



Indigenous and
Northern Affairs Canada

Affaires autochtones
et du Nord Canada



**Indigenous and
Northern Affairs Canada**

**Affaires autochtones
et du Nord Canada**



TMAC Resources Inc.

**Amendment Application No. 1 to
Water Licence No. 2AM-DOH1323**

**Nunavut Water Board Technical Meeting
Cambridge Bay, NU**

January 28-29, 2016

TMAC Resources Inc.

**Nutaannguqtiqtauhimayut Atuqtakhait
Nampanga 1 uvunga Imaup Laisianit
Nampanga 2AM-DOH1323**

**Nunavut Imaliqiyit Qauyiharnikkut
Katimayut**

Ubluqtuhinia 28-29, 2016

Canada 



Outline

1. Roles and Responsibilities
2. Contributions to the Water Licence Amendment Application Review
3. Technical Review
 - a) Resolved
 - b) Outstanding
4. Completeness Review
 - a) Resolved
 - b) Outstanding
5. Reclamation Cost Estimate
6. Conclusion

Parnautikhaa

1. Iniliugait Amiriyakhangillu
2. Ikayuutikhat uvunga imaq laisia nutaannguqtiqtauhimayuq atuqtakhait qimilrurningit
3. Qauyiharnikkut Qimilrurningit
 - a) Angiriiqtauuyuq
 - b) Amiakkuut
4. Iniqpiaqhimayait Qimilrurningit
 - a) Angiriiqtauuyuq
 - b) Amiakkuut
5. Ihuaqhaiyangit Akikhaat Naahautingit
6. Iniqtirutaa



1. Roles and Responsibilities

Indigenous and Northern Affairs Canada's (INAC) responsibilities, mandate, and obligations stem from the following legislation:

- *Department of Indian Affairs and Northern Development Act*
- *Nunavut Land Claims Agreement Act*
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the associated regulations
- *Territorial Lands Act* and the associated regulations

Inikhait Kiuvikhangillu

- Inuliqiyiitkut Kanata'p (INAC) kiuvikhait, maligautait, ukpiruhuutiqaqhutik haffumanngat maliguutiqaqhutik maligautait:
- *Inuliriyituqakkut Maligaq*
- *Nunavut Nunataarviup Angirutit Maligaq*
- *Nunavut Imait Nunavut Qaanganit Piyunnautingit Maligaq* unalu ilagiyangit maliguarutait
- *Nunallaangit Nunat Maligaq* unalu ilagiyait maliguarutit



2. Contributions to the Water Licence Amendment Application Review

INAC submissions to the Nunavut
Water Board (NWB):

1. September 18, 2015
Completeness Review
Memorandum
2. December 8, 2015 Technical
Review Memorandum
3. December 8, 2015 Independent
Closure Cost Estimate
4. December 15, 2015
Geotechnical Site Inspection
Report

Ikayuuhiat ukunngat Imaup Laisiata Nutaannguqtiqhimayuq Atuqtakhait Qimilurningit

INAC tukhiqhimayangit Nunavut
Imaliqiyit Katimayit:

1. Apitiliqivik 18, 2015 Iniqtakhait
Qimilurningit Unipkaariyakhaq
2. Ubluirvia 8, 2015 Qauyiharnikkut
Qimilurninga Unipkaariyakhaq
3. Ubluirvia 8, 2015 Inmigut
Nutqarutaanut Akikhaat Naahautaa
4. Ubluirvia 15, 2015 Nunaum
qauyihainikkut Nayugaanut
Ihivriurningit Unipkaarut



3. Technical Review

a) Resolved

INAC TC-1: Water Quality Predictions – Source Terms for Process Water

The Proponent has provided a reasonable explanation of selection of process water effluent source terms.

3. Qauyiharnikkut Qimilrurningit

a) Angiriiqtauyuq

INAC TC-1: Imaup Nakuuninga Kangiqhidjutia – Kiglingnanit hivitunia pivallianikkut imarnut

Una Havaakhaliuqtunut ilaliutauhimayut nakuuyumik tutqinnaqtumik tiliuqhimayainit pivallianikkut imarnut qurluarningit kiglinganit hivitunia, angiqtauhimavluniuk hamna kiglinganit hivitunia adjigiivyakhutik inmikkut ihiviurnigut kiuviniit.

