GUIDANCE DOCUMENT
LAND USE PERMIT APPLICATION

State of Alaska
Department of Natural Resources, Division of Oil & Gas
550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563
Phone: 907-269-8800 Fax: 907-269-8943
Permitting Email: dog.permitting@alaska.gov

Land Use Permit Application Package includes the following items:

- A Land Use Permit application form completed and signed by the applicant.

- Applicants proposing the use of tide and submerged lands must also complete the Supplemental Questionnaire for Use of Marine Waters accompanying this application.
  Figures are required in the Supplemental Questionnaire for Use of Uplands and/or Non-Marine Waters as well as the Supplemental Questionnaire for Use of Marine Waters and should show each item labeled so that it corresponds with your description in the Questionnaire. The figures must include:

  - **Location** - Section, Township, and Range lines; North arrow; scale; title; legend (may be attached).
  - **Boundaries** – Boundaries and dimensions of proposed area of use and their relation to geographic features, including water bodies, and existing trails or rights-of-way.
  - **Structures and Storage** - Location and dimensions of buildings, tent platforms, out-buildings and other improvements, and of equipment parking and storage areas, including snow storage areas.
  - **Hazardous substances** – Location and dimensions of storage facilities for hazardous substances, including but not limited to oil, lubricants, fuel oil, gasoline, solvents, and diesel fuel. Include method and dimensions of storage (tank, drum, etc.).

- Other items that must accompany the application package are:
  - **Map** - a topographic map of sufficient scale to show the location of the proposed activity. The map may be either 1:250,000 or 1:63,360.
  - **Filing Fees** - A non-refundable filing fee is required by regulation (11 AAC 05.180(d)(1)(C)). See the current Director's Fee Order for applicable fees. Make checks payable to the "State of Alaska Department of Natural Resources".
  - **Other Miscellaneous Items:** Items specifically identified and required in any of the supplemental questionnaires.

Pre-Permit Issuance Requirements: Prior to issuance of a permit, an applicant is required to submit one or more of the following:

Use Fees - The use fee depends on the type of activity, length of use and the acreage authorized for use. See the current Director's Fee Order for applicable fees.

Performance Guaranty (Bond) - A performance guaranty is held by the state to assure performance and to pay for corrective action if the use of state land fails to comply with the requirements of the permit. The Division of Oil and Gas uses a bonding matrix to determine the amount of a performance guaranty. Acceptable types of performance guaranties include:

a. cash or check made out to the State of Alaska;
b. a Certificate of Deposit (CD) in the state's name; or
c. a corporate surety bond.

Insurance - Insurance to protect you and the state from liabilities incurred through the use of state property.

Survey - Surveys are generally not required for land use permits. Some authorizations may require a Global Positioning System (GPS) to determine the location of the project.

If you have any questions prior to submitting your application, you are encouraged to meet with a member of the Division of Oil & Gas staff about your proposed activity. Completed applications should be emailed to the Division of Oil & Gas Permitting Section at dog.permitting@alaska.gov.

ONLY COMPLETE APPLICATIONS WILL BE ACCEPTED

LAND USE PERMIT APPLICATION

State of Alaska
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550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563
Phone: 907-269-8800 Fax: 907-269-8943
Permitting Email: dog.permitting@alaska.gov

SECTION I: APPLICANT INFORMATION	
1. Applicant:	**2. Applicant Contact:**
Name: Narwhal Exploration, LLC Mailing Address: 406 W Fireweed Lane, Suite 100 City: Anchorage State: AK Zip Code: 99503 Phone: 907-992-2450. Fax: Email: shawn@narwhalexploration.com	First Name: Shawn Last Name: Gelsinger Title: Chief Operating Officer *Is the Mailing Address the same as Applicant's Mailing Address?* ☑Yes *If "No", please provide information below:* Mailing Address: City: State: Zip Code: Phone: 907-229-3539 Fax: Email: shawn@narwhalexploration.com
SECTION II: THIRD PARTY INFORMATION (Fill out this section only if you are applying for the Applicant)	**SECTION III: APPLICATION DATE AND NUMBER** (FOR DIVISION USE ONLY)
Third Party Company Name: First Name: Last Name: Title: Mailing Address: City: State: Zip Code: Phone: Fax: Email: Describe the affiliation to the Applicant:	Application Date: Application Number:

SECTION IV: PROJECT INFORMATION	
1. Project Name:	Narwhal Exploration West Harrison Bay Campaign
2. Proposed Duration:	The proposed activity will require the use of state land for: (**Check one)** ☑a single term of less than one year. Starting Date: August 1,2025 Ending Date December 31, 2025 ☐a multi year term for up to 5 years. Starting Date:. Ending Date If multi year and seasonal check months of use in each year: ☑Aug ☑Sept ☑Oct ☑Nov ☑ Dec

3. Project Location:

Project Components	Meridian, Township, Range, And Section(s)	GPS Coordinates
Barge Location Option	Umiat, 14 North, 1 West, Section 15, 16	

Kogru River Airstrip	Umiat, 14 North, 1 West, Section 7, 18	
Sea Ice Road/Trail 1	See Project Location Figure with MTRS Data attached	

Proposed project will require the use of less than 0.25 acres of the BLM-managed Kogru River shoreline. Activities will occur within the NPR-A or BLM-managed Kogru River. This information is being provided as a courtesy to ADNR.

4. Project Description:

A. Describe in detail your intended use of state land. (State land also includes all tide and submerged lands beneath coastal waters and all shorelands beneath other navigable water bodies of the state.) Discuss development and activities.

See attached project description.

B. Should a portion of the permitted area be closed to the general public? Yes☑. No☐. If yes explain which portion and provide justification for exclusive use:

All portions of the permitted area should be closed to the general public due to potential safety and liability risks.

C. Briefly describe the current condition of the proposed site of use, noting any known garbage, debris or signs of possible site contamination (If significant, we recommend you provide pictures to establish initial conditions):

Existing conditions at the project site include estuarine and marine deepwater habitat with tundra and other wetlands in the vicinity. No known trash, garbage, debris, contamination, or damage indicators are present on state land.

D. Are there improvements or materials on the site now? Yes☑. No☐. If yes, briefly describe the improvements, their approximate value, and who owns them (We recommend you provide pictures of improvements):

The BLM-managed Kogru River Airstrip is a gravel airstrip that is no longer actively maintained.

