ᓄᓇᕗᒻ ᐊᕐᕌᒍᓕᒫᖅᑎᑦ ᑲᑎᒪᔨᖏᑦᑐᕐᒪᑦ ᑐᓴᕐᓗᑎᑦ ᖃᐅᔨᓴᖅᓯᖅ #125979

Grise Fiord and Resolute Bay Field Program

ᑐᓴᕐᓗᑕᐅᔪᖅ ᖃᓄᐃᓕᓴᕐᓂᖓ:	New
ᐱᓕᕆᐊᒃᑲᐅᔪᒪᔨᑦ ᖃᓄᐃᓕᓴᕐᓂᖓ:	Scientific Research
ᐅᓪᓗᖓ ᑐᓴᕐᓗᑕᑎᓕᕆᓂᐅᔪᓐᓇᖅ:	6/17/2024 11:45:42 AM
Period of operation:	from 2024-06-25 to 2026-12-30
ᐱᓕᕆᐊᖃᖅᑭᒪᔨᖅ:	Justin Government of Nunavut PO Box 1000 Stn 620 Iqaluit Nunavut (NU) X0A 0H0 Canada ᐅᖃᓕᑦᑐᑎᑦ: 867-975-5441, ᓯᕆᔨᒃᑯᑦ:

ᑐᓴᐅᒪᔭᒃᓴᑦ

ᖃᓄᐃᑦᑑᑎᓂᒃ ᐱᓕᕆᐊᖃᕐᓂᐊᕆᐊᖕᒐᓐᓂᒃ

ᖃᓪᓗᓈᑎᑐᑦ: Worley Canada Services Ltd., operating as Worley Consulting, has been retained by the Government of Nunavut – Community & Government Services (GN-CGS) to support the detailed design of Community Harbour facilities in Grise Fiord and Resolute Bay in Nunavut. To inform the detailed design phase, several field programs will be undertaken over the next few years, initiating in the 2024 open-water season. This Project Description (PD) is specific to the field programs. The intention of the field programs, will be as below: •Conduct environmental, geoscience, geophysics, and archaeological baseline studies in each location.•Perform a geotechnical study to confirm seabed and quarry rock conditions.•Topographic and bathymetric surveys.•Existing conditions or effects studies prior to construction of the Community Harbours.Surveys will be conducted in two Study Areas: the Community Harbour and the Haul Road and Quarry. Maps depicting the Study Areas for each community are provided in Appendix A, Figure A-1 and Figure A-2 in the attached Application Letter.Field programs will largely be undertaken in open-water seasons, with the exception of the Geotechnical Drilling Program which may occur during the iced ocean condition. The initial 2024 existing conditions field program will be undertaken between July and September.Consultations on the Community Harbour facilities have been ongoing since the feasibility phase and have included six separate community visits from 2018 to 2022 to conduct meetings with the Hamlet, design workshops with the Hunters and Trappers Associations/Organizations (HTAs/HTOs), Inuit knowledge (Inuit Qaujimajatuqangit [IQ]) workshops with elders and active hunters, and community open houses. Meaningful consultation will be continued throughout the 'life cycle' of the Projects, including during the design and construction phases so that issues of concern can be identified and responded to in a timely manner and design and construction planning can be adjusted where possible to avoid and mitigate any adverse social or environmental effects. The next round of consultations is being planned for July 2024, before any field programs, and will focus on providing the communities with a Project update and general overview, confirming preferred options for the Community Harbour layouts, Quarries, and Haul Roads and discussing the field program activities including coordinating with the community for local support of workers and equipment for the field programs.

