

**PLAN OF COOPERATION  
NIKAITCHUQ AND OOOGURUK AREAS OF OPERATION, ALASKA**

**July, 2019**

**Submitted by:**



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Anchorage, AK 99503**

**to**

**National Marine Fisheries Service  
Office of Protected Resources  
1315 East-West Hwy, Silver Spring, MD 20910-3282**

**and**

**Marine Mammals Management Office  
United States Department of the  
Interior Fish and Wildlife Service  
1011 E. Tudor Rd.  
Anchorage, AK 99503-6199**



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### Attachments:

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**Attachment B: Ice Road Best Management Practices (BMPs)**

**Attachment C: Polar Bear Interaction Plan**

**Attachment D: Personnel with USFWS Certification for MMPA Polar Bear Hazing**



## **1.0 Introduction and Purpose**

This Plan of Cooperation (POC) was prepared in accordance with the following federal requirements:

- 50 CFR 216.104(a)(12), which requires a POC be submitted in support of a request for an Incidental Harassment Authorization (IHA) from the National Marine Fisheries Service (NMFS); and
- 50 CFR 18.124(c)(4), which requires a record of community consultation to be submitted in support of a request for a Letter of Authorization (LOA) from the U.S. Fish and Wildlife Service (USFWS).

This POC is intended to document Eni's stakeholder engagement and to describe the measures Eni has taken and will take to minimize possible adverse effects that its North Slope operations at Nikaitchuq and Oooguruk unit areas respectfully, that may have on the availability of marine mammals for subsistence use. Both unit areas have a man-made gravel island drillsite. Nikaitchuq's gravel island is named Spy Island Drillsite (SID) and Oooguruk gravel island is named Oooguruk Drillsite (ODS). Eni's LOA applications for Incidental and Intentional Take (transfer of ownership in Attachment A), along with the Joint (with Hilcorp, Alaska, LLC [Hilcorp]) ITR for Ice Road construction, maintenance and use, and the Marine Mammal Monitoring and Mitigation Plans (4MP), and Ice Road Best Management Practices (BMPs) associated with the joint ITR request (Attachment B) describe measures that are or will be implemented during North Slope Operations to minimize or prevent conflicts with subsistence activities. A copy of this Plan of Cooperation will be provided to potentially affected communities for their review and comment. Feedback received will be incorporated into the document and into future operations.

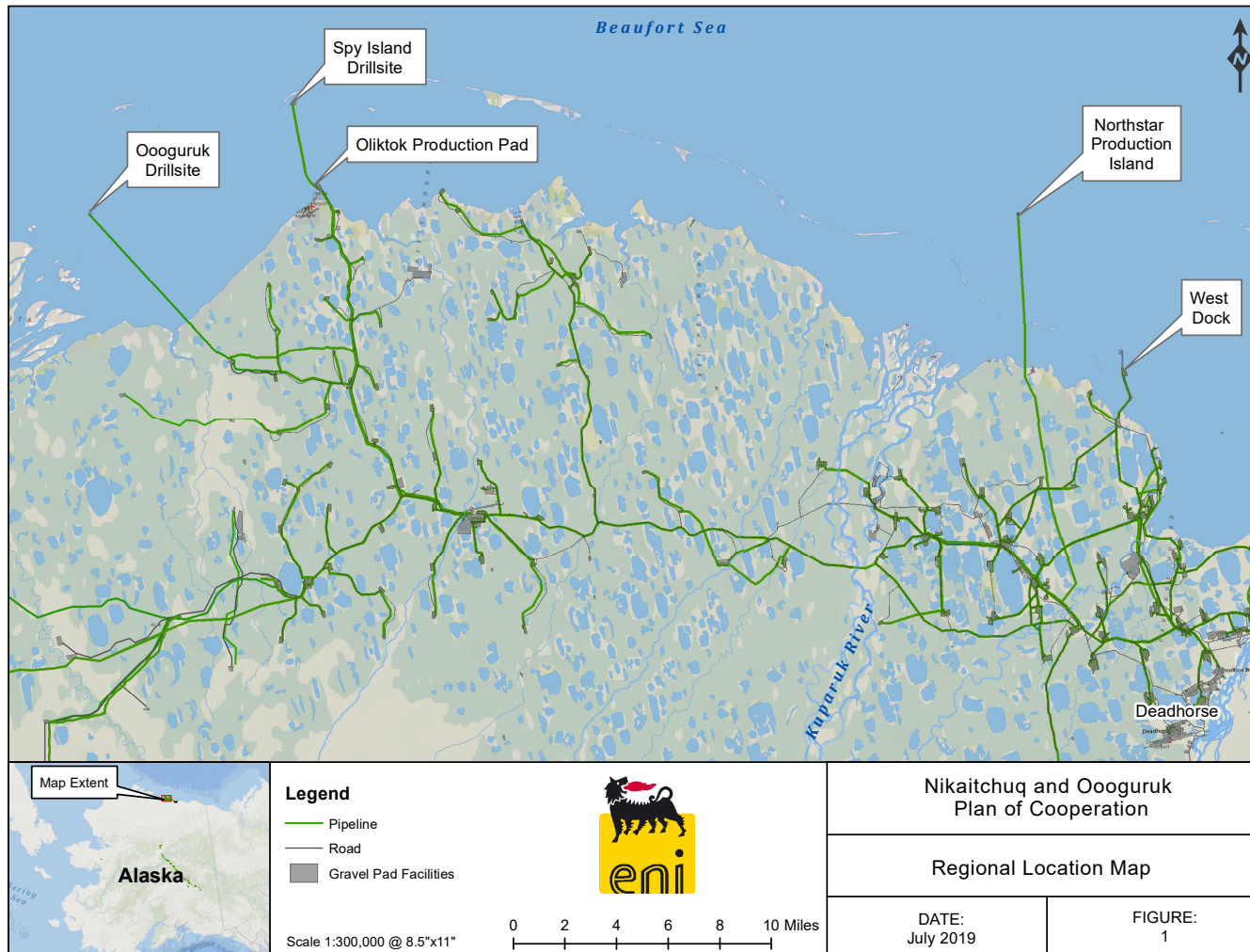
## **2.0 Description of Operating Areas**

