# MEADOWBANK SITE ABANDONMENT & RESTORATION

## COMMITMENT – per KIA Lease Agreement – July 02

**Note: following extracted from Lease Agreement**



SCHEDULE "C"

ENVIRONMENTAL TERMS AND CONDITIONS

The following terms and conditions are in addition to and not in substitution for any applicable laws or regulations in force in Nunavut.



General Standards

1. The Tenant shall not conduct its Operations on any Lands not covered by this lease, unless otherwise authorized in writing by the Landlord.

2. The Tenant shall contact the Landlord at least 48 hours prior to the commencement of activities on the Property identified in the Tenant's Work Plan.

3. The Tenant shall not conduct any activities which are not authorized for a Class III Commercial Lease (as such lease exists as at the date of execution of this lease).

4. The Tenant shall locate all camps on gravel, sand or other durable land.

5. The Tenant shall burn all combustible garbage and debris in a suitable container.

6. The Tenant shall keep all combustible garbage and debris in a covered metal container until disposed of.

Fuel and Chemical Storage

7. The Tenant shall not place any petroleum storage containers within twelve metres of the normal high water mark of any water body.

8. The Tenant shall not allow any petroleum or chemical products to spread to surrounding Lands or into water bodies.

9. All petroleum brought onto the Property by or on behalf of the Tenant shall be kept in approved containers marked with the Tenant's name, or within a bermed area.

10. The Tenant shall report all spills immediately as required by this lease and by governmental authorities.

11. The Tenant shall dispose of all combustible waste products by incineration or removal.

Drilling

12. All drill fluids must be disposed of into a properly constructed sump or a naturally occurring, contained depression and drill fluids should be recycled wherever possible.

13. Drill sumps may not be located within 30 metres of any water body unless otherwise authorized by the Landlord.

14. All constructed drill sumps must be restored to the natural surrounding contours of the land prior to expiry of this lease.

15. Disturbance of vegetation from deposit of drill fluids/cuttings shall be restricted to the area of the sump and the ground prepared for revegetation upon abandonment.

Campsites

16. All sewage shall be deposited into a sump or removed from the Property.

17. All non-combustible garbage and debris shall be removed from the Property to disposal location(s) approved by the Landlord.

18. The Tenant shall not bury any metal wastes without the consent of the Landlord.

19. The Tenant shall keep the campsite clean of garbage and debris at all times.

20. The Tenant shall report any man-bear interactions to the nearest Renewable Resources Office as soon as is reasonably practical.

Fisheries

21. The Tenant shall not deposit any deleterious substance into any water body.

22. The Tenant shall not cause any obstruction of any stream.

23. Winter stream crossings shall be removed prior to the expiry of this lease or annual break-up, whichever occurs sooner.

Ground Disturbance

24. All Operations shall be carried out so as to minimize surface disturbances.

25. All disturbed areas must be restored in a manner acceptable to the Landlord.

26. The Tenant shall not use surface vehicles to move drill rigs or other equipment or supplies without the prior authorization of the Landlord. The use of any vehicles off approved routes is prohibited.

General

27. The Tenant shall have available for viewing a summary of this lease (in form and content acceptable to the Landlord) in a conspicuous place on the Property.

28. The Tenant shall give to the Landlord a final plan within 60 days of the expiry of this lease, showing all areas within the Property actually used in its Operations.

29. At the completion of its Operations or expiry or termination of this lease, the Tenant shall remove all buildings, equipment and materials placed or erected on the Property by or on behalf of the Tenant, unless otherwise authorized by the Landlord.

30. All burial grounds must be avoided and left undisturbed. Should a site be encountered, the Tenant shall have it flagged and reported immediately to the Landlord.

SCHEDULE "D"

# Environmental Action Plan

## 1.0 Demobilization

All equipment, structures and fuel containers will be removed from the area of the lease prior to lease termination. Non-combustible buildings, materials and equipment will be removed by the Tenant. Combustible buildings, materials and equipment will be burnt on site. Local persons and businesses will be given opportunity to salvage buildings, materials and equipment that would otherwise be destroyed prior to the Tenant undertaking final land reclamation procedures.

The only materials and structures remaining will be drill core stored in racks on gravel pads.

## 1.1 Fuel

### 1.1.1 Remove Fuel

All bulk fuel on site will be sold and delivered to the buyer by Delta tanker. Sufficient fuel for space heating needs will be stored on site in standard 205 L barrels during the camp closure. Any remaining fuel will be flown to BAKER and sold to local interests.