ᐅᐃᕖᑎᑐᑦ: NA

ᐃᓄᒃᑎᑐᑦ: ᕗᐊᓕ ᑲᓇᑕᒥ ᐱᔨᑦᑎᕋᖅᑎᒃᑯᑦ ᑎᒥᖓ, ᐊᐅᓚᑕᖅ ᐊᑎᖅᑐᒃᑯᑦ ᕗᐊᓕ ᖃᐅᔨᒪᔨᑕᖏᑦ, ᑳᓐᑐᕋᒃᑕᐅᕗᑦ ᓄᓇᕗᑉ ᒐᕙᒪᒃᑯᖏᓐᓄᑦ - ᓄᓇᓕᓐᓄᑦ ᒐᕙᒪᑯᓐᓄᓪᓗ ᐱᔨᑦᑎᖅᑎᒃᑯᑦ (GN-CGS) ᐃᑲᔪᖅᓯᐃᓂᓪᓗᑦ ᐃᓗᐃᑦᑑᔪᓂᒃ ᓴᓇᐅᒪᔭᒃᓴᑦ ᑎᑎᕋᐅᔭᒐᖕᒋᓂᒃ ᓄᓇᓖᑦ ᐅᖅᑯᐃᕝᕕᖕᒋᓂᒃ ᐊᐅᓱᐃᑦᑐᒥ ᖃᐅᓱᐃᑦᑐᒥᓪᓗ ᓄᓇᕘᑉ ᖁᑦᑎᒃᑐᐊᓂ. ᑐᑭᓕᐅᕆᔭᐅᓕᕈᑎᒃ ᐃᓗᐃᑦᑑᔪᑦ ᐃᓗᓕᒃᓴᖏᑦ, ᖃᒃᓯᒐᓛᔾᔪᓂᑦ ᐃᓂᒃᓴᐅᔪᒃᑯᑦ ᖃᐅᔨᓵᖅᑲᐅᑲᑕᓪᓗᑎᒃ ᑲᒪᒋᔭᐅᕙᓪᓕᐊᓗᑎᒃ ᐊᕐᕌᒍᓂᒃ ᐊᒻᒋᖅᑐᓂᒃ, ᐱᒋᐊᖅᑕᐅᓗᓂ 2024 ᐊᐅᔭᖓᓄᑦ ᑐᕙᐃᔭᕇᕈᓂ. ᐅᓇ ᐱᔭᒃᓴᐅᑉ ᐅᓂᒃᑳᖓ (PD) ᑐᑭᖓᕗᖅ ᑖᒃᑯᓄᖓ ᖃᐅᔨᓵᒃᓴᐅᔪᓄᑦ. ᑐᕌᒐᕆᔭᕗᑦ ᑖᒃᑯᓈ ᖃᐅᔨᓴᐃᓂᒃᑯᑦ, ᐃᒪᐃᑦᑑᓂᐊᖅᐳᑎᒃ:•ᑲᒪᒋᔭᖃᓪᓗᑎᒃ ᐊᕙᑎᖓᑕ, ᓄᓇᐅᑉ ᐃᓕᖅᑯᓯᐊᑕ, ᓄᓇᐅᑉ ᐋᖅᑭᐅᒪᓂᐊ, ᐊᒻᒪᓗ ᐃᑦᑕᓐᓂᓴᖃᕝᕙᑦ ᕿᓂᖅᓴᖅᑕᐅᕙᓪᓗᑎᒃ ᐊᑐᓂ ᓂᕈᐊᕝᕕᒃᑯᒥᓇᕆᔭᒃᑯᑦ.•ᐱᓕᕆᐋᖅᑲᓐᓗᑎᒃ ᓄᓇᒧᑦ ᐱᔭᕆᑐᔪᓄᒃ ᖃᐅᔨᓵᖅᑲᓂᓪᒥᒃ ᐃᖅᑲᖓᑕ ᐅᖅᑯᐃᕝᕕᖕᓴᐅᓪᓗ ᐅᔭᕋᖅᑎᒃᓴᖏᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓂᒃ ᐃᓂᒃᓴᓇᔪᒪᔭᐅᔪᓂᑦ. •ᓄᓇᐅᑉ ᖃᖓᓄᑦ ᑕᕆᐅᓪᓗ ᐃᖅᑲᖓᓅᖓᔪᑦ ᖃᐅᔨᓴᐃᓃᑦ. •ᓴᖅᑮᔭᓐᓂᖅᑐᑦ ᐃᓕᖅᑯᓯᖏᑦ ᐅᕝᕙᓗ ᐊᒃᑐᐃᔪᑦ ᖃᐅᔨᓴᓇᔭᐅᔪᓂᒃ ᐃᓗᐊᒍᑦ ᓴᓇᔭᐅᓂᐊᑕ ᐅᕝᕙᓘᓐᓃᓐᓂᑦ ᑭᖑᓂᐊᑕ ᓴᓇᔭᐅᓯᒪᓕᕈᑎᒃ ᓄᓇᓖᑦ ᐅᖅᑯᐃᕝᕕᖕᒋᒃ.ᖃᐅᔨᓵᖅᑲᓂᕗᑦ ᑲᒪᒋᔭᐅᓂᐊᖅᑐᑦ ᒪᕐᕉᓐᓂᒃ ᖃᐅᔨᓵᒃᓴᐅᔪᓂᒃ ᐃᓂᐅᔪᒃ ᑖᓯᒧᖓ: ᓄᓇᓕᐅᑉ ᐅᖅᑯᐃᕝᕕᖓᓄᑦ ᐊᒻᒪᓗ ᐊᖅᑯᑎᖏ ᐅᓯᑲᖅᑕᐅᑎᓄᑦ ᐅᔭᕋᓐᓂᐊᕐᕕᒃᓴᖓᓗ ᑐᙵᕕᐅᔪᒃᓴᓂᒃ. ᓄᓇᙳᐊᑦ ᑕᑯᒃᓴᐅᑎᑦᑎᔪᑦ ᖃᐅᔨᓵᖑᓂᐊᖅᑐᑦ ᐃᓂᖏᓐᓂᒃ ᐊᑐᓂ ᓄᓇᓕᐅᔫᓐᓄᑦ ᓴᖅᑭᔮᖅᑎᑦᑕᑦ ᐅᐃᒍᖓ ᐃ ᐃᓗᐊᓂ, ᑕᑯᔭᒃᓴᖅ A-1 ᐊᒻᒪᓗ ᑕᑯᔭᒃᓴᖅ A-2 ᐃᓗᐊᓃᑦᑐᖅ ᐊᑕᔪᒥᒃ ᐅᒃᑑᑎᖃᓂᐅᑉ ᑎᑎᖅᑲᖓᓂᕐ. ᓄᓇᒥᒃ ᖃᐅᔨᓵᖅᑲᓂᕗᑦ ᐊᑐᖃᑦᑕᓂᐊᖅᑐᑦ ᐊᐅᔭᒃᑯᑐᐊᖅ ᓯᑯᐃᖅᓯᒪᓕᕈᓂ, ᑭᓯᐊᓂ ᑖᓐᓇ ᓄᓇᐅᑉ ᐃᓕᖅᑯᓯᐊᑕ ᓂᐅᖅᑑᑎᓂᖏᑦ ᑕᒪᓐᓇᓕ ᑲᔪᓯᔪᓐᓇᖅᐳᑎᒃ ᓯᑯᓯᒪᓕᖅᑎᓪᓗᒍ ᐃᖅᑲᖓᓄᑦ ᖃᐅᔨᓴᓂᒃ. ᓯᕗᓪᓕᖅᐹᖅ 2024 ᐃᓕᖅᑯᓯᐊᓄᑦ ᓴᖅᑮᔭᖅᑐᓄᑦ ᑲᒪᒋᔭᐅᕙᓪᓕᐊᓗᓂ ᐊᑯᓐᓂᐊᑕ ᔪᓚᐃ ᐊᒻᒪᓗ ᓯᑎᐱᕆᐅᑉ ᐱᒋᐊᓐᓂᐊᓄᑦ. ᑐᓴᕆᐊᕋᓯᐊᓐᓂᕗᑦ ᑖᒃᑯᓄᖓ ᓄᓇᓖᑦ ᐅᖅᑯᐃᕝᕕᖕᒋᑕ ᐱᓐᑎᑦᔪᐊᖕᒋᓄᑦ ᑲᔪᓰᓐᓇᖅᓯᒪᕗᑦ ᑲᔪᓯᒥᓇᓂᐊᑕ ᕿᒥᕐᕈᓂᐊᒍᑦ ᐃᓚᖅᓯᒪᓪᓗᓂ ᐊᕐᕕᓂᓖᑦ (6) ᓄᓇᓕᓐᓄᑦ ᐳᓚᕋᓃᑦ ᐊᑯᓐᓂᐊᑕ ᐊᕐᕌᒍ 2018 ᑎᑭᓪᓗᒍ 2022 ᐅᐸᒍᑎᓪᓗᑎᒍᑦ Hᐋᒪᓚᒃᑯᑦ, ᓴᓇᐅᒪᓂᐊᑕ ᑎᑎᕋᐅᔭᕈᑎᖕᒋᓐᓂᒃ ᐊᖑᓇᓱᒃᑐᓕᕆᔨᑦ ᑎᒥᖅᑯᑎᖕᒋᓐᓂᒃ/ᒥᑭᑭᐊᓐᓂᐊᖅᑎᓪᓗ ᑎᒥᖕᒋᑕ (HTAs/HTOs), ᐃᓄᐃᑦ ᖃᐅᔨᒪᓂᖕᒋ (ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖕᒋᑦ [IQ]) ᐃᓕᓐᓂᐊᖅᑎᕆᓐᓂᒃᑯᑦ ᑲᑎᒪᖅᑎᕆᓪᓗᑎᒍᑦ ᐃᓐᓇᑐᖃᖕᒋᑦ ᐊᖑᓇᓱᒃᑎᓪᓚᕆᖕᒋᓪᓗ, ᐊᒻᒪᑕᐅᖅ ᓄᓇᓕᒻᒥ ᒪᑐᐃᖓᔪᓂᒃ ᑲᑎᒪᑎᑦᑎᕙᒃᖢᑕ. ᐋᑎᖃᑦᑎᐊᖅᑐᖅ ᑐᓴᕆᐊᕈᓯᐊᓂᖅ ᑲᔪᓯᑎᑕᐅᙱᓇᖅᓯᕐᑐᖅ ᑖᒃᑯᐊ ᐊᐅᓚᓂᖅᑎᓪᓗᒋᑦ "ᐆᒪᕝᕕᐊᑕ ᐊᕐᕌᒍᖏᑦ" ᓴᓇᔭᐅᓂᐊᖅᑑᑉ, ᐃᓚᖅᖢᑎᒃ ᑎᑎᕋᐅᔭᓕᕆᔭᐅᔪᓂᒃ ᐊᒻᒪᓗ ᓴᓇᔭᐅᕙᓪᓕᐊᓕᖅᑎᓪᓗᒋᑦ ᑕᕝᕙᙵᓕᑦ ᐃᓱᓖᓘᑎᑭᔭᑦ ᑲᒪᒋᔭᐅᑲᐅᖅᑐᖅᑯᓪᓗᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓂᖏᑦ ᑲᒪᒋᔭᐅᓂᖏᓪᓗ ᓱᒃᑲᔪᒃᑯᑦ ᑎᑎᕋᐅᔭᒐᖓ ᓴᓇᔭᐅᒪᓂᐊᑕᓗ ᐸᕐᓇᕆᐊᖃᕈᓂᖏᑦ ᐋᖅᑭᒋᐊᑲᐅᖅᑐᖅᐳᖅᑲᓯᐅᓪᓗᒋᑦ ᓴᓂᖅᑯᐃᓂᒃᑯᑦ ᑲᒪᒋᔭᖅᑲᓂᒃᑯᓪᓗ ᐱᐅᖏᑦᑐᑦ ᐃᓅᖅᑎᕆᓂᒃ ᐊᕙᑎᓕᓗᓐᓂ ᐊᒃᑐᐃᖅᑲᓐᓂᓐᓂᒃ. ᑭᖑᓪᓕᐅᔪᑦ ᓄᓇᓕᓐᓄᑦ ᑐᓴᕋᓯᐊᕙᒃᓴᕗᑦ ᐸᕐᓈᖑᔨᒪᓕᖅᑐᑦ ᔪᓚᐃ 2024ᒧᑦ, ᓯᕗᓂᐊᑕ ᖃᐅᔨᓵᖅᑲᓂᖅ ᓄᓇᐃᓐᓇᖓᒍᑦ, ᓈᖓᔭᖅᖃᑦᑕᓂᐊᖅᑐᑦ ᓄᓇᓕᓐᓄᑦ ᐅᓂᒃᑳᑎᐊᓂᓪᒥᒃ ᓴᓇᔭᐅᓂᐊᖅᑐᑦ ᓇᒦᓕᓂᖏᑕ ᑕᐅᑦᑐᐊᓗ, ᓱᓕᓂᕋᐃᔾᔪᑎᑦ ᓂᕈᐊᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᓖᑦ ᐃᓄᖅᑯᑎᖏᓄᑦ ᐅᖅᑯᐃᕝᕕᒋᓂᐊᖅᑕᖓ ᐃᓂᓪᓚᖓᓂᖏᑦ, ᐅᔭᕋᒃᑕᕝᕕᒃᓴᑦ ᐅᓯᑲᖅᑕᐃᓯᓗ ᐊᖅᑯᑎᒋᒃᑕᕐᓂᐊᖅᑕᖏᓐᓂᒃ ᐊᒻᒪᑕᐅᖅ ᐅᖃᐅᓯᖅᑲᓂᓗᒍ ᖃᐅᔨᓵᖅᑐᕕᑦ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᑦ ᐃᓚᓕᒃ ᑐᑭᒧᐊᕆᐊᖅᑎᖅᑲᓂᓪᒥᒃ ᓄᓇᓕᐅᔪᒥᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᒃᓴᓂᒃ ᐊᒻᒪᑕᐅᖅ