E. Describe the natural vegetation --- ground cover, trees, shrubs --- and any proposed changes. Describe the location of any estuarine, riparian, or wetlands and any noticeable animal use of area.

The project area includes the BLM-managed Kogru River and its estuarine and riparian habitat. Other wetlands and tundra are in the vicinity. Animal use of the area could include polar bears, brown bears, caribou, wolves, fox, and other medium and small sized mammals. Ringed, bearded and spotted seals, and bowhead whales could be in the area. Several species of migratory birds and fish are also in the area.

F. Describe how you plan to access the site and your mode of transportation.

The site can be accessed in the summer via vessels and barges traveling from West Dock to Kogru River or via helicopter.

5. Environmental Risks / Hazardous Substances

In the course of your proposed activity will you generate, use, store, transport, dispose of, or otherwise come in contact with toxic and/or hazardous materials, and/or hydrocarbons? Yes☑. No☐. If yes, please describe below:

A. The types and volumes of fuel or other hazardous substances present or proposed:

Barges on the BLM-managed Kogru River could contain up to 150,000 gallons of ultra-low sulfur diesel in approximately seven to ten 9,800 to 25,000 gallon tanks and/or fuel trucks located on the barge deck or in-hull tanks. Approximately 9,800 to 10,000 gallons of gasoline will also be on deck. Alternatively, up to 150,000 gallons of ultra-low sulfur diesel and 9,800 to10,000 gallons of gasoline could be stored on BLM land at the Kogru River Airstrip. Approximately eight 55-gallon drums of jet fuel for helicopter resupply will be stored on BLM land at the Kogru River Airstrip to support summer activities.

B. The specific storage location(s):

Tanks will be located on a barge(s) on the BLM-managed Kogru River and/or on BLM land at the Kogru River Airstrip.

C. The spill plan and prevention methods:

Spill prevention procedures will include standard practices such as fuel transfer procedures. All spills, no matter what the size, will be recorded and cleaned up as required per Alaska Regulation 18 AAC 75.434.

Any barges staged on the BLM-managed Kogru River will have tanks located in a secondary containment structure with a capacity of 110 percent of the volume of the single largest tank, plus additional capacity for precipitation. Tank inspections will occur per 40 CFR 112. Drums will be located on spill containment pallets.

All employees and contractors will receive spill prevention training. Fuel transfers will be operations which are specifically planned and available tank capacity verified prior to initiation of transfer. Secondary containment will be used at all connections. When natural light is insufficient, lighting will be provided during any fuel transfer operations.

SECTION V: PERFORMANCE GUARANTY

Bonded Company: To Be Determined.

Type: Number: Amount:

Bonding Company:

Mailing Address:

City: State: Zip Code:

Phone: Fax: Email:

SECTION VI: INSURANCE		
Comprehensive General Liability Insurance:		
Amount of Insurance: To Be Determined.		
Insurer Name:		
Mailing Address:		
City:	State:	Zip Code: .
Phone:	Fax:	Email:

SECTION VII: GLOSSARY OF TERMS		
Is a Supplemental Questionnaire included in Appendix B?	☑Yes	☐ No

Term #	Term	Term Definition
1.	Narwhal	Narwhal Exploration, LLC

APPENDIX A: MAPS

MTRS Project Location Data

APPENDIX B: OTHER

Environmental Risk Questionnaire
Supplemental Questionnaire for use of Marine Waters
Off Road Travel
Project Description

Project Description

Narwhal Exploration West Harrison Bay Campaign

Prepared for:

Narwhal Exploration, LLC

July 2025

BOREAL

Project Description

Narwhal Exploration West Harrison Bay Campaign

Prepared for:

Narwhal Exploration, LLC

406 West Fireweed Lane
Suite 100
Anchorage, AK 99503

Prepared by:

Boreal Environmental Services

4300 B Street, Suite 510
Anchorage, AK 99503

TABLE OF CONTENTS

TABLES

APPENDICES

ABBREVIATIONS

ADNR	Alaska Department of Natural Resources
BLM	Bureau of Land Management
CWAT	Community Winter Access Trail
Narwhal	Narwhal Exploration, LLC
NPR-A	National Petroleum Reserve- Alaska
ROW	Right-of-Way
SPCC	Spill Prevention Countermeasure Control
WHB	West Harrison Bay

1.0 INTRODUCTION

The Narwhal Exploration West Harrison Bay Campaign is located in West Harrison Bay (WHB) in the Beaufort Sea, Alaska (See Figure 1 in Appendix A). A coastal sea ice trail or a spur off of the Community Winter Access Trail (CWAT) is expected to enable access to the Project area, a portion of which is within the National Petroleum Reserve-Alaska (NPR-A). Appendix A includes the MTRS project location data.

Preliminary field activities will be conducted in summer 2025 to support project permitting, planning, and engineering for the proposed winter drilling program in 2026. Planned summer activities include lake and archaeological surveys, offshore studies (side scan sonar, sub-bottom profiling, and sediment sampling), installing thermistor and survey monuments.

Equipment may also be advance staged in the Project area during August and September 2025 to support future winter operations. Advance staging will enable ice construction activities to commence in WHB while the coastal sea ice trail or CWAT spur is being constructed. The summer program may extend into October, if necessary, and if open-water conditions persist. Table 1 presents the estimated and duration of project activities.

Advance staging activities will occur within federally-managed areas (within NPR-A or the Kogru River extending to Eskimo Islands). Narwhal is providing the information to ADNR as a courtesy.

Table 1. Estimated Timing and Duration for Project Activities

Activity	Estimated Start Date	Duration	Estimated End Date
Offshore Studies (side scan sonar, sub-bottom profiling, and sediment sampling)	1-Aug-2025	45	30-Sep-2025
Offshore archaeological clearance	1-Aug-2025	14	15-Aug-2025
Onshore archaeological clearance	1-Aug-2025	14	15-Aug-2025
Onshore freshwater lake surveys	1-Aug-2025	14	15-Aug-2025
Installation, survey and verification of thermistors and monuments	1-Aug-2025	45	30-Sep-2025
Optional advance staging of equipment and materials in WHB area on the existing Kogru Airstrip (preferred option, subject to access)	15-Aug-2025	30	30-Sep-2025
Optional advance staging of equipment & materials in WHB area on barges	15-Aug-2025	30	30-Sep-2025
Two personnel to monitor staged equipment with weekly helicopter support	15-Sep-2025	76	30-Nov-2025
Pre-packing of ice trails/roads	1-Nov-2025	61	31-Dec-2025

Primary regulatory authorization requirements for the summer activities are listed in Table 2.