INAC Submission: Dec 8, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Response: Dec 21, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC5: Water Quality Predictions – Input for Ore and Waste Rock Stockpiles

The Proponent has provided adequate details regarding the basis for selecting source terms for surface waste rock and ore stockpiles and what can be expected in the future.

3. Qauyiharnikkut Qimilurningit

a) Angiriiqtauyuq

INAC TC5: Imaup Nakuudjutaanut Kangiqhuhuut – Iluanunngaqpagaat uyararnut uyarait hunngittut iliurainingit

Hamna Havaakhaliuqtunut ilaliutihimayangit nakuuyumik tiliugakhait kiglikhait tiliuriami kiglikhaat hivitunianit qulaanit uyaraup hunngittut uyarangillu iliuraqtauhimayut qanuq naaguhigiakhaat hivunngani.

INAC Submission: Dec 8, 2015

TMAC Response: Dec 21, 2015

**INAC Turaarningit: Ubluirvia 8,
2015**

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC6: Tailings Impoundment Area Storage Capacity

The Proponent has provided adequate information to explain management processes and water treatment plans intended to proactively identify problems and install mitigative measures.

They have also provided a satisfactory explanation of the contingency plans in place in the event that effluent does not meet discharge criteria.

3. Qauyiharnikkut Qimilrurningit

a) Angiriiqtauyuq

INAC TC6: Kuvvingit Tutquqtauhi maningit Inikhaat

Una Havaakhaliuqtunut ilaliutihimayait nalaumayumik naunaitkuhirnit tutqiqhigiami amirihimayainnit piliriakhait imauplu naammagiyaugikhaat upalungaiyautit pinahuaqtakhait havaktauyuminaqtut naunaiyainahuariangani ayuqhautingit iliurainahuarlugillu ingattaqhittailinahuariangani uukturautait.

Una Havaakhaliuqtunut ilaliutihimayangit nakuuyumik tutqinnaqtumik qanurilittailinahuariami upalungaiyautingit inikhaanit taimaa anarningit qurluaqhimaittukhauvluni.

INAC Submission: Dec 8, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Response: Dec 21, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC7: Waste Rock for Construction Use

The Proponent has provided a satisfactory explanation of the basis for criteria selection to determine whether diabase can be used for construction outside the containment area.

3. Qauyiharnikkut Qimilurningit

a) Angiriiqtauyuq

INAC TC7: Hunngittut Uyarak Havaktauyukhait Aturnaqtut

Una Havaakhaliuqtunut ilaliutihimayait nakuuyumik tutqinnaqtunik kiglikhait tiliurianganit qanuq ihumaliurnahuariakhaita qanuq kiglingningit aturnaraluarluni havaktauyaami hilataanit iliuraivikhaat inikhaanit.

INAC Submission: Dec 8, 2015

TMAC Response: Dec 21, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC8: Monitoring Mineralized Rock

The Proponent has provided a satisfactory explanation of the basis for the waste rock segregation plan and the potential for acid rock drainage and metal leaching from "non-mineralized" rock.

3. Qauyiharnikkut Qimilrurningit

a) Angiriiqtauyuq

INAC TC8: Amiqhaiyangit Uyaraqtarvikhait Uyarak

Una Havaakhaliuqtunut ilaliutihimayait nakuuyumik tutqinnaqtumik kiglikhait haffumani kiglia hunngittut uyaraht ahinunngautigialik upalungaiqtakhaat uuminngalut qayangnaqtut ilaurutikhalik uyarak maqiyakhaunngittuni havigalik qurluaqhimaittumik uvunga 'uyaraqtarvikhaunngittut' uyarak.

INAC Submission: Dec 8, 2015

TMAC Response: Dec 21, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC9: Filtering Capability of the Interim Dyke

The Proponent has provided a satisfactory level of detail on how they will undertake the placement of layers on the upstream face while the Tailings Impoundment Area is in operation.

3. Qauyiharnikkut Qimilurningit

a) Angiriiqtauyuq

INAC TC9: Himiktuqhiniq Inikhautikhait iluani Ikuukhimagaluagtut

Una Havaakhaliuqtunut
ilaliutihimayangit nakuuhimayumik
uuktuutikhanut tiliuqhimayut qanuq
qaliriiqtaaqhimayangit iluanngat
kuugarnut Kuvvingit
Nutqallakhimagaluagtumi
Aulavikhimagaluaghuni.

INAC Submission: Dec 8, 2015

TMAC Response: Dec 21, 2015

INAC Turaarningit: Ubluirvia 8,
2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

a) Resolved

INAC TC10: Permafrost Maintenance of Thermal Rock Pads After Closure

The Proponent has provided a satisfactory explanation of measures that will be implemented to ensure that water will not pond against the edges of the thermal rock fill pads after closure.

3. Qauyiharnikkut Qimilurningit

a) Angiriiqtauyuq

INAC TC10: Nunaup povitquumaninga Ihuaqhainirnut Uunavyaktuq Uyarak Allarutit Nutqaqtaarnirumik

Una Havaakhaliuqtunut ilaliutihimayangit nakuuyumik tutqirnaqtumik uukturautainit pilimmakhaqhimayukhat hinaanunngaqtailiyakhaat imaq kiglinganiittut nutqaqtaarumik.

INAC Submission: Dec 8, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Response: Dec 21, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review a) Resolved

INAC TC12: Sewage Treatment

The Proponent has referenced its 2014 Doris North Wastewater Management Plan and demonstrated that licence criteria are being met prior to any discharge of treated effluent to the receiving environment.

3. Qauyiharnikkut Qimilurningit a) Angiriiqtauyuq

INAC TC12: Kuvviuhimayut Amiqhainikhaq

Una Havaakhaliuqtunut turaarvigihimayangit 2014 mi Doris Nuat Imarnut hiamittailiyut Amiriyauhimayut Upalungaiyautit unalu ilittuqhahimayangit taamna laisia iningat iniqhimayakhait hiamittailinahuarlugit amiriyauhimayut qurluangit tuniyautinnatik avatingnut.

INAC Submission: Dec 8, 2015

TMAC Response: Dec 21, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review a) Resolved

INAC TC13: Water Treatment

The Proponent has provided adequate information to explain management processes and water treatment plans intended to proactively identify problems and install mitigative measures.

They have also provided a satisfactory explanation of the contingency plans in place in the event that effluent does not meet discharge criteria.

3. Qauyiharnikkut Qimilurningit a) Angiriiqtauyuq

INAC TC13: Imaq Amiriyauhimayut

Una Havaakhaliuqtunut ilaliutauhimayuq nalaumayumik ilittuqhiinikkut tukihipkarialik amiqhainikkut piliriakhat/imaq amiriyauhimayut upalungaiyautit pinahuariami havagluaqhimayait naunaiyailutik ayuqhautingit illirigiaqaqhutik ingattaqhittailvlutik uukturautainit.

Ilaliutihimayangit nakuuyumik tutqinnaqtumik haffumani ihumariyamingnit upalungaiyautit inikhaani uvani taamna qurluangit hiamittailiyukhat maliktakhanut.

INAC Submission: Dec 8, 2015

INAC Turaarningit: Ubluirvia 8, 2015

TMAC Response: Dec 21, 2015

TMAC Kiuyakhaat: Ubluirvia 21, 2015



3. Technical Review

b) Outstanding

INAC TC3: Groundwater Quality Post-Closure

- Potential for impacts on groundwater quality due to mine flooding after operations, and
- Potential for groundwater discharge to Doris Lake after mine closure.

Awaiting further information the Proponent is to provide at the NWB Technical Meeting.

3. Qauyiharnikkut Qimilurningit

b) Iniqhimaittut

INAC TC3: Nunaup iluanit imangit Nakuudjutaanit Nutqarniliqqat

- Aktuqtaulluaqhimanniqqat qaanganut nunaup iluanit imangit imanigluarnirumik uyaraqtarviutaarnirumik, unalu
- Aktuqtaulluaqhimanniqqat uvunga nunaup iluanit imangit qurluarnirumi uvunga Doris Tahianut uyaraqtarvik umingniqqat.

INAC huli utaqqiumayangit naunaiyaivikhaat hamna Havaakhaliuqtunut ilaliutigianniqqat uvani NWB Qauyiharnigut Katimaliqqat. .