### 1.1.2 Remove Fuel Vaults

Bulk fuel storage tanks will be hauled overland to Baker Laker and shipped south on a barge. The tanks will be offered to local interests.

### 1.1.3 Remove Fuel Drums

Empty fuel barrels will be removed to Baker Lake and shipped south on a barge. The fuel drums will be crushed prior to shipment south to reduce revenue tonnes and hence cost of transport. The fuel drums will be offered to local interests.

## 1.2 Remove Drill Equipment

All drill equipment will be relocated to Baker Lake for shipment south to the place of business of the drilling contractor. All materials consumed by drilling and drill site reclamation like salt, drilling compounds will be relocated to Baker Lake for shipment south to the place of business of the drilling contractor. Peat and fertilizer will be retained on site for use during site reclamation. No surplus is expected.

## 1.3 Remove Camp Equipment

Cost estimates assume all that all equipment will be removed by the Tenant. Local persons and businesses will be given opportunity to salvage camp equipment that would otherwise be destroyed prior to the Tenant undertaking final land reclamation procedures.

## 1.4 Remove Structures

Structures presently on the site include both soft sided Weatherhaven shelters, stick built kitchen/dry complex, stick built generator shelters, several fuel pump shelters, and several canvas tent frames. Weatherhaven units consist of seven 14' x 16' sleepers and a 16' x 24' office. There are twelve wood Manta sleepers, a plywood kitchen/mess/ shower/laundry, a core logging and sample preparation plywood shack, two plywood workshops and a generator plywood shack.

All Weatherhaven units will be removed by the Tenant. All remaining structures and building materials will be burned on site with the non-combustible remainder collected and removed to the municipal land fill at Baker Lake. The rigid structures and Weatherhaven units will be offered to local interests.

## 2.0 Drill Core

There is approximately 50,000 metres of drill core in storage at the old MeadoBank camp site (located 500 metres from the new camp site). All drill core has been consolidated at the old Campsite in a compact area The integrity of this core is best preserved with minimal rehandling. It is not intended or recommended that this be moved. It is most useful in its current storage mode.

## 3.0 Reclamation

The natural revegetation of the site generally will be slow due to the dry conditions that exist at the two camps. The use of fertilizers is most effective in moist sites and while it helps on drier sites, the response by the tundra plant community on the higher ground occupied by the new camp will be significantly slower. There will be four different surface conditions that require reclamation on termination of activities at the present camp site:

### 3.1 Areas of Heavy Traffic

In these areas the total amount of vegetation on surface is diminished thereby reducing the insulative layer over the permafrost which has receded allowing surface settlement and so there appear to be more rocks protruding through the surface. These areas remain stable and reclamation will involve applications of fertilizer to accelerate natural revegetation. These sites will also receive applications of fertilizer in the interim to stimulate healthier plants and seed development on the margins of the disturbed areas.

### 3.2 Gravel Pads and Walkways

Gravel has been placed on the lease area either to establish a level supporting surface under fuel tanks, structures and helicopter pads, or to replace wooden walkways in high foot traffic areas. The natural surface remains stable and is bordered by natural vegetation. The gravel will be mixed with peat and fertilizer and be dispersed; the original ground surface will be fertilized and allowed to revegetate naturally.

### 3.3 Building and Core Rack Bases

The prolonged presence of structures prevents plant growth by blocking light to the plants on the site. The ground surface remains stable and time alone will allow plants to re-establish. This will be enhanced by limited scarification to improve the germination of seeds from adjacent plants responding to the application of fertilizer throughout the lease area generally.

### 3.4 Burned Sites

Material to be burned will be consolidated to reduce the number of sites and total area of the scorched tundra. All burning sites will be raked and remaining metal removed and placed in the municipal land fill.
**All live plant tissue in the soil will have be destroyed by the heat but the surface will be stable. Like former building sites discussed above, natural revegetation will be slow. The sites will be raked to remove metal, the ash scattered, and the**

**sites fertilized. Non-combustible residue will be placed in the municipal landfill in Baker lake.**

### 3.5 Site Monitoring

After the completion of reclamation, two years of annual monitoring of the site will take place in the late summer. The monitoring will consist of measuring and documenting plant re-growth, ensuring that the core rack boxes are stable and inspecting potential problem areas for erosion and run-off into the Lake. Reports, including photographs, will be submitted to the KIA.