ᓴᓇᖏᑎᓴᐅᑦᑐᓂᓄᑦ ᖃᐅᔨᓴᓇᓱᓴᐅᔪᓄᑦ.

Inuinnaqtun: NA

Personnel

Personnel on site: 7
Days on site: 22
Total Person days: 154
Operations Phase: from 2024-06-25 to 2026-12-30

ᐱᓕᓐᐊᓐᕆᐅᓂᐊᖅᑐᑦ

ᓇᒥ	ᖃᓄᐃᓕᑦᑐᒥᑦ ᐱᓕᓐᐊᖃᖅᓂᐊᖅᐸ	ᑭᖅᑯᑦ ᓄᓇᕐᑯᑦᓂ	ᑐᑭᒪᒻᒪᖅᑦ ᓄᓇᐅᓪᓚ ᖃᑐᒪᐅᓕᐅᖅᑭᒪᓇᐊᖏᓐᓂᖅ	ᐃᑦᓴᓂᓕᖃᖅᓴᐃᐅᔪᓕᐅᖅᐸ ᐃᓄᖏᓐᓄᑦ ᓇᔨᖅᑕᐅᖃᖅᑎᑦᑕᓂᑯᓗ ᑕᐃᑦᓭᒪᓂᑐᖃᐅᓕᓐᑐᖅ	ᖃᓄᓐᓂᖅᓱᖅ ᓄᓇᕈᑎᐅᔨᖅ ᐊᒻᒪᓗ ᓴᐳᒻᒥᐃᐅᔪᓗ ᓭᓇᓄᑦ
General location for Grise Fiord, located on the southern shore of Ellesmere Island in Jones Sound.	Scientific/International Polar Year Research	Municipal	Project area is an established longstanding community.	Archaeological field study is a component of the field program.	Community harbour located along 1.4 km of shoreline directly fronting the Grise Fiord community. Haul road: 14 km north of community. Quarry: 3 quarries of varying size.
General location for Resolute Bay, located on the south shore of Conwallis Island in Parry Channel.	Scientific/International Polar Year Research	Municipal	Project area is an established longstanding community.	Archaeological field study is a component of the field program.	Community harbour (CH) 1: 500 m along shoreline SW of the Resolute Bay community. CH 2: 1 km along shoreline fronting the community. Haul road: 3.3 km SE of CH 1 & 1.3 km SE of CH 2. Quarry 1: 7 km NW of CH study area. Quarry 2: 3.3 km SE of CH study area. Quarry 3: 1.7 km SE of CH study area

