



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

Submitted Via E-Mail  
Our File: 2BE -IZO0712  
Your File: \_\_\_\_\_  
CIDM #177142

October 19, 2007

David B. Stevenson, M.Sc., P.Geo.  
Exploration Manager  
Zinifax Canada  
401-1113 Jade Court,  
Thunder Bay, Ontario, Canada P7B 6M7  
Phone: 807-346-2762  
Fax: 807-345-0284  
Mobile: 807-624-6255  
Izok Tel: 416-987-0357 ext. 112  
Email: [dave.stevenson@zinifax.com](mailto:dave.stevenson@zinifax.com)

**RE: Water License Inspections of Izok Exploration Project July 2<sup>nd</sup> and August 13th, 2007**

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by both Mr. Tom Collett, camp manger for the High Lake Project and Mr. David Stevenson, Exploration Manager who accompanied the Inspector during the 2 inspections of the Izok Lake camp and drill site.

The following report is based on observations made at the time of the inspections at Izok Lake Camp on July 2<sup>nd</sup> 2007 and then again on August 13<sup>th</sup> in follow up. Items outlined during the first Inspection with Mr. Collett were then reviewed with Mr. Stevenson on the 13<sup>th</sup> of August. A review of the terms and conditions of the license was completed with both parties following the individual inspections.

Immediately following the inspection (s) an Industrial Water Use Inspection Report outlining any concerns was signed off with the Inspector.

**Part A: Scope and Conditions**

No issues were found with respect to the location of the camp as it relates to the information contained within the current license. The current license was issued in May of 2007 and is a renewal.

The license, as issued, remained a Class B license classed as mining and milling as indicated on the license form.

In a review of the documents posted on the Nunavut Water Board FTP site a change of ownership or notification of name change to ZINIFEX Canada was not located. The Licensee is urged to ensure that this information is submitted and that the Nunavut Water Board is aware any changes in ownership or assignment of any license issued by the 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. A 2006 Annual report filed on May 16<sup>th</sup> 2007 by Andrew Mitchell of Wolfden Resources was noted. The report essentially confirmed that the IZOK project had not opened in 2006.



The proponent is reminded that an annual report is required to be filed 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. Failure to file a complete report as outlined in the license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.

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**

At the time of the inspection the licensee was allocated the use of 100 Cubic meters of water per day for all purposes. Domestic use is to come from Ham Lake and from sources adjacent to the drilling operations for use in exploration drilling activities.

An inspection of the pumping facilities at the intake during both inspections was conducted and both times the platform and pumping operation were found to be in good order. Plans were reviewed for a more permanent facility during the second inspection. One five gallon jerry can was found within the minimum 30 M setback from water during the inspection. The can was removed at that time.

### **Part D: Conditions Applying to Waste Disposal**

During the inspections of the camp the following items were noted and brought to the attention of either Mr. Collett or Mr. Stevenson; (not differentiated between inspections unless rectified)

- Grey water was found pooling behind tents and dry. New sumps had been constructed by the second inspection however these sumps were also found to be inadequate based on quantity of water being consumed. New parts for heated pipe to access large sump pond from previous occupation of the site was on order and to be installed.
- Contaminated soils and past hydrocarbon contamination was evident in areas around camp. Evidence of efforts to clean up these sites was noted during the inspection.
- Very little secondary containment was noted during the first inspection. This was noted with Mr. Collett. By the second inspection many of the barrels and other containers were placed within secondary containment. Mr. Stevenson also indicated that more had been ordered but had not arrived.
- At the time of inspection it was noted that fuel storage for the helicopter and the transfer area at the pad did not have secondary containment and was located very close to the 30 m set back from Ham Lake. This was also true for the pallets of Calcium Chloride. Mr. Stevenson stated that this would be addressed prior to the next inspection.
- The bulk fuel tanks on site are old and are located within a built up area that shows evidence of a liner. During the period of inspection work was being done to determine if the liner was intact prior to using these tanks for bulk fuel storage.
- During the first inspection the camp had an old incinerator that had been rigged to work but was not adequate to the task. By the period of the second inspection a new incinerator was on site and in use.

The capability of the new incinerator to meet the Canada-wide Standards for Dioxins and Furans and the Canada-wide Standard for Mercury Emissions was not reviewed with the proponent. The licensee is reminded that this standard must be met by the date of the next inspection if not already achieved

A review of the Nunavut Water Board web site could not find a copy of the required letter from any municipality or contractor in the Northwest Territories or Nunavut authorizing the acceptance of hazardous or bulk wastes from the Izok Camp. If this document has been forwarded to the Nunavut Water Board under separate cover the licensee is asked to forward a copy to the Inspector upon receipt of the inspection report.



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

#### **Part E: Conditions Camps, Access Infrastructures And Operations**

No new modifications were brought to the attention of the inspector during the period of inspection.

