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January 5, 2010
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President and CEO
Uravan Minerals Inc.
Suite 124 - 2526 Battleford Ave. SW
Calgary, AB T3E 7J4

Attention: Mr. Lahusen

Dear Mr. Lahusen:

Garry Lake Project – Environmental Impact Statement Guideline Review and Cost Estimate

Background

In January 2008, Uravan Minerals Inc. submitted an application to Indian and Northern Affairs Canada for a Land Use Permit for a uranium exploration drilling program in an area approximately 235 km NW of Baker Lake, NU and 65 km ENE of the Thelon Game Reserve. The proposed exploration program consisted of:

- The drilling of 10 to 20 NQ drill holes at locations spaced at least 2000 m apart using;
  - A single diamond drill rig which would be transported to and between sites by helicopter;
  - The establishment of a temporary camp to house approximately 16 people; and
  - The transport and temporary storage of fuels etc. required to support the exploration activities and temporary camp.

In June 2008, the Nunavut Impact Review Board (NIRB) issued a Screening Decision Report recommending that the proposed project be subject to review under Part 5 or 6 of Article 12 of the Nunavut Land Claims Agreement (Agreement). In September 2008, the Minister of Indian Affairs and Northern Development concurred with the NRIB's recommendation and referred the proposal for a review under Part 5 of the Agreement.

Subsequent to the above Ministerial decision, the NIRB issued the *Final Guidelines For The Preparation Of An Environmental Impact Statement For Uravan Mineral Inc.'s Garry Lake Project (NIRB file No. 08EN037)* (Final Guidelines) in February, 2009.

At Uravan's request, SRK Consulting has completed a detailed review of the Final Guidelines. The following comments were prepared as a function of this review. Notwithstanding the comments, two separate cost estimates to prepare an Environmental Impact Statement for the Garry Lake Project in accordance with these

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guidelines are provided. Summaries of, and the terms of reference, for each cost estimate are provided below. A detailed breakdown of each cost estimate is provided in Appendix A and B.

Comments

General

The level of detail required to complete an environmental and social impact assessment (ESIA) or Environmental Impact Statement as it is termed in Nunavut[1], for a proposed project must be commensurate with the potential for the project to result in negative environmental and social impacts, the significance of those impacts and the spatial and temporal extent of the anticipated impacts. Based on our experience in preparing and reviewing ESIAs over the past 10 years both internationally and within Canada (including those required in Nunavut), the environmental assessment requested in accordance with the Garry Lake Project Final Guidelines grossly surpasses the level of detail required to assess the potential environmental impacts that could result from the execution of Uravan's Garry Lake exploration program as it is defined in Uravan's Garry Lake Project Land Use Plan application dated January 25, 2008.

Study Area

It is evident throughout the Final Guidelines that the NIRB has identified the Beverly caribou herd as a significant valued ecosystem component (VEC) as well as a significant valued social ecosystem component (VSEC). To this end, there are several references throughout the document suggesting that the Regional Study Area (RSA) for the environmental impact assessment must encompass the entire range, life cycle habitats and migration routes of the Beverly caribou herd. The Final Guidelines state that the proponent must, at a minimum, provide an analysis of the potential impacts of the proposed project and address:

- The historic and current population estimates of the Beverly herd;
- Current health of the Beverly caribou herd
- Distribution shifts of the herd across all seasonal ranges;
- Forage quantity, quality and availability and its variations with weather/growing season;
- Migration routes used;
- Water crossings used;
- Health and condition, at individual and herd levels;
- Behaviour, at individual and herd levels.
- Disease and parasites;
- Insect harassment;
- Interspecies competition, particularly with muskoxen;
- Extreme and significant weather events such as extended periods of freezing rain;
- Climate change and global warming;
- Forest fires;
- Analysis of relevant predator-prey relationships that have potential to impact population levels of the Beverly caribou herd
- Exploration and mining activities;
- Low-flying aircraft; and winter and all-season roads;
- Research activities with emphasis on aerial surveys and collaring of caribou;

[1] The typical terminology of Environmental Impact Statement (EIS) has evolved to include the "social" component and as such are referred to as Environmental and Social Impact Statements (ESIA). The terms are synonymous in this document.

- Inuit and Aboriginal harvesting in the LSA and RSA[2], including harvesting methods and management techniques and any other issues relating to harvesting identified through public consultation;
- Sport and outfitter hunting;
- Tourism activities, including recreational paddling; and
- The current economic value of the Beverly caribou herd to Inuit and Aboriginal harvesters and tourism operators over its entire range.

ESIAs requirements in other jurisdictions within Canada, as well as those previously conducted within Nunavut subscribe to the fundamental principle that the spatial and temporal scope of the assessment are to be defined during the assessment process as a function of the potential impacts associated with the proposed project activities. For example guidelines issued by the NIRB for the environmental assessment of both the Doris Hinge Project (October 15, 2002) and the MeadowBank Project (February 2004), two full scale mine development projects with a far greater potential to result in more significant environmental and social impact than those resulting from the proposed 10 to 20 hole diamond drill exploration program, state:

> *Spatial and temporal boundaries must be determined on the basis of the potential impacts on the particular biophysical or social phenomenon being addressed.... The Proponent shall define the spatial boundaries of the maximum area potentially affected by the Project, based on the boundaries for each individual type of impact, taking into account an analysis of such impact pathways as pollutant transport and accumulation mechanisms.*

The NIRB's decision to dictate the spatial extent of the Regional Study Area in the Garry Lake assessment guidelines suggests a fundamental shift in the Board's policy. Page 17 of the Final Guidelines states:

> *the Regional Study Area shall be defined as the area within which there is the potential for indirect or cumulative biophysical and socio-economic effects. This area includes lands, communities and portions of Nunuvat and other regions of Canada that may be relevant to the assessment of any wider-spread effects of the project. The Proponent is advised to duly consider the transboundary implications of impacts to identified VECs/VSECs, including but not limited to: the Beverly caribou herd and its habitat; Inuit and Aboriginal harvesting; local food security; local country food consumption; and local economy and community livelihoods."*

In order to address this requirement, the proponent would be required to complete an assessment of the entire range of the Beverly herd (from Hudson Bay to the South Slave Region of the NWT and from Wollaston Lake in Northern Saskatchewan to the northern fringes of the Thelon watershed), conduct significant baseline investigations of the biology, behaviour and condition of the entire Beverly herd through all seasons of the year and assess the social, economic and cultural contribution of the herd to all of the communities in the southern Kivallig Region of Nunavut, all Dene and Métis communities in the South Slave Region of the NWT as well as numerous communities in northern Saskatchewan and Manitoba. This level of assessment and the spatial extent that it is expected to cover is not reasonable for a proposed project of this nature, size and potential environmental effects.

Cumulative Effects Assessment

Meeting the guideline requirements for Cumulative Effects Assessment (CEA) (Page 33 of the Final Guideline) would be equally onerous and are unrealistic for an assessment of potential impacts associated

[2] The RSA is defined within the Final Guidelines as the entire range of the Beverly caribou herd.

with a 10 to 20 hole diamond drill program. The Cumulative Effects Assessment requirements in the Final Guidelines read as follows:

> *The Proponent shall determine which events or activities have affected or are likely to affect the same VECs/VSECs or ecosystems as the Project. The Proponent shall then predict the impacts of the Project in combination with those of the other past, present, and reasonably foreseeable future developments, using the most appropriate methodology on a case-by-case basis that is capable of incorporating all of the relevant impacts. Nevertheless, where less precise information about a possible development exists, the Proponent shall refer to it and shall offer its opinion on whether it might need to be taken into account at a later date. While the EIS is expected to focus the assessment of cumulative effects on caribou, caribou calving grounds, and across caribou ranges, the Proponent shall ensure that the potential for cumulative effects is adequately considered for all other VECs/VSECs. Where the potential for cumulative impacts is recognized through the course of the Proponent's impact assessment or through its public consultation, the EIS shall contain a full discussion of this potential.*

The Final Guidelines also include a requirement to assess the potential of cumulative impacts from the Project and any other exploration camps and mineral lease activities located within the traditional calving grounds of the Beverly caribou herd, with a focus on the following:

- The quality of habitat;
- The timing and duration of exploration activities;
- The timing and duration of caribou calving and post-calving activities;
- The Potential for disruption to caribou calving and post-calving activities from all exploration in the area;
- Inclusion and consideration of available monitoring data from other exploration and mining projects in the RSA; and,
- Discussion of how impacts accumulate in caribou through annual movements across the entire range, in a single year and over many years.

The Beverly and Qamanirjuaq Caribou Management Board's 27th Annual Report 2008-2009 states that there are 714 prospecting permits, mineral claims and mineral leases on the Beverly calving grounds. In and of itself, the required investigations to address the CEA of the Final Guidelines would be a significant and unnecessary undertaking. That being said the CEA requirement could not be addressed as specified. The proponent does not have nor should it be expected to have full knowledge of *all previous or planned industrial (mineral exploration or other) activities* beyond those initiated by themselves. Much of this information would be proprietary to their business competitors. In addition, it is not possible for the proponent to assess the potential cumulative impacts of projects not yet proposed, as it has no information of the scope, size and duration of such activities within the Regional Study Area as it is defined in the Final Guidelines.

Notwithstanding the above comments, two cost estimates to complete the Garry Lake project ESIA have been produced. Each of these estimates is based on separate assumptions.

Cost Estimate I

Cost Estimate I assumes that the NIRB's expectation that adequate data and information relevant to the regional and local study area exists in the public domain and that this information is of sufficient quality to be scientifically defendable and therefore available for inclusion in the Garry Lake Project ESIA.

Given the above assumptions are correct, completion of the ESIA for the Garry Lake Project as per the existing guidelines is estimated to cost approximately $370,000 and could likely be completed within a nine

to twelve month timeframe which must include a summer season. A detailed breakdown of the cost estimate is provided in Appendix A.

However, completion of the ESIA with a reliance on the availability of existing data and information would likely result in aspects of the Final Guideline requirements being addressed within the final document to varying levels of detail and completeness. As a result, it is unclear how the NIRB reviewers or the public would review and react to those sections of the ESIA which, because of a lack of existing relevant data, will not be complete when compared against the Final Guideline requirements. There exists a very real possibility that, because of the lack of quality of the existing data and information, the reviewers of the ESIA will judge the data insufficient and request the proponent to augment that data through the acquisition of additional information to support the ESIA conclusions.

In addition, page 26 of the Final Guidelines requires the proponent to *comment on how representative the (existing) data are, clearly separate factual lines of evidence from interference, and state any limitations on the inferences or conclusions that can be drawn from them*. It is not possible to address this requirement in any meaningful manner, as access to the information necessary to arrive at any meaningful conclusion (i.e. information on study design, data collection/analysis methods, QA/QC factors and other relevant information) is not likely to be included in the existing reports.

Cost Estimate II

Cost estimate II assumes that all of the baseline data and information required to complete the ESIA in accordance with the Guidelines is not currently available in the public registry or that the data and information is available cannot be sourced in the quantity or quality necessary to conduct a creditable assessment of the potential impacts in a manner that would satisfy the NIRB's February, 2009 Final Guideline requirements.

Under this scenario a significant number of new baseline investigations will be required. The total cost estimate to complete the ESIA under this scenario is estimated to be a minimum of $5,000,000 and would require a minimum of three years to complete. Further details on the various investigations/surveys required are discussed in Appendix B.

Conclusions

Based on our review of the document, the *Final Guidelines For The Preparation Of An Environmental Impact Statement For Uravan Mineral Inc.'s Garry Lake Project (NIRB file No. 08EN037)*, February, 2009, are not commensurate with the potential for environmental and social impacts, the significance of those impacts and the spatial and temporal extent of the anticipated impacts of the Garry Lake exploration project. As a result, it is our opinion that the requirements as defined in the Final Guidelines are unrealistically onerous and significantly surpass the level of assessment required of a project of the type and size being proposed.

In addition, we do not believe that there is sufficient data of an adequate quality available in the public domain to address the requirements of the Final Guidelines as they are currently written and that completion of the ESIA as outlined in Option I, using existing publically available data, would not guarantee an environmental impact statement that would be robust enough to satisfy the NIRB guidelines. Therefore, SRK does not recommend Uravan proceed with Option I.

Although Option II would provide a very comprehensive document in accordance with all aspects of the Final Guidelines, the cost and time required to complete this option are not reasonable for the scale and nature of the proposed program. Therefore, SRK does not recommend that Uravan proceed with Option II.

Recommendations

Precedent exists within Nunavut where similar programs have been proposed and the potential environmental impacts of these programs have been addressed through the proponents' submission of detailed operating procedures, management and monitoring programs which provide specific management practises to minimize any potential impacts to the VECs/VSECs throughout the implementation of the program.

It is recommended that Uravan request a meeting with representatives of the NIRB staff to explore the possible options available, including the resubmission of a new Land Use Permit (LUP) application for re-screening. It is suggested that this re-submitted LUP application would consist of an Environmental Management and Protection Plan (EMP) which would detail Uravan's proposed management practises designed to minimize any potential environmental impacts which could result from the proposed Garry Lake exploration program which would be commensurate to the size, nature and extent of the proposed project.

Yours truly,

SRK Consulting (Canada) Inc.

Mark Liskowich, P.Geo
Principal

Appendix A:

Cost Estimate I

Uravan Minerals Garry Lake Exploration Project Environmental, Social Impact Assessment Cost Estimate I		
Activity	**Estimated cost**	**Totals**
Project Initiation		
Start Up, Assemble and review all internal project data	$4,200	
Assemble and review all available regional baseline data (past and present) relevant to project	$28,000	
Sub-total		$32,200
Effective Public Consultations		
Develop Stakeholder Mapping Plan	$7,000	
Set Up Community Consultation meetings	$7,000	
Carry out Community Consultations and stakeholder mapping Plan [1]	$42,000	
Compile Results of Community Consultations, prioritize VECs, VSECs and perceived "significance of impacts"	$10,500	
Conduct Archeological Surveys in LSA	$50,000	
Sub-total		$116,500
Draft EIS		
General Information, EIS Terms of Reference, methodolgy, regulatory and regional context	$5,600	
Project Components and Activities	$4,200	
Project Alternatives Assessment	$1,400	
Project Design	$2,800	
Development of SOPs	$4,200	
Decommissioning and Reclamation	$2,800	
Project Schedules	$700	
Baseline Information	$7,000	
Assessment and Mitigation of Potential Impacts	$10,500	
Assessment of Potential Cumulative and Transboundary Impacts	$3,500	
Impacts of Environment on Project	$7,000	
Assessment of Residual Impacts After Mitigation	$3,500	
Impacts of Project Components and Activities	$5,600	
environmental Management and Mitigation and environmental Management Plan (EMPs) development	$7,000	
Development of Wildlife Mitigation and Monitoring Plan (WMMP)	$7,000	
Monitoring Plans (Environmental & Socio-economic)	$7,000	
Conclusions	$4,200	
References, Appendices,	$2,800	
Drafting	$3,200	
Word processing	$2,400	
Follow Up Community Consultations [2]	$28,000	
Subtotal		$120,400
Administrative		
Project Management	$22,750	
Accomodations and meals	20,000	
Travel	25,000	
subtotal		$67,750
Sub-totals		$336,850
Contingency		$33,685
Total		**$370,535**

1. Reflects 2 Professional staff for 120 hours and does not include travel and accomodations
2. Reflects 2 Professional staff for 80 hours and does not include travel and accomodations

Appendix B:

Cost Estimate II

	Final Guideline Requirement	Reference	Relevance to Proposed Project	Activity Required to Address	Estimated Time to Complete	Estimated Cost to Complete
1	The Proponent is required to engage residents and organizations in all potentially-affected communities, including in NIRB's judgment, the following: Baker Lake; former residents of the Garry Lakes area (Hanningajurmmiut) now living in other Kivalliq communities, including Baker Lake, Arviat, Whale Cove, Rankin Inlet, and Chesterfield Inlet; and communities and groups outside of Nunavut which harvest the Beverly caribou herd, including Lutsel K'é and the Athabasca Denesuliné First Nation.	Pg.4	Potential impact and duration of proposed project is limited with little to no potential to impact caribou outside of the Local Study Area therefore not relevant to consult with former community residence or members of the Athabasca First Nations.	Consultation meetings in communities in the southern Kivallig Region of Nunavut, Dene and Metis communities in the South Slave Region of the NWT as well as numerous communities in northern Saskatchewan and Manitoba.	2 weeks	**$50,000**
2	The Proponent is also required to engage other organizations and government agencies with a direct interest in the Beverly caribou herd concerning this issue.	Pg.5	Potential impact and duration of proposed project is limited with little to no potential to impact caribou therefore not relevant.	Included in community consultations		**$0**
3	The Proponent shall describe in general terms the regional biophysical and socio-economic environments of the Kivalliq Region and, where relevant Nunavut as a whole, including: ecological land classifications; ecological processes and relationships; the location of all known base and precious metal finds, mines and exploration camps, and other existing and potential developments; and current and future land-use plans.	Pg. 16	Potential impact and duration of proposed project is limited and does not warrant such a wide ranging requirement.	Significant literature searches, document reviews and summarization. Some information will be proprietary. In addition, it is not possible to anticipate "future land use plans"	2 weeks	**$14,000**
4	Spatial Boundaries must consider: c) the calving grounds and complete annual range of the Beverly caribou herd;	Pg.16	This definition includes an area from Wollaston Lake to the Arctic Ocean the vast majority of which has absolutely no potential to be impacted by the proposed project.	An assessment of the "complete annual range of the Beverly caribou herd"	2 years	**$500,000**
5	Regional Study Area (RSA): the Regional Study Area shall be defined as the area within which there is the potential for indirect or cumulative biophysical and socio-economic effects. This area includes lands, communities and portions of Nunavut and other regions of Canada that may be relevant to the assessment of any wider-spread effects of the project. The Proponent is advised to duly consider the transboundary implications of impacts to identified VECs/VSECs, including but not limited to: the Beverly caribou herd and its habitat; Inuit and Aboriginal harvesting; local food security; local country food consumption; and local economy and community livelihoods.	Pg.17	Potential impact and duration of proposed project is limited with little to no potential to impact caribou therefore not relevant to former community residence or members beyond the immediate area of activities therefore reference to the RSA as including "the Beverly caribou herd and its habitat is not warranted".	A detailed assessment of the Beverly caribou herd; A survey of current and future harvesting of caribou in the entire range; and the completion of a "country food consumption survey" of all communities within the entire range of the Beverly herd would be required.	2 years	**$500,000**
6	Local food security	Pg.17	Based on the proposed activity and the location of the proposed project, there is no potential for it to impact "local food security"	It is unclear how "local food security" is a VSEC or how the project could potentially impact it. In order to address this requirement a detailed survey of food consumption, food sources and local ability to secure food must be completed.	1 year	**$150,000**
7	The future purpose of the Project, including a discussion on the possibility of the future development of a bulk-sampling or mining program as a result of the Project.	Pg. 18	No relevance to the proposed project nor to the assessment of environmental or social impacts of the proposed project.	Does not fall within the purview of an ESIA process and any discussion would be pure speculation.		
8	The EIS shall demonstrate an understanding of the rights, interests, values, aspirations, and concerns of the potentially affected communities, with particular reference to those expressed within the NLCA. The Proponent must also discuss how those rights, interests, values, aspirations, and concerns might be addressed through planning and executing the Project.	Pg 19	"Interests, values and aspirations" are subjective and will vary between individuals, with time and with changing circumstances. They cannot be assessed in a manner that provides any QA/QC and therefore it is not appropriate to expect the proponent to interpret them within a environmental and social impact assessment for a mineral exploration drill program.	Community Vitality Assessment	1 year	**$150,000**
9	The Proponent is required to demonstrate how it has consulted with residents and organizations in all potentially-affected communities, including the following: Baker Lake; former residents of the Garry Lakes area (Hanningajurmmiut) now living in other Kivalliq communities, including Baker Lake, Arviat, Whale Cove, Rankin Inlet, and Chesterfield Inlet; and communities and groups outside of Nunavut which harvest the Beverly caribou herd, including Lutsel K'é and the Athabasca Denesuliné First Nation.	Pg. 20	Potential impact and duration of proposed project is limited with little to no potential to impact individuals or caribou beyond the Local Study Area therefore not relevant to include former community residence or members of the Athabasca First Nations.	Consultation meetings in communities in the southern Kivallig Region of Nunavut, Dene and Metis communities in the South Slave Region of the NWT as well as numerous communities in northern Saskatchewan and Manitoba.	2 weeks	**$50,000**
10	The Proponent shall also discuss procedures for community-based monitoring of social, cultural, and ecological conditions in order to determine if, when, and how mineral exploration can contribute to community sustainability.	Pg. 20	Not a "tradition" style or type of monitoring and would require the development of a series of relevant indicators to monitor, particularly with regard to social and cultural aspects.	Would require engagement and consultation with community members, elders, regional health authorities as well as other "professionals"	1 year	**$100,000**
11	History of any previous exploration efforts in the Project area	Pg. 22	Proponent does not have full knowledge of all previous exploration activities beyond those initiated by themselves.	Significant literature searches, document reviews and summarization. Some information will be proprietary.	2 weeks	**$14,000**
12	The Proponent shall evaluate, indicating the associated level of uncertainty, the potential for increased levels of exploration as part of the Project and relative to those currently proposed. This evaluation must include a discussion of any reasonably foreseeable requirements for expansions of the Project buildings and infrastructure, increased intensity of project activities (e.g. additional drills), and the potential for impacts associated with each.	Pg. 26	No relevance to the proposed project nor to the assessment of environmental or social impacts of the proposed project.	Does not fall within the purview of an ESIA process and any discussion would be purely speculation.	0.5 days	**$700**

	Final Guideline Requirement	Reference	Relevance to Proposed Project	Activity Required to Address	Estimated Time to Complete	Estimated Cost to Complete
13	The Proponent shall also consider whether proceeding with the Project might stimulate other development projects, specifically exploration/mining in the region.	Pg. 26	No relevance to the proposed project nor to the assessment of environmental or social impacts of the proposed project.	Does not fall within the purview of an ESIA process and any discussion would be purely speculation.	0.5 days	**$700**
14	Baseline information should include, but not necessarily be limited to, those VECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including: Caribou, particularly the Beverly caribou herd, including: **Habitat, particularly calving grounds, migration corridors, paths, water crossings, and insect-relief habitats; Migration and distribution; Health and condition, at individual and herd levels; and Behaviour, at individual and herd levels.**	Pg. 27	Potential impact and duration of proposed project is limited with little to no potential to impact caribou outside of the Local Study Area. However, in order to address the majority of the items identified within the VECs list for caribou, a very detailed study of the Beverly caribou herd would have to be conducted to satisfy this requirement. Such a level of detail is not warranted based on the size and duration of the proposed project.	Detailed study of Beverly caribou herd, including: Habitat, range, calving grounds, migration corridors, paths, water crossings, and insect-relief habitats; Migration and distribution; Health and condition, at individual and herd levels; and Behaviour, at individual and herd levels.	2 years (in conjunction with previous study)	**$500,000**
15	Baseline information should include, but not necessarily be limited to, those VECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including: Species at risk or of particular concern, including Grizzly bear; Wolverine; Peregrine falcon; and Short-eared owl as well as Wolf; Fox; Muskoxen; Predator-prey relationships; Raptors and migratory birds, including nesting areas; Freshwater fish; Climate and weather; Air quality; Water quality; Landforms and soil; Eskers; and Vegetation, particularly lichen.	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VECs within the Local Study Area. However, in order to address the requirement a detailed aquatic and terrestrial wildlife survey is required of both the Local Study Area and an expanded Regional Study Area. Such a level of detail is not warranted based on the size and duration of the proposed project.	Aquatic and wildlife study of Local and Regional Study Area	18 months	**$850,000**
16	Baseline information should include, but not necessarily be limited to, those VSECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including: Inuit and Aboriginal harvesting;	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VSECs within the Local Study Area and no potential to impact the VSEC in the Regional Study Area.	Country Food Consumption Study	6 months	**$85,000**
17	Baseline information should include, but not necessarily be limited to, those VSECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including burial sites, heritage sites areas of cultural importance, traditional land use.	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VSECs within the Local Study Area and no potential to impact the VSEC in the Regional Study Area.	Traditional Use Study	6 months	**$85,000**
18	Baseline information should include, but not necessarily be limited to, those VSECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including human health.	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VSECs within the Local Study Area and no potential to impact the VSEC in the Regional Study Area.	Human Health Study	6 months	**$95,000**
`19	Baseline information should include, but not necessarily be limited to, those VSECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including quality of country foods.	Pg.28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VSECs within the Local Study Area and no potential to impact the VSEC in the Regional Study Area.	Country Food Sampling & Analysis followed by a Human Health Risk Assessment.	1 year	**$165,000**
20	Baseline information should include, but not necessarily be limited to, those VSECs, processes, and interactions that are likely to be impacted by the Project either directly, indirectly or cumulatively, including local economy and community livelihood, education and training, employment opportunities and tourism.	Pg.28	Potential impact and duration of proposed project is limited with little to no potential to impact the listed VSECs within the Local Study Area and no potential to impact the VSEC in the Regional Study Area.	Regional Needs Assessment	6 months	**$65,000**
21	The Proponent shall provide information on the functioning and stability of the biophysical environment in the LSA and RSA.	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to measurably impact the listed VSECs within the Regional Study Area.	Based on the definition of the RSA provided in the Final Guidelines a wide ranging study is required. Although such a study would not be detailed it would still require significant resources to complete.	6 months	**$65,000**
22	The Proponent shall provide information on the functioning and stability of the socio-economic environment in the LSA and RSA.	Pg. 28	Potential impact and duration of proposed project is limited with little to no potential to measurably impact the listed VSECs within the Regional Study Area.	Based on the definition of the RSA provided in the Final Guidelines a wide ranging study is required. Although such a study would not be detailed it would still require significant resources to complete.	6 months	**$65,000**