ᓄᓇᕈᐅᐸ ᐃᓕᐅᖃᕈᐅᓂᖓ ᓄᓇᓕᓪᓗ ᐊᐃᑦᑐᖃᓕᐅᓂᖓᓄᑦ ᐃᑲᔪᕈᐅᔪᓐᓇᖃᖅᑐᑦ

ᓄᓇᕈᑎᔨᖅ	ᐊᑎᑦ	ᑲᑐᔾᔨᐊᖃᖅᑎᑎᑎᔨᖅ	ᖃᓄᖅ ᑐᑭᓯᒪᓕᐅᓕᐅᓇᐊᖏᓐᓂᖅ
ᐊᐅᓚᑦᑐᖅ	Amon Akeeagok	Iviq Hunters and Trappers' Organization	2024-05-27
ᐊᐅᓚᑦᑐᖅ	Meeka Kigukta, Mayor	Hamlet of Grise Fiord	2024-05-27
ᖃᐅᓚᑦᑐᖅ ᑭᖓᔪᑦ	Aziz, Mayor	Hamlet of Resolute Bay	2024-06-18
ᖃᐅᓚᑦᑐᖅ ᑭᖓᔪᑦ	Nancy	Resolute Bay Hunters and Trappers' Organization	2024-06-18

ᓀᐃᓴᓯᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᖅᑕᐅᓯᒪᔪᑦ

ᓇᒃᑎᐊᓐᑭᓂᓂᒃ ᐱᓕᓇᐊᓇᖅᓴᐃᐅᓂᐊᖅᑐᑦ ᑎᑎᕀᓚᑦ:

ᓀᐃᓴᓯᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᖅᑕᐅᓯᒪᔪᑦ

ᑲᕿᒪᑎᐅᐅᔨᑉ ᐊᐃᒃᑐᖅᓯᒪᔪᓂᓂ ᒪᓕᑲᕀᓇᒐᓂᒃ ᐱᕀᑯᓂᒃᑐᑦ ᐅᓇᓱᒋᑦ ᑲᑎᒪᔨᓕᕆᔨᒃᑯᑦ ᐱᓕᕆᔨᓇᓕᕆᔨᒃᑯᑦ ᐊᓐᑭᖅᑕᐅᔪᕀᓚᓂᓂᑦ	ᖃᓄᐃᑦᑐᓕᓇᐅᕗᑦ ᓀᐃᓴᓯᑕᐅᔪᖅᑐᑦ ᐱᔪᓐᓇᐅᑎᑕᐅᔪᖅᑐᑦ ᐊᓐᑭᖅᑕᐅᔪᕀᓚᓂᓂᑦ	ᐃᓐᓇ ᖃᓄᐃᓕᓴᐅᓂᒃ	ᐅᑦᓗᒥ ᑐᓂᔨᖅ/ ᑐᓵᔪᖅᑐᑎᒃᓴᐅᓕᐅᖅᑎᓕᔨᖅ	ᑭᒡᓕᖃᖏᓐᓂᒃ
ᓄᓇᕗᒻ ᖃᐅᔨᓴᖅᑐᑕᓕᕆᔨᒃᑯᑦ	Research Permit	Not Yet Applied		
Indigenous and Northern Affairs Canada	Land Use Permit	Not Yet Applied		
ᓄᓇᕗᑦ ᓴᖅᓯᒪᓂᒃ, ᓴᖅᓯᒪᓕᕆᔨᑦ	Land Use Permit- to be confirmed if required.	Not Yet Applied		
ᖃᓇᑕᒥ ᐃᖃᓗᓕᕆᔨᑦ ᑕᕆᐅᓕᕆᔨᓪᓗ	License to Fish for Scientific Purposes	Not Yet Applied		
ᓄᓇᕗᑦ ᓴᖅᓯᒪᓂᒃ, ᐊᖅᑎᓕᕆᔨᒃᑯᑦ	Wildlife Research Permit	Not Yet Applied		
ᓄᓇᕗᑦ ᓴᖅᓯᒪᓂᒃ, ᐊᖅᑎᓕᕆᔨᒃᑯᑦ	Vegetation (wildlife) export permit. (Local conservation officer)	Not Yet Applied		
Government of Nunavut, Department of Culture, Language, Elders, and Youth	Class 2 Permit	Not Yet Applied		
ᓄᓇᕗᒻ ᐃᒪᓕᕆᔨᑦ ᖃᑎᒌᓐᓂᑦ	Type B water license - to be confirmed if required	Not Yet Applied		