Section 1 of this Part states that licensee shall not erect camps or store material on the surface of frozen streams or lakes **including immediate banks** except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage. As noted above, the storage and placement of fuel and Calcium Chloride in such close proximity to Ham Lake is contrary to the terms of the issued license.

The licensee is reminded that the Nunavut water Board requires a minimum of 60 days notice to consider and review all applications for amendment and modifications.

The Licensee is reminded that prior to the utilization of the Bulk fuel storage tanks that conformity to Section (5) is a requirement of the license and the required inspection reports should be included within the 2007 Annual report.

#### **Part F: Conditions Applying To Drilling Operations**

No drilling activities were on going during the period of the first inspection.

One drill site was inspected during the period of the second inspection. Drill wastes were noted in a natural depression and the area was free of hydrocarbons and other wastes.

The licensee is reminded that as per Section 5 of this Part the licensee is required to establish water quality conditions prior to and upon completion of any drilling program conducted on lake ice. These results are required to be submitted in the 2007 annual report.

#### **Part G: Conditions Applying to Modifications**

No mention of modifications to the existing license was discussed during the period of inspection. The licensee is reminded that all modifications need to be consistent with the terms and conditions of the existing license and if not then will require the Nunavut Water Boards approval as set out in Section (1) of this Part.

The Licensee is reminded that Section 3 of this Part requires that the licensee provide as-built drawings, stamped by an engineer within 90s days of completion of any approved modifications.

#### **Part H: Conditions Applying To Spill Contingency Planning**

A review of the Water Board FTP site found the Spill Contingency Plan dated March 27<sup>th</sup>, 2007. This plan is referenced in the License and includes in Section (2) of this Part a requirement for the licensee to provide to the Nunavut Water Board as an addendum to the Annual report any changes or modification to the Plan as identified during the annual review.

Section 4 of this Part clearly outlines the requirement of the licensee to locate fuel and other hazardous materials a minimum of 30 Meters from the ordinary high water mark. As was discussed with Mr. Collett, and Mr. Stevenson this will be a matter of review during the next inspection of the site.



### **Part I: Conditions Applying To Abandonment And Restoration**

As noted in the license the Nunavut Water Board has approved the Abandonment and Restoration Plan dated March 27th, 2007 submitted by the licensee. This includes in Section (2) of this Part a requirement for the licensee to provide to the Nunavut Water Board as an addendum to the Annual report any changes or modification to the Plan as identified during the annual review.

During the period of both inspections the inspector noted a variety of on-going restoration work at the site. This included the collection and containment of hazardous wastes and hydrocarbon contaminated soils as well as the consolidation of old drums for transport off site.

### **Part J: Conditions Applying To The Monitoring Program (miss-labelled on License)**

The licensee is reminded to submit in their annual report all items listed in section 1, 2 and 3 of this part.

Records of all hazardous wastes transported off site along with the location and name of the approved disposal site should also be included in the annual report and available for inspection during the next inspection season.

The Licensee is reminded that as per Part J item 4 of the License the licensee is required to establish baseline water quality conditions prior to drilling through lake ice. The monitoring required shall include but not be limited to;

Total Suspended Solids  
pH  
Electrical Conductivity, and  
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and  
Trace Arsenic and Mercury

These results are to be submitted with the annual report.

The Licensee is reminded that as per Part J item 5 of the License the licensee is required to obtain a representative sample from the Bulk Fuel Storage Facility's secondary containment prior to the release of any water from the facility. The sample shall be analyzed for the following;

Total Suspended Solids  
pH  
TPH – Total Petroleum Hydrocarbons ( Oil and Grease)  
BTEX – Benzene, Toluene, Ethylbenzene and Xylene

These results are to be submitted with the annual report.

### **Non-Compliance:**

During the inspection a number of items were noted and discussed with Mr. Tom Collett and Mr. Stevenson. 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;

- Marshalling of hazardous materials without secondary containment too close to the potable water source
- Fuel storage (barrels) without secondary containment
- Incinerator - This item was addressed and a new incinerator was on site.
- Bulk fuel storage – Containment and integrity of the tanks.
- Grey water – This issue was partially addressed and on-going efforts for a long term plan were in place by the subsequent inspection of the site.



Indian and Northern  
Affairs Canada

Affaires indiennes  
et du Nord Canada

- o Location and letter of authorization from the site of treatment and storage for the hazardous wastes generated on site.

During the period of the inspection water samples were collected and analyzed. No issues with the water quality of Ham Lake were noted at this time.

All in all a well organized and clean camp. The licensee made great efforts in addressing the concerns of the first inspection and while not completely accomplished the efforts were noticeable. The Licensee is commended for the on-going and progressive reclamation work on site.

**Andrew Keim**  
**Inspector's Name**

\_\_\_\_\_  
**Inspector's Signature**

Attached under separate cover;  
Photos taken during Inspection of July 2nd, 2007

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