petroleum Resources ASSESSMENT REPORT

NO. 59/5 MAP

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ILLUSTRATIONS

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#1 FIGURE 1 - Location Map------1:250,000----After Page 1

#2 2 - Drill Hole Location Map-------1:12,000-----In Pocket
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LOCATION AND ACCESS

The Nithi Mountain Molybdenum Property is located five miles south of Fraser Lake. Access to the property is gained via the Chowsunkut logging road south of Fraser Lake and secondary mining roads (see Figure 1).

PROPERTY

The Molly claims (1-14, 17 and 18) are under option from Fraser Lake Mines Limited. The MJM claims (6-23), Pine claims (1 and 2 FR), and Dad claims (1-3 FR, 4-15, 16-17 FR, 19, 21, 24-37, 52, 54-57, 107-112) are under option from Nithex Exploration and Development Ltd. The remaining Dad claims are held by AMAX Potash Limited. Location of the claims is shown on Figure 2 and a list of claims is given in Appendix III.

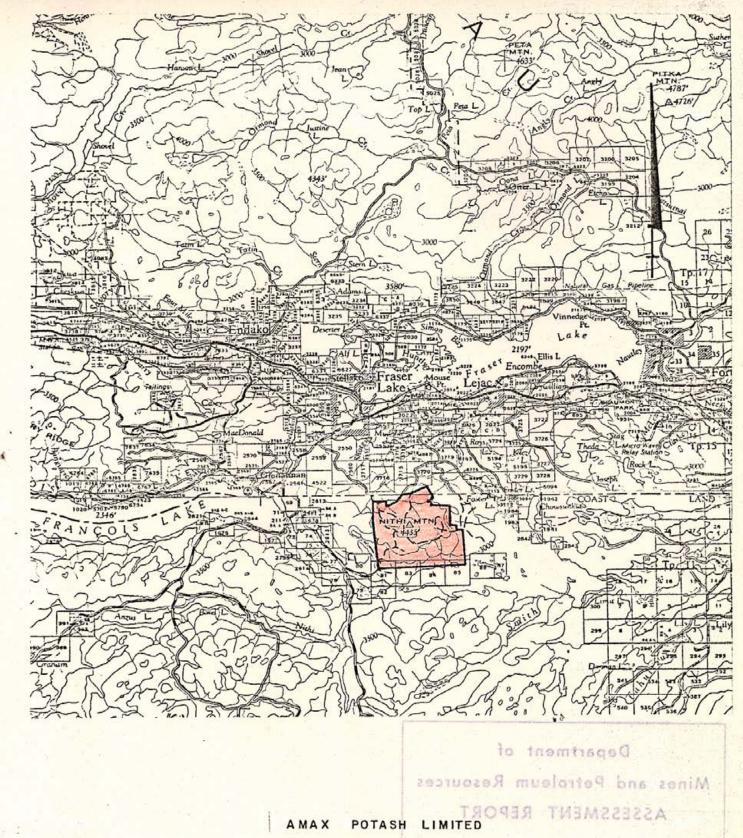
PERCUSSION DRILL PROGRAM

The percussion drilling was carried out by L&L Drilling and Explorations Ltd. of Cache Creek, B.C. using a truck-mounted Atlas Copco percussion drill.

F.R. Harris assisted by D.G. Baker, both of Vancouver, B.C. supervised the drilling. A total of 3,200 feet (12 holes) was drilled from May 27 - June 20, 1976.

Drill hole locations are shown on Figure 2 and logs of drill chips are provided in Appendix IV.