Project transportation types

Transportation Type	ᓯᓇᒧᑦ ᐊᑐᓚᐅᔪᓂᐊᖅᐸ	Length of Use
Air	field crews will travel to the project area by plane from Vancouver	
Land	field crews will travel by foot or local truck within the communities	

Project accomodation types

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ᐱᕐᓂᑦ ᐊᖏᕆᕙᖅ ᐊᑐᖅᑕᐅᓂᐅᓴᕆᖅ ᐃᓕᖅᓱᐅᑎᓗᓂᑦ ᐃᓱᒋᑕᐃᑦ, ᒥᓪᓗᐊᑭᑎᑦ, ᖃᖅᓴᑕᓱᖅ, ᓄᓇᓱᐅᑦ ᐊᓱᖏᓪᓗ

ᐊᖏᕆᕙᖅ ᐱᕐᓂᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᖃᓄᐅᔾᔨᒋᐊᕐᓂᖅ	ᖃᑦᓱᐅᓕᕐᓂᑦ	ᐊᖏᕆᓂᖏᓐᓂᑦ - ᓴᖅᑐᓂᖏᓐᓂᑦ	ᓱᓇᒧᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᓂ
rov	1	NA	Subtidal fish and fish habitat assessment
Depth Sounder	1	NA	depth monitoring during subtidal fish and fish habitat, water quality and sediment quality assessments
CTD	1	NA	water quality sampling
Niskin Sampler	1	NA	1.5L niskin bottles deployed from a boat to collect water quality samples
vibrecore	1	NA	subtidal sediment collection
Ponar	1	NA	sediment collection.
SCUBA equipment	2	NA	in the event that vibrecore or ponar sampling are not successful, SCUBA diving will be undertaken by a team of two divers to collect sediment samples using hand cores
Drogue	1	NA	collection of surface current data
Track Mounted Rotary Drill	1	5 ton	geotechnical subsurface drilling at the quarry and community harbour footprint
excavator	1	NA	temporary shoreline excavation for test pits
geomatics geode	1	NA	geophysical survey
geophones	1	NA	geophysical survey
firing rod and 8 gauge shotgun shells	1	NA	geophysical survey
UAV	1	NA	topographic aerial survey
multi-beam sonar	1	NA	bathymetric survey
ATV	2	NA	transportation of personnel
pickup truck	2	NA	transportation of personnel
boat	2	NA	marine access for subtidal fish and fish habitat assessment, geophysical survey, bathymetric survey, water and sediment quality sampling, drogue deployment and recovery
front end loader	1	NA	geotechnical drilling

			program

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ᓯᓀᒪᑦ ᐅᖅᓯᖏᓪᓕᐊᖅ ᐊᑐᐃᓐᓇᖅᑐᑦ	ᖃᓄᐃᑦᑐᓪᓚᕆᐅᕙᓪ ᐅᖅᓯᖏᓪᓕᐊᖅ	ᖃᓄᑦᓯᐅᕙᓪᑦ ᐅᖅᓯᖏᓪᓕᖃᐅᑎᑦ	ᐃᓕᓴᕐᓂᐊᕐᓂᖅ ᐃᒪᖃᖅᑎᑎᑦᓯᓂᖅᓱᒃ	ᖃᑎᒌᓚᒍ	ᐅᓂᒃᓚᐅᖅ ᐊᒥᓱᓂᖅᑎᑦ	ᓯᓀᒪᑦ ᐊᑐᐊᐅᓂᐊᖅᐸᖅ
Gasoline	fuel	1	200	200	Liters	mobile equipment, generators, heaters
Diesel	fuel	1	10000	10000	Liters	drill rig and excavator for Geotechnical Study
Ethanol	hazardous	1	1	1	Liters	sample preservation for water, sediment and benthic invertebrate samples
Formalin	hazardous	1	1	1	Liters	sample preservation for benthic invertebrate samples
Poly Plus	hazardous	100	9	900	Kg	drill rig
Hydraulic Oil	hazardous	18	20	360	Liters	drill rig
10/40 Oil	hazardous	32	4	128	Liters	drill rig
Gun Grease	hazardous	96	1	96	Liters	drill rig
methyl Hydrate	hazardous	40	1	40	Liters	drill rig
Transmission Fluid	hazardous	10	4	40	Liters	drill rig
80/90 gear oil	hazardous	30	4	120	Liters	drill rig
Antifreeze	hazardous	40	4	160	Liters	drill rig