## 4.0 Management and Contingency Factor

Cost estimates for the above activities are based on unit costs and units. Project management costs, estimated at 60 days at $500/day or $30,000, and a factor of 15% for contingency has been added to the costs for the above activities. Table 1 to this Schedule includes the detailed cost estimates, and allocates the project management costs and contingency factors to each activity item noted above.

Table 1 MEADOWBANK GOLD PROJECT

# Meadowbank Site Cost Estimate of Reclamation as of July 1, 2002

| Activity | Sub-Activity | Item | Units | # Units | Cost/Unit | Cost by Activity | # man days | Allocation of Labour $200 | Allocation of Camp Costs $100 | Allocation of Helicopter $20,000 | Total for Activity | Allocation of Contingency 14.77% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.0 Demobilization** | | | | | | | | | | | | |
| **1.1 Fuels/tanks** | 1.1.1 Remove Fuel | Bulk | litres | 2,000 | $0.23 | $460 | - | $0 | $0 | $0 | $460 | $68 |
| | | Drums | litres | 2,050 | $0.23 | $472 | | | | | $472 | $70 |
| | 1.1.2 Remove Fuel Vaults | Camp to Baker | Vaults | 5 | $5,290.00 | $26,450 | - | $0 | $0 | $0 | $26,450 | $3,908 |
| | | Baker South | tonnes | 55 | $421.00 | $23,155 | | | | | $23,155 | $3,421 |
| | 1.1.3 Remove Fuel Drums | Camp to Baker | kg | 4,362 | $0.29 | $1,265 | | | | | $1,265 | $187 |
| | | Baker South | tonnes | 2.5 | $500.00 | $1,250 | | | | | $1,250 | $185 |
| | 1.1.3 Remove Fuel Tidy Tanks & Pumps | Camp to Baker | kg | 777.0 | $0.29 | $225 | | | | | $225 | $33 |
| | | Baker South | tonnes | 1 | $500.00 | $389 | | | | | $389 | $57 |
| Subtotal - Remove Fuel & tanks | | | | | | **$53,665** | 2 | $400 | $200 | $727 | **$53,665** | **$7,838** |
| **1.2 Drills/equip (Contractor)** | Remove Drill Equipment and Supplies | Camp to Baker | kg | 0 | $0.00 | $0 | | | | | | |
| | -3 BLY diamond drills | Camp to Baker | kg | 8,164 | $0.29 | $2,368 | | | | | $2,368 | $350 |
| | -3 BLY sloops | Camp to Baker | kg | 1,360 | $0.29 | $394 | | | | | $394 | $58 |
| | -3 BLY Pump shacks | Camp to Baker | kg | 2,721 | $0.29 | $789 | | | | | $789 | $117 |
| | -625 BQ Drill Rods (18 kg ea) | Camp to Baker | kg | 11,250 | $0.29 | $3,263 | | | | | $3,263 | $482 |
| | -437 NQ Drill Rods (22.6 kg ea) | Camp to Baker | kg | 9,876 | $0.29 | $2,864 | | | | | $2,864 | $423 |
| | -Miscellaneous Drill Equipment | Camp to Baker | kg | 7,257 | $0.29 | $2,105 | | | | | $2,105 | $311 |
| | | Baker South | tonnes | 40 6 | $500.00 | $20,300 | | | | | $20,300 | $2,999 |
| Subtotal - Remove Drill Equipment | | | | | | **$32,082** | 4 | $800 | $400 | $1,455 | **$32,082** | **$1,430** |
| **1.3 Other major Equipment** | 2- BLY Skidders | walk out on ice-road | trip | 2 | $700.00 | $1,400 | | | | | $1,400 | $207 |
| | D7H Dozer | walk out on ice-road | trip | 1 | $800.00 | $800 | | | | | $800 | $118 |
| | D6 Dozer | walk out on ice-road | trip | 1 | $700.00 | $700 | | | | | $700 | $103 |
| | | | | | | | | | | | $0 | $0 |
| | Cat 307B Excavator | Camp to Baker | kg | 9,067 | $0.29 | $2,629 | | | | | $2,629 | $388 |
| | Bomag BW124PD Compactor | Camp to Baker | kg | 1,360 | $0.29 | $394 | | | | | $394 | $58 |
| | Joy Ramtrack VCR 60 Airtrac Drill | Camp to Baker | kg | 7,030 | $0.29 | $2,039 | - | $0 | $0 | $0 | $2,039 | $301 |
| | Gardner Denver 750 cfm Compressor | Camp to Baker | kg | 5,896 | $0.29 | $1,710 | | | | | $1,710 | $253 |
| | Sullivan 160 cfm Compressor | Camp to Baker | kg | 997 | $0.29 | $289 | | | | | $289 | $43 |
| | Lincoln 300 amp welder | Camp to Baker | kg | 204 | $0.29 | $59 | | | | | $59 | $9 |
| | Jack leg & Steel | Camp to Baker | kg | 180 | $0.29 | $52 | | | | | $52 | $8 |
| | Incinerator & chimney | Camp to Baker | kg | 1,655 | $0.29 | $480 | | | | | $480 | $71 |
| | Weather Station | Camp to Baker | kg | 180 | $0.29 | $52 | | | | | $52 | $8 |
| | Cap Magazine | Camp to Baker | kg | 1,587 | $0.29 | $460 | | | | | $460 | $68 |
| | Powder Magazine (20' Sea can) | Camp to Baker | kg | 2,258 | $0.29 | $655 | | | | | $655 | $97 |
| | Subtotal for Ocean Freight | Baker South | tonnes | 13.4 | $500.00 | $6,706 | | | | | $6,706 | $991 |