INAC Submission: Dec 8, 2015	INAC Turaarningit: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015
Next:	Tuglikhaat:



3. Technical Review b) Outstanding

INAC TC4: Water Quality Predictions – Input for Exposed Tailings Beaches

*Awaiting further information to be
provided by the Proponent at the
NWB Technical Meeting.*

3. Qauyiharnikkut Qimilurningit b) Iniqhimaittut

INAC TC4: Imaup Nakuurutaat Kangiqhihuutauyut – Tutquumayaugumi Angmarluarniqqat Kuvvingit Hinaanit

INAC huli utaqqiumayangit
naunaiyaivikhanut ilaliutauyukhat
ukunanngat Havaakhaliuqtunut uvani
NWB Qauyihainirnut Katimaniaqqata.

INAC Submission: Dec 8, 2015	INAC Turaarningit: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015
Next:	Tuglikhaat:



3. Technical Review b) Outstanding

INAC TC11: Tailings Management Strategies

The Tailings Management Plan should be revised to include the use of environmentally suitable chemical dust suppressants.

3. Qauyiharnikkut Qimilurningit b) Iniqhimaittut

INAC TC11: Kuvviutingit Amiqhaivikhaat Uukturautikhat

Una Kuvvingit Amiqhaivikhaat
Upalungaiyautit nutaannguqtirialik
ilaliutigiaqaqhunilu aturnahuarumik
avatikhanut nalaumayumik
qayangnaqtut ihirnut hiamittailidjutit.

INAC Submission: Dec 8, 2015	INAC Turaarningit: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015
Next:	Tuglikhaat:



4. Completeness Review

a) Resolved

INAC IR1: Water Quality

The Proponent has provided satisfactory detail on the methodology and rationale on how the improved water predictions can be verified if on-site water quality monitoring laboratory is not required.

4. Iniqpiaqhimagit Qimilurningit

a) Angiriiqtauhimagit

INAC IR1: Imaq Nakuudjutinga

Una Havaakhaliuqtunut ilaliutihimagit nakuuyumik tiliugait ukungani kiglikhaanillu qanuq ihuaqyuummirialik imaup kangiqhuhuutaat ilitturiyaangani hamna nayugaanit imaup nakuudjuhiat amiqhaiyangit uuktuutait kiuyaulimaiqqat.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

INAC Turaarvikhat: Apitilirvik 18, 2015

TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015



4. Completeness Review

a) Resolved

INAC IR2, IR3 & IR4: Water Quality

The Proponent indicated that the document requested was incorrectly referenced in the application and had been replaced with a document that had already been included in the application.

4. Iniqpiaqhimayangit Qimilurningit

a) Angiriiqtauhimayut

INAC IR2, IR3 & IR4: Imaq Nakuudjutinga

Una Havaakhaliuqtunut tikkuaqhimayaat hamna titiraqhimaningit tukhiqtauhimayuq ihuittumik kiuhimagaluaqtut iluani atuqtakhainit himmauhiqtauhimanngittunilu unipkaalingnit ilaliutaaqhimagaluaqtumik iluani atuqtakhanut.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

INAC Turaarvikhat: Apitilirvik 18, 2015

TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015



4. Completeness Review

a) Resolved

INAC IR5: Water Quality

The Proponent indicated which document in the application contained the study describing the groundwater inflow predictions to the mine, including inflows from Doris Lake and groundwater.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

4. Iniqpiaqhimagangit Qimilurningit

a) Angiriiqtauhimagut

INAC IR5: Imaq Nakuudjutinga

Una Havaakhaliuqtunut
tikkuaghiiyangit uuminngat unipkaa
iluani atuqtakhanut ilaliutauhimayuq
iluani ihivriurningit tiliuqhimayuq
hamna nunaup iluanit imaa iluanut
qurluaghimagayuq kangiqhidjutaan
uyaraqtarvingnut,
ilaliliutihimagangillu hamannat
Doris Tahianut unalu nunaup iluanit
imaa.

**INAC Turaarvikhat: Apitilirvik
18, 2015**

TMAC Kiuyakhaat: Tattiarnaqtuq
8, 2015



4. Completeness Review

a) Resolved

INAC IR6: Water Management and Treatment

The Proponent, as requested, specified which document in the application contained information that described how the losses from Doris Lake will be determined, and explained what will happen to the lake as a result of these losses.