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ᐅᓪᓗ ᑕᒪᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ	ᖃᓄᓂᖅ ᐃᒥᖅᑕᖃᖅᑕᕐᓂᐊᖅᐸᑦ	ᓇᑭᑦ ᐃᒥᖅᑕᖃᖅᑕᕐᓂᐊᖅᐸᑦ
3	pumped by contractor	terrestrial boreholes will require freshwater for drilling. freshwater source will be determined in consultation with the respective communities

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ᐱᓕᓚᐊᓚᐅᐅᔪᒪᔪᒍᑦ ᐱᓕᓚᐊᓚᐅᐅᓂᐊᖅᑐᖅ	ᖃᓄᐃᓪᑐᖅ ᐊᑲᑕᑯᖅ	ᖃᓄᑎᒋ ᐊᑲᑕᑯᑦ ᓴᖅᑭᐊᓂᐊᖅᑐᓚᓚᐅᐅᓄᑦ	ᖃᓄᓄᖅ ᐊᑲᑕᖅᑕᐅᓂᐊᖅᐸ	ᓴᓗᒪᓕᖅᓴᐅᑎᑦᓴᑲᖅᓂᐅᐅᓂᐊᖅᑐᑦ
Scientific/International Polar Year Research	ᐊᑲᑕᑯᑦ ᐃᑯᐊᓪᑕᐅᐅᔪᓐᓇᕆᑦᑐᑦ	limited amount (no bulk waste)	a ‘pack in, pack out’ policy	none required
Scientific/International Polar Year Research	ᖃᑯᖅᑕᓪᓕᓂᖅ	limited/ regular amount	use existing facilities.	none required

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Environmental impacts associated with the field programs are expected to be minimal. Potential impacts to terrestrial and marine habitat and wildlife may occur, however, all personnel will be accompanied by a local field assistant to confirm minimal disturbances. Minor disruptions to traditional land use may occur in the proposed study area, however, arrival of the research team will be advertised on local social media prior to arrival. There may be temporary sediment suspension in marine habitats due to grab sampling but the footprint of this activity is small and sediment disturbance will be minimal. Disturbance to heritage resources is possible, but unlikely. Measure to mitigate impacts are described in the Class 2 archaeological permit which was submitted to the C&H department. There will be an increase in anthropogenic presence in the Study Area but the research team is relatively small and are conducting non-invasive short term studies. Please see attached application letter Table 10-1.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

N/A

SECTION D2: Facility Construction

N/A

SECTION D3: Facility Operation

N/A

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

There will be a small vessel used for fish habitat, water quality, sediment quality, drogue, and bathymetric surveys.

SECTION H2: Disposal At Sea

N/A

SECTION I1: Municipal Development

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Baseline studies of the physical environment were conducted in 2019 and will be conducted as a component of this field program. This will include surveys of the marine (subtidal and intertidal) and terrestrial habitats within the Study Areas.

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Baseline studies of the biological environment were conducted in 2019 and will be conducted as a component of the field program.

ᐃᓕᓴ ᐊᐸᑎᐅᐸ ᖃᓄᐃᑦᑐᓕᕆᐅᓂᖏᓐ: ᐃᓄᓕᕆᓂᖅᓯᒋᐊᑦ-ᐱᐸᑦᑕᐊᔪᑕᕆᓂᖅᓯᒋᐊᑦ

Consultation programs have been ongoing since the feasibility stage of the project. Consultation program will be undertaken in each community prior to arrival of the field team to confirm local support and gather traditional knowledge to support the baseline assessments.

Miscellaneous Project Information

N/A

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Potential impacts to terrestrial and marine habitat and wildlife may occur, however, all personnel will be accompanied by a local field assistant to confirm minimal disturbances. Minor disruptions to traditional land use may occur in the proposed study area, however, arrival of the research team will be advertised on local social media prior to arrival. There may be temporary sediment suspension in marine habitats due to grab sampling but the footprint of this activity is small and sediment disturbance will be minimal. Disturbance to heritage resources is possible, but unlikely. Measure to mitigate impacts are described in the Class 2 archaeological permit which was submitted to the C&H department. There will be an increase in anthropogenic presence in the Study Area but the research team is relatively small and are conducting non-invasive short term studies. See Table 10-1 in application letter.

Cumulative Effects

Limited cumulative effects are anticipated, as most project components have mitigation measures in place that will limit impacts.

