	Aurora Energy Resources Inc FINAL CLOSURE AND RECLAMATION PLAN Baker Lake Basin Property, Nunavut	Final	Page: 20 of 25
Final Closure & Reclamation Plan	Date: June 28, 2010	Approved by: JSA	

## Appendix I

### 2009 Status Report

# **BAKER LAKE BASIN PROPERTY STATUS REPORT**

**Kivilliq Region, Nunavut**

**NTS 55M 10 to 15**

**Claims BT 1 to BT 97 and Prospecting Permit 6976**

**Centered at 63° 47' N Latitude and 95° 20' W Longitude**



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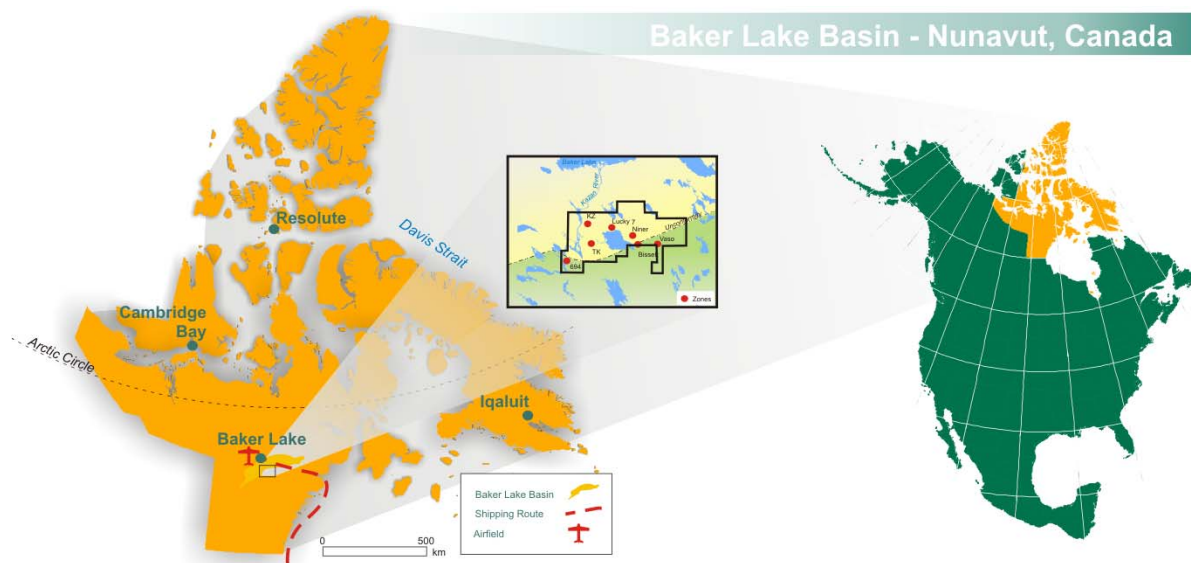
## 1.0 Introduction

### 1.1 Summary

In 2009, between July 17 and July 21, Aurora Energy conducted the demobilization of their Baker Lake drill. During the three days of flying parts and crew between; the Baker Lake airport, the esker strip and the drill sight, NIRB regulations for the protection of wildlife were followed. A biologist was observing in the field to record any sightings of wildlife and to notify the project coordinator if any wildlife was in the area. On July 19<sup>th</sup> the work was suspended because caribou were within two kilometers of the work site, work had to be halted. At no time did the wildlife observed during the three days show any change in behavior.

### 1.2 Geographic Location

The Baker Basin Property is located within the Kivilliq region of Nunavut approximately 65 kilometers SSE of the hamlet of Baker Lake (Figure 1). The property encompasses approximately 95,289 hectares (235,464 acres) and is comprised of 1 Prospecting Permit and 97 Mineral Claims (Appendix I). The property lies within NTS map sheets 55M 10 to 15 and has its geographic center at approximately 63° 47' N latitude and 95° 20' W longitude. Access to the property from the hamlet at Baker Lake is via helicopter but portions of the property can be accessed by fixed wing aircraft where eskers are smooth enough to provide an off-strip landing area.



