

**2003 Abandonment and Restoration Plan  
Meadowbank Gold Project**

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## **2003 Abandonment and Restoration Plan**

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Meadowbank Project

### **Introduction**

The Meadowbank Gold project, operated by Cumberland Resources Ltd., is located approximately 70 kilometres north of the Hamlet of Baker Lake, Nunavut. Exploration activities have been conducted in the area by Cumberland since 1995. This document has been produced to update the abandonment and restoration plans for the project as required under the terms of Cumberland's Water Use and Waste Disposal Permit (**NWB Licence No. NWB2MEA0204**). Detailed plans for the demobilization of equipment and the restoration of the site are provided below. An itemized breakdown of the projected cost to complete the work is provided in table 1.

### **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 at the site.

#### **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 LAKE and sold to local interests.

##### **1.1.2 Remove Fuel Vaults**

Bulk fuel storage tanks will be hauled overland to Baker Lake 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.

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### **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 such as salt, drilling compounds, etc. 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 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**

The Meadowbank Project currently utilizes two camp sites: the south camp located on an island in Third Portage Lake and the north camp located on the mainland, approximately one kilometre north, near the proposed mill site for potential development of the project. Similar types of structures are maintained in both sites. Structures presently include a collection of soft sided Weatherhaven/Cover-All shelters, stick built kitchen/dry, core shack, generator shelters, fuel pump shelters and workshops and wooden framed canvas tents.

The south camp currently contains a kitchen/dry building, core shack, drill shop, camp shop and generator shack, all of 2x4 and plywood construction and several old 'weatherhaven' style tents. The north camp contains a stick built kitchen/dry structure, along with 4 14'x16' Weatherhaven sleeper tents, 19 14'x16' wooden framed canvas sleeper tents, a 24'x 84' Weatherhaven core shack and a 24' x 32' Weatherhaven office tent. The site also contains a plywood generator shed and a 42' x 70' temporary Cover-all fabric building.

All Weatherhaven units and canvas tents 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 70,000 metres of drill core in storage at the south camp site. Drill core is consolidated at the south camp near the old core shack in a compact area. The integrity of this core is best preserved with minimal re-handling, therefore it is not intended or recommended that this be moved. It is most useful in its current storage mode. Any core produced from further drilling will be stored in the north camp in a compact area.

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### **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 five different surface conditions that require reclamation on termination of activities at the present camp site, as described below.

#### **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 appears 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 and some structures. 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 been 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.**

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### **3.5 Trenches**

Trenches will be backfilled with the material previously removed and stockpiled beside the trenches. They will be smoothed, re-contoured and seeded as above.

### **4.0 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 racks and 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..

### **5.0 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 is attached to this document and includes 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 Feb 11, 2003