F.R. Harris



NITHI MOUNTAIN PROPERTY

SCALE

SCALE 4 3 2 1 0 MILES

SCALE 1 250,000

MILES

KILOMETERS

N. T. S. Ref. 93 F 15 F/G. /

APPENDIX I - STATEMENT OF COSTS

PERIOD OF WORK	May 27 to June 20, 1976		
SUMMARY OF WORK	3,200 feet Percussion Drilli L&L Drilling & Explorations Box 43, Cache Creek, B.C.		\$10,375.00
	Bulldozer Rental Plowman Logging Ltd. Box 153, Fraser Lake, B.C.		3,182.00
PERSONNEL			
Staff Geologist;	nurlow Street, Vancouver, B.C. 25 days @ \$96.05/day ntian Crescent, Coquitlam, B.C		2,401.25
	25 days @ \$36.17/day	•	904.25
ROOM AND BOARD	50 days @ \$15.00/day		750.00
VEHICLE RENTAL, MAINTENA	ANCE & REPAIRS		
	25 days @ \$25.00/day		625.00
DRAFTING AND REPORT PREF	PARATION		300.00
		TOTAL	\$18,537.50

WORK TO BE APPLIED TO One year - DAD 8-15, 30-37, 52, 54, 55, 110

Two years - DAD 1-3 FR., 4-7, 16-17 FR., 19, 21, 24-29, 107, 108, 109 FR.

- MOLLY 1-14, 17-18.

great F. Floris.

APPENDIX II

STATEMENT OF QUALIFICATIONS

F.R. Harris B.Sc. Honour Geology, University of Western Ontario 1961

M.Sc. Geology, University of New Brunswick 1964.

Experience includes: student summer employment with Geological Survey of Canada and New Brunswick Department of Lands and Mines 1960-1964, party chief for Ontario Department of Mines at Thunder Bay 1964 to 1970. Currently staff geologist with AMAX Minerals Exploration.

<u>D.G. Baker</u> B.Sc. Geology, University of British Columbia 1976.

Two previous field seasons of experience in mineral exploration in Western Canada with Cities Service Mineral Corporation 1974 and INCO 1975.

APPENDIX III
LIST OF CLAIMS

CLAIM NUMBER	RECORD NUMBER	ANNIVERSARY & RENTAL DATE	GROUP
DAD 1-2 FR. 3 FR. 4-7 8-15 16-17 FR. 19 21 24-29 30-37 50 52	132616-132617 132618 132619-132622 132623-132630 132631-132632 132634 132636 132639-132644 132645-132652 132661 132663	October 28/76	North South North North North North South South
54-55 61 107-108 109 FR. 110	132665-132666 132672 132866-132867 132868 132869	November 18/76	South South North South South

APPENDIX IV PERCUSSION DRILL LOGS

76 N 1

COORDINATES

31+24S, 29+14W

DIP

900

TOTAL DEPTH

230 feet

ELEVATION

3780 feet

CLAIM

Molly 1

GROUP

South

REMARKS

0-6' Overburden

6-230' Medium grained quartz monzonite with narrow mafic dykes at 120-140' and 200-210'

76 N 2

COORDINATES

12+44S, 31+28W

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3975 feet

CLAIM

Molly 10

GROUP

South

REMARKS

0-300' Medium grained quartz monzonite which is cut by a narrow mafic dyke at 240-250'

76 N 3

COORDINATES

36+48N, 26+42W

DIP

900

TOTAL DEPTH

240 feet

ELEVATION

4100 feet

CLAIM

Molly 11

GROUP

South

REMARKS

O-240' Medium grained quartz monzonite which is cut by narrow mafic dykes

at 110-140'

76 N 4

COORDINATES

46+91W, 14+62N

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3875 feet

CLAIM

Dad 5

GROUP

North

REMARKS

0- 10' Overburden

10- 70' Medium grained quartz monzonite

70-110' Grey-green quartz porphyry

110-150' Medium grained quartz monzonite

150-220' Grey-green quartz porphyry

220-300' Medium grained quartz monzonite cut by approximately 40% mafic dykes

76 N 5

COORDINATES

54+85W, 14+92N

DIP

900

TOTAL DEPTH

230 feet

ELEVATION

3760 feet

CLAIM

Dad 4

GROUP

North

REMARKS

0- 10' Overburden

10-140' Medium grained quartz monzonite

140-150' Aphanitic mafic dyke

150-230' Light green quartz porphyry and mafic dykes

76 N 6

COORDINATES

51+42W, 2+94N

DIP

900

TOTAL DEPTH

180 feet

ELEVATION

3800 feet

CLAIM

Dad 4

GROUP

North

REMARKS

0- 15' Overburden

15-160' Light green quartz porphyry

160-180' Medium grained granite

76 N 7

COORDINATES

66+26W, 10+00S

DIP

900

TOTAL DEPTH

290 feet

ELEVATION

3580 feet

CLAIM

Dad 29

GROUP

North

REMARKS

0- 29' Overburden

29-290' Coarse grained porphyritic quartz monzonite (Caledonia quartz monzonite)