Table 2. Summer Activities Permits and Authorizations

Agency	Authorizations and Approvals
Federal Authorities	
Bureau of Land Management (BLM)	Right-of-Way (ROW)
	Threatened and Endangered Species Determination
	Essential Fish Habitat Assessment
	Required Operating Procedures Plans Concurrence on Archaeological and Cultural Resources Clearance Determination
US Fish & Wildlife Service	Incidental Harassment Authorization (polar bears and walrus) Concurrence on BLM Threatened and Endangered Species Determination
National Marine Fisheries Service	Incidental Harassment Authorization (Seals and Whales)
	Concurrence on BLM Threatened and Endangered Species Determination
US Coast Guard	Facility Response Plan
US Environmental Protection Agency	Facility Response Plan
	Spill Prevention, Control, and Countermeasure Plan
State Authorities	
Alaska Department of Natural Resources (ADNR) Division of Oil and Gas	Land Use Permit
ADNR Office of History and Archaeology	Archaeological and Cultural Resources Clearance
Alaska Department of Fish & Game	Public Safety Permit
Local Government Authorities	
North Slope Borough	Summer Studies Administrative Approval
	Advance Staging Development Permit

2.0 SUMMER OPERATIONS

2.1 ARCHAEOLOGICAL, HISTORICAL AND CULTURAL RESOURCES CLEARANCE

Federal, state, and local laws require protection of cultural and historical resources and consultation with Native communities prior to and during exploration and development activities. Cultural resources include both historic and prehistoric archaeological sites, historic structures, archaeological or historic districts, and traditional land use sites. In the case of remote, relatively unexplored areas like the North Slope, a reconnaissance level archaeological survey prior to exploration or development to identify and protect previously unknown cultural resources is required. "Clearance" is achieved through desktop studies and an in-person site visit(s) to identify potential historical or cultural resources to avoid during project activities. Both onshore and offshore areas in the vicinity of WHB will be surveyed for cultural and historical resources in the summer of 2025. Access during this work will be by helicopter and marine vessel. Narwhal may stage approximately 440 gallons of jet fuel with secondary containment at the Kogru Airstrip to support the helicopter operations for this work.

2.2 ONSHORE FRESHWATER LAKE SURVEYS

Narwhal will investigate onshore lakes in the WHB vicinity for available freshwater to support ice pads and ice road construction as well as for camp use and drilling fluid make up. Larger lakes shown in Figure 2-1 in Appendix A are the most likely freshwater sources to be surveyed. These lakes have been preliminarily identified to have sufficient volume to supply water for ice road and ice pad construction. Additional lakes may be surveyed pending the initial lake survey results for adequate quantities of liquid water and ice chips. Helicopter transportation will enable deployment of a zodiac type or other portable vessel to assess fish presence and collect bathymetric and water quality data. Lake volume calculations will be made from bathymetric data and field water quality analysis will include total chlorides, pH, dissolved oxygen, turbidity, and other parameters to be determined. A professional surveyor will establish survey monuments for the project components. This study scope is expected to be completed in the summer of 2025.

2.3 THERMISTOR SURVEY MONUMENTS INSTALLATION AND PRE-PACKING ACTIVITY

Thermistors may be installed along the tundra access routes including the optional CWAT and from the sea ice to selected WHB area source water lakes to monitor soil temperatures during freeze up in October, November, and December of 2025. Data from the thermistors will be reviewed in December 2025 to confirm that soil temperatures are acceptable to support tundra travel to access source lakes for water withdrawal for use in ice construction and camp water needs. Thermistor and installation of survey monuments is expected to occur in the summer of 2025.

Pre-packing activities will begin November 1, 2025 or as soon as conditions allow and extend through December 31, 2025. Pre-packing of ice roads/trails will include compressing existing snow with snow machines and tundra travel-approved vehicles such as snow machines, rolligons, and smooth-tracked tuckers. Pre-packing will be performed in accordance with ADNR approvals.

2.4 OFFSHORE STUDIES

Beginning in August 2025, Narwhal proposes to conduct offshore studies (side scan sonar, sub-bottom profiling, and sediment sampling) at up to six locations from a single vessel (See Figure 1, Appendix A). The vessel will be mobilized out of West Dock in Prudhoe Bay or from Oliktok Point. Periodic resupply, logistics support, and personnel transfers are planned to originate from Oliktok Point with support

vessel(s) transiting to and from WHB. It is expected that one to two additional vessels will support all in-water work, offering crew berthing, expediting, and resupply operations, as needed.

2.5 OPTIONAL ADVANCE EQUIPMENT STAGING IN AUGUST AND SEPTEMBER 2025

Narwhal proposes to stage equipment during the 2025 open water season in advance of winter activities to reduce the total number of all-terrain vehicles trips and time required for mobilizing project equipment to WHB via the coastal sea ice trail or CWAT trail. Staging will include equipment for camp, ice construction, drilling rig, fuel, and other support equipment and materials. Advance staging allows expedited commencement of ice construction operations in WHB once sea ice conditions permit, which may result in the start of exploratory drilling up to 4 weeks earlier. Advance equipment staging would occur during mid-August and possibly through the end of the 2025 open-water season. The equipment list for advanced staging is provided in Table 3.

There are two options for advanced staging sites. The first option involves utilizing the existing gravel Kogru Airstrip (gravel option), which is located just north of the Kogru River. If Option 1 is used, a series of interlocking tundra mats would be placed on the tundra between the shoreline and the airstrip to avoid potential disturbance to the tundra while offloading freight from a barge to the gravel airstrip. Figure 2-2 in Appendix A shows the proposed staging of equipment and materials at the Kogru Airstrip. A fuel storage facility would consist of a lined containment area installed on the gravel airstrip with 6 to 8 certified fuel tanks with a total capacity of up to 150,000 gallons.

Miscellaneous equipment items may include the following: hand tools, power tools, portable generator and extension cables, heavy equipment parts, light plants, fuel and water transfer houses, trash pumps, liner materials, plywood, empty totes/drums, and ladders.