| | 50 kw generator | Camp to Baker | kg | 1,134 | $0.29 | $329 | | | | | $329 | $49 |
| | 19 kw generator | Camp to Baker | kg | 498 | $0.29 | $144 | | | | | $144 | $21 |
| | 17 kw generator | Camp to Baker | kg | 430 | $0.29 | $125 | | | | | $125 | $18 |
| | 11 kw generator | Camp to Baker | kg | 249 | $0.29 | $72 | | | | | $72 | $11 |
| | 6.5 kw generator | Camp to Baker | kg | 100 | $0.29 | $29 | | | | | $29 | $4 |
| | 2.2 kw generator | Camp to Baker | kg | 32 | $0.29 | $9 | | | | | $9 | $1 |
| | 18' aluminum boat | Camp to Baker | kg | 200 | $0.29 | $58 | | | | | $58 | $9 |
| | Zodiac & Quicksilver inflatables/3 motors | Camp to Baker | kg | 318 | $0.29 | $92 | | | | | $92 | $14 |
| | 6 snowmobiles | Camp to Baker | kg | 900 | $0.29 | $261 | | | | | $261 | $39 |
| | 4 toboggans & a steel sleigh | Camp to Baker | kg | 204 | $0.29 | $59 | | | | | $59 | $9 |
| | Yamaha ATV | Camp to Baker | kg | 180 | $0.29 | $52 | | | | | $52 | $8 |
| Subtotal - Remove Other Major Equipment | | | | | | **$19,657** | 6 | $1,200 | $600 | $2,182 | **$19,657** | **$2,904** |
| **1.4 Kithen/Dry Equipment** | | | | | | | | | | | | |
| | 2 fridges, 1 stove, 1 freezer | Camp to Baker | kg | 500 | $0.29 | $145 | | | | | $145 | $21 |
| | 2 washers, 1 dryer | Camp to Baker | kg | 249 | $0.29 | $72 | | | | | $72 | $11 |
| | 3 diesel stoves | Camp to Baker | kg | 69 | $0.29 | $20 | | | | | $20 | $3 |
| **Tents** | Weatherhaven office (16' x 24') | Camp to Baker | kg | 225 | $0.29 | $65 | | | | | $65 | $10 |
| | 7 Weatherhaven sleepers (14' x 16') | Camp to Baker | kg | 1,575 | $0.29 | $457 | | | | | $457 | $67 |
| | 9 Manta sleepers wood (14' 16') | Camp to Baker | kg | 0 | $0.29 | $0 | | | | | $0 | $0 |
| | 20 diesel stoves | Camp to Baker | kg | 460 | $0.29 | $133 | | | | | $133 | $20 |
| | Miscellaneous equipment/utensils | Camp to Baker | kg | 4,500 | $0.29 | $1,305 | | | | | $1,305 | $193 |
| | Subtotal for Ocean Freight | Baker South | tonnes | 6.3 | $500.00 | $3,150 | | | | | $3,150 | $465 |
| Subtotal - Remove Kitchen/Dry/Tents & Equipment | | | | | | **$5,348** | 4 | $800 | $400 | $1,455 | **$5,348** | **$5,039** |
| **1.5 Remove Structures/Load out labor(dismantle)** | | | | | | | | | | | | |
| | Fabric tents | 0 | kg | 0 | $0.31 | $0 | 5 | $1,000 | $500 | $1,818 | $3,318 | $490 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wooden buildings-kitchen/dry/mantas | | | | | | 5 | $1,000 | $500 | $1,818 | $3,318 | $490 |
| | Equipment/Supplies onto Deltas/skids | | | | | | 5 | $1,000 | $500 | $1,818 | $3,318 | $490 |
| Subtotal - Remove Structures/Load out | | | | | | | | | | | **$9,955** | **$1,471** |
| **2.0 Core Storage** | All core is racked & left for posterity | | | | | | | | | | | |
| **3.0 Reclamation** | | | | | | | | | | | | |
| 3.1 Equipment work | D7H flatten slopes, fill sumps, airstrip,roads | | op hrs | 40 | $115.00 | $4,600 | 4 | | $400 | $1,455 | $6,455 | $954 |
| | Backfill trenches with Cat 307 hoe | | op hrs | 60 | $90.00 | $5,400 | 6 | | $600 | $2,182 | $8,182 | $1,209 |
| 3.2 Supplies/clean up | Fertilizer | | bulk | 1 | $6,000.00 | $6,000 | 5 | $1,000 | $500 | $1,818 | $9,318 | $1,377 |
| And labour | Peat | | bulk | 1 | $6,000.00 | $6,000 | 5 | $1,000 | $500 | $1,818 | $9,318 | $1,377 |
| | Scarify gravel/walkways | | | | | $0 | 2 | $400 | $200 | $727 | $1,327 | $196 |
| | Site clean up | | | | | | 2 | $400 | $200 | $727 | $1,327 | $196 |
| 3.3 Site Monitoring | Contract | Year 1 | flat rate | 1 | $10,000.00 | $10,000 | | | | | $10,000 | $1,477 |
| | | Year 2 | flat rate | 1 | $6,000.00 | $6,000 | | | | | $6,000 | $886 |
| Subtotal - Reclamation | | | | | | **$38,000** | | | | | **$51,927** | **$7,672** |
| Accommodation | After camp breakdown | Hotel | mandays | 5 | $250.00 | **$1,250** | | | | | **$1,250** | **$185** |
| Project Management | | | mandays | 60 | $500.00 | **$30,000** | | | $6,000 | | **$36,000** | **$5,319** |
| Total cost - no contingency | | | | | | **$215,203** | | | | | | |
| Contingency | | | costs | | $0 | **$32,280** | | | | | | |
| **Total Cost** | | | | | | **$247,483** | **55** | **$9,000** | **$11,500** | **$20,000** | **$209,884** | **$31,857** |