76 N 8

COORDINATES

57+44W, 10+00S

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3655 feet

CLAIM

Dad 6

GROUP

North

REMARKS

0- 18' Overburden

18-300' Medium grained quartz monzonite with aphanitic mafic dykes at 90-130'

76 N 9

COORDINATES

15+25S, 51+80W

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3700 feet

CLAIM

Dad 6

GROUP

North

REMARKS

0- 10' Overburden

10-300' Medium grained quartz monzonite

76 N 10

COORDINATES

16+35S, 57+00W

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3625 feet

CLAIM

Dad 8

GROUP

South

REMARKS

0- 20' Overburden

20-120' Medium grained quartz monzonite

120-180' Aphanitic mafic dyke

180-240' Medium grained quartz monzonite

240-300' Medium grained quartz monzonite and aphanitic mafic dyke

76 N 11A

COORDINATES

29+49S, 44+00W

DIP

900

TOTAL DEPTH

50 feet

ELEVATION

3725 feet

CLAIM

Dad 3 FR.

GROUP

South

REMARKS

0-6' Overburden

6-50' Medium grained quartz monzonite

76 N 11

COORDINATES

29+50S, 44+62W

DIP

900

TOTAL DEPTH

180'

ELEVATION

3725'

CLAIM

Dad 3 FR.

GROUP

South

REMARKS

0- 5' Overburden

5-180' Medium grained quartz monzonite

76 N 12

COORDINATES

21+00S, 41+88W

DIP

900

TOTAL DEPTH

300 feet

ELEVATION

3790 feet

CLAIM

Molly 10

GROUP

South

REMARKS

0- 5' Overburden

5-300' Medium grained quartz monzonite

APPENDIX V CONTRACTOR'S INVOICES AND CONTRACTS

L & L DRILLING and EXPLORATIONS LTD.

Box 43, Cache Creek, B.C. VOK 1HO Phone 457-9969 A MAX POTASH declad & approved for Payment for proj. 689 Gad K. Hurre The following is our account for drillingeroun proporty at Milling mountain Fram Jake, B.C. Depth to bedrock Total Perth Casing 230 NI 20 300 W 2 10 0 740 N > 40 0 300 $\cap A$ 10 20 230 10 N . 5 20 180 15 70 NG 290 29 NT 36 300 18 70 NB 300 10 70 N9 300 20 36 N 10 50 6 10 NHA 180 5 NII 10 300 N 12 10 5 TOTAL FOOTAGE 3200 \$ 6,800,00 3200 @ \$2.75/ft.

Mouning on to job & off job 7hs & \$45.00/h 315.00

Mouning between wites 2 hrs @\$45.00/h 90.00

Molicly etime on yet and off job (\$450.00 on, my) 900.00

Plowman Logging Ltd.

P.O. Box 153, Fraser Lake, B.C. V0J 1S0 Telephone 699-6581

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689.		
TOTAL		

A SUBSIDIARY OF AMERICAN METAL CLIMAX, INC.

PHONE (AREA CODE 604) 683-0474
TELEX 0454387

#601 - 535 THURLOW STREET

VANCOUVER, BRITISH COLUMBIA

V6E 3L6

AGREEMENT ENTERED INTO THIS $\frac{4 \, \frac{11}{12}}{0}$ DAY OF $\frac{11}{12}$, 1976

BETWEEN AMAX POTASH LIMITED 601-535 Thurlow Street Vancouver, B.C. V6E 3L6

the party of the first part, hereinafter referred to as the Client,

AND L&L DRILLING AND EXPLORATIONS LTD.
P.O. Box 43
Cache Creek, B.C.

the party of the second part, hereinafter referred to as the Contractor. Whereas the Client wishes to have performed certain percussion drilling on its Nithi Mountain Property, five miles south of Fraser Lake, British Columbia and whereas the Contractor, in consideration of payments hereinafter contained, undertakes to do the said percussion drilling commencing on or about the 1st of June, 1976.