The second option is to place anchored barges (barge option) in a protected location within WHB. Protected locations for the barge option have been identified in the Kogru River and on the south side of the Eskimo Islands, generally in shallow waters of 5 feet or less depth. Up to eight empty barges (76 meters x 15 meters) and possibly camp barge and fuel barge will be towed to the staging location from Canada, anchored, and frozen in place during the fall of 2025. The barges will be maneuvered into a suitable location by a tug and four to six anchors will be set on the shoreward beach/sea bottom that will be connected to the barges by anchor lines to hold the barges fast to the shoreline. They will be lashed to each other in a rectangle arrangement to provide a continuous staging surface for the placement of equipment and materials. Additional anchors will also be placed at the open water end of the barges and then connected to the barges to complete the mooring arrangement. Final locations for placement of anchors will be subject to a mooring analysis that will ensure the barges are not moved off location by wind and ice movement during breakup. Figure 2-3 in Appendix A shows the proposed advance staging of equipment and materials on anchored barges.

Table 3. General Equipment List for Advance Staging

All-Terrain Vehicles	Quantity
Steiger or T-Bear ATV Haul Unit	4
Tucker Snow-Cats	2
Wheeled Vehicles	Quantity
Chip Hauler	4
Water Buffalo Truck (120 bbl)	4
Bed Truck	2
Rigging Box Truck	1
Pickup Trucks	3
Fuel Truck (2500 gal)	1
Cranes and Loaders	Quantity
Crane	1
Loader with Bucket and Forks	2
Grader	2
Dozer	1
Trailers – All-Terrain and Highway	Quantity
Tuck Sno-Cat Trailer	2
Trailers (Oilfield Floats)	6
Highway Lowboy	2
Camp Units	Quantity
8 Person Camp Wet Sleeper	4
26 Person Camp	1
10 Person Camp	1
Mechanic Shop	1
Truck Shop	1
Camp/Rig Support Equipment	Quantity
Wastewater Processing Module (1,000-2,500 gal)	2
Potable Water Processing Module (5,200 gal)	2
Potable Water Holding Tanks	2
Wastewater Holding Tanks	2
Generators (40-300 kW)	4
Heaters	8
Truck Shop	1
Bull Rail	4
Spill Conex	2
Spray Ice Pumping Unit	2
Fuel Tanks (9,800 to 25,000 gallons)	7 to 10
Miscellaneous Equipment Items	≈50
Drilling Rig Equipment	Quantity
Rig Components	≈40

Equipment and materials will be transported to the chosen staging location by tug and barge equipment from West Dock in Prudhoe Bay or Oliktok Point. It is estimated that a total of 5 to 10 barge trips would be required to advance stage equipment. See Figure 2-4 in Appendix A for the potential transit route for barges and staging area. A two-person caretaker crew will remain on site during and after the staging period from September 15 through November 30, 2025, to monitor the equipment and fuel, patrol the area, and collect basic metocean data. The crew will stay onsite in a small skid camp equipped with a generator, kitchen, bunks, shower, waterless toilet, and heat. Greywater will be held in a holding tank for future disposal or discharged to the surface under the Alaska Pollutant Discharge Elimination System General Permit. A skiff, snow machines, polar bear deterrence equipment, satellite phone or Starlink, and other emergency response equipment will be kept on site. One helicopter flight per week is expected to provide support to the caretaker crew.

2.6 FUEL SUPPLY, HANDLING AND STORAGE

Approximately 100,000 to 150,000 gallons of diesel fuel will be staged during this process and stored in a secure and self-contained facility on the deck of a staging barge or potentially in a fuel barge with interior fuel tanks. For both staging options, the facility will be monitored by on-site personnel during installation, loading, freeze-up period, and active use. Fuel stored on land will be housed inside an engineered containment facility that will meet state and federal regulatory requirements for temporary fuel storage facilities.

Narwhal will develop a site-specific Spill Prevention, Control and Countermeasure (SPCC) plan for fueling and fuel storage operations associated with the project. Spill notification protocol and response tactics will be described and documented in the SPCC Plan. Fuel will be ultra-low sulfur diesel, jet fuel, and gasoline for vehicles and equipment.

For any ship-to-ship transfers, fuel will only be transferred from one vessel to another in protected calm waters with both vessels anchored and tied together to minimize the potential for any spillage. The vessels will also deploy a containment boom prior to fueling and maintain enough sorbent materials to recover any diesel fuel that could potentially be discharged to the water during fuel transfer operations.

2.7 WASTE MANAGEMENT

Food waste and trash will be kept indoors or in secure containers and removed by helicopter on a weekly basis to minimize wildlife attractants. Solid waste and other waste types generated during the project will be managed in accordance with a comprehensive waste management program.

2.8 SUMMER CLEANUP

Following the end of advance staging activities, the remaining debris will be hauled to an approved disposal site.

Appendix A

Figures

Cape Halkett

West Harrison Bay

Beaufort Sea

Preferred Option Gravel Airstrip and Barge Staging Area

Kogru River

Oliktok Point

Colville River Delta

Access Option 1: Coastal Sea Ice Trail

Option 2: CWAT Spur Trail to Water Access Road 2

Pikka Unit Boundary

Nuiqsut

Legend:

- Pad Location (110-meter Radius)
- Sites to Be Surveyed
- Base Camp
- Potential Barge Advance Staging Area
- Oliktok Transfer Pad
- Drill Site Survey Area
- Pikka Unit Boundary
- National Petroleum Reserve Alaska
- BLM Alaska Native Allotment Conveyed Lands
- NSB Village Boundary
- Kuukpik Land Boundary
- Onshore Water Access Trail/Road
- Local Sea Ice Trail/Road
- Coastal Sea Ice Trail
- CWAT Spur Trail
- North 2025 CWAT Trail
- SHS Mobilization Route
- Federal-State Offshore Boundary