costs above assume no credit for salvaged equipment

| Total for Activity Including Mgmt & Contingency |
|---|
| $528 |
| $541 |
| $30,358 |
| $26,576 |
| $1,452 |
| $1,435 |
| $259 |
| $446 |
| **$60,889** |
| |
| $2,717 |
| $453 |
| $906 |
| $3,745 |
| $3,287 |
| $2,415 |
| $23,299 |
| **$11,107** |
| |
| $1,607 |
| $918 |
| $803 |
| $0 |
| $3,018 |
| $453 |
| $2,340 |
| $1,962 |
| $332 |
| $68 |
| $60 |
| $551 |
| $60 |
| $528 |
| $752 |
| $7,697 |
| $377 |
| $166 |
| $143 |
| $83 |
| $33 |
| $11 |
| $67 |
| $106 |
| $300 |
| $68 |
| $60 |
| **$22,561** |
| |
| $166 |
| $83 |
| $23 |
| $75 |
| $524 |
| $0 |
| $153 |
| $1,498 |
| $3,615 |
| **$39,148** |
| |
| $3,808 |

| | |
|---|---|
| | $3,808 |
| | $3,808 |
| | **$11,425** |
| | |
| | |
| | $7,408 |
| | $9,391 |
| | |
| | $10,695 |
| | $10,695 |
| | $1,523 |
| | $1,523 |
| | $11,477 |
| | $6,886 |
| | **$59,599** |
| | |
| | **$1,435** |
| | |
| | **$41,319** |
| | |
| | **$247,484** |