	Final Guideline Requirement	Reference	Relevance to Proposed Project	Activity Required to Address	Estimated Time to Complete	Estimated Cost to Complete
23	The Proponent shall provide information on the functioning and stability of the cultural environments in the LSA and RSA.	Pg. 28	An assessment of the cultural environment would be subjective and vary between individuals, with time and with changing circumstances.	Based on the definition of the RSA provided in the Final Guidelines (i.e. the entire range of the Beverly caribou herd) a wide ranging study is required. Although such a study would not be detailed it would still require significant resources to complete.	1 year	**$165,000**
24	Baseline data shall be presented regarding such components as: Caribou, with emphasis on calving activities; Historic and current distributions of caribou herds in the LSA and RSA, with seasonal designations given to density and occurrence; Historic and current population estimates of the Beverly herd; Life history of Beverly caribou, particularly timing of critical life stages; Calving activities; Diet of Beverly caribou herd; Current health of the Beverly caribou herd; and any other issues relating to caribou identified through public consultation.	Pg 29	Potential impact and duration of proposed project is limited with little to no potential to impact caribou outside of the Local Study Area. However, in order to address the majority of the items identified a very detailed study of the Beverly caribou herd would have to be conducted to satisfy this requirement. Such a level of detail is not warranted based on the size and duration of the proposed project.	Detailed study of Beverly caribou herd, including: Habitat, range, calving grounds, migration corridors, paths, water crossings, and insect-relief habitats; Migration and distribution; Health and condition, at individual and herd levels; and Behaviour, at individual and herd levels.	Minimum of 2 years (in conjunction with previous study)	**Included above**
25	Baseline data shall be presented regarding such components as: Caribou habitat, particularly the calving grounds of the Beverly herd; Timing and extent of the Beverly caribou herd in the LSA and RSA, with reference to any instances of overlapping habitats with the Ahiak, Lorillard or Qamanirjuaq caribou herds; Seasonal and annual trends in range or habitat use, movements, and population of the Beverly caribou herd; Methods of habitat selection; Migratory patterns, corridors and routes of the Beverly caribou herd and the corresponding sensitive periods when the routes cross habitats affected by the Project; Significant habitats for the Beverly caribou herd, including calving and post-calving areas, salt licks, water crossings, and insect relief habitats; Calving grounds of the Beverly caribou herd; Description of the existence, implementation and enforcement legislation, regulations, management plans, land use polices, etc., related to the management and protection of habitat used by the Beverly caribou herd, including but not limited to the Thelon Game Sanctuary Management Plan and the Caribou Protection Measures; and any other issues relating to caribou habitat identified through public consultation.	Pg. 29	Potential impact and duration of proposed project is limited with little to no potential to impact caribou outside of the Local Study Area. However, in order to address the majority of the items identified in this requirement a very detailed study of the Beverly caribou herd would have to be conducted. Such a level of detail is not warranted based on the size and duration of the proposed project.	Additional studies beyond those identified in line 14.	2 years (in conjunction with previous study)	**$250,000**
26	Baseline data shall be presented regarding such components as: Cumulative Effects of the project in relation to other similar projects in the region, to caribou, caribou calving grounds, and across caribou ranges; Historic, current and reasonably foreseeable exploration and development projects on the traditional calving grounds of the Beverly caribou herd, and including at a minimum: i. location, timing, extent of operational activities; and ii.operational activities for current exploration projects, including the number of drills being used and the number of daily transits with fixed wing aircraft and helicopters: Current and reasonably foreseeable exploration and development projects across the range of the Beverly caribou herd, with a focus on the location, timing and extent of permitted and planned operational activities; and any other issues relating to cumulative effects identified through public consultation.	Pg. 29	Providing a response to this requirement would be purely speculative, would be very difficult to complete and would have no relevance to the proposed project nor to the assessment of environmental or social impacts of the proposed project.	Does not fall within the purview of an ESIA process and any discussion would be purely speculation.	1 week	**$7,000**
27	Baseline data shall be presented regarding such components as: Inuit and Aboriginal harvesting of Plant and animal species in the LSA which are valuable for purposes of Inuit harvesting or cultural reasons known to the Inuit; Plant and animal species harvested for purposes of human consumption, including where relevant, the parts of the organisms being consumed (e.g., organs as well as meat) and consumption frequency; Communities in jurisdictions outside of Nunavut which harvest the Beverly caribou herd; Historic and current harvesting activities of the Beverly caribou herd in the LSA and RSA, including harvesting methods and management techniques; Historic and current harvesting of animals other than caribou in the LSA and RSA, including harvesting methods and management techniques; Seasonal and geographic distribution of harvesting activities in the LSA; and any other issues relating to harvesting identified through public consultation.	Pg. 30	Potential impact and duration of proposed project is limited with little to no potential to impact the Inuit and Aboriginal harvesting of Plant and animal species in the LSA and virtually no measurable potential to impact the harvest of caribou in the RSA	Country Food Consumption Survey & a detailed study of caribou consumption by residents of all communities within the potential range of the Beverly caribou herd (i.e. all communities from Wollaston Lake to the Arctic Ocean)	1 year	**$75,000**
28	Baseline data shall be presented regarding such components as: Human and Carnivore Interactions including: Presence of species populations of carnivores within the LSA and RSA, including: grizzly bear, wolverine, wolf and arctic fox; Seasonal and annual trends in range or habitat use, movements, and populations of these species; Significant habitats for these species, such as eskers and denning sites; Established or proposed protected areas for these species; Species that perform particularly significant ecological functions; and any other issues relating to these species identified through public consultation.	Pg. 30	Potential impact and duration of proposed project is limited with little to no potential to impact the listed species within the Local Study Area and the RSA. In order to address the requirement a detailed wildlife survey is required of both the Local Study Area and an expanded Regional Study Area. Such a level of detail is not warranted based on the size and duration of the proposed project.	A more detailed wildlife study of Local and Regional Study Area in addition to the general baseline study identified in line 15.	18 months	**$150,000**