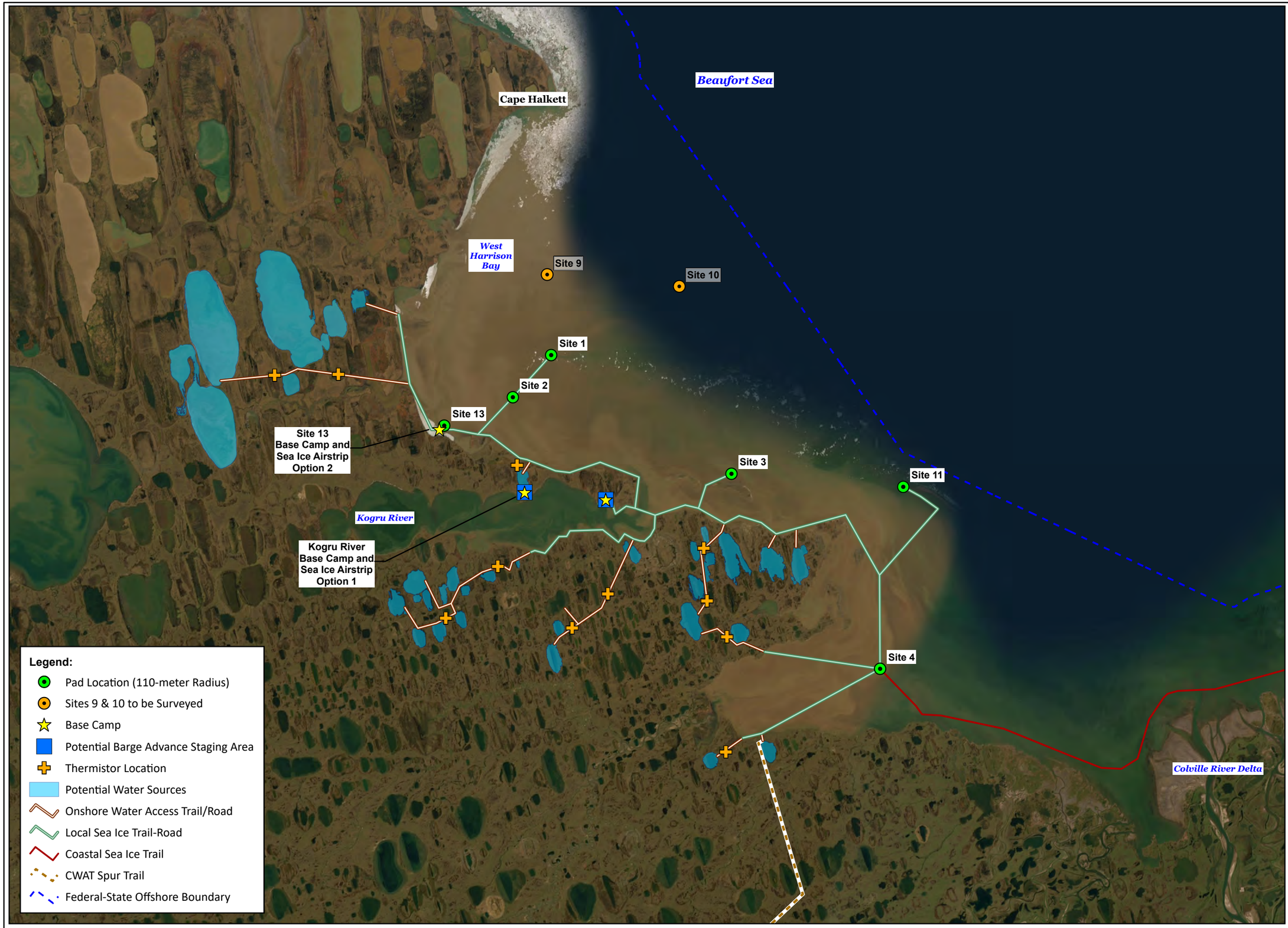
N

0 2 4 6 Mi

0 2 4 6 8 10 Km

NOTES:
1) All Drill Sites shown are proposed for 2026 work.
2) All offshore activities occur in less than 6-ft water depth.
3) Fresh water access roads dependent on summer 2025 lake surveys.

FIGURE 1



BOREAL

DRAWN BY:	FP
CHECKED BY:	JL/JH
PLOT SCALE:	Barscale
DATE OF PLOT:	26JUN2025
PROJECT NO:	1309-2501-200

PROJECT:

Narwhal Exploration
West Harrison Bay Campaign

N

0 1 2 3 4 Mi

0 2 4 6 Km

NAD83 UTM ZONE 5N
Map created with ESRI ArcGIS Pro v.3.5.2

SHEET CONTENTS:

Potential Freshwater Sources

FIGURE NO:

2-1

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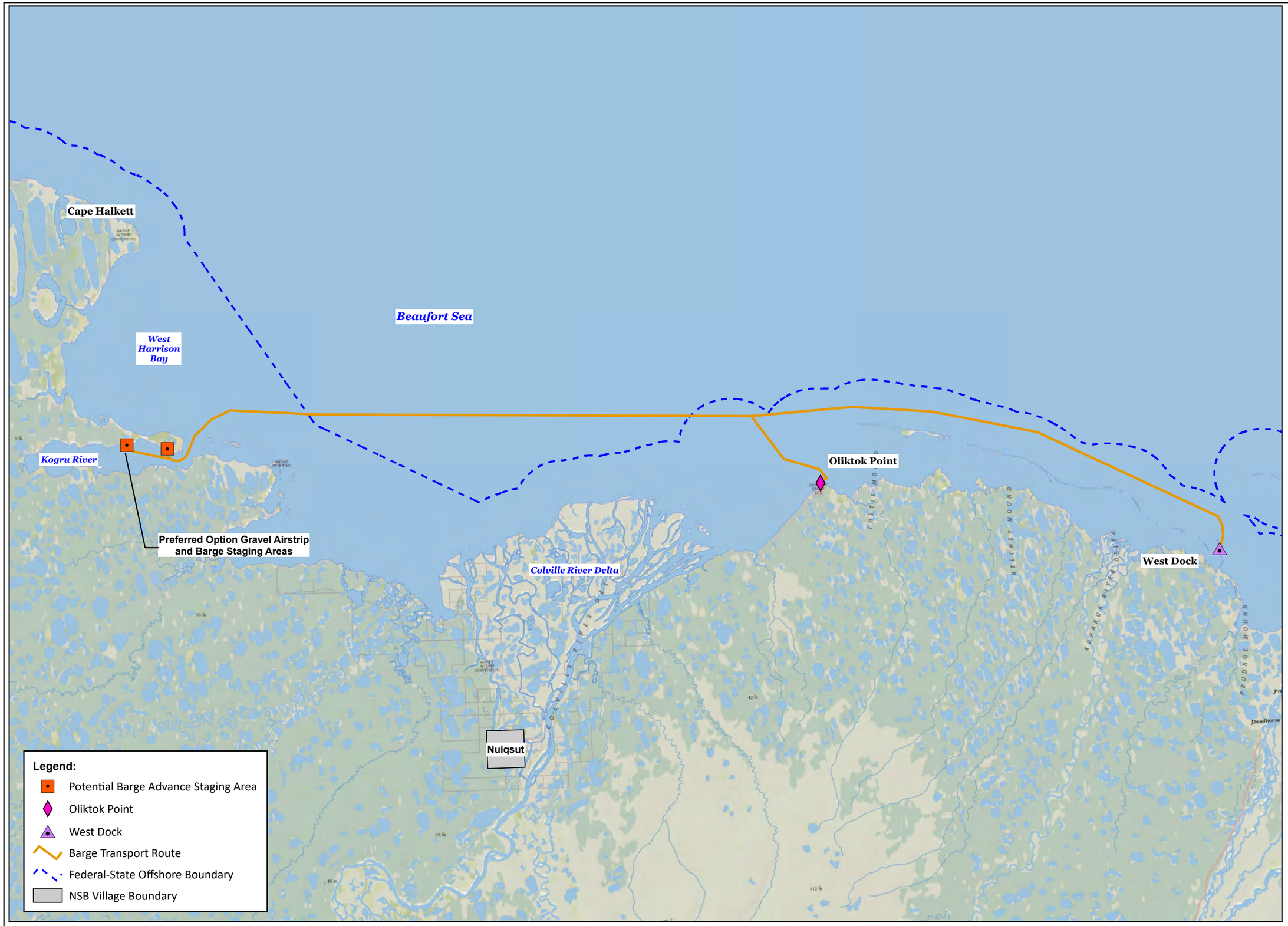
Location of Kogru Gravel Airstrip
WA 5
Kogru River
WA 4
WA 6
Legend:
Kogru River Gravel Airstrip
Matted Access to Beach
Advance Staged Construction Equipment, Materials & Fuel
Matted Access to Beach
Kogru Gravel Airstrip
Kogru River
0 50 100 150 m
0 125 250 500 ft

