



SCREENING DECISION REPORT NIRB FILE NO.: 09EN070

INAC File No.: N2009C0016

January 14, 2010

Honourable Chuck Strahl
Minister of Indian and Northern Affairs
Indian and Northern Affairs Canada
Gatineau, QC

Via email: Strahl.C@parl.gc.ca

Re: Screening Decision for Indicator Minerals Inc. "Grail" Project Proposal, NIRB File No. 09EN070

Dear Honourable Chuck Strahl:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in Section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

Section 12.4.4 of the NLCA states:

Upon receipt of a project proposal NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;*
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;*
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or*
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.*

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

12.4.4 (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS
(pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending that the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

General

1. Indicator Minerals Inc. (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the NIRB, including: the NIRB Part 1 Form (November 27, 2009), the NIRB Part 2 Form (November 27, 2009), Abandonment and Restoration Plan (November 2009), Spill Contingency Plan (November 2009) and Environmental Procedures Plan (November 2009).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. The Proponent shall not extract water from any fish-bearing water body unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Waste

7. The Proponent shall incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
8. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of. All wastes shall be kept inaccessible to wildlife at all times.
9. The Proponent shall ensure that the disposal of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*.
10. The Proponent shall ensure that no waste oil will be incinerated on site. All waste oil must be transported off site and disposed of at an approved facility. The Proponent shall ensure that the appropriate transportation of dangerous goods (TDG) documentation accompany all potential hazardous samples that are transported off site.

Fuel and Chemical Storage

11. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
12. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
13. The Proponent shall inspect and document the condition of all large fuel caches (in excess of 20 drums) on a weekly basis. The Proponent shall examine all fuel and chemical storage containers immediately upon delivery for leaks. All containers must be marked with the Proponent's name. All leaks should be repaired immediately.
14. The Proponent shall use secondary containment or a surface liner (drip pans, fold-a-tanks, etc) at all fuel caches and refuelling stations. Further, the Proponent shall ensure that appropriate spill kits are located at all fuel caches and refuelling stations.
15. A supply of spill kits, shovels, barrels, sorbents, and pumps should be maintained on-site at the camp, the main fuel cache, and at drill sites.
16. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site.
17. The Proponent shall ensure that all on site personnel are properly trained in fuel and hazardous waste handling procedures as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

Wildlife

18. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
19. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
20. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
21. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds.
22. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
23. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance.
24. The Proponent shall cease activities that may interfere with migration or disturb caribou in the project area.
25. The Proponent shall cease activities such as airborne geophysics surveys, drilling or movement of equipment or personnel when caribou are within the project area.
26. The Proponent shall not construct or operate any camp, cache any fuel within 10 km, or conduct any drilling operation within 5 km, of any identified caribou crossings or areas frequented by caribou.

Physical Environment

27. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction until vegetation or other appropriate measures are established in order to prevent sediment from entering any water body.
28. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Drilling on Land

29. The Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body.
30. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
31. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not any other materials or substances.
32. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.
33. The Proponent shall ensure all drill holes are backfilled or capped at the end of the project. The Proponent shall backfill and restore all sumps to match the natural environment prior to the end of project.

Drilling on Ice

34. If drilling on lake ice, the Proponent shall ensure that any return water is non-toxic, and will not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
35. The Proponent shall ensure that drill muds and additives are not used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
36. The Proponent shall ensure that all drill cuttings are removed from ice surfaces daily.

Archaeological and Historical Resources

37. The Proponent shall avoid all known and/or recorded archaeological sites within the project area, until such time as specific mitigation measures are established.

Camp

38. The Proponent shall ensure that all camps or other structures are located on gravel, sand or other durable land.
39. The Proponent shall not erect camps or store material on the surface ice of lakes or streams.

Restoration

40. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
41. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season.

Other

42. The Proponent should, to the extent possible, hire local people and to consult with local residents regarding their activities in the region.

43. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.

Monitoring and Reporting Requirements

The Board is recommending the following:

The Proponent shall maintain a record of wildlife observations while operating within the project area.

This report should include:

- Location (i.e., latitude and longitude);
- Species;
- Number of animals;
- Description of the animal activity, and,
- Description of the gender and age of animals if possible.

Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests in the project area, and identify the timing of critical life history events (i.e., calving, mating, denning and nesting). Additionally, the Proponent's report should also indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites.

A copy of this wildlife record or report should be submitted annually at the end of the operational season to the following Government of Nunavut and Kitikmeot Inuit Association contacts:

- Mathieu Dumond, GN DOE Regional Biologist, phone: (867) 982-7444, email: mdumond@gov.nu.ca
- Luigi Torretti, KIA Senior Environmental Officer, phone: (867) 982-3310, email: ltorretti@qiniq.com

Other NIRB Concerns and Recommendations

In addition to the project-specific terms and conditions, the Board is recommending the following:

1. A waste manifest should accompany the shipment of all waste oil and the proponent should register with the GN-DoE. Contact the Manager of Pollution Control and Air Quality at (867) 975-7748 to obtain a manifest if hazardous waste is generated during project activities.
2. The Proponent shall take all possible measures to avoid wildlife encounters. Any problem wildlife should be reported immediately to the Government of Nunavut, Department of Environment (Conservation Officer Kitikmeot Region Allen Niptanatiak, phone: 867-982-7451, e-mail: ANiptanatiak1@gov.nu.ca).
3. The Proponent should employ a professional archaeologist to conduct an archaeological reconnaissance or inventory, as specified in the GN-CLEY "Guidelines for Developers."
4. The Proponent review the bear/carnivore detection and deterrent techniques outlined in "Safety in Grizzly and Black Bear Country" which can be down-loaded from this link: <http://www.nwtwildlife.com/Publications/safetyinbearcountry/safety.htm>. Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link <http://www.nunavutparks.com/english/visitor-information/suggested-resources.html> and a "Safety in Polar Bear Country" pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/pn-np/nu/auyuittuq/pdf/PolarBearEnglish2007final.pdf>.

General

1. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

Indian and Northern Affairs Canada

1. INAC should also consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the conditions imposed through the Federal Land Use Permit.

Kitikmeot Inuit Association

1. Where the Proponent may be operating on Inuit Owned Lands, that the KIA impose strict mitigation measures and/or conditions upon the Proponent pursuant to the Inuit Owned Lands License in regard to fuel and chemical storage, drilling, water conditions, ground disturbance and wildlife on Inuit owned land.

Regulatory Requirements

The Proponent is also advised that the following legislation may apply to the project:

1. The Proponent is advised that the *Canadian Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/>) lists calcium chloride (CaCl) as a toxic substance. The Proponent should assess alternatives (including biodegradable and non-toxic) to drill additives prior to the use of CaCl and try to avoid the use of CaCl.
2. The *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>).
3. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
4. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
5. The *Species at Risk Act* (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.
6. The *Nunavut Wildlife Act* which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
7. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
8. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/tdg/menu.htm>), and the *Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/text.html>) The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the GN-DOE Manager of Pollution Control and Air Quality at 867-975-7748.
9. The *Aeronautics Act* (<http://laws.justice.gc.ca/en/A-2/>).

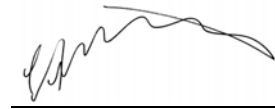
10. The *Navigable Waters Protection Act (NWPA)* (<http://laws.justice.gc.ca/en/N-22/index.html>).

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated January 14, 2010 at Sanikiluaq, NU.



Lucassie Arragutainaq, Chairperson

Attachments: Appendix A: Procedural History and Past Activities
Appendix B: Species at Risk in Nunavut
Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use
Permit Holders

Appendix A

Procedural History and Project Activities

Procedural History

On November 26, 2009 the Nunavut Impact Review Board (NIRB) received Indicator Minerals Inc.'s "Grail" project proposal from Indian and Northern Affairs Canada. The proposed project is in the Kitikmeot region which does not have an approved land use plan therefore, no conformity determination from the Nunavut Planning Commission was required for this file. NIRB assigned this project proposal file number 09EN070.

This project proposal was distributed to community organizations in Taloyoak, as well as to relevant federal and territorial government agencies, and Inuit organizations. NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by January 4, 2010 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before January 4, 2010, NIRB received comments from the following interested parties (see Comments and Concerns section below):

- **Environment Canada (EC)**
- **Government of Nunavut – Culture Language Elders and Youth (GN-CLEY)**
- **Kitikmeot Inuit Association (KIA)**
- **Government of Nunavut – Department of Environment (GN-DOE)**
- **Department of Fisheries and Oceans (DFO)**

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location: <http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/>.

Project Activities

The proposed project is located within the Kitikmeot region, approximately 66 kilometres (km) from Taloyoak. The Proponent intends to explore for kimberlite (diamond exploration) by conducting ground geophysical surveys followed by exploratory diamond drilling. This project will operate each year from April to September, starting in April 2010 and continuing through to September 2015.

The activities/components associated with this proposal include:

- Approximately 20 drums of diesel fuel and 50 drums of Jet B fuel will be stored on site;
- A camp consisting of five 14' x 16' insulated tents on wood frames will function as sleep tents, an office, core tent and a first aid station;
- Two 14' x 32' insulated tents will be used for a kitchen and a dry storage tent;
- An outhouse facility using "Pacto" toilets which do not require electricity or water;
- A generator building which will house a 20 kW diesel generator as well as a back up generator; and,
- A helicopter landing area and a garbage incineration area.

Appendix B Species At Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term “listed” species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are “pending” addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

Schedules of SARA are amended on a regular basis so it is important to periodically check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

Updated: August 4, 2009

Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Lead Management Responsibility ¹
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (<i>anatum-tundrius</i> complex)	Special Concern	Schedule 1 (<i>anatum</i>) Schedule 3 (<i>tundrius</i>)	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peary Caribou	Endangered	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Red Knot (<i>rufa</i> subspecies)	Endangered	Pending	EC
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Atlantic Cod (Arctic population)	Special Concern	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO

Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Red Knot (<i>islandica</i> subspecies)	Special Concern	Pending	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

¹ Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency. The Department of Fisheries and Oceans (DFO) has responsibility for management of aquatic species.

Appendix C
Archaeological and Palaeontological Resources Terms and Conditions
for Land Use Permit Holders



BACKGROUND: Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

BACKGROUND: Palaeontology

Under the Nunavut Act¹, the federal Government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

“archaeological site” means a place where an archaeological artifact is found.

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

“archaeological artifact” means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

“palaeontological site” means a site where a fossil is found.

“fossil” includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.
- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:
 - a. survey
 - b. inventory and documentation of the archaeological or palaeontological resources of the land

use area

- c. assessment of potential for damage to archaeological or palaeontological sites
- d. mitigation
- e. marking boundaries of archaeological or palaeontological sites
- f. site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.