**Figure 1: Geographic Location**

### 1.3 Climate and Physiography

The climate of the Baker Lake area can be classified as subarctic to tundra and is typified by cool summers and extremely cold winters. The average temperature ranges from 0° to 16° C in the summer months (June through August) and 0° to -31° C in the winter months (November to April). Summers are short, although the days are long lasting up to 20 hours in June. Daily summer temperature swings can be large with temperatures reaching 25° C during the day and dipping down to 10° in the evenings.

The property is essentially flat lying with elevations ranging from 30m asl to 167m asl. The area is dotted with numerous shallow lakes the largest being Bissett Lake. The lake is centrally located within the property, and is the site (western side of lake) of our drill core facility. The Kazan River is up to 1.5 kilometers wide and snakes its way 45 kilometers northward from the Thirty Mile Lakes area along the western portion of the BT claims before draining into Baker Lake. The highest point in the area is located approximately 7 kilometers south of Bissett Lake and is one of several topographic highs that are composed of more resistant volcanic rock. This topographic high is also the site of one of the larger inukshuks found in the region. There is plenty of physical evidence for past glaciation with many eskers remnants, historic lake shore deposits and highly polished and striated bedrock outcroppings which give evidence for a predominantly NW to SE flowing ice sheet which covered the area 10,000 years ago.

The tundra environment supports a variety of grasses, sedges, mosses, lichen and stunted shrubs. Dwarf birch and blueberry bushes are ubiquitous to the area and are generally < 1m tall.

## 2.0 Permitting

Aurora Energy followed guidelines with respect to permits issued for all exploration work completed during the 2009 exploration program (see Table 3).

**Table 1: Regulatory Authorizations**

Regulatory Agency	Permit/Licence	Issued	Amended	Transferred or Assigned	Expires(d)
INAC	N2006J0017	2006-08-18	2008-05-28	2009-04-02	2010-08-17
NWB	2BE-KAZ0609	2006-07-20	2008-06-04	2009-05-21	2009-09-15
KIA	KVL306C23	2008-08-23			2009-08-23

## 2.0 Reclamation Work

### 2.1 Drill Site Demobilization

The drill was removed from the Lucky 7 site between July 18-21<sup>st</sup> and flown to Baker Lake so it can be barged to Kamloops B.C. All materials were removed from the site including; garbage, excess drill grease, casing sticking above ground, all hose and equipment. The drill site was returned to as close to its natural state as possible. Both drill pads were built on top of wood blocks, drill pad contact with the ground was minimal. The reclamation of both drill sites removed almost all traces of drilling activity, figure 1.



**Figure 2: DDH-07-08 after reclamation.**

All drill holes were sealed with cement to prevent ground surface waters from mixing with ground water. Drill cuttings were pumped to low lying natural depressions where grey water drained away into overburden or fractured bedrock eliminating the need to dig sumps and re-contour the ground surface. The cuttings were collected and pumped back down the hole after it was completed. Very little drill cutting is observable at the sump site, figure 2.





**Figure 3: Sump site for drill cuttings.**

## **2.2 Camp Demobilization**

The camp located on northern shore of Bissett Lake was demobilized at the same time the drill was demobilized from the Lucky 7 site. All the equipment and supplies were removed from site and the site tied up, figure 3. Empty and full barrels were removed from the camp site and flown back to Bake Lake. Three Partial drums were sealed stored up right and left on site.

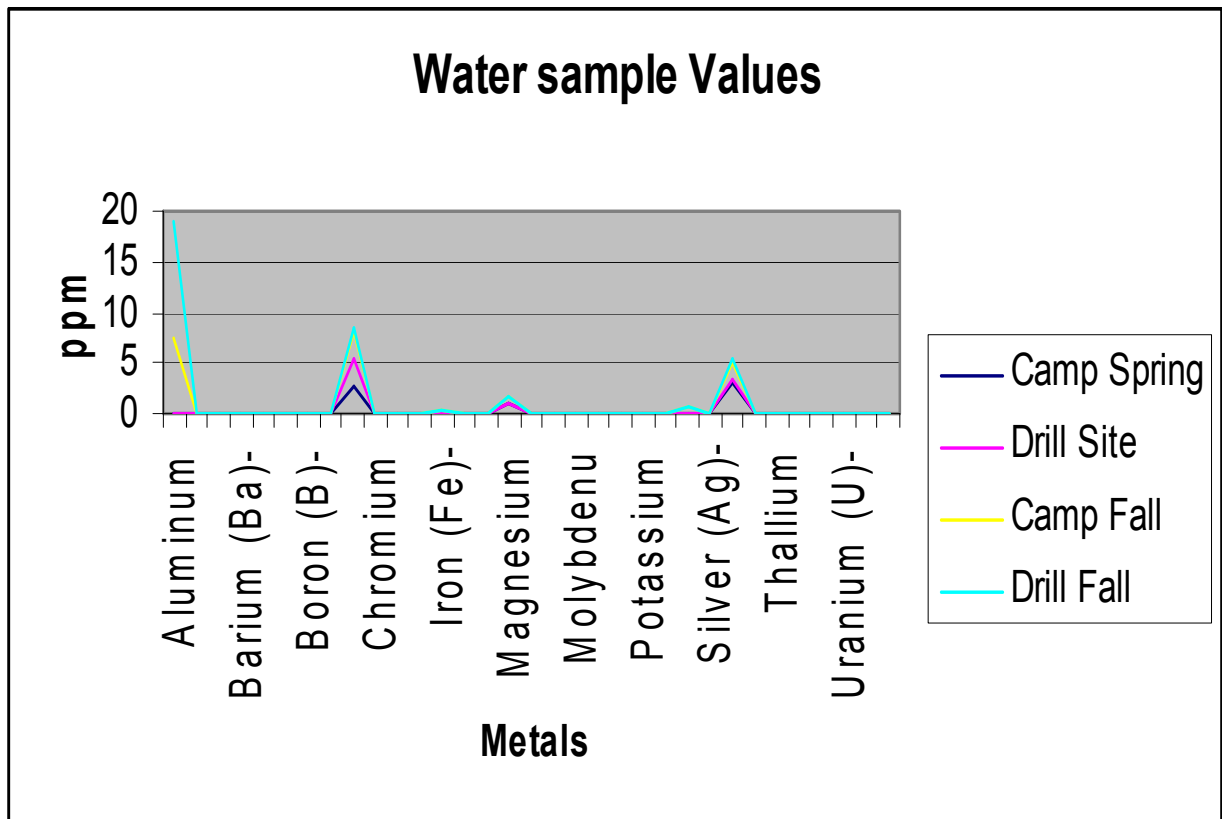


**Figure 4: Camp Clean-up and demob.**

### 3.0 Water Monitoring Survey

Water samples were taken from Bissett Lake before the commencement of the 2009 drill demob. The results of the analysis are presented below in Graph 1 and table 1. Analyses was completed by ALS CMEMEX; Qualified laboratory (see Appendix I).

Graph 1: Comparison of water samples from the 2008 and 2009 work.