4. Iniqpiaqhimayangit Qimilurningit

a) Angiriiqtauhimayut

INAC IR6: Imaq Amiqhaiyangit Ikayuutikhait

Una Havaakhaliuqtunut, tukhiutaaqhimayangit, kiutaaqhimayait una unipkaa iluani atuqhimayami ilaliutauhimayurlu ilittuqhiivikhait tiliuqtaaahimayait qanuq tammaqhimayut hamanngat Doris Tahia ihumagiyauniaqhuni, unalu tukiliuqtaaahimayuq qanurilingayauniarmangaat tahirnut tammaqhimagumik.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

INAC Turaarvikhat: Apitilirvik 18, 2015

TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015



4. Completeness Review

a) Resolved

INAC IR7: Water Management and Treatment

The Proponent has provided a satisfactory analysis of variable hydrological conditions.

4. Iniqpiaqhimagangit Qimilurningit

a) Angiriiqtauhimagut

INAC IR7: Imaq Amiqhaiyangit Ikayuutikhait

Una Havaakhaliuqtunut ikayuqhimagangit nakuuyumik qauyihainikkut aallatqiitigut imarnigut qanurilinganingit.

**INAC Submission: Sept 18,
2015**

TMAC Response: Oct 8, 2015

**INAC Turaarvikhat: Apitilirvik
18, 2015**

TMAC Kiuyakhaat: Tattiarnaqtuq
8, 2015



4. Completeness Review

a) Resolved

INAC IR8: Water Management and Treatment

The Proponent has provided a satisfactory description of processes that will be in place to help ensure that sufficient early warning signals are built into the applicable management plans such that the need for treatment, if required, can be pro-actively identified and installed before water quality criteria failure.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

4. Iniqpiaqhimagangit Qimilurningit

a) Angiriiqtauhimayut

INAC IR8: Imaq Amiqhaiyangit Ikayuutikhait

Una Havaakhaliuqtunut ilaliutihimayait nakuuyumik tukiliutikhait piliriangit inikhautikhait ikayuutauniarmat pinahuarianganit nakuuqpiaqtumik qilamik uqautiriiqhimayuq naunaitkutait hanataaqhimagumik aturnaqtumik amiqhainikkut upalunagaiyautainit payumayaukpat ikayurniarumik, kiugiaqqat, taimaa havakhimagangit naunaiyarnaqhuni illiriyauhimatinngu imaup nakuudjutainit amiriyaunngitpat.

INAC Turaarvikhat: Apitilirvik 18, 2015

TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015



4. Completeness Review

a) Resolved

INAC IR9: Report Presentation

The Proponent has provided a satisfactory response for the inclusion of the Module B.

4. Iniqpiaqhimagangit Qimilurningit

a) Angiriiqtauhimayut

INAC IR9: Unipkaangit Takugakhait

Hamna Havaakhaliuqtunut
ilaliutihimagumi nakuuyumik
kiuvikhait ilaliutigiyakhait
haffuminngat Ilainnaa B.

**INAC Submission: Sept 18,
2015**

TMAC Response: Oct 8, 2015

**INAC Turaarvikhat: Apitilirvik
18, 2015**

TMAC Kiuyakhaat: Tattiarnaqtuq
8, 2015



4. Completeness Review

a) Resolved

INAC IR15: Interim Closure and Reclamation Plan

The stated percentages for reclaiming the Overburden Dump are acceptable for this level of design (conceptual).

Detailed design for closure should include contour plans and an assessment that considers grain size of the surface soils, slope length and runoff velocity, to refine the overall percentage of slope that requires erosion protection.

4. Iniqpiaqhimagit Qimilurningit

a) Angiriiqtauhimayut

INAC IR15: Nutqakkaffungniant Himmatauffaarmigialik Upalungaiyaut

Una Kinguanut nutqarutaanut tiliugait ihumagiyauyukhaq qanurittunik hiuralingnit aktikkutaanit nunatiriaqaqhutik tamainnut hiamitpiaqhimagiyuq kuvvingit imailiuqtukhauyuq (qanuq hiqumilaariakhaat qulaanit piniarumik). Una mayuqqam aktikkutaa ihumagiaqaqhuni taimaa hiamittailigiami mayuqqait hiqumittailinahuariami hapummiyakhaat.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



4. Completeness Review

b) Outstanding

INAC IR10: Groundwater Management

The Proponent has explained why materials impacted by Ammonium Nitrate Fuel Oil and hydrocarbon substances will not be remediated on surface (e.g., landfarmed) or removed to a hazardous waste management facility.