Eni operates both SID and ODS facilities year-round (Figure 1). Eni is actively producing and processing oil and gas at these facilities, while maintaining infrastructure and transportation systems to accommodate such activities. Eni routinely, in open water season operates a hovercraft and boats for access to the facilities and constructs ice roads for vehicle access during the iced-over period. The hovercraft is used during freeze-up and break-up periods, when possible.

Other routine operating activities include maintenance of existing oil and gas production infrastructure, including wells, pipelines, processing facilities, roads, pads, and other support equipment. As new opportunities for oil recovery are developed, additional similar infrastructure may be required to more fully develop the reservoir.

Producing fields may also incorporate construction and maintenance projects, and additional pad development to enhance oil recovery within the unit areas. These processes may involve activities as construction of ice pads/roads, construction of gravel roads/pads, seismic work, and off drill pad remediation work, when required.

Figure 1. Regional Location Map







## **2.1 Nikaichuq**

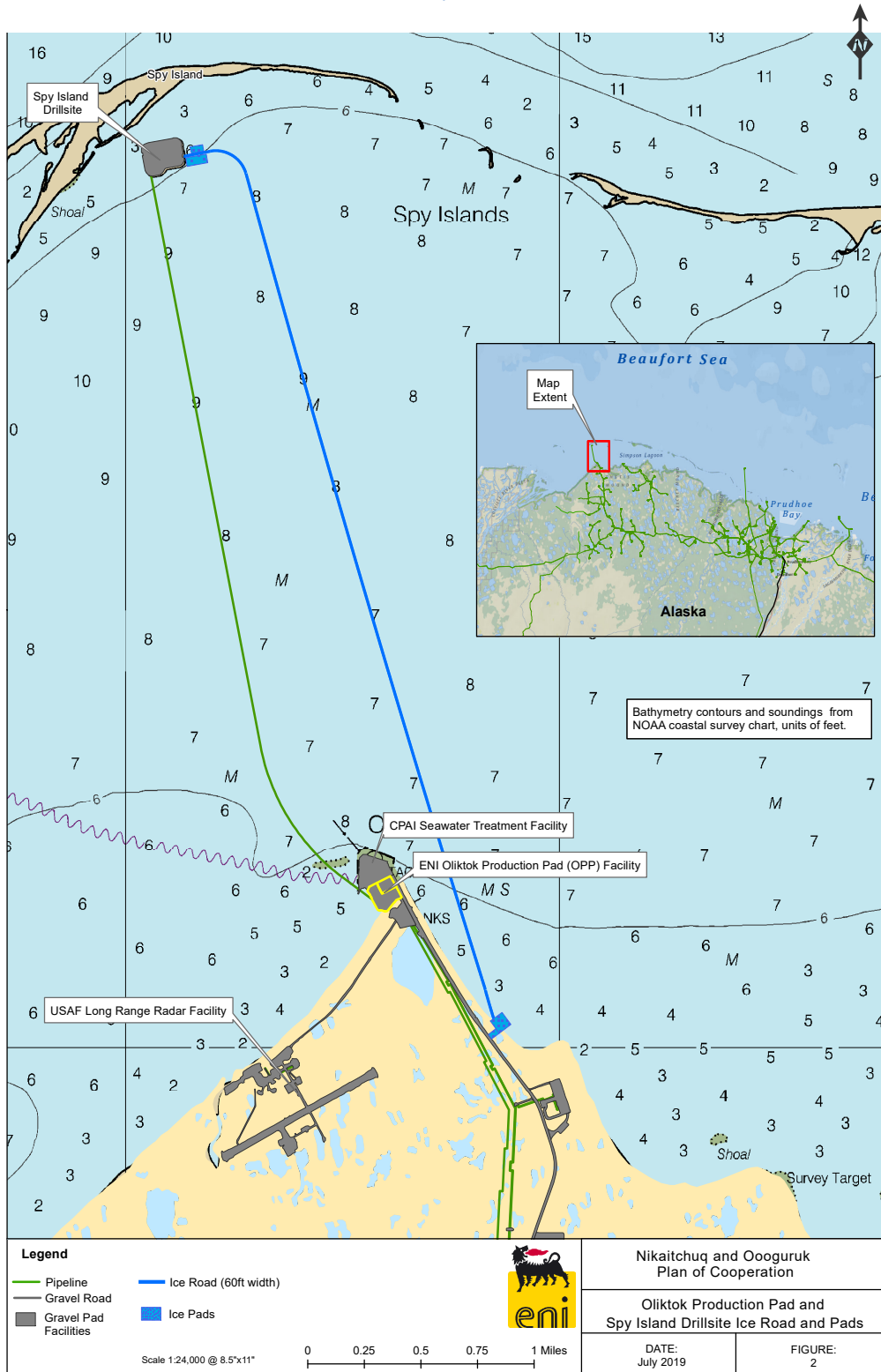
The Nikaichuq Development Project produces oil and gas from the Schrader Bluