## SILVERMET CORPORATION.

## MUSKOX PROJECT NUNAVUT 2007 DRILL AND GEOPHYSICAL SURVEY PROGRAM

## ANNUAL REPORT for NIRB, INAC, KIA AND GN-DOE

N.T.S. 86 J / O

 $66^{\circ}$  48' N and 115° 10' W

May 8th to September 28th, 2007

**Report Prepared By:** 

**Gary Vivian**, M.Sc., P.Geol. Aurora Geosciences Ltd. Yellowknife, NT



## **SUMMARY**

Between May 8th and September 28<sup>th</sup> of 2007, Slivermet Inc contracted Aurora Geosciences Ltd, of Yellowknife, NT, to manage a diamond drill and small geophysical program. All materials including fuel, camp and drill were expedited from Yellowknife through Kugluktuk using Kikiak Expediting Services. All materials were flown to site using either twin otter or helicopter.

Drilling was initiated on June 20<sup>th</sup>, 2007, once permission was received from the Nunavut Water Board (the final respondent in the permitting process). Between June 20<sup>th</sup> and September 25<sup>th</sup>, a total of 4,130.8m of NQ drilling was completed in 26 holes. Production did not even meet half of our original projection.

Small but high resolution ground mag surveys were completed comprising a total of approximately 433 line km. A limited horizontal loop electromagnetic survey was completed comprising approximately 10 line km to verify short strike length conductors.

A 15 man camp was established on a small deep lake some 10km east-northeast of McGregor Lake which is now referred to as Silvermet Lake. This project comprised 1363 man days over 4 months or on average 340 man days per month.

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## 1.0 INTRODUCTION

Between May 8<sup>th</sup> and September 28<sup>th</sup>, 2007, Silvermet Corporation contracted Aurora Geosciences Ltd., of Yellowknife, NT, to carry out a diamond drill and small geophysical surveying program on their Nunavut - Muskox Project. This program was intended to expand our knowledge of the limited geological Cu-Ni resource currently outlined within the Muskox Intrusion. A 15 man camp was established approximately 10 km east-northeast of McGregor Lake.

This report will summarize the work carried out and in particular fulfill our commitment to supply an annual report as per our NIRB responsibilities. This report will not discuss drilling or geophysical results but provide specific information including drill collar coordinates, total meters drilled and the areas of geophysical survey coverage.

A total of 1363 man days were required to complete the work. Of these, a total of 484 man days comprised the drilling, 357 man days for geological support, 238 man days for helicopter crew, 238 man days for camp support crew (cook and camp man) and just 46 man days for geophysical surveying. Camp set-up and shut down comprised 54 man days. Travel comprised of 38 man days. The camp location was accessed via twin otter and turbo otter from Yellowknife. Access also consisted of a helicopter flight to Kugluktuk for pick-up and return of one working crew members. Kikiak Services out of Kugluktuk were a prominent support service for this program.

## 1.1 LOCATION AND ACCESS

The Muskox Project lies some 512 km (320 miles) north of Yellowknife, NT and 96 km (60 miles) south of Kugluktuk (Coppermine), NU (Figure 1.1a). The area of work covers NTS Map Sheet 86 J and 86 O. The work was based out of an eight tent exploration camp built on a federally un-named lake (now referred to as Silvermet Lake) some 10 km east-northeast of McGregor Lake. McGregor Lake is central to the drilling and geophysical work area but Silvermet was concerned about the environmental impact on the current camp at the north end of McGregor Lake. The camp location is at 591680 E and 7431430 N, UTM coordinates

zone 11, (66° 59' 09.7" latitude and 114° 53' 51.4" longitude, Figure 1.1b).

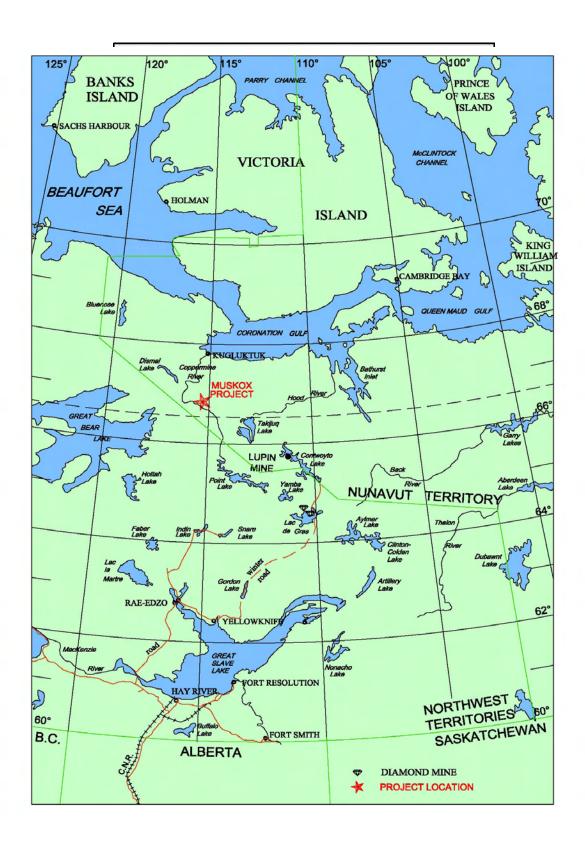
The area is accessible via helicopter or by ski or float equipped fixed wing aircraft from Yellowknife, NT or Kugluktuk, NU. The Mouse River air strip also known as 'Burnt Esker landing strip' is the closest wheel plane landing strip available roughly 30 km west of the established camp location.

Proper permitting will allow use of an ice strip on McGregor Lake for hauling in large amounts of fuel, a drill or major supplies during the early Spring.

## 1.2 PHYSIOGRAPHY

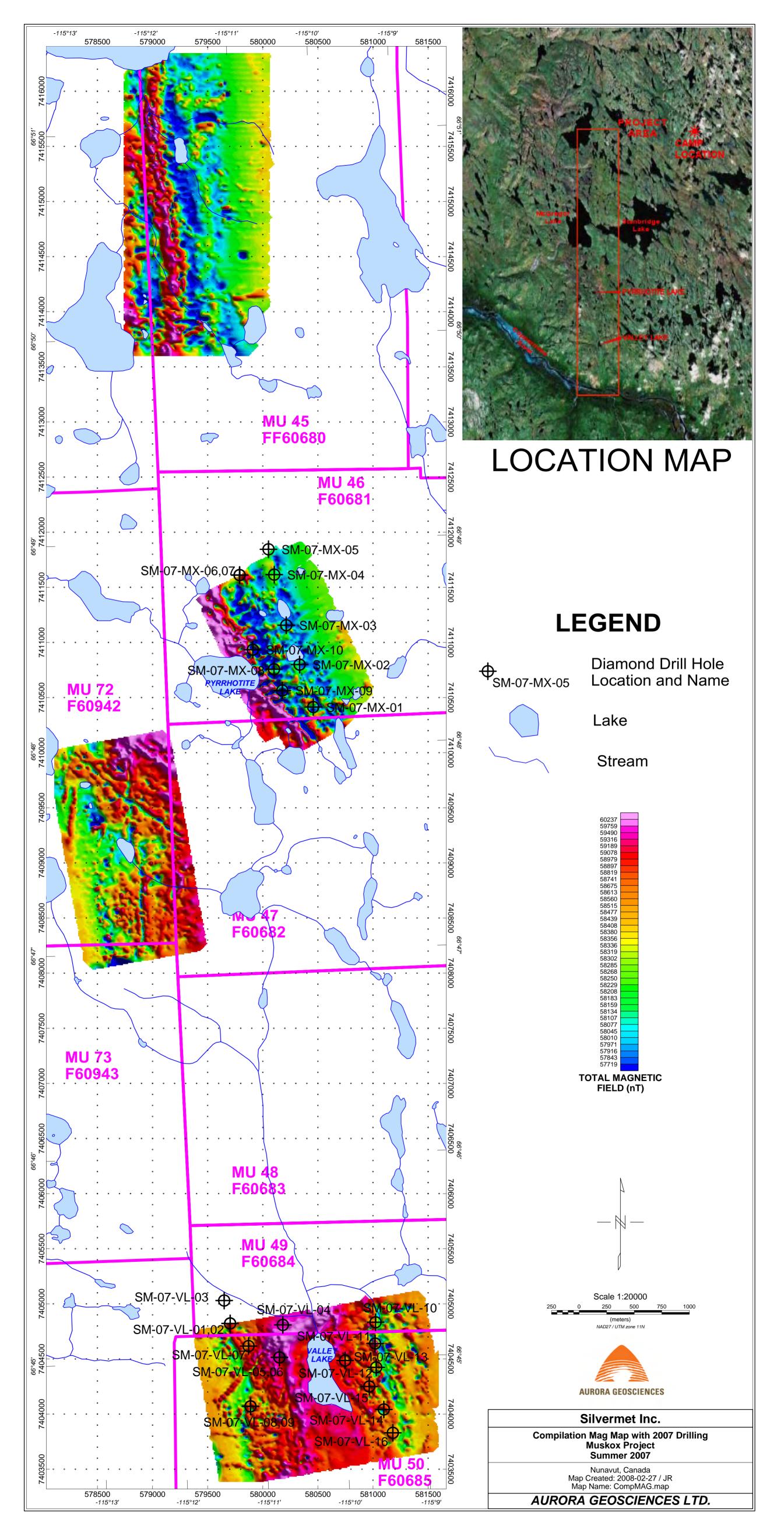
The project area lies within the Coppermine River Watershed. The local area drains south into the Coppermine River which flows northwest into the Coronation Gulf on the Arctic Ocean. Local relief is of shallow valley systems if not normally flat terrain. The most topographic relief is when nearing the Coppermine River as well as densest vegetation. Vegetation in the region is dominantly tundra grasses with intermittent bogs, swamps and boulder fields. Land within roughly 1-2 km on either side of the Coppermine River hosts deciduous and coniferous trees as well as dense alders on tributary streams. Generally, areas any distance from water contain sparse vegetation. Within this project area, water comprises up to 15 -20% of the surface area.

Figure 1.1a Project Location Map



## Figure 1.1b Project Area and Camp Location Map

(On page following)



## 2.0 SUMMARY OF THE 2007 DIAMOND DRILLING AND GEOPHYSICAL PROGRAM

## 2.1 DIAMOND DRILLING PROGRAM

Caron Drilling of Whitehorse, Yukon was contracted to complete the drilling on the Muskox Intrusion, some 90 km south of Kugluktuk. The original drill contract was for a minimum of 5,000m with the hope of drilling between 7-8,000m. Drilling was initiated on or about the 20<sup>th</sup> of June, 2007, upon final written confirmation from Phyllis Beaulieu of the Nunavut Water Board.

A total of 4,130m of drilling was completed by the end of September 2007 and although significantly below our expectations, very few operational issues arose aside from the one drill set up where two collars were drilled from the same set-up and the cuttings were not properly contained by the drill crew. This mishap was cleaned up and mitigation issues were put in place. Certainly, most drill contractors in this day and age have the ability to capture drill cuttings but this specific contractor had difficulty in supplying the necessary means to do so.

A property scale map of the southern portion of the property documents all of the collar locations for the 2007 drilling (Map 2, Appendix II).

Table 2.1 comprises of the summary of the drill program and includes collar numbers, client, location in UTM coords, depth of hole, dip of hole and elevation of hole.

A total of 782 samples were sent out for assay of the 1EX package using Acme Analytical of Vancouver, BC. There were 14 samples sent out for metallurgical studies to evaluate how difficult it might be to retrieve all of the mineralization during the smelting process.

Table 2.1 MUSKOX DIAMOND DRILL HOLE SUMMARY

Collar Name	Company	UTM E	UTM N	Hole Depth	Dip	Azimuth	Elev
SM-07-MX-01	Silvermet	580458	7410414	137.77	-90.0	0.0	547.00
SM-07-MX-02	Silvermet	580334	7410799	121.00	-90.0	0.0	551.00
SM-07-MX-03	Silvermet	580213	7411156	79.20	-90.0	0.0	554.00
SM-07-MX-04	Silvermet	580104	7411615	102.70	-90.0	0.0	564.00
SM-07-MX-05	Silvermet	580052	7411845	77.7	-90.0	0.0	568.00
SM-07-MX-06	Silvermet	579790	7411611	53.6	-90.0	0.0	554.00
SM-07-MX-07	Silvermet	579790	7411611	214.85	-80.0	355.0	554.00
SM-07-MX-08	Silvermet	580102	7410757	211	-90.0	0.0	545.00
SM-07-MX-09	Silvermet	580177	7410564	217.6	-90.0	0.0	546.00
SM-07-MX-10	Silvermet	579910	7410934	382.5	-90.0	0.0	552.00
SM-07-VL-01	Silvermet	579704	7404822	96.01	-45.0	257.0	536.00
SM-07-VL-02	Silvermet	579704	7404822	118	-90.0	0.0	536.00
SM-07-VL-03	Silvermet	579650	7405030	135.6	-90.0	0.0	525.00
SM-07-VL-04	Silvermet	580182	7404809	449.6	-90.0	0.0	517.00
SM-07-VL-05	Silvermet	580151	7404514	303.3	-90.0	0.0	496.00
SM-07-VL-06	Silvermet	580151	7404514	275.8	-70.0	255.0	496.00
SM-07-VL-07	Silvermet	579871	7404617	160	-90.0	0.0	520.00
SM-07-VL-08	Silvermet	579889	7404070	77	-90.0	0.0	530.00
SM-07-VL-09	Silvermet	579889	7404070	68.6	-45.0	265.0	530.00
SM-07-VL-10	Silvermet	581023	7404833	93	-90.0	0.0	552.00
SM-07-VL-11	Silvermet	581019	7404640	99	-90.0	0.0	537.00
SM-07-VL-12	Silvermet	581029	7404424	89.7	-90.0	0.0	511.00
SM-07-VL-13	Silvermet	580747	7404486	211.85	-90.0	0.0	485.00
SM-07-VL-14	Silvermet	581098	7404042	111.2	-90.0	0.0	488.00
SM-07-VL-15	Silvermet	580966	7404250	160	-70.0	0.0	500.00
SM-07-VL-16	Silvermet	581180	7403830	83.8	-90.0	0.0	488.00

4130.38

## 2.2 GEOPHYSICAL FIELD PROGRAM

## 2.2a High Resolution Ground Magnetic Survey

A total of 433 line km of high resolution ground magnetic surveying was completed during portions of July, August and September of 2007. The magnetic survey was completed using global positioning system GEM magnetometers where the survey can be carried out specifically without placing in a grid and pickets. The survey can be completed using a handheld GPS receiver and tracking points which are put in to mark the beginning and end points of each line. This is a very quick survey and two

operators can complete up to 40-50 line km in total per work day.

The high resolution mag survey completed over portions of the Muskox Intrusion can be seen on the property scale map (Map 2 - Appendix II - Total Field magnetics). There were four (4) areas covered by the high resolution survey. Lines were 25 m apart and we used a continuous reading feature called walkmag (unit is constantly reading the earth's magnetic field) and as such the operator does not have to remain static (or stop) for a reading.

The magnetic survey program used locals from Kugluktuk on a training program. Both of the local hires, although easy to train, had difficulties with camp life and could not get comfortable in our camp. Leah Kadlum was a very good worker and we would hire her back in a minute. It was unfortunate she was having personal problems in Kugluktuk and as such left us twice.

## 2.2b Horizontal Loop Electromagnetic Survey (HLEM or Max Min)

This survey is a cable-linked electromagnetic survey which transmits a primary current into the ground and should there be a conductor, that conductor produces a secondary current which the receiver can read. The unit has a 50 - 100 - 150 -200 or 250 meter reference cable which keeps the transmitter and receiver at a constant cable spacing for more accurate interpretations and readings.

This unit was used to try and document the exact locations of a specific few subsurface sulphide expressions. We considered these targets to be significant features and we needed to try and determine an attitude on any structural features which may have deposited or moved sulphides into their current location.

## 3.0 PERSONNEL ON PROPERTY

The 2007 field program was conducted by the following personnel:

Name	Position	Address	Man-Days
Gary Vivian	Aurora Geosciences	#3506 Raccine Rd.	18
	- P. Geol., President	Yellowknife, NT. X1A 3J2	
Dave White	Aurora Geosciences	As above	45
	Geologist -M.I.T.		
Doug Bryan	5592 NWT Inc -	Seasonal Yellowknife, NT.	86
2 3	subcontractor -	,	
	P.Geol.		
Brendan Scorrar	Aurora Geosciences -	Seasonal Yellowknife, NT.	75
	Geol Student		
Andrew Watkins	Aurora Geosciences	Seasonal Yellowknife, NT.	71
	- GIS Technician		
Matt Watkins	Aurora Geosciences -	Seasonal Yellowknife, NT.	38
	Field Labour		
Vic Boland	Aurora Geosciences	Seasonal Yellowknife, NT.	109
	- Field Labour	·	
Leah Kadlum	Aurora Geosciences -	Kugluktuk, NU.	33
	Field Labour -		
	Environmental Mon		
Brad Jones	Aurora Geosciences	Seasonal Yellowknife, NT.	41
	- Field Labour	Í	
Richard Shushack	Aurora Geosciences -	Seasonal Yellowknife, NT.	82
	Cook		
Julie Pin	Aurora Geosciences	Seasonal Yellowknife, NT.	38

Cook

Northern Air	Subcontract	Seasonal Kelowna, BC.	238
Support - 2 men	helicopter services		
Caron Drilling	Subcontract Drilling	Whitehorse, Yukon	484
	Services - 4 men		
Robert Ongahak	Aurora Geosciences	Kugluktuk, NU	5
	Labour-geophysical		

Total Man-Days: 1,363

Inclusive in the total of one thousand, three hundred and sixty-three man-days to complete the project are eighty-three man-days attributed to camp set-up and shut down.

## 4.0 NIRB's Term and Condition 10 Response.

4.1a Summary of activities undertaken for the year. This is the body of this report.

## 4.1b Work Plan for 2008

Silvermet is planning on a two drill program on the Muskox Intrusion during 2008. One of these drills would be a small drill with a capacity to drill to 150-200m depth. The second drill would have a capacity to drill to 500m. The plan for 2008 is to complete somewhere between 7,500 and 10,000 metres of drilling. The proposed drilling for this year will take 3 to 4 months.

The geophysical plan is to complete most of the southern part of the Muskox Intrusion (Coppermine River north to McGregor Lake) with fine resolution GPS mag, like last year. This will likely comprise one month for two or three operators. We will attempt once again to try and train at least one operator from Kugluktuk. Our problems with Leah and Robert last year, were not political, they just had too much going on in town to make the full commitment for a full work program. This is understandable and we did our best to try and find willing folks from Kugluktuk.

## 4.1c Environmental Concerns

Silvermet did not complete any environmental studies as they are still in the process of a first phase exploration program. Silvermet intends to be fully environmentally compliant and questions were asked of both the Nunavut Water Board and DIAND as to protocol for fuel stroage, fuel drips, etc, and all conditions returned on the permit were followed to the best of our ability for a first phase exploration program, aside from water metering.

AGL did not attempt to supercede any of the environmental protocols and an e-mail received in May of 2007 from DIAND specifically stated there was nothing in writing for proper fuel storage. The Spill Contingency fuel plan was followed for storage of drums and all transfer areas were protected with tampon fuel pads.

Andrew Kiem did take water samples from Silvermet Lake, the domestic water source for camp but we received no feedback from DIAND on those samples.

It was inadvertently over-looked by Silvermet and AGL that water monitoring was required and with proper protocol that will be carried out this field season.

## 4.1d Wildlife Encounters

During the field program this past year, very little wild life was documented. A total of four barren land grizzly bear sightings (3 of them within a few km's of the camp, while the fourth was on the south side of McGregor Lake munching on a caribou). Patchy, but documented sightings of caribou were made over the summer and the coordinates for those can be forwarded if required. It is estimated between 15 and 20 caribou were sighted between the dates of June 1 and September 28 of 2007. Aside from two older caribou wandering into camp and dying (the Resource Officer from Kugluktuk was called in and sampled the caribou) and the general sightings of caribou from the helicopter, the general population of caribou were certainly not hanging out in the McGregor Lake area.

A few sightings of Muskox were also documented and those coordinates can be passed on as well. In general, the Muskox were found in groups of 5 or 6 and were likely the same ones noted throughout the summer. Pictures of these are contained

within. No wildlife were chased or disturbed and even the grizzlies were left to their own areas for munching purposes.

## 4.1e Summary of Local Hires and Inititiatives

As per our permitting process, we provided the opportunity for Kugluktuk to supply an Environmental Monitor. The original position was held by Leah Kadlum but was only short term as Leah was not comfortable with the Environmental Monitor/Geotech position. She felt she was not kept busy enough. In fairness, she was being trained as a geotech and likely felt this position was above her abilities. We did not think so. Obviously, just being there as an Environmental Monitor was not satisfying enough for her and her personal problems called her home early. She came back for a second stint and although she did very well, she continued to have some personal problems in Kugluktuk. I would definitely hire her again. We also hired Robert Ongahak to train as an operator/geophysical tech but felt he did not give it enough time before he quit.

Certainly, using Kikiak Expediting Services out of Kugluktuk was a huge success from our standpoint. I believe Silvermet contracted Kikiak to the tune of ?? For their services during the past field season. I know that Silvermet will make the same commitment again.

## 4.1f Community Consultations in concerns of project proposal.

The permitting process followed the guidelines as laid out by the KIA, NIRB and DIAND. The offer was made to Kugluktuk for community meetings but I feel because we offered to maintain an environmental monitor on-site, they felt we would be addressing most of the concerns which might come from the community. Silvermet brass (Clifford Frame, Peter George and Dale Hull met with the community of Kugluktuk, Stanley Anablak and Geoff Clark on the 8<sup>th</sup> of September, 2007.

## 4.1g Site visits by land use inspectors

On the date of August 12, 2007, Andrew Kiem completed an inspection with our

camp man Victor Boland. Our Project Manager, Dave White was on site but the inspection primarily took place with Mr. Boland. I have provided a scanned copy of Mr. Kiem's report with his identified deficiencies. These deficiencies are to be addressed before his 2008 inspection. I can suggest most of these were addressed after he left, aside from the water metering equipment and the concern of the camp location. The camp I will address now, as it is a concern from our viewpoint. Without carrying out excavation of some sort around Silvermet Lake, the camp site chosen is high above water, has float-equipped access and a suitable filtration process to filter grey water properly. I cannot disagree the camp is closer to the water than the 30m setback requirement (it is likely 20 m) but I will file an amendment for consideration. This was a very clean camp and neither grey water filtration nor fuel containment should be a concern. We did provide a berm for the fuel storage area in camp (upon Mr.Kiem's departure) but I can say the fuel drums were checked a minimum two to three times a week for any possible leaks. The fuel drums were placed by helicopter, so damage to these drums would be negligible. We did move the fuel cache further from the camp as per Mr. Kiem's suggestion. We did keep a small cache of 5 drums at the camp site for ease of fuel access.

I will now address the specific points of non-compliance by Mr. Kiem.

- Hazardous Materials no combustibles were ever burned. The oil from the generator and drill were always drained into plastic pails. The generator oil remains on site inside the generator shack while the waste oil from the drill remains with the drill stored just east of the old McGregor Lake camp to be removed this Spring when a new drill contractor is brought in.
- Open Burning no further burning occurred and an incinerator will be in place.
- Fuel Storage I did not find any regulations stating that a berm needed to be placed around or under the drums as was requested by Mr. Kiem. I asked in May what the requirements were and I felt our Spill Contingency Plan dealt with this properly. The fuel cache in camp was underlain with a tarp and a small berm formed all around the cache. Drums continued to be checked at a minimum of 2 to 3 times a week and no leaks were ever documented.
- Spill Kits and signage I am unsure of Mr. Kiem's suggestion here. We had two Spill Kits, one in the camp and one at the drill. The Spill Contingency forms were

- in kitchen, dry and office. The first aid tent was marked but no other tents were. If it is a requirement to label all tents, then we shall do so.
- Lack of secondary containment at the helicopter fuel transfer area the fuel transfer area was underlain by the large tampon pads to collect any drippings of fuel from fuel transfer area upon Mr. Kiem's request.
- Drill Waste Management and Containment although the drill contractor attempted to contain cuttings, and did an acceptable job in most cases, two separate collar locations comprised second holes being completed. This did cause a problem with the drill contractor in that further containment was required and this was addressed. Unfortunately, this was an after-the-fact solution. The drill contractor was slightly unprepared for this type of situation. There was also a significant difference between responsibilities assumed by the different drill foremen. I agree this is our responsibility and is one of the main reasons why we are switching drill contractors.
- Metering Equipment this job had no water metering equipment. I feel we were well within our water use permit but will comply with making sure the metering equipment is in place and used in the upcoming season.
- Accurate record keeping of potable water utilization not sure the above measure will not address this concern. The potable water at camp is straightforward. If we need to document every time we fill our 150 gal water tank, that shall be done. It would never be more than 3 times every two days and keeping a log to document the filling of the water tank will be undertaken this year.
- Licenses and records on site All licenses were on site. I am assuming the record keeping is the concern of the Inspector. Proper posting of the licenses aside from the Office tent may have been a concern as well, I am not sure.
- Camp within the 30m set back from water an amendment is forthcoming for some lenience on this issue. Our camp is clean and well taken care of. It seems the most significant concern from the site visit of Mr. Kiem is the sump. If we need to pump or put grey water into a moveable sump, we can do that. In general, moving the camp anywhere on this lake makes it unacceptable to having a twin otter service the camp. All other sites are very steep or very far from the lake. This is the best place for a twin otter to get to shore. The area of the grey water sump, is the best place on peninsula as the grey water is being naturally filtrated through sand, silt and gravel.

If necessary, we could pump the grey water further away from the shoreline and allow it to naturally filter back into the lake or drainage system but I would suggest the sump just may need to be a bit bigger. This camp site was very difficult to find. It is not where we wanted it to be and our client, Silvermet Inc, did not want the responsibility or liability with the McGregor Lake campsite which was being used by Adrianna. We felt being independent of the mess at McGregor Lake would allow us to be autonomous in our actions and our environmental responsibility. We asked for and have accepted the input of Kugluktuk, in the form of an environmental monitor, to raise concerns directly to Silvermet through us. I think we have done this very well and although our camp location does not comply with the necessary setbacks, I would suggest we are running an environmentally safe camp. This is a very good location for a camp and all we can do is continue to meet the requirements placed in front of us from NIRB, KIA and DIAND. I hope it is understood that Silvermet posted a very significant bond to receive a permit from the KIA and NIRB and I can only tell you that Silvermet is closely monitoring us to ensure no acts of negligence occur.

- **4.Ih** No site visits occurred with community members. This refers to elders, etc, as we had an environmental monitor on site when available.
- **4.1i** Site photos and updated site maps I have provided updated maps for the project showing the areas of fuel storage, drill collars and geophysical survey work.
- **4.1j** Progressive reclamation work undertaken the only reclamation work undertaken at this time was the removal of the drill cuttings from a couple of the sites which were not cleaned up properly. There are no empty drums at site, either drill or camp, as they have all been removed.
- **4.1k** Compliance made with Canadian Wide Standards for Dioxins and Furans and the Canadian Wide Standards for Mercury. Aside from burning garbage in a well ventilated man-made 45 gal drum incinerator, which we were instructed not to use when Mr. Kiem arrived, all materials were bagged and shipped to either Kugluktuk

or Yellowknife. No combustibles were ever burned and most plastics were packaged and sent back as recycling. The only mercury toxins on site may have been the flourescent lights used in the core shack and the kitchen. There were a total of 8 fluorescent lights on site (4 in the kitchen and 4 in the core logging shack). There were three bulbs replaced during the summer and the burned out bulbs were sent back to YK

4.11 Compliance with NIRB conditions contained within the screening decision and other authorizations for the project proposal - The single largest outstanding issue with the NIRB conditions would be with the setback requirement for the camp. I am in the process of applying for an amendment to allow our camp to remain where it is and we will address and conditions the governing bodies place on the permit. I think Mr. Kiem and the pictures filed with this report will show our commitment to keeping a clean camp well within the confines or the governing/permitting bodies.

## 5.0 CONCLUSIONS

Between May 8<sup>th</sup> and September 28<sup>th</sup>, 2007, Silvermet Corporation contracted Aurora Geosciences Ltd to complete a diamond drill and geophysical survey program on their Nunavut, Muskox Property. The work comprised a total of 4,139m of NQ drilling, 433 line km of magnetic surveying and 10 line km of horizontal loop electromagnetic surveying. This program required a total of 1,369 man days over 4 months. This program was run under the guidelines supplied by NIRB, the NWB and DIAND. I have supplied the inspection report from the DIAND Resource Officer and numerous pictures of our own. Although, somewhat disappointed in the performance of our drill contractor, we did our best to meet the requirements and conditions laid out with the permitting process.

Respectfully submitted,

## AURORA GEOSCIENCES LTD.

Gary Vivian, M.Sc, P.Geol.

President

## APPENDIX I STATEMENT OF QUALIFICATIONS

## **STATEMENT OF QUALIFICATIONS**

I, Gary Vivian, of the City of Yellowknife, in the Northwest Territories, Canada

## HEREBY CERTIFY:

- 1. That my address is 3502 Raccine Rd., Yellowknife, NT X1A 3J2.
- 2. That I am a graduate of Sir Sandford Fleming College:
  - a. Geophysical Technologist, 1976
- 1.03 That I am a graduate of the University of Alberta in Geology:
  - a. B.Sc. The University of Alberta, 1983
  - b. M.Sc. Thesis The University of Alberta The Geology of the Blackdome Ag-Au Deposit, BC, 1987
- 3. That I have been a practicing Geologist since 1983

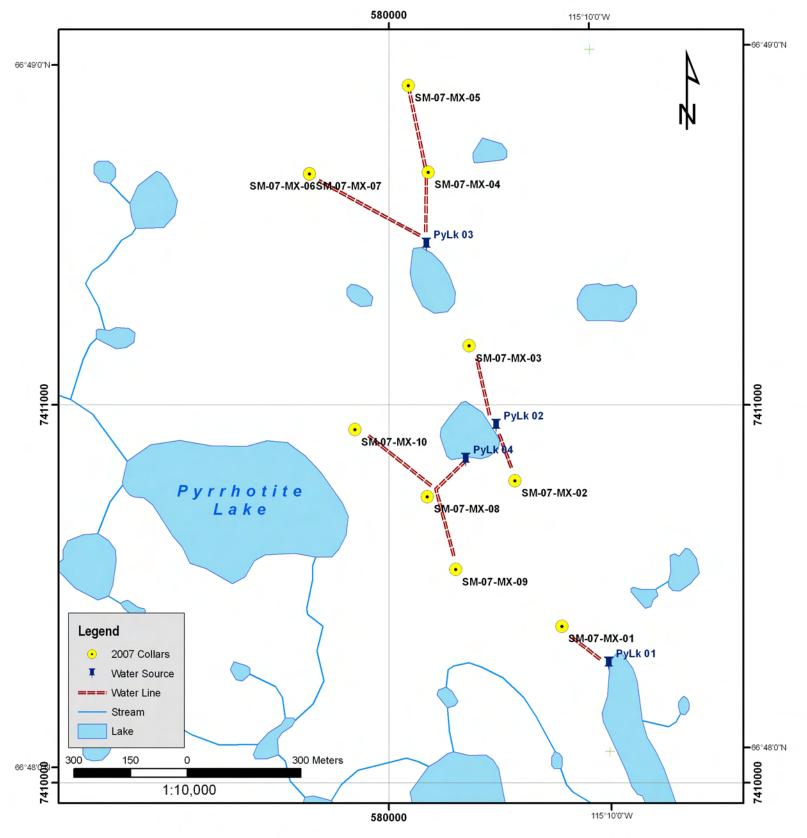
May 1983-November 1986	Noranda Exploration Co. Ltd.	
	Bathurst, NB	Geologist
December 1986-May 1988	Noranda Exploration Co. Ltd.	
	Timmins, ON	Project Geologist
May 1988-December 2000	Covello Bryan and Associates Ltd.	
	Yellowknife, NT	Geologist/Partner
January 2001 - present	Aurora Geosciences Ltd.	Geologist/Partner

4. That I am a registered Professional Geologist in the Northwest Territories.

Dated this 5th day of March, 2008 at Yellowknife, NT.

Gary Vivian MSc P Geol

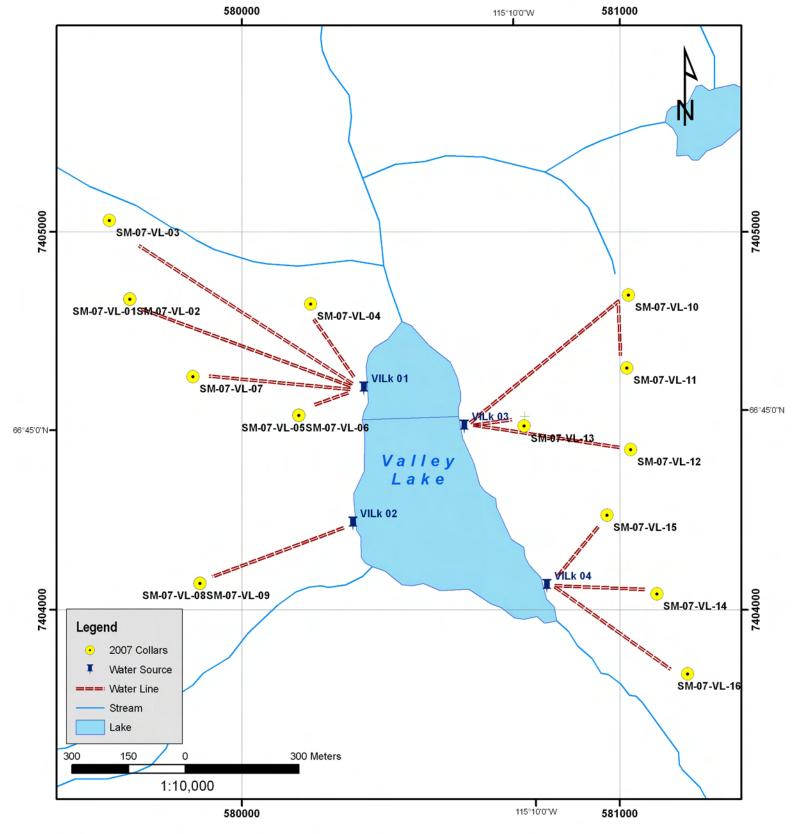
## APPENDIX II PROJECT MAPS



**Drill Pump Station Locations** 

Source_ID	Longitude (D.M.S.)	Latitude (D.M.S.)
PyLk 01	-115.10.00	66.48.07
PyLk 03	-115.10.37	66.48.44
PyLk 04	-115.10.30	66.48.25
PyLk 02	-115.10.23	66.48.28
VILk 03	-115.10.13	66.44.59
VILk 01	-115.10.35	66.45.03
VILk 02	-115.10.38	66.44.51
VILk 04	-115.10.56	66.44.45

# Muskox 2007 Diamond Drill Locations and Water Sources Pyrrhotite Lake Area Pyrrhotite Lake Area NTS 86J/14 PROJECT SURVEY DATES: MAY-JUNE-JULY. 2007 AURORA GEOSCIENCES LTD.



**Drill Pump Station Locations** 

Source_ID	Longitude (D.M.S.)	Latitude (D.M.S.)
PyLk 01	-115.10.00	66.48.07
PyLk 03	-115.10.37	66.48.44
PyLk 04	-115.10.30	66.48.25
PyLk 02	-115.10.23	66.48.28
VILk 03	-115.10.13	66.44.59
VILk 01	-115.10.35	66.45.03
VILk 02	-115.10.38	66.44.51
VILk 04	-115.10.56	66.44.45

## Muskox 2007 Diamond Drill Locations and Water Sources Valley Lake Area Valley Lake Area NTS 86J/14 PROJECT SURVEY DATES: JULY, AUG. SEPT. 2007 AURORA GEOSCIENCES LTD.

## APPENDIX III DIAND INSPECTION REPORT

INAC, Nunavut District P.O. Box 2200 Qimuggjuk Building Iqaluit, NU, X0A 0H0

Submitted Via E-Mail
Our File: 2BE-MSX0712

Your File:\_\_

CIDM #193769

January 21, 2008

Mr. Gary Vivian, P. Geol. Aurora Geosciences Ltd. 3502 Raccine Road Yellowknife, NT X1A 3J2 gary@aurorageosciences.com

## RE: Water License Inspection of the Muskox Property on August 12th, 2007

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by Mr. Vic Boland, Camp Manager who accompanied the Inspector during the inspection of the camp site.

The following report is based on observations made at the time of the inspection, results of samples collected during the inspection and items outlined during a review of the terms and conditions of the license with Mr. Boland. Immediately following the inspection an Industrial Water Use Inspection Report outlining any concerns was signed with the Inspector.

## Part A: Scope and Conditions

Issues were found with respect to the location of the camp as it relates to the information contained within the current license. The current water license states the location of camp should be located at latitude 66°59.2 N and longitude 114°54. W. In fact the camp was located at 66 59 09.7 North and 114 53 51.4 West. This is in fact a variation of only 127 Meters however; the camp has been constructed immediately adjacent to and on the shore of, an unnamed lake well within the required 100 m setback from any water source.

Additionally, Part C of the current license states that all water for domestic use will come from McGregor Lake. McGregor lake is located a minimum of 10 Km South west of the current location making this an obvious error.

The Licensee is asked to provide as an addendum to the 2007 Annual report, information to provide clarity on this discrepancy. If required an amendment to the current license should be applied for from the Nunavut Water Board.

## Part B: General Conditions

The issue of water use fees and security were not included within the context of this inspection.

A review of the Nunavut Water Board FTP – Public Registry was conducted during the writing of this report. As this license was issued on the 16<sup>th</sup> of May 2007 an annual report has not yet been required by the licensee.

The Licensee is reminded that an annual report is required to be filed with the Nunavut Water Board by March 31<sup>st</sup> 2008 for the year ending December 31<sup>st</sup> 2007. The annual report must include but should not be limited to those items listed in Section 2 i through vi of this Part as well as any supplementary information required by either the Nunavut water Board or an Inspector. The Licensee is encouraged to provide all information in the annual report on any on-going Progressive Reclamation activities undertaken during the year, including photographs and records of materials hauled off site.

Additionally as required under Part B of the license, the licensee has a responsibility to install and maintain flow meters on all intake systems to accurately record water consumption volumes.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

### Part C: Conditions Applying to Water Use

As noted above, clarification is required on both the location of the camp as well as the potable water source.

At the time of the inspection the licensee was allocated the use of 18 Cubic Meters water for all purposes. An inspection of the intake was conducted, it was noted that there were no meters installed for recording accurately volumes of water used by the licensee. This must be addressed by the next inspection.

Potable samples were collected at the time of the Inspection. No issues were noted in the results.

### Part D: Conditions Applying to Waste Disposal

The Licensee is reminded that section 7 of this Part of the current license requires as follows;

7. The Licensee shall contain all greywater in a sump located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board,.

During the period of Inspection the Camp sump was found to be within the 30 meter set back required by the license. This was brought to the attention of Mr. Boland. The Licensee is reminded that any sump must be constructed to allow settling of solids and be of sufficient size to prevent overflowing. This is to be addressed by the period of the next inspection.

Additionally, during the period of inspection the Inspector noted that a barrel was being used to dispose of combustible wastes. The Licensee is reminded that section 2 of this part states as follows;

2. The Licensee shall not practice open burning or on-site land filling of domestic waste, unless otherwise approved by the Board

Additionally and for clarity the current license also states in Section 3 the following;

3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.