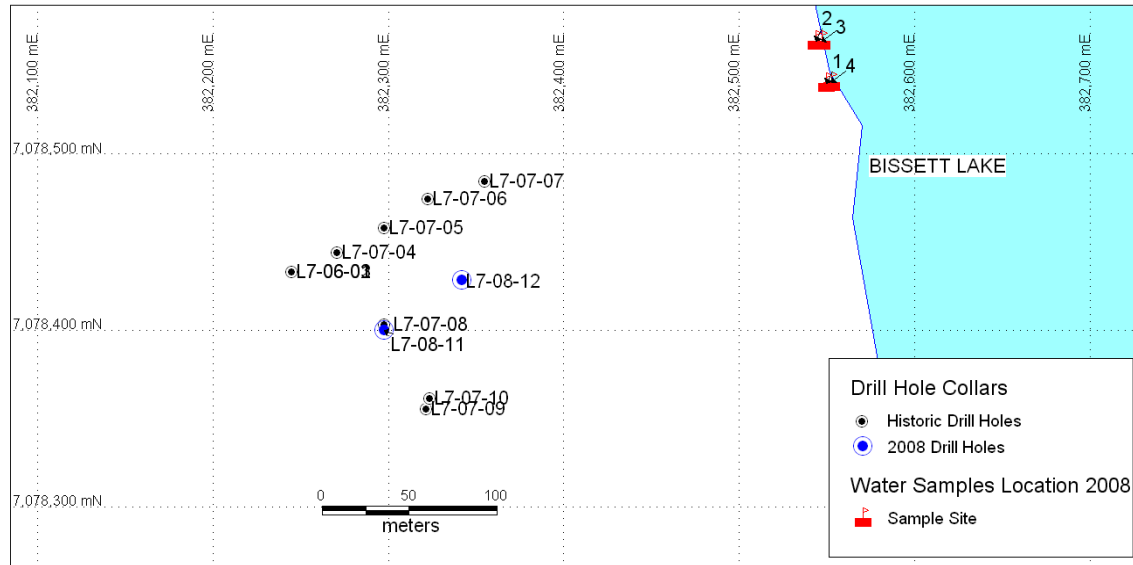
The water sample was taken at the conclusion of the drill demob from site. The sample was taken next to the water pump, UTM 677726E 7081033N NAD 83 Zone 15, Figure 5. The second sample was taken 65m east of the camp, at the closest shore of Bissett Lake, UTM 674666E 7078300N NAD 83 Zone 15.

Results from the second water survey continue to show negligible changes in PH, suspended solids, alkalinity and dissolved metals graph 1 (metals only).



**Table 2: Water Samples**

ALS File No.	L797482	
Date Received	27-Jul-09	
Date	29-Jul-09	
RESULTS OF ANALYSIS		
Sample ID	CAMP	PUMP SITE
Date Sampled	21-Jul-09	21-Jul-09
Time Sampled	13:00	13:00
ALS Sample ID	L797482-1	L797482-2
Matrix	Water	Water
Physical Tests		
Hardness (as CaCO3)	10.3	17.9
pH	6.62	7.02
Total Suspended Solids	<3.0	<3.0
Anions and Nutrients		
Alkalinity, Total (as CaCO3)	8	16.1
Total Metals		
Aluminum (Al)-Total	0.0034	0.0039
Antimony (Sb)-Total	0.00153	0.00042
Arsenic (As)-Total	0.00012	0.00011
Barium (Ba)-Total	0.0358	0.0859
Beryllium (Be)-Total	<0.00050	<0.00050
Bismuth (Bi)-Total	<0.00050	<0.00050
Boron (B)-Total	<0.010	<0.010
Cadmium (Cd)-Total	0.000058	<0.000050
Calcium (Ca)-Total	2.64	5.5
Chromium (Cr)-Total	0.00085	<0.00050
Cobalt (Co)-Total	<0.00010	<0.00010
Copper (Cu)-Total	0.00119	0.00063
Iron (Fe)-Total	<0.030	0.075
Lead (Pb)-Total	0.000097	0.000101
Lithium (Li)-Total	<0.0050	<0.0050
Magnesium (Mg)-Total	0.9	1.01
Manganese (Mn)-Total	0.00496	0.00205
Mercury (Hg)-Total	<0.000050	<0.000050
Molybdenum (Mo)-Total	<0.000050	<0.000050
Nickel (Ni)-Total	0.00058	0.00145
Phosphorus (P)-Total	<0.30	<0.30
Potassium (K)-Total	<2.0	<2.0
Selenium (Se)-Total	<0.0010	<0.0010
Silicon (Si)-Total	0.1	0.16
Silver (Ag)-Total	<0.000010	<0.000010
Sodium (Na)-Total	3.1	3.5
Strontium (Sr)-Total	0.0198	0.0237
Thallium (Tl)-Total	<0.00010	<0.00010
Tin (Sn)-Total	<0.00010	<0.00010
Titanium (Ti)-Total	<0.010	<0.010
Uranium (U)-Total	<0.000010	0.000013
Vanadium (V)-Total	<0.0010	<0.0010
Zinc (Zn)-Total	0.0077	0.0018