4. Iniqpiaqhimagit Qimilurningit

b) Iniqhimaittut

INAC IR10: Nunaup iluanit imaq Amiqhainikhaq

Una Havaakhaliuqtunut tutqiqhihimayait hungmat parnautait aktuqtauhimanniqhutik ukuninngat Amuuniam Naiturait Uqhuryuat unalu imarnut ilaurutikhait hivuuranagtut ihuaqhaqtaulaittut qaanganit (uuminngattut, nunami havaktauhimayut) unguvaqtaulaittut qayangnaqtunit iqqakuut amiqhaivingmi.

INAC Submission: Sept 18, 2015

TMAC Response: Oct 8, 2015

INAC Turaarvikhat: Apitilirvik 18, 2015

TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015



4. Completeness Review

b) Outstanding

INAC IR11: Water Management Plan

Regulatory authorities need to determine how to authorize the discharge of Tailings Impoundment Area effluent, as well as saline groundwater to the marine environment.

4. Iniqpiaqhimagit Qimilurningit

b) Iniqhimaittut

INAC IR11: Imaup Amiqhainirnut Upalungaiyautit

Maliguarutit aulattitinirnit ihumaliuriaqaqtut qanuq aulapkaigiami unguvaqtauhimayut Kuvvirnut Umigiaqaqtangit Inia kuvviit qurluaqhimaningit, uuminngalu imait nunamit taryuinnaqaqtut imarmiuttanut avatingit.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



4. Completeness Review

b) Outstanding

INAC IR12: Waste Rock and Ore Management Plan

Adequate volume calculations have been provided on the available space for backfilling of waste rock and tailings.

The outcome of the Nunavut Impact Review Board Project Certificate amendment application review must be considered as it relates to this issue.

4. Iniqpiaqhimagit

Qimilurningit

b) Iniqhimaittut

INAC IR12: Iqqakuungit Uyarak Uyaraqtarviuyunillu Amiqhaiyakhaat Upalungaiyautit

Nakuuyumik iningit kititiqtauhimayut ilaliutauhimayuq iniqarnirmi inikhaani tunuanit illiriyauhimayut iqqakuunit uyaraik kuvvingillu.

Hamna kiuviniit haffumani Nunavut Avatiliriryuat Katimayit Havaangit Ilitaridjutaat nutaannguqtiriniq atuqtakhaat qimilurningit ihumagiyaayukhaq ilagivlugu hamna ihumaaluutingit.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



4. Completeness Review

b) Outstanding

INAC IR13: Impact of Backfilled Material to Groundwater

Awaiting further information to be provided at the NWB Technical Meeting:

- Evaluation of water quality in the reflooded mine, and the potential flux of groundwater into Doris Lake.

4. Iniqpiaqhimagangit Qimilurningit

b) Iniqhimaittut

INAC IR13: Iqqakuungit kuvvingit Amiqhaiyangit Upalungaiyautit

Ihumagivluniuk amirilluaqtangit haffumani halumaittut imaq, hamna tukiqaqhuni ihivriuriangani nalaumayumik qiqumalaarumik tukiqanngitkumi; taimaa kangiqhiyaulaaqtuq taamna nunaup puvitquumaninga qanurilinganingit hiqumilaittumi.

Tutqinnaittuq upalungaiyariiqhimaniarumik taamna hururnaqtuq kuvvingit iluani talirmi himmautaulaarumiluunit uvani nunaup puvitquumaninganunngalaarmigumi.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



4. Completeness Review

b) Outstanding

INAC IR14: Tailings Management Plan

A Tailings Impoundment Area final cover system design should be provided to the Nunavut Water Board for approval prior to its construction.

Any progressive reclamation should be documented through the submission of engineering design drawings.

4. Iniqpiaqhimagit

Qimilurningit

b) Iniqhimaittut

INAC IR14: Iqqakuungit kuvvingit Amiqhaiyangit Upalungaiyautit

Una Iqqakuut kuvvingit Nutqaqhimagit
Iningit kinguani puuttiaqhimagumik
nakuuyumik ilaliutaugialik Nunavut
Imaliqiyit angiriiriaqaqhuni
havaktautinnatik.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



4. Completeness Review

b) Outstanding

INAC IR16: Madrid Advanced Exploration Project

Decision to include the scope of the Madrid Advanced Exploration Project in the Doris North Gold Mine's type A Water Licence requires a decision by the Nunavut Impact Review Board and the Nunavut Water Board.