NOW THEREFORE IT IS WITNESSED:

1. GUARANTEED FOOTAGE

The Client guarantees a minimum of two thousand (2,000) feet of percussion drilling in a series of vertical holes of a minimum depth of one hundred (100) feet, and a maximum depth of three hundred (300) feet. All measurements to be taken from top of casing. The Contractor will be prepared to drill an additional two thousand feet for a total of up to four thousand feet.

2. EQUIPMENT

The Contractor guarantees to drill the required footage by drilling 2 inch holes utilizing a truck mounted drill capable of both wet and dry percussion drilling, and to supply forthwith one drill outfit along with necessary associated equipment and labour to commence the work within the time limits specified by the Client.

3. DRILLING RATES

The Contractor shall receive, exclusive of ancillary drilling service charges otherwise provided for, the following rates:

- a) Surface to 300 feet in depth (2 inch diameter hole) at the rate of \$2.75 per foot, which rate shall include the placing of casing as required to a maximum depth of 100 feet of casing.
- b) If more than 100 feet of casing is required for any drill hole, the rate per foot shall be \$3.00 for the entire hole.

4. SAMPLING

Samples will be taken on standard ten foot runs and will be delivered to the Client's representative at the drill sites in suitable sample bags. Sample bags will be provided by Client. The Contractor will maintain a daily record of the drilling operation and will furnish to the Client a copy thereof duly signed by the Client's representative at the drill site. In the report the hole identification number shall be that prescribed by the Client.

5. WATER SUPPLY

The Contractor shall supply and pay the cost of supplying all water required for the drilling program up to 2500 feet from the nearest suitable source of such water. Additional costs incurred by the Contractor to supply water from a source further than 2500 feet from the drill site shall be for the Client's account.

If the use of a water truck is required, the Contractor shall supply such truck at its cost, charging rental for such unit at the following rates:

- a) Water truck utilized on a one shift per day basis \$45.00 per day.
- b) Water truck utilized on a two shift per day basis \$40.00 per shift.

The water truck will be operated by the drill crew except that if it is agreed that a driver is required, such driver will be supplied by the Contractor and the above rental rates to be charged to the Client will be increased by \$56.00 per eight hour shifts.

6. LOST RODS AND CASING

- a) Materials other than casing stuck or lost in a hole while drilling and the costs of recovery thereof, including labour costs, shall be for the Contractor's account.
- b) In overburden or bedrock, the driller will be the judge of maximum hole depth. In the event the Client desires drilling to be continued under adverse conditions, the Client agrees to reimburse the Contractor for all equipment loss in drill holes.
- c) The recovery of casing stuck in a hole shall be carried out by the Contractor at field cost PROVIDED THAT the Client's field representative may instruct the Contractor to abandon the casing, in which case the Client will pay the Contractor for such abandoned casing at fair market value.

7. CAVES

In the event that cavities or loose and caving materials are encountered of a nature as to prevent the successful completion of any hole, 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 hole, the Client agrees to pay for such uncompleted holes at the rates herein specified for all footage completed.

8. RATES TO BE EMPLOYED IN CALCULATING FIELD COST

a) Personnel - Labour (including all drillers, driller's helpers, swampers, etc.) per man hour \$7.50.

Supervisory Personnel Not to be Included

B) Equipment - Rental for equipment utilized at the all inclusive rate of \$30.00 per operating hour.

9. PAYMENT OF FIELD COST CLAIMS

The Contractor shall be entitled to payment of field cost plus ten per cent (10%) of such field cost in respect of the following:

- a) Standby Time All time on standby incurred at the direction of the Client or waiting the Client's instructions.
- b) Special Work Reaming casing and cementing or chemical grouting of holes.
- c) <u>Materials and Supplies</u> All materials and supplies consumed by the Contractor in the course of performing work to which field cost calculation is applicable, at the actual invoice cost thereof.