**Figure 5: Drill site water sample location.**

## 5.0 Scintillometer Reading of Core Storage Area

Drill Core from Aurora's 2008, Pacific's 2006-07 and the 1970-80's drilling are stored at the Bissett Lake Camp area (see Figure 10).

Scintillometer readings were taken at specific distances from the core storage areas, see Table 2. The readings were terminated after the readings past a given distances reached background levels.

**Table 3: Core Storage CPS Readings**

Core Storage	1 Meter from Core		5 meters from Core	
	(cps)	µSv/hr	(cps)	µSv/hr
Aurora 2008	76	0.096	Background	--
Pacific 2006-2007	115	0.14	Background	--

µSv = microSievert

Please note the following for long term core storage:

The gamma radiation level of the core storage area meets the decommissioning requirements:

- A GR-110 Gamma-Ray Scintillometer (see Appendix III) was used to measure radiation in counts per second was converted to µSv by Senes Consultants Ltd. (see Appendix IV) according to the specifications of that instrument.
- The Gamma levels measured at 1 metre from surface for the Aurora's core storage area did not exceed 1.0 µSv/hr.
- There was no need to contact regulators for review and approval of the handling procedures as in no instance did the level exceed 2.5 µSv/hr.

## 6.0 Wildlife Monitoring

## **6.0 Wildlife Sightings**

Aurora is aware of the importance of wild life in the Baker Lake Area. A diligent and conscious plan was implemented by the staff and contractors to lessen the impact on any wildlife and habitat within or around the project area. Christian Geissler, a field observer and biologist, conducted daily morning helicopter flights to determine if any wildlife were within a two kilometer radius of the working area. A detailed daily log of all sightings was kept and is in Appendix II as set out by the NIRB regulations.

At the initial safety meeting on July 17, all employees were instructed to stop, or alter work practices if wildlife were within 2 km of the work place. These practices include, but are not limited to, cessation of work whenever wildlife came too close to work places, moving out of the direction of the migration of wild life, increasing the altitude if the helicopter was forced to fly over large herds/flocks of migratory animals or altering its course.

Over the course of the three-day project, operations were postponed only once due to wildlife. Day 1 of operations contained two wildlife sightings. A single musk ox and three swans were sighted well outside of the 2km boundary. On Day 2, July 19, work was delayed until 11am due to fog. During the initial flight there were several sighting of musk ox and caribou. Unfortunately due to the loss of the GPS signal, several of the UTM readings could not be recorded. However, the animals distance to the work site was estimated to be well outside the 2km boundary. It should be noted that there was a conscious effort made by both helicopter and Twin Otter pilots to monitor the progress of those animals while maintaining appropriate altitude and distance. After two hours of work at the esker strip, a large herd of caribou were sighted within the 2km radius of the work site (UTM zone 15, 0380950E, 7081710N). Nicholas Mitchell, the Project Geologist was notified, the crew was immediately moved to the camp location. The Arctic Sunwest pilots were instructed to return to Baker Lake airport and await further instruction. The ground crews were then removed by Helicopter approximately three hours later when it was determined that, the herd had left the area. Day 3, July 20, went smoothly without and wildlife sightings in or around the project site. All crew and required drill equipment were removed by 6pm that day. At all the points that caribou and musk ox were observed during the three day drill demob, there was no change in there behavior of grazing and resting.

Refer to Appendix I for animal sightings ledger during the 2009 fall program.

## **7.0 Spills**

There were no fuel spills during the July 17 to 21<sup>st</sup>. There were spill kits at both the drill site and at the esker strip in case there was a spill while disconnecting equipment or fueling the helicopter.

## **APPENDIX I**

### **QUALIFICATIONS OF THE ANALYTICAL LABORATORY ALS CHEMEX**



ALS's Environmental Division provides reliable analytical testing data to assist consulting and engineering firms, industry, and governments. Their accreditations for their Environmental Division labs are based on the requirements of ISO/IEC 17025:2005. Aurora Energy used the North Vancouver facility for the testing of the Baker Lake water samples from Bissett Lake.

The Vancouver facility operates under ALS Laboratory Group's global Quality Management System and is in compliance with ISO 9001:2000 for the provision of assay and geochemical services according to QMI-SAI Global Management Systems Registration. The laboratory has also been accredited to ISO 17025 standards for specific laboratory procedures by the Standards Council of Canada (SCC). For a complete scope of accreditation, see the report below.

ALS Laboratory Group's Mineral Division, ALS Chemex, has developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.

The QMS operates under global and regional Quality Control (QC) teams responsible for the execution and monitoring of ALS Chemex's various Quality Assurance (QA) and Quality Control programs in each department, on a regular basis. Audited both internally and by outside parties, these programs include, but are not limited to, proficiency testing of a variety of parameters, ensuring that all key methods have standard operating procedures (SOPs) that are in place and being followed properly, and ensuring that quality control standards are producing consistent results.

Perhaps the most important aspect of the QMS is the process of external auditing by recognized organizations and the maintaining of ISO registrations and accreditations. ISO registration and accreditation provides independent verification for our clients that a QMS is in operation at the location in question. Most ALS Chemex laboratories are registered or are pending registration to ISO 9001:2000, and a number of analytical facilities have received ISO 17025 accreditations for specific laboratory procedures.

[www.alsglobal.com/Corporate/Legal.aspx](http://www.alsglobal.com/Corporate/Legal.aspx)



## **APPENDIX II**

### **WILDLIFE MONITORING**

## Wildlife Monitoring Form

Wildlife Monitoring Form								
Personal Information					Company Information			
Name	Christian Geissler				<div style="display: flex; align-items: center;"> <div style="background-color: #FFDAB9; padding: 5px; margin-right: 10px;">Company</div> <div>                     Aurora Energy Resources Inc.                      Suite 600, 140 Water St, TD Place                      St. John's, NL A1C 6H6                 </div> </div>			
Phone	(250)858-1923							
FAX								
Date	Species/Number of animals/Age/Behavior	UTM NAD83			Direction of Movement	Person Notified	Action Taken	Photo Taken
		Zone	Easting	Northing				
2009/07/18	Musk ox/1/grazing	15	0382107	7081060	north	NM	Circle for photo	Y
2009/07/18	Swans/3/grazing	15	0382131	7081048	undetermined	NM	Outside 2km boundary	N
2009/07/19	Caribou/~200/grazing	15	0375665	7090836	undetermined	SB	Outside 2km boundary	N
2009/07/19	Caribou/3/resting	15	0369999	7075979	undetermined	SB	On 15km radius survey	N
2009/07/19	Caribou/~50/resting	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Musk ox/1/grazing	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Musk ox/8/grazing	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Caribou/10/travelling	15	0370022	7075949	south	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Caribou/300/grazing	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Musk ox/5/grazing	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Musk ox/6/resting	15	0370022	7075949	undetermined	SB	Outside 2km boundary, GPS signal lost	N
2009/07/19	Caribou/~100/travelling	15	0380950	7081710	southwest	NM	Removed crew, Heli and Twin Otter to airport	N