	Final Guideline Requirement	Reference	Relevance to Proposed Project	Activity Required to Address	Estimated Time to Complete	Estimated Cost to Complete
29	Baseline data shall be presented regarding such components as: Raptors and migratory birds including: Local and regional occurrence of species populations; Relative seasonal/annual abundance and distribution of these species populations; Seasonal and annual trends in range or habitat use, movements, and population status of these species; Migratory patterns and routes of these species and the corresponding sensitive periods when the routes cross habitats affected by the Project; Significant habitats for these species, such as breeding and nesting sites and staging areas; Established or proposed sanctuaries, refuges, or similar areas for these species; Species that perform particularly significant ecological functions; and any other issues relating to these species identified through public consultation.	Pg. 30	Potential impact and duration of proposed project is limited with little to no potential to impact the listed species within the Local Study Area and less potential to impact within the RSA.	Detailed study of migratory waterfowl and raptors in both the Local and Regional Study Area in addition to the general baseline study identified in line 15.	18 months	**$150,000**
30	Baseline data shall be presented regarding such components as: General Biophysical Environment including Existing or proposed protected wildlife areas, conservation areas, and special management areas in the LSA and RSA, (including those proposed by the Thelon Game Sanctuary Management Plan); General discussion on the following elements of the LSA: hydrology and hydrogeology; groundwater quality; surface water quality; atmosphere (including climate change, air quality, and noise factors); landforms and soils; and vegetation; Presence and identified critical areas within the RSA for rare or regionally unique species or species assemblages, including species with federal, territorial, regional, or locally designated status (e.g., vulnerable, threatened, endangered, extirpated, of special concern – as designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or other agencies) or cultural status; Predicted climate change patterns and related changes in mean and extreme environmental parameters such as air temperature, precipitation, storms, etc.; Ecological zones, including ecozones, and ecoregions, or other appropriate ecological areas; Species that perform particularly significant ecological functions; and any other issues identified through public consultation.	Pg. 31	Potential impact and duration of proposed project is limited with little to no potential to impact the listed species within the Local Study Area and less potential to impact within the RSA.	Based on the definition of the RSA provided in the Final Guidelines (i.e. the entire range of the Beverly caribou herd) a wide ranging study is required. Although such a study would not be detailed it would still require significant resources to complete.	6 months	**$75,000**
31	Baseline data shall be presented regarding such components as: Socio-economic and cultural environment including Human and local food security; Current economic value of the Beverly caribou herd to Inuit and Aboriginal harvesters and tourism operators; Roles, employment levels and participation rates in the traditional- and wage-based economies, and the nature of the mixed economy of the Kivalliq Region; Interactions between the socio-economic and biophysical environments; and any other issues identified through public consultation.	Pg. 31	Based on the proposed activity and the location of the proposed project, there is no potential for it to impact "local food security", no potential to impact the current economic value of the Beverly herd and little potential to impact the employment levels and participation rates in the traditional- and wage-based economies, and the nature of the mixed economy of the Kivalliq Region.	Regional Needs Assessment (Line 20)	6 months	**$0**
32	A proper understanding of the structure and functioning of the potentially affected societies is needed in order to identify the potential of the Project to affect them, whether positively or negatively, and to ensure that any socio-economic mitigation measures put in place by the Proponent have a reasonable likelihood of attaining their objectives.	Pg. 31	It is unclear how the proponent can provide a concise description of the structure and functioning of the potentially affected societies within an environmental and social impact assessment.			
33	The EIS must also demonstrate how project-specific Cumulative Effects Assessment (CEA) fits into regional planning initiatives.	Pg. 33		Based on the definition of the RSA provided in the Final Guidelines (i.e. the entire range of the Beverly caribou herd) a wide ranging study is required. Significant literature searches, document reviews and summarization. Some information will be proprietary. In addition, it is not possible to anticipate "future land use plans"	6 months	**$75,000**
34	The Proponent shall determine which events or activities have affected or are likely to affect the same VECs/VSECs or ecosystems as the Project. The Proponent shall then predict the impacts of the Project in combination with those of the other past, present, and reasonably foreseeable future developments, using the most appropriate methodology on a case-by-case basis that is capable of incorporating all of the relevant impacts.	Pg. 33	There are more than 700 prospecting permits, mineral claims and mineral leases on the Beaverly calving grounds and the proponent does not have full knowledge of all previous or planned industrial (mineral exploration or other) activities beyond those initiated by themselves.	Significant literature searches, document reviews and summarization. Some information will be proprietary. It is not possible to assess the potential cumulative impacts of projects not yet proposed.	2 weeks	**$14,000**
35	While the EIS is expected to focus the assessment of cumulative effects on caribou, caribou calving grounds, and across caribou ranges, the Proponent shall ensure that the potential for cumulative effects is adequately considered for all other VECs/VSECs.	Pg. 33	Potential impact and duration of the proposed project is limited and there is little to no potential for cumulative impacts on a local or regional scale.		2 weeks	**$14,000**
36	The EIS shall duly consider possible transboundary implications of impacts to identified VECs/VSECs, including the Beverly caribou herd and its habitat, Inuit and Aboriginal harvesting, local food security, local country food consumption, and local economy and community livelihoods.	Pg.34	Potential impact and duration of the proposed project is limited and there is little to no potential for transboundary impacts to identified VECs.	Based on the definition of the RSA provided in the Final Guidelines (i.e. the entire range of the Beverly caribou herd) a series of wide ranging studies (identified in previous lines) would be required	2 weeks	**$14,000**

	Final Guideline Requirement	Reference	Relevance to Proposed Project	Activity Required to Address	Estimated Time to Complete	Estimated Cost to Complete
37	The EIS must focus on the assessment of the potential impacts of project activities on caribou and caribou calving activities. Particular emphasis must be placed on disruptive activities such as drilling and the potential impacts from ground and airborne traffic, taking into account the type, frequency, altitude and timing of traffic, particularly low-flying fixed- and rotary-wing aircraft, and noise levels. The analysis of the potential impacts shall include: Disruption of movements and migration corridors; Disturbance when feeding or resting; Effects of diverting caribou around the project area on the energy balance of caribou, including but not limited to effects to quality of the meat and reproductive success; Discussion of documented individual behavioural responses to the following exploration activities: drilling noise; low level flights (i.e. altitudes less than 600 metres) with fixed wing aircraft and helicopters; restricted access to key water crossings or feeding areas; exposure to contaminants; and loss of habitat; Discussion of the potential for habituation to disturbance, with a focus on exploration activities such as low-level flights and noise from drilling operations; Effects of climate change on the present and future health of the Beverly caribou herd; and an analysis of the implementation and effectiveness of Caribou Protection Measures (NPC 2000) in the RSA.	Pg. 35	The potential impact and duration of the proposed project does not warrant this level of assessment.	In order to address this requirement, a very detailed study of caribou behavior, including response behaviour would be required in addition to tissue sampling and the conduct of an Ecological Risk Analysis of the Beverly Caribou herd.	1 year	**$120,000**
38	It is critical that the Proponent assess the potential impacts of project activities on caribou habitat, particularly the caribou calving grounds of the Beverly caribou herd. The analysis of the potential impacts shall include: Discussion of habitats with varying levels of protection for Beverly caribou, including a comparison of habitats with no protection, to timing of the period of use by caribou; Habitat loss or alteration (e.g., fragmentation, connectivity); Loss or alteration of habitat or calving grounds; and Analysis of interspecific competition with muskoxen.	Pg. 36	The potential impact and duration of the proposed project does not warrant this level of assessment.	A detailed study of muskoxen in the LSA and RSA would be required in addition to other studies previously listed in order to address this requirement	2 years	**$500,000**
39	The EIS shall include a review of existing literature and data and discuss the potential of identified factors to act cumulatively on the relative health of the Beverly caribou herd. This analysis must address the following: historic and current population estimates of the Beverly herd; distribution shifts across all seasonal ranges; forage quantity, quality and availability and its variations with weather/growing season; predators; disease and parasites; insect harassment; interspecific competition, particularly with muskoxen; extreme and significant weather events such as extended periods of freezing rain; climate change and global warming; forest fires; exploration and mining activities; research activities with emphasis on aerial surveys and collaring of caribou; Inuit and Aboriginal harvesting; sport and outfitter hunting; tourism activities, including recreational paddling; low-flying aircraft; and winter and all-season roads: Assessment of potential cumulative impacts from the Project and other exploration camps and mineral leases located within the traditional calving grounds of the Beverly caribou herd. This analysis must consider all relevant factors identified in Section 13.1.6(a) above, with a focus on the following: quality of habitat; timing and duration of exploration activities; timing and duration of caribou calving and post-calving activities; potential for disruption to caribou calving and post-calving activities from exploration in the area; and current health of the Beverly caribou herd; Analysis of relevant predator-prey relationships that have potential to impact population levels of the Beverly caribou herd; Consideration of available monitoring data from other exploration and mining projects in the RSA; and Discussion of how impacts accumulate in caribou through annual movements across range, in a single year and over many years.	Pg. 37	The potential impact and duration of the proposed project does not warrant this level of assessment.	Studies as identified in previous lines.	2 years	**$0**
40	The EIS must also focus on assessing the potential impacts of project activities on Inuit and Aboriginal harvesting in the LSA and RSA. This analysis shall include: The traditional and contemporary Inuit and Aboriginal practices of wildlife management and harvesting; Sustainability of current harvesting levels of Beverly caribou by Inuit and Aboriginal communities; and Effects of the Project on caribou behaviour and distribution which could impact harvesting.	Pg. 37	The potential impact and duration of the proposed project does not warrant this level of assessment.	Studies as identified in previous lines.	2 years	**$0**
41	The Proponent shall assess the potential impacts of project activities on carnivores, and human- carnivore interactions. The analysis of the potential impacts shall include: Habitat loss or alteration (e.g., fragmentation, connectivity); Mortality; Displacement; Disruption of movement (e.g., migration, home ranges); Altered inter-specific relationships, including those with humans; Noise from ground and airborne traffic, taking into account the type, frequency, altitude and timing of traffic, particularly low-flying fixed- and rotary-wing aircraft, and noise levels; and Waste (including hazardous waste) from project activities acting as an attractant.	Pg. 37	The potential impact and duration of the proposed project does not warrant this level of assessment.	Studies as identified in previous lines.	2 years	**$0**
42	The Proponent shall assess the potential impacts of the Project on the socio-economic and cultural environment. While this assessment is expected to focus on the Kivalliq Region, the Proponent shall also take into account interests of other potentially-affected Canadians and the potential for transboundary impacts. The analysis of potential impacts must include: Impacts to the traditional way of life for residents of potentially affected communities, with a focus on the use of the land for economic, cultural, and other purposes; The cultural well-being of the potentially affected communities, based on indicators defined in collaboration with the concerned communities; Burial sites and other archaeological, cultural, heritage, and sacred sites in the Project area.	Pg. 39	The potential impact and duration of the proposed project does not warrant this level of assessment.	Studies as identified in previous lines.	2 years	**$0**

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