Impacts

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	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
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Scientific/International Polar Year Research		-	-	-	-	M	-	-	-	-	-	-	M		M	M	-	M	-		M	P	-	P	-
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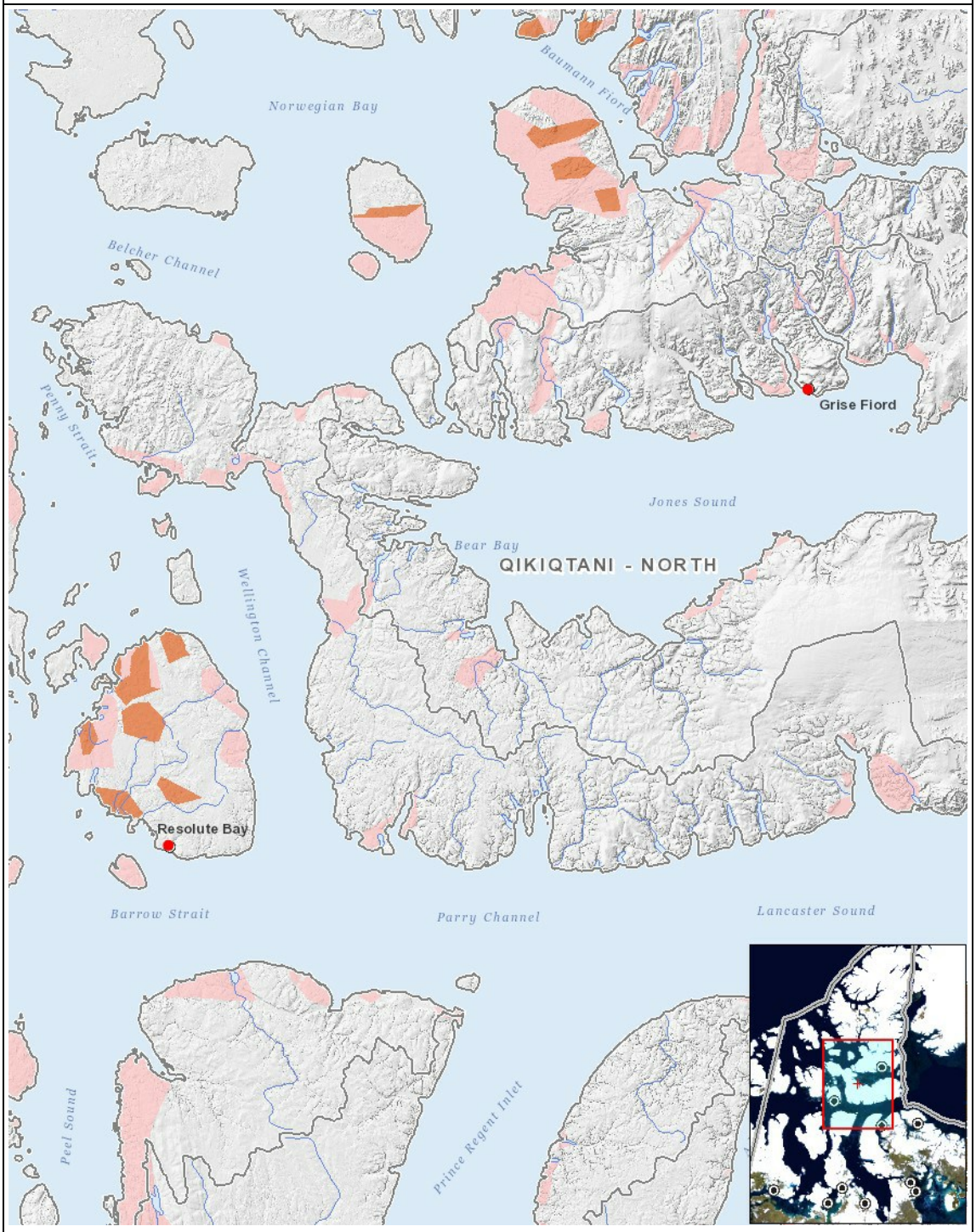
(P = ᐊᑲᐅᓴᑭᑎᔾᓇᖅᑐᑦ, N = ᐊᑲᐅᖏᑦᔾᔪᑕᐅᔾᓇᖅᑐᑦ ᕿᓪᐅᒥᔾᔪᔭᖅᑐᑦᑕᐅᔾᓇᖏᑦᑐᓪᓗ, M = ᐊᑲᐅᖏᑦᔾᔪᑕᐅᔾᓇᖅᑐᑦ ᕿᓪᐅᒥᔾᔪᔭᖅᑐᑦᑕᐅᔾᓇᖅᑐᓪᓗ, U = ᖃᐅᐊᒪᓇᖏᑦᑐᖅ)

ᓇᒋᒪᖏᓗᖅ ᐱᓕᕆᐊᕆᔨᐅᔪᖅ



List of Project Geometries

1 point	General location for Grise Fiord, located on the southern shore of Ellesmere Island in Jones Sound.
2 point	General location for Resolute Bay, located on the south shore of Conwallis Island in Parry Channel.