Activity	Sub-Activity	Item	Units	# Units	Cost/Unit	Cost by Activity	# Allocation of Labour man days	Allocation of Camp Costs \$100	Allocation of Helicopter \$20,000	Total for Activity	Allocation of Contingency 13.93%	Total for Activity Including Mgmt & Contingency
<b>1.0 Demobilization</b>												
<b>1.1 Fuels/tanks</b>	1.1.1 Remove Fuel	Bulk	litres	2,000	\$0.23	\$460	-	\$0	\$0	\$460	\$64	\$524
	1.1.2 Remove Fuel Vaults/I-beams	Drums	litres	2,050	\$0.23	\$472	-	\$0	\$0	\$472	\$66	\$537
	1.1.3 Remove Fuel Drums	Camp to Baker	Vaults	9	\$5,290.00	\$47,610	-	\$0	\$0	\$47,610	\$6,632	\$54,242
	1.1.3 Remove Fuel Tidy Tanks & Pumps	Baker South	tonnes	107	\$500.00	\$53,500	-	\$0	\$0	\$53,500	\$7,453	\$60,953
		Camp to Baker	kg	272	\$0.29	\$79	-	\$0	\$0	\$79	\$11	\$90
		Baker South	tonnes	0.3	\$500.00	\$136	-	\$0	\$0	\$136	\$19	\$155
		Camp to Baker	kg	777.0	\$0.29	\$225	-	\$0	\$0	\$225	\$31	\$257
		Baker South	tonnes	1	\$500.00	\$389	-	\$0	\$0	\$389	\$54	\$443
						<b>\$102,870</b>	2	\$400	\$952	<b>\$102,870</b>	<b>\$14,244</b>	<b>\$116,501</b>
<b>1.2 Drills/equip (Contractor)</b>	Remove Drill Equipment and Supplies	Camp to Baker	kg	0	\$0.00	\$0	-	\$0	\$0	\$0	\$0	\$0
	-4 BLY diamond drills	Camp to Baker	kg	10,885	\$0.29	\$3,157	-	\$0	\$0	\$3,157	\$440	\$3,596
	-3 BLY sumps	Camp to Baker	kg	1,360	\$0.29	\$394	-	\$0	\$0	\$394	\$55	\$449
	-625 BQ Drill Rods (18 kg ea)	Camp to Baker	kg	7,221	\$0.29	\$2,094	-	\$0	\$0	\$2,094	\$288	\$2,382
	-437 NQ Drill Rods (22.6 kg ea)	Camp to Baker	kg	9,876	\$0.29	\$2,864	-	\$0	\$0	\$2,864	\$399	\$3,263
	-Miscellaneous Drill Equipment	Camp to Baker	kg	7,257	\$0.29	\$2,105	-	\$0	\$0	\$2,105	\$293	\$2,398
		Baker South	tonnes	40.6	\$500.00	\$20,300	-	\$0	\$0	\$20,300	\$2,828	\$23,128
						<b>\$32,871</b>	4	\$800	\$1,905	<b>\$32,871</b>	<b>\$1,458</b>	<b>\$34,329</b>
<b>1.3 Other major Equipment</b>	2- BLY Skidders.	walk out on ice-road	trip	2	\$700.00	\$1,400	-	\$0	\$0	\$1,400	\$195	\$1,595
	D7H Dozer	walk out on ice-road	trip	1	\$800.00	\$800	-	\$0	\$0	\$800	\$111	\$911
	D6 Dozer	walk out on ice-road	trip	1	\$700.00	\$700	-	\$0	\$0	\$700	\$98	\$798
	1981 Bombardier Go-Tract GT800S	walk out on ice-road	trip	1	\$300.00	\$300	-	\$0	\$0	\$300	\$42	\$342
	Cal 307B Excavator	Camp to Baker	kg	9,067	\$0.29	\$2,629	-	\$0	\$0	\$2,629	\$366	\$2,996
	Bomag BW124PD Compactor	Camp to Baker	kg	1,360	\$0.29	\$394	-	\$0	\$0	\$394	\$55	\$449
	Joy Ramtrack VCR 60 Airtrac Drill	Camp to Baker	kg	7,030	\$0.29	\$2,039	-	\$0	\$0	\$2,039	\$284	\$2,323
	Gardner Denver 750 cfm Compressor	Camp to Baker	kg	5,896	\$0.29	\$1,710	-	\$0	\$0	\$1,710	\$238	\$1,948
	Sullivan 160 cfm Compressor	Camp to Baker	kg	997	\$0.29	\$289	-	\$0	\$0	\$289	\$40	\$329
	Lincoln 300 amp welder	Camp to Baker	kg	204	\$0.29	\$59	-	\$0	\$0	\$59	\$8	\$67
	Jack leg & Steel	Camp to Baker	kg	180	\$0.29	\$52	-	\$0	\$0	\$52	\$7	\$59
	Incinerator & chimney	Camp to Baker	kg	1,655	\$0.29	\$480	-	\$0	\$0	\$480	\$67	\$547
	Weather Station	Camp to Baker	kg	180	\$0.29	\$52	-	\$0	\$0	\$52	\$7	\$59
	Can Magazine	Camp to Baker	kg	1,587	\$0.29	\$460	-	\$0	\$0	\$460	\$64	\$524
	Powder Magazine (20' Sea can)	Camp to Baker	kg	2,258	\$0.29	\$655	-	\$0	\$0	\$655	\$91	\$746
	Taylor Power Plant (2 x 250 kw)	Camp to Baker	kg	12,637	\$0.29	\$3,665	-	\$0	\$0	\$3,665	\$510	\$4,175
	Subtotal for Ocean Freight	Baker South	tonnes	26.0	\$500.00	\$13,025	-	\$0	\$0	\$13,025	\$1,814	\$14,839
	50 kw generator	Camp to Baker	kg	1,134	\$0.29	\$329	-	\$0	\$0	\$329	\$46	\$375
	19 kw generator	Camp to Baker	kg	498	\$0.29	\$144	-	\$0	\$0	\$144	\$20	\$165
	17 kw generator	Camp to Baker	kg	430	\$0.29	\$125	-	\$0	\$0	\$125	\$17	\$142
	11 kw generator	Camp to Baker	kg	249	\$0.29	\$72	-	\$0	\$0	\$72	\$10	\$82
	6.5 kw generator	Camp to Baker	kg	100	\$0.29	\$29	-	\$0	\$0	\$29	\$4	\$33
	2.2 kw generator	Camp to Baker	kg	32	\$0.29	\$9	-	\$0	\$0	\$9	\$1	\$11
	18' aluminum boat	Camp to Baker	kg	200	\$0.29	\$58	-	\$0	\$0	\$58	\$8	\$66
	Zodiac & Quicksilver inflatables/3 motors	Camp to Baker	kg	318	\$0.29	\$92	-	\$0	\$0	\$92	\$13	\$105
	8 snowmobiles	Camp to Baker	kg	1,200	\$0.29	\$348	-	\$0	\$0	\$348	\$48	\$396
	4 toboggans & a steel sleigh	Camp to Baker	kg	204	\$0.29	\$59	-	\$0	\$0	\$59	\$8	\$67
	Yamaha ATV	Camp to Baker	kg	180	\$0.29	\$52	-	\$0	\$0	\$52	\$7	\$59
						<b>\$30,027</b>	6	\$1,200	\$2,857	<b>\$30,027</b>	<b>\$4,183</b>	<b>\$34,210</b>
<b>1.4 Kitchen/Dry Equipment</b>	2 fridges, 1 stove, 1 freezer	Camp to Baker	kg	500	\$0.29	\$145	-	\$0	\$0	\$145	\$20	\$165
	2 washers, 1 dryer	Camp to Baker	kg	249	\$0.29	\$72	-	\$0	\$0	\$72	\$10	\$82
	3 diesel stoves	Camp to Baker	kg	69	\$0.29	\$20	-	\$0	\$0	\$20	\$3	\$23
	Weatherhaven office (16' x 24') & (24' x 32')	Camp to Baker	kg	2,700	\$0.29	\$783	-	\$0	\$0	\$783	\$109	\$892
	Weatherhaven coreshack (24' x 84')	Camp to Baker	kg	4,400	\$0.29	\$1,276	-	\$0	\$0	\$1,276	\$176	\$1,452
	4 Weatherhaven sleepers (14' x 16')	Camp to Baker	kg	900	\$0.29	\$261	-	\$0	\$0	\$261	\$36	\$297
	19 Manita sleepers wood (14' x 16')	Camp to Baker	kg	0	\$0.29	\$0	-	\$0	\$0	\$0	\$0	\$0
	Cover-All 42' x 70'	Camp to Baker	kg	2,495	\$0.29	\$724	-	\$0	\$0	\$724	\$101	\$824
	20 diesel stoves	Camp to Baker	kg	460	\$0.29	\$133	-	\$0	\$0	\$133	\$19	\$152
	Miscellaneous equipment/utensils	Camp to Baker	kg	4,500	\$0.29	\$1,305	-	\$0	\$0	\$1,305	\$182	\$1,487
	Subtotal for Ocean Freight	Baker South	tonnes	8.1	\$500.00	\$4,050	-	\$0	\$0	\$4,050	\$564	\$4,614
						<b>\$8,769</b>	4	\$800	\$1,905	<b>\$8,769</b>	<b>\$7,898</b>	<b>\$16,667</b>