FIGURE 2-2


Location of Barge Staging Area
WA 5
Kogru River
WA 4
WA 6
Advance Barge Staging Area
Kogru River
N
0 20 40 60 80 100 m
0 100 200 300 ft

FIGURE 2-3



BOREAL

DRAWN BY:	FP
CHECKED BY:	JL/JH
PLOT SCALE:	Barscale
DATE OF PLOT:	26JUN2025
PROJECT NO:	1309-2501-200

PROJECT:

Narwhal Exploration
West Harrison Bay Campaign

0 2 4 6 8 10 Mi

0 2 4 6 8 10 12 14 16 Km

NAD83 UTM ZONE 5N
Map created with ESRI ArcGIS Pro v.3.5.2

SHEET CONTENTS:

Potential Advanced Staging Area

FIGURE NO:

2-4

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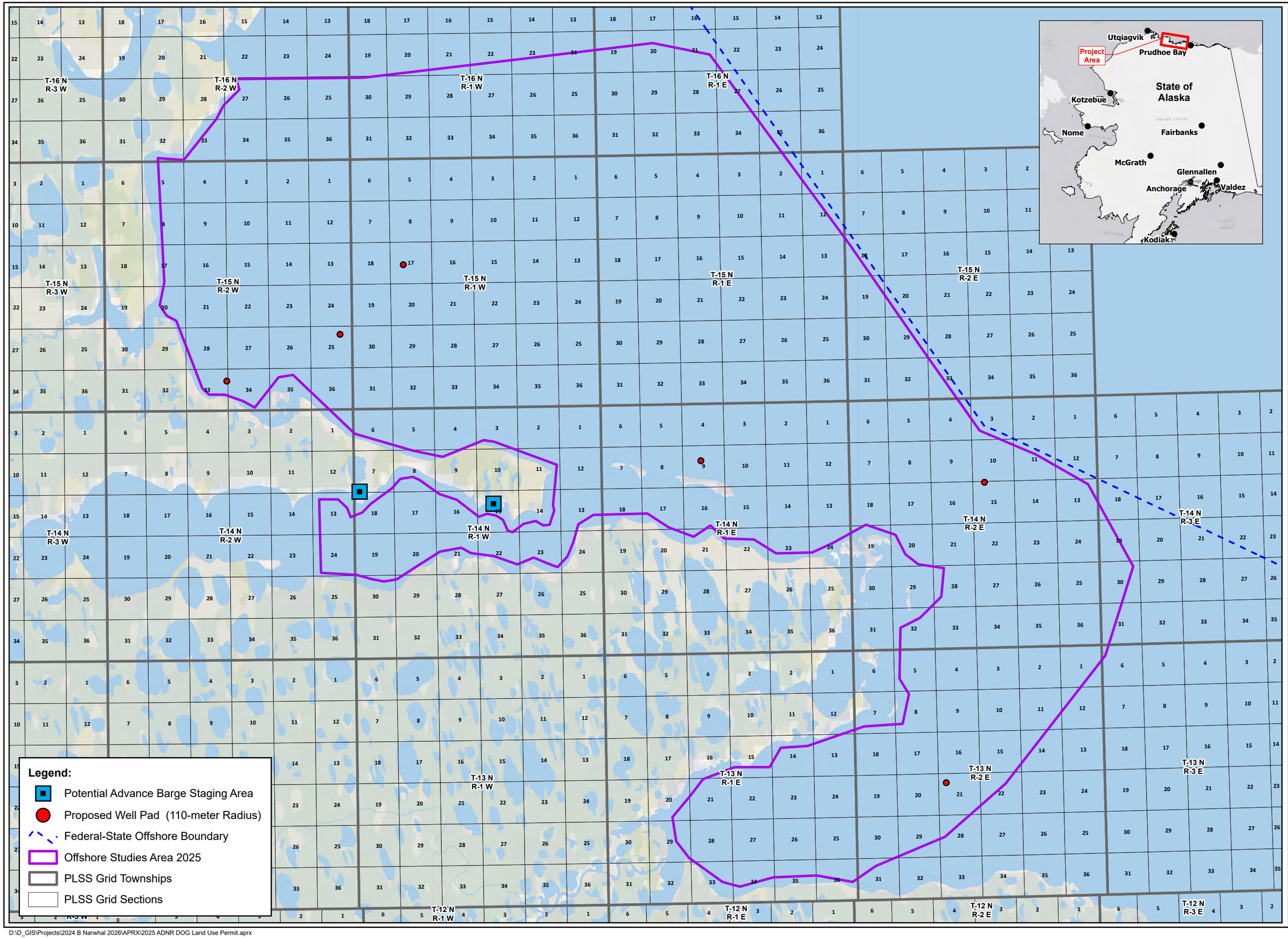


