



Energy, Mines and Resources
 Oil & Gas Management Branch (K-11)
 Box 2703, Whitehorse, YT Y1A 2C6

Geoscience Exploration Licence
 (Geophysical or Geological Operations)
Oil and Gas Act

Phone: 867-667-3427 / 667-3565
 Fax: 867-393-6262

www.yukonoilandgas.com

File # 3000-25-1138

Licence # 1138

1 Licence Purpose

New Licence
 Licence Amendment - Original Licence # _____

2 Operation Type - Geophysical

Seismic
 Magnetic
 Resistivity
 Electrical
 Gravimetric
 Other (specify) _____

- Geological

Aerial Photography
 Tomography
 Geotechnical Survey
 Ground Penetrating Survey
 Other (specify) _____

3 Licensee

Licensee		Northern Cross (Yukon)	
Contact Name	Greg Charlie	Title	Vice-President
Address	201B 1191 Front Street Whitehorse, Yukon	Phone Number	(867) 456-7805
Country	Canada	Fax Number	(867) 456-7815
Postal Code	Y1A 0K5		
e-mail address	gcharlie@northerncrossyukon.ca		

4 Benefits Agreement

Y N

5 Conditions:

As specified in the Geoscience
 Exploration Licence application dated:

dd	mm	yyyy
19	09	2013

As per attached cover letter dated:

dd	mm	yyyy
10	10	2013

Licence Effective (date of issue):

dd	mm	yyyy
10	10	2013

Expiry (unless operation commenced):

dd	mm	yyyy
10	01	2014

Name: Kyle Rolling Title: Chief Operations Officer

Signature:  Date: 10 OCT 2013



October 10, 2013

Northern Cross (Yukon) Limited
201B, 1191 Front Street
Whitehorse, Yukon
Y1A 0K5

Attn: Greg Charlie

**Re: NORTHERN CROSS (YUKON) LIMITED EAGLE PLAINS 3D SEISMIC PROGRAM
GEOSCIENCE EXPLORATION LICENCE 1138**

Attached please find the licence which authorizes the Northern Cross 2013-2014 Eagle Plains area 3D seismic program. References to "the application" mean all information submitted to the Oil and Gas Resources Branch (OGRB) in support of your Geoscience Exploration Licence Application dated September 19, 2013 and additional information supplied as part of the Yukon Environmental and Socio-Economic Assessment Board (YESAB) process.

The following is a list of OGRB conditions to the licence operations, made pursuant to Section 2(2) of the Geoscience Exploration Regulations:

1. The licence and operations authorized by the licence are subject to any applicable regulations enacted pursuant to the Yukon's Oil and Gas Act after the issuance of the licence.
2. The effective date of the licence is October 10, 2013. The licence will expire January 10, 2014 if operations are not begun by that date. Operations are to occur from October 15, 2013 to April 20, 2014.
3. Geophysical operations shall be conducted in accordance with the program submitted in the application, and as described within the YESAB assessment report #2013-0067. In the event that any significant changes are planned to the program of operations as detailed in the application, Northern Cross (Yukon) is requested to notify this office 30 days in advance of the commencement of the program and to advise of the scope and nature of any changes.
4. Environmental impact mitigation and monitoring shall be conducted in compliance with all the plans, recommendations and procedures for the protection of the environment included in the application and the attached appendices.
6. As soon as practical after completion of the drilling and loading of shotholes, the licensee is to supply this office with audited survey data of the lines in NAD 83 format.
7. Within 6 months of the completion of the field operation, and in addition to the required final report, the licensee shall provide the OGRB with a post impact report prepared by an environmental professional that is specific to this project. The report shall include:

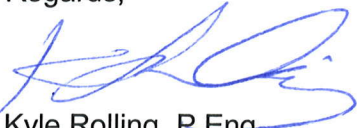
- i) the length of line cleared (including access);
 - ii) the total area of disturbed habitat;
 - iii) a summary of any incidents relating to wildlife;
 - iv) a summary of the wildlife/environmental monitor(s) observations;
 - v) a summary of how successfully the mitigation measures were implemented;
 - vi) a summary of the effectiveness of the mitigation methods in preventing environmental impacts over the project area; and
 - vii) recommendations to improve the effectiveness of environmental impact mitigation for future exploration or development programs in this region.
8. Adhere to the detailed terms and conditions as recommended by YESAB and approved by Yukon Government in its Decision Document (YESAA #2013-0067) which is attached as an appendix to this letter.
9. Confine all operations to lands north and west of the Dempster Highway; exclude land within Na-Cho Nyak Dun traditional territory.

In addition, OGRB reminds Northern Cross (Yukon) of its regulatory requirement to:

- a. notify trappers, guides, outfitters and others in the area before commencing operations;
- b. provide immediate notice to OGRB upon commencement, suspension, re-commencement or completion/termination of the operations;
- c. locate seismic energy sources the distance from suspended or abandoned wells directed by the OGRB;
- d. submit any application:
 - to extend the duration of the operation at least 15 days prior to the end of the period to be extended;
 - to modify the geoscience operation at least 15 days before the start of the operation as modified;
- e. notify OGRB immediately of any serious accident or incident occurring during the operations that causes injury to or loss of life of any person or damage to property or that constitutes a threat to the environment; and
- f. submit weekly status reports indicating the progress of operations.

Please be advised that OGRB will be conducting inspections during the project operations.

Regards,



Kyle Rolling, P.Eng.
Chief Operations Officer, OGRB

- cc. Brenda Sproule, EMR Land Use
Bruce Milligan, WCHSB
Ruth Gotthardt, Yukon Archaeology
Julia Ahlgren, Environment Yukon
Amanda Price, HPW Maintenance

Appendix – Decision Document Terms and Conditions:

1. The Proponent shall follow conditions and measures described in the Department of Fisheries and Oceans Canada's Operational Statement for Ice Bridges and Snow Fills for the Yukon. The most recent version located at www.pac.dfo-mpo.gc.ca/habitat/os-eo/pdfs/ice_bridges_e.pdf
2. The Proponent shall incorporated best management practices provided in Government of Yukon's most recent version of Best Management Practices for Works Affecting Water in Yukon. Source: www.env.gov.yk.ca/publications-maps/documents/bestpractes_water.pdf
3. The Proponent shall establish all water crossings according to the recommendations of Aboriginal Affairs and Northern Development Canada Northern Land Use Guidelines- Northwest Territories Seismic Operations: <http://www.assembly.gov.nt.ca/live/documents/content/12-06-13TD37-17%283%29.pdf>
4. Seismic lines shall avoid steep banks at the edge of waterbodies.
5. Water extraction for the Eagle River for project activities shall not exceed 10 percent of instantaneous flow.
6. The Proponent shall reduce all proposed 5 m wide source and receiver lines to the lowest possible width that will allow project equipment to pass through.
7. Where mulching is used, the depth of mulch must never exceed 5cm in depth.
8. Mulching shall only occur on seismic lines, trails and access roads equal to or less than 3m in width unless otherwise authorized in writing by the Land Use Inspector.
9. The Proponent shall establish a minimum depth of 10cm of packed snow for all seismic lines and access trails, and wherever possible increase the packed snow depth up to 15-20cm.
10. The Proponent shall establish a minimum snow depth of 10cm on staging areas and wherever possible increase the packed snow depth up to 20cm.
11. The Proponent shall report all spills to the appropriate regulatory body, including Environment Yukon.
12. The Spill Response Plan shall be amended to designate responsibility for calling the Emergency Spill Response Line, and that call should be made as soon as possible after a spill is confirmed.
13. The Proponent shall contact Environment Yukon prior to removing contaminated soils from a spill site to ensure the necessary permits are in place and that clean-up and disposal methods are satisfactory. The contact is: Environmental Programs Branch at 867-667-5683 or 1-800-661-0408 extension 5683.
14. The Spill Response Plan shall be amended to refer to appropriate regional information.

15. The Proponent shall develop a quarantine system and plan to prevent the spread of invasive species. The plan shall include a response protocol to deal with the presence of invasive species if confirmed during the reclamation visits. For more information and guidance on how to develop a plan, the Proponent should contact the Government of Yukon "Invasive Species Interdepartmental Working Group", Chair: Tim Sellars, email: tim.sellars@gov.yk.ca, phone: 867-667-8118.
16. The Proponent shall, during the course of the reclamation visits, inspect all staging areas used during the project for invasive plants that are listed on the website http://yukoninvasives.com/pdf_docs/plants_all_invasives.pdf. If invasive plants are found, the Proponent shall inspect seismic lines adjacent to the staging areas for invasive species, and shall report the findings immediately to Environment Yukon and the Government of Yukon "Invasive Species Interdepartmental Working Group", email: invasives@gov.yk.ca, should they be encountered.
17. The Proponent shall organize and conduct an early-winter aerial Porcupine Caribou Herd survey in addition to the fall-rut survey. The aerial survey shall be conducted under the direction of government of Yukon's Northern Regional Biologist.
18. The Proponent shall establish the number of Porcupine caribou that would be considered a "substantial" abundance in the project area and would lead to the cancelling of the Project for the 2013-2014 winter. This number shall be established by the Technical Working Group proposed in the North Cross PCH Monitoring Plan.
19. The Proponent shall ensure that Environmental Monitors have training specific to the identification of bear dens.
20. Environmental Monitors shall brief all project workers on the identification of bear dens.
21. The Proponent shall establish a 1km buffer around any identified bear dens.
22. Upon discovery of a heritage resource, the Proponent shall notify the Heritage Departments of Vuntut Gwitchin Government and the First Nation of Na-Cho Nyäk Dun, and the Gwich'in Social and Cultural Institute, in addition to Government of Yukon, Department of Tourism and Culture, Cultural Services Branch.
23. The LIDAR survey shall identify areas with elevated heritage potential in the lowlands surrounding the major streams prior to any land altering development activities. Areas of elevated heritage potential shall be mapped and investigated as part of the Heritage Resource Inventory Assessment.
24. The Proponent shall implement their proposed commitments (listed in Appendix A) except where changes are necessary to ensure compliance with current regulation and to ensure approaches are technically feasible. Changes must support achievement of the objective and be specified within permit conditions or through a regulatory direction.