Table 1 MEADOWBANK GOLD PROJECT  
Meadowbank Site Cost Estimate of Reclamation as of Feb 11, 2003

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 13.93%	Total for Activity Including Mgmt & Contingency
1.5 Remove Structures/Load out labor(dismantle)	Fabric tents		0 kg	0	\$0.31	\$0	6	\$1,200	\$600	\$2,857	\$4,657	\$649	\$5,306
	Wooden buildings-kitchen/dry/mantas						5	\$1,000	\$500	\$2,381	\$3,881	\$541	\$4,422
	Equipment/Supplies onto Dallas/skids						5	\$1,000	\$500	\$2,381	\$3,881	\$541	\$4,422
Subtotal - Remove Structures/Load out											\$12,419	\$1,730	\$14,149
2.0 Core Storage	All core is racked & left for posterity												
3.0 Reclamation													
3.1 Equipment work	Backfill trenches with Cat 307 hoe		op hrs	60	\$90.00	\$5,400	6		\$600	\$2,857	\$8,857	\$1,234	\$10,091
3.2 Supplies/clean up And labour	Scarify gravel/walkways						2	\$400	\$200	\$952	\$1,552	\$216	\$1,769
	Site clean up						2	\$400	\$200	\$952	\$1,552	\$216	\$1,769
3.3 Site Monitoring	Contract	Year 1	flat rate	1	\$10,000.00	\$10,000					\$10,000	\$1,393	\$11,393
		Year 2	flat rate	1	\$6,000.00	\$6,000					\$6,000	\$836	\$6,836
Subtotal - Reclamation						\$21,400					\$27,962	\$3,895	\$31,857
Accommodation	After camp breakdown	Hotel	mandays	5	\$250.00	\$1,250					\$1,250	\$174	\$1,424
Project Management			mandays	60	\$500.00	\$30,000			\$5,000		\$36,000	\$5,015	\$41,015
Total cost - no contingency						\$257,184							
Contingency			costs		\$0	\$38,578							
<b>Total Cost</b>						\$295,761	42	\$7,200	\$10,200	\$20,000	\$250,893	\$38,597	\$315,673

costs above assume no credit for salvaged equipment