BOREAL

DRAWN BY:	FP
CHECKED BY:	JH/JL
PLOT SCALE:	Barscale
DATE OF PLOT:	25JUN2025
PROJECT NO:	1309-2501-200

PROJECT:

Narwhal Explorations
West Harrison Bay Campaign

N

0 1 2 3 mi
0 1 2 3 4 km

NAD 1983 UTM ZONE 5N
Map created with ESRI ArcGIS Pro v. 3.5.2

SHEET CONTENTS:

Project Location with MTRS Data

FIGURE NO:

D:\D_GIS\Projects\2024 B Narwhal 2026\APRX\2025 ADNR DOG Land Use Permit.aprx

LAND USE PERMIT APPLICATION SUPPLEMENTAL QUESTIONAIRE FOR USE OF MARINE WATERS

State of Alaska
Department of Natural Resources, Division of Oil & Gas
550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563
Phone: 907-269-8800 Fax: 907-269-8943
Permitting Email: dog.permitting@alaska.gov

Appendix B: Land Use Permit Application Supplemental Questionnaire for Use of Marine Waters (Tide & Submerged Lands)

Tidelands are that portion of the intertidal zone below the elevation of mean high water. This elevation varies by location. Contact the Division of Oil & Gas (Division) for assistance. Submerged lands are those below the lowest tidal elevation. The State of Alaska, with few exceptions, owns these lands out to 3 miles off shore. If your activity includes the use of State tide and or submerged lands and the waters above them, answer the questions below and those applicable sections determined below. All site development details identified in this section must be represented graphically in the scaled drawings on the last page of the supplement.

SECTION I: SUPPLEMENTAL INFORMATION

1. Land Ownership:

A. Does the applicant own the directly adjacent, upland water front property? Yes☐. No☑. If no, provide name(s) of property owner.

The property is owned by the United States federal government and managed by the Bureau of Land Management. Information in this application is provided as a courtesy to ADNR.

B. Will your tideland use also involve any use of adjacent State owned uplands? Yes☐. No☑. (If yes, indicate uses and show on your development plan diagram.) ☐ Shore tie ☐ Waterline ☐ Power line ☐ Access to roads ☐ Other Explain:

2. Type of Use, Activity, Development:

A. Will you be developing / using a Mooring Buoy system or anchoring a commercial or industrial use vessel for more than 14 days? Yes☑. No☐.

See project description.

B. Will you be placing non-occupied structures including but not limited to Piling, Dolphins, Fixed docks, Floating docks, or other floating structures? Yes☑. No.☐

3. Non occupied structures - Piling, Dolphins, fixed docks, floating docks, or other floating structures. Fill out all boxes that apply for structures located below MHW or enter N/A if you will not be utilizing that type of structure.

Type of Structure	Dimensions
Fixed pile-supported dock, wharf or landing (non-floating)	N/A
Ramp to floating dock	N/A
Boat haulout or non-floating ramp	N/A
Floating dock	N/A
Floating breakwater	N/A
Other floating structures (e.g., net pens, gear storage float)	Barges will be anchored per the attached project description.
Storage sheds or similar structures on docks	N/A
Bulkhead - type (log crib, sheet pile, etc)	N/A
Individual pilings not counted under fixed dock above.	N/A
Dolphins	N/A
Anchors	Barges will be anchored per the attached project description.
Rock Bolts	N/A

Shore Ties	N/A

A. What is the water depth beneath the floating structures at extreme low tide in feet? Enter N/A if not applicable.

Expected 2 to 6 feet.

4. Use that involves dredging, placing fill material or altering beaches.

NOTE: When altering the location of the line of mean high water on a beach by placing fill on or seaward of this line you need to be aware of the following. The line of mean high water (MHW) is the boundary where State (public) ownership of tide and submerged land begins.

A. Are you proposing to alter the line of MHW in any manner? Yes☑. No☐. If yes, explain what you intend to do?

Bank stabilization is envisioned to involve the placement of 2 cu yd or larger gravel filled sealed bags against the BLM-managed river bank to support transfer of equipment from a barge to tundra mats that form a temporary road connecting the bank/beach to the BLM land at Kogru River Airstrip (as shown in the project description). Depending upon the bank location height, the bags will be set against the bank and stacked 2 or 3 high and across a horizontal width of 40 ft or less. Several rows of bags parallel to the river bank may be necessary depending upon the water depth in the bank vicinity. The quantity of gravel filled bags for placement is anticipated to be 90 or less. During offloading, the barge ramp will rest on the placed gravel bags and the tundra mats to provide a smooth and stable transition from barge to the tundra mat road. At the completion of operations, the bags will be retrieved from the river bank.

B. Will you be placing fill or dredging material on a beach? Yes☐. No☑. If, yes please fill out the following questions.

What is the purpose of the fill?	N/A
Is there an upland survey that has established a meandered boundary line? Yes☐. No☐. If yes provide the survey number. (if a subdivision survey please provide a legible copy)	N/A
Will heavy equipment be used below the mean high water line to alter the beach? Yes☐. No☐. If yes, explain.	N/A
How many cubic yards of fill are you proposing to place at and below the line of MHW?	N/A
What are the dimensions of fill area below MHW elevation?	N/A
How many linear feet along the (beach) line of MHW will be covered with fill?	N/A
Is there more than one area along the beach which will be filled? Yes☐. No☐. Identify the location of each area on the development plan diagram.	N/A
Will any of the fill material come from State owned uplands or tide and submerged lands? Yes☐. No☐. If yes, then what is the source and how many cubic yards?	N/A
Is the adjacent upland property encumbered with a public easement along the waterfront boundary? Yes☐. No☐.	N/A
If you are intending to limit beach fill to the area above the current line of MHW will any of the fill or associated retaining wall material including the toe of the fill or retaining wall extend beyond the line of MHW? Yes☐. No☐.	N/A
How will the fill affect public access along the beach?	N/A

C. Excavation of materials from a beach. If you intend to excavate, please fill out the following questions.

What is the purpose of the excavation?	Narwhal may need to remove an obstruction such as a boulder or debris from a shallow water area for the barge approach to the Kogru River bank or an anchoring location for the advance staging of deck barges.
How many linear feet along the beach will be affected?	Minimal only to move obstruction.
To what depth will you be excavating to in feet below ground surface?	Minimal only to move obstruction.