10. TRANSPORTATION

- a) Mobilization and Demobilization Transportation of the drill and equipment on reasonable roads to the exploration site and back to the office yards shall be provided by the Contractor for the Client at costs not to exceed \$450.00 each way. Mobilization of equipment by means other than roads such as airlift, barging or rail shall be negotiated between the Contractor and Client.
- b) Road and Drill Sites The Client will construct all necessary access roads and drilling sites.

The Client will determine the location of all drill holes, the order of drilling the said holes, and the method of obtaining samples but in all other respects the drilling operations shall be carried out under the direction and control of the Contractor. The Contractor will carry out the drilling as expeditiously as possible but shall not be liable for delays due to weather, or other circumstances beyond its control nor shall the Contractor be obliged to drill at, or move its equipment or personnel, to any site.

- c) Moving Between Drill Sites All time in excess of two (2) hours required to move drill equipment from one drill site to another shall be at field cost to the Client.
- d) Travelling Time Travelling time to and from the drill site, from the Contractor's lodgings in excess of one (1) hour shall be for the Client's account at a rate of \$7.50 per man hour.

11. Board and Lodging

The Contractor agrees to provide board and lodging for its own men, and at its own expense.

12. DISCIPLINE

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

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

13. CONFIDENTIALITY

Contractor agrees that all information and documentary results he or his employees may receive as a result of the work carried out by him under this Agreement shall be the exclusive property of the Client and shall not be disclosed to any other person without the written consent of the Client. The Contractor will carry and maintain during the continuance of this Agreement the following insurance:

- a) Workers' Compensation Insurance in accordance with the laws of the Province of British Columbia, and
- b) Comprehensive Public Liability Insurance with minimum limits of Five Hundred Thousand Dollars (\$500,000) for general liability property damage, bodily injury or death. Comprehensive insurance in the amount of \$200,000 shall be maintained on each vehicle operated by the Contractor. Such insurance shall not be cancelled, altered or amended without ten (10) days prior written notice having been furnished to the Client. Before commencing drilling operations hereunder, the Contractor shall furnish the Client a certificate or certificates evidencing insurance coverage in accordance with the requirements of this section, such certificate to stipulate that coverage will not be cancelled unless ten (10) days prior written notice thereof is furnished to Client.

The Contractor shall indemnify and hold the Client harmless from and against all claims, demands, causes of action, losses, liabilities and expenses arising in favour of the Contractor's employees, the Client's employees or third parties on account of bodily injury, death or property damage resulting from Contractor's operations under this Agreement. The Contractor shall also indemnify and hold the Client harmless from and against all claims and liens for and in respect of labour, materials and services and supplies furnished the Contractor for its performance under this Agreement.

15. PAYMENT FOR WORK

The Contractor shall render statements of account at weekly intervals and the amount due him shall be payable within seven days. Payments are to be made to:

L&L Drilling and Explorations Ltd., PO Box 43, CACHE CREEK, B.C.

This Agreement may be altered only by written consent of both parties hereto.

The Contractor shall be an independent Contractor in the performance of work hereunder and neither the Contractor nor any one employed by him shall be deemed for any purpose to be the employee, agent or servant of the Client.

The Contractor shall not assign any right nor delegate any duty under this Agreement without the prior written consent of the Client. The Client will withhold Five Hundred Dollars (\$500.00) from the final invoice until all drill sites have passed inspection by the Client's representative for cleanliness.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year above written.

L&L DRILLING AND EXPLORATIONS LTD.

Joanna Leaugh

itness

Contractor

L. W. REAUGH

AMAX POTASH LIMITED

Witness

Client

FRH/b

AMADE POTASH LIMITED

A SUBSIDIARY OF AMERICAN METAL CLIMAX, INC.