4. Iniqpiaqhimagit

Qimilurningit

b) Iniqhimaittut

INAC IR16: Qauyiharlunarnigut Havattiarningit

Una ihumaliurniq ilaliutauyukhaq hamna Qauyiharlunarnigut Havaangit iluani Doris Nuat Kulu Uyaraqtarviuyum Tukiliutaa A Imaup Laisiani kiugiaqaqhuni ihumaliurialik ukunanngat Nunavut Avatiliriryuat Katimayit unalu Nunavut Imaliqiyit Katimayit.

INAC Submission: Sept 18, 2015	INAC Turaarningit: Apitilirvik 18, 2015
TMAC Response: Oct 8, 2015	TMAC Kiuyakhaat: Tattiarnaqtuq 8, 2015
INAC Response: Dec 8, 2015	INAC Kiuyakhaat: Ubluirvia 8, 2015
TMAC Response: Dec 21, 2015	TMAC Kiuyakhaat: Ubluirvia 21, 2015



5. Reclamation Cost Estimate

Major Assumptions

- 18 month period of interim care and maintenance (ICM).
- Site closure will take 3 years.
- TMAC Quantities assumed to be correct.
- All equipment, personnel and camp facilities will need to be provided for ICM and closure activities.
- 5 years water management activities after completion of closure activities.
- 10 years post closure monitoring.
- 20% contingency.

5. Himmauhiqtauhimayut Akikhaat Naahautingit

Angiyulluarningit Kangiqhiniit

- 18 nit tatqiqhiutigut inianit atullaktait amiqhaiyangit ihuaqhaiyunillu (ICM)
- Nayugaat nutqarvikhaat 3 ukiunganit naavikhaat
- TMA Amihuuningit kangiqhihimayauyut nalaumaniaqtut
- Tamaat ingilrutait, havaktiillu nayurvikhangillu ilaliutauyukhat haffumani ICM nutqarutailu hulidjuhiit
- 5 nit ukiunganit imaup amiqhaiyangit hulidjuhiit iniqhimataarumik hulidjuhianit
- 10 nit ukiunganit iniqpiaqhimayait nutqarutaanit amiriyauhimaningit.
- 20% itquumaningit



5. Reclamation Cost Estimate (continued)

- Direct Costs
\$20.8M (\$19,7M - Proponent Estimate)
- Indirect Costs
\$27.0M (\$9.2M – Proponent Estimate)
- Total Costs
\$47.8M (\$28.9M – Proponent Estimate)

Major Differences:

- ICM costs
- Mobilization / demobilization costs
- Post closure monitoring and maintenance costs

5. Himmauhiqtauhimayut Akikhaat Naahautingit (aulanngittuni)

Aulapkaqhimayauyut Akikhaat

\$20.8M (\$19,7M - Proponent Estimate)

Aulapkainngittunit Akikhaat:

\$23,346,219 (\$9,190,615)

Total Costs

\$47.8M (\$28.9M – Proponent Estimate)

Inikhaat niplautigiyakhait:

- Amiriyauullakhimayut ihuaqhainirnut akikhait
- Havaktaunikkut / havaktaunngittunillu akikhaat
- Kinguani-nutqarutikhaanut amiqhaiyangit amiqhaiyakhanlu akikhangit



6. Conclusion

INAC notes that the following must be resolved or occur before holding a Nunavut Water Board Pre-Hearing Conference:

- The issuance of a Nunavut Impact Review Board Project Certificate Amendment

6. Nutqarutaanut

INAC naunaittut hamna titiraqhimayumi angiriiriaqaqhuni pinahuaqtakhalluunniit katimapkaitinnatit Nunavut Imaliqiyit Katimayit naalaktakhait:

- Hamna titirariirningit haffumani Nunavut Avatiliriryuat Katimayit Havaangit Iltaridjutinut Nutaannguqtuqhimayangit

Koana
Thank you
ᑭᑎᑦᑭᑦ
Merci