How many cubic yards will be excavated from the area seaward of the line of MHW and what will this excavated material be used for or where will it be disposed of?	The preference would be to move any debris or boulder(s) to an adjacent water location. However, the material could be retrieved and offloaded onshore if necessary and practicable (e.g. an object may be able to be moved to an adjacent location but not retrieved on deck).

5. Use that involves dredging, placing fill material or altering beaches.

Dismantle, Removal, Restoration Plan – The permit will require that upon expiration, completion, or termination the site shall be vacated and all improvements and personal property removed. The site shall be left in a clean, safe condition acceptable to the Division. Your answers to the following questions will establish your proposed restoration plan.

A. Explain how you plan to dismantle and remove the improvements and restore the site to a clean, safe condition acceptable to the Division. Note: One acceptable alternative is returning the permit site to the condition that existed before the site was developed or used.

Anchors will be removed as described in 5C below. Tundra mats and gravel filled bags will be retrieved with an excavator or loader and removed from the site.

B. If your project involves fill describe how it will be removed and where will it be removed to. How will you document that the original line of Mean High Water has been restored? (i.e. photo documentation, resurvey)

No fill is planned, however 2 cu yd or larger gravel filled bags may be used for bank protection and bridging. Removal of these bags is noted in 5(A).

C. If your project involves anchors and/or pilings how do you plan on removing them?

Anchors will be removed in the opposite of how they were put in. On the shoreward side, the anchors will be placed with an excavator or crane on the barge by reaching out and setting them in place. If there is a beach location, a loader or excavator may set the anchor on the beach (not dug in). The same or similar equipment will be used to retrieve the anchors. In deeper water, the anchors will be set and pulled by the tug with its winch or other means.

D. Explain how you plan to dismantle and remove the improvements and restore the site to a clean, safe condition acceptable to the Division. Note: One acceptable alternative is returning the permit site to the condition that existed before the site was developed or used.

Anchors will be removed as described in 5C. Tundra mats and gravel filled bags will also be removed from the site.

MAPS

See Project Description.

Environmental Risk Questionnaire

State of Alaska
Department of Natural Resources, Division of Oil & Gas
550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563
Phone: 907-269-8800 Fax: 907-269-8943
Permitting Email: dog.permitting@alaska.gov

The purpose of this questionnaire is to help clarify the types of activities you propose to undertake. The questions are meant to help identify the level of environmental risk that may be associated with the proposed activity. The evaluation of environmental risk for the proposed activity does not imply that the parcel or the proposed activity is an environmental risk from the presence or use of hazardous substances.

Through this analysis, you may become aware of environmental risks that you did not know about. If so, you may want to consult with an environmental engineer or an attorney.

SECTION I: SUPPLEMENTAL INFORMATION

1. Describe the proposed activity:

The proposed activities include summer studies (archaeological, historical and cultural resources clearance; onshore freshwater lake surveys; and survey monuments and thermistor installation), offshore studies (side scan sonar, sub-bottom profiling and sediment sampling), barging from West Dock to the Kogru River, and advanced staging to support winter drilling operations as well as pre-packing activities as described in the project description. Advance staging and summer activities will be conducted on BLM-managed lands (NPR-A and the Kogru River extending to Eskimo Islands). This information is being provided to ADNR as a courtesy.

2. In the course of your proposed activity will you generate, use, store, transport, dispose of, or otherwise come into contact with toxic, and/or hazardous materials and/or hydrocarbons? If yes, please list the substances and associated quantities.

Barges on the BLM-managed Kogru River could contain up to 150,000 gallons of ultra-low sulfur diesel in approximately seven to ten 9,800 to 25,000 gallon tanks and/or fuel trucks located on the barge deck or in-hull tanks. Approximately 9,800 to 10,000 gallons of gasoline will also be on deck. Alternatively, up to 150,000 gallons of ultra-low sulfur diesel and 9,800 to 10,000 gallons of gasoline could be stored on BLM land at the Kogru River Airstrip. Approximately eight 55-gallon drums of jet fuel for helicopter resupply will be stored on BLM land at the Kogru River Airstrip to support summer activities.

3. If the proposed activities involve any storage tanks, either above or below ground, address the following questions for each tank. Where appropriate, include maps or plats:

A. Where will the tank be located?

Tanks will be located on a barge(s) on the BLM-managed Kogru River and/or on BLM land at the Kogru River Airstrip.

B. What will be stored in the tank?

Ultra-low sulfur diesel, gasoline, and jet fuel.

C. What will be the tank capacity in gallons?

The tanks containing ultra-low sulfur diesel will have a capacity between 9,800 gallons and 25,000 gallons each. The tanks containing gasoline will have a capacity of approximately 9,800 to 10,000 gallons. The drums storing jet fuel will have a capacity of 55 gallons each.

D. What will the tank be used for? (Commercial or residential purposes?)

Tanks will be used for storing fuel to supply the helicopter, and support future winter operations.

E. Will the tank be tested for leaks?

All tanks will be inspected for leaks in compliance with industry standards.

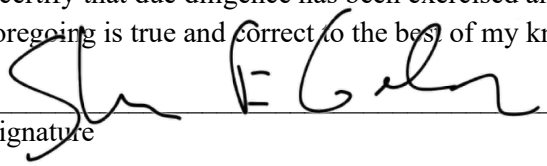
F. Will the tank be equipped with leak detection devices? If yes, please describe:

Portable tanks will be continuously monitored during transfers and inspected daily for integrity. All oil-filled tanks will be staged within impermeable secondary containment. Drums will be staged on spill containment pallets.

G. Do you know or have any reason to suspect that the site may have been previously contaminated? If yes, please explain:

There is no known previous contamination on state land.

I certify that due diligence has been exercised and proper inquiries made in completing this questionnaire, and that the foregoing is true and correct to the best of my knowledge.



Signature

July 3 2025

Date

Chief Operating Officer

Applicant Title