PHONE (AREA CODE 604) 683-0474
TELEX 0454387

#601 - 535 THURLOW STREET
VANCOUVER, BRITISH COLUMBIA
V6E 3L6

AGREEMENT	made at Vancouver in the Province of British Columbia
on the	4th day of June, 1976 by and
hetween	Loging Ltd. 400EERT PLOWMAN of Fraser Lake, B.C. (hereinafter
•	HOBERT PLOWMAN of Fraser Lake, B.C. (bereinafter
	referred to as CONTRACTOR)

and

AMAN Potash Limited, Vancouver, B.C. (hereinafter referred to as ANAN).

CONTRACTOR and AMAX have mutually agreed as follows:

1. EQUIPMENT

CONTRACTOR agrees to lease to AMAX under the terms and conditions of this Agreement and for the approximate rental period stated herein below, one $\mathcal{TD20}$ bulldozer in good operating condition for use by AMAX at the Nithi Mountain Property, approximately 6 miles south of Fraser Lake, British Columbia.

2. RENTAL

AMAX agrees to lease said Equipment for a period of approximately one week commencing on or about June 1st, 1976.

3. RENTAL CHARGES

It is agreed that the rental for said TD20 bulldozer shall be forty-three dollars (\$43.00) per operating hour. CONTRACTOR

agrees that he will provide a competent operator at no charge to AMAX and assume any provincial taxes that may be applicable to this all-inclusive rental rate.

Rental charges shall be invoiced upon completion of project to the AMAX project geologist for approval and forwarded to the Vancouver Office for payment. Payment to be made to CONTRACTOR within seven days of receipt of approved invoice in Vancouver Office.

4. TRANSPORTATION

AMAX agrees that it shall assume charges relating to mobilization and demobilization of said Equipment from point of origin at Fraser Lake, B.C. to job site and return to point of origin upon completion of project, it being understood that such transportation is at owner's risk.

- 5. CONTRACTOR shall maintain in full force and effect at its expense during the performance of this contract the following insurance in amounts not less than those specified below:
 - (a) Workman's Compensation Insurance in compliance with applicable provincial, territorial and federal laws;
 - (b) Comprehensive Public Liability Insurance, including non-owned automobile, contractual liability, and completed operations, with bodily injury limits not less than \$100,000 per person and \$300,000 per occurrence and property damage limits not less than \$50,000 per occurrence; and
 - (c) Comprehensive Automobile Liability and Property
 Damage Insurance with bodily injury limits not less
 than \$100,000 per person and \$300,000 per occurrence
 and Property Damage limits not less than \$50,000 per
 accident.

CONTRACTOR shall furnish AMAX, on demand, insurer's certificates evidencing the existence of the insurances referred to in paragraphs (b) and (c) above, which certificates shall specifically

state that the policy covers the above mentioned requirements and stipulates that such policies shall not be modified or cancelled unless ten days prior written notice thereof is furnished to AMAX.

6. DAMAGE TO EQUIPMENT

CONTRACTOR assumes responsibility against all loss and damage to the Equipment caused by upset, fire or collision or deemed to be in excess of normal wear and tear as a direct result of mishandling during the rental period.

- 7. CONTRACTOR agrees to indemnify AMAX and its directors, employees and agents from all loss and expense including any court costs and other legal expenses arising out of all claims, demands, actions, processes and suits of every nature and kind whatsoever incident to or resulting from the operations of CONTRACTOR or of any subcontractor or agent or employee of the CONTRACTOR or any of them.
- 8. CONTRACTOR agrees that all information and documentary results he or his employees may receive as a result of the work carried out by him under this Agreement shall be the exclusive property of AMAX and shall not be disclosed to any other person without the written consent of AMAX.
- 9. During the course of the work, the CONTRACTOR shall at all times keep the area in which the work is performed free from accumulation of waste material or rubbish and upon completion of the work shall remove all tools, equipment, scaffolding, surplus materials and rubbish and leave such area in a clean and safe condition in accordance with Forest Service Regulations governing the area.

10. LIABILITY OF AMAX

The responsibility of AMAX for damages or injury shall be as required by law when damages are as a direct result of the

operation of said Equipment by an employee or agent of AMAX.

IN WITNESS whereof the parties hereto have executed this Agreement on the day and date herein above first written.

H.W. Sillher

AMAX Potash Limited

Robert Plowman