The Inspector at this time issued a verbal direction to Mr. Boland to cease this activity and have installed an incinerator by the period of the next inspection. The Licensee is reminded to ensure that the capability of any incinerator unit installed on site meets the Canada-wide Standards for Dioxins and Furans and the Canada-wide Standard for Mercury Emissions.

The Licensee is reminded that Section 6 of this Part outlines the requirements of the licensee with respect to hazardous and other wastes. Section 6 reads as follows;

6. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request

The Licensee is reminded to include in the 2007 annual report, due on March 31<sup>st</sup>, 2008, a list of all hazardous materials shipped out of the camp, the treatment received, and the location of the approved treatment facility to which they were sent. Shipping and receiving invoices are not required so long as the records are available for inspection during the 2008 inspection season.

The Licensee is also reminded that section \* of the current license outlines the requirement for Latrine pits to be located a minimum of 30 meters from the ordinary high water mark of any water Board. During the period of inspection it was noted that this was not the case and given the proximity to the potable water source it is recommended that the camp and latrines be moved to comply with the terms and conditions of the existing license.

## Part E: Conditions For Camps, Access Infrastructures and Operations

The Location of the camp is of concern for the Inspector. The camp being constructed on a peninsula extending out into the lake is contrary to the terms and conditions of the current license. It is recommended that the camp be moved to bring it into compliance by the period of the next inspection.

## Part F: Conditions Applying To Drilling Operations

During the period of inspection one drill site was visited. The Inspector noted that no drill sump had been created to capture drill cuttings or sludge from the returns off the drill. This had resulted in drill cuttings and wastes building up under the drill platform and migrating with the returned downstream into the surrounding wetland area. Drill cuttings and a film of oil was noted over 50 meters from the drill platform and appeared to be continuing to migrate downhill toward an unnamed lake.

This was brought to the attention of both Mr. Boland Mr. David White, Project Geologist.

Additionally, during the period of inspection of the drill site the following were noted;

- No secondary containment was present.
- o Fuel for the water pump was stored within the 30 meter setback from the ordinary high water mark
- o A sheen that was not identified was noted in pools of water and cuttings downstream of the drill platform

All of these issues were brought to the attention of Mr. Boland Mr. David White at the time of the inspection.

Immediately following the inspection of the drill site a verbal direction to take remedial action on these sites was provided to Mr. Boland. Section 2 of the current license reads as follows;

2. The Licensee shall ensure that all drill waste, including water, chips, muds and salts (CaCl2) in any quantity or concentration, from land-based and on-ice drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.

It was recommended that Mr. Boland provide photographic evidence of the remedial actions taken at the recently abandoned drill site and to provide this information via E-mail to the inspector once completed. To date this documentation has not been received by the inspector.

The licensee is cautioned that continued operations in non-compliance with the terms and conditions of the issued water license and Act will result in the licensee being the subject of the enforcement measures and penalties provided for under the Act.

### Part G: Conditions Applying To Modifications

No modifications were brought to the attention of the inspector during the period of inspection. A search of the Nunavut Water Board FTP site did not locate a request for modification during the writing of this report.

## Part H: Conditions Applying To Contingency Planning

A review of the Nunavut Water Board FTP site was conducted during the development of this report. It was noted that a Spill Contingency Plan entitled, "Oil and Hazardous Material Spill Contingency Plan" was located on the site along with the associated approval being listed in the License as issued. The Licensee is reminded to provide, as an addendum to the 20-07 annual report a revised Plan that incorporates the comments of INAC and Environment Canada into the Plan.

The Licensee is reminded that All spills are to be documented and reported to the 24 hour Spill Line at (867) 920-8130. Additionally, the Licensee is reminded that as per Section 6 (iii) of this Part the Licensee is required to submit a detailed report on each spill occurrence no later than 30 days following the initial event.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

The proponent is reminded that secondary containment for all fuel storage locations is required as it prevents uncontrolled and accidental discharges to water and the environment. This includes fuel stored at the camp and at all other locations. Cuttings and wastes generated while drilling must also be contained. It was noted during the period of inspection that there was limited secondary containment at the camp, more is required. This must be addressed by the 2008 Inspection season

## Part I: Conditions Applying To Abandonment And Restoration

The Licensee is cautioned that while a prepared plan is not required at this time the Licensee should have in place methods and practices that will ensure the site can be reclaimed to its original condition upon completion of the program.

A formalized plan may be required in the future

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

## Part J: Conditions Applying To The Monitoring Program

The Licensee is reminded to include in the 2007 Annual Report under the heading Monitoring Plan, due for submission to the Nunavut Water Board no later than March 31<sup>st</sup> 2008, the following information;

- o Volumetric summary of water use for all purposes for the 2007 year
- o GPS coordinates for all water sources
- o GPS coordinates for all locations where waste was deposited

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

## Non-Compliance:

During the inspection a number of items were noted and discussed with Mr. Boland. These issues required corrective action to be undertaken prior to the date of the next inspection and submission of a record showing these activities had been completed was requested. Specifically these were;

- o Records of, including the quantities of, hazardous materials transported off site
- Open Burning Installation of an approved incinerator
- o Fuel storage (barrels) without secondary containment
- o Spill kits and signage.
- o Lack of secondary containment at the helicopter fuel transfer area
- o Drill waste management and containment.
- o Metering equipment to be installed on pump intake at both the camp and the Drill
- o Accurate record keeping of potable water utilization
- o Availability of licenses and records on site.
- o Camp is located within the 30 meter set back from water

During the period of the inspection water samples were collected from both the potable source.

Andrew Keim	
Inspector's Name	Inspector's Signature

Attached under separate cover; Photos taken during Inspection of August 12<sup>th</sup>, 2007

Cc:

Peter Kusugak – Manager Field Operations Section- Indian and Northern Affairs Canada Phyllis Beaulieu – Manager licensing – Nunavut Water Board

## APPENDIX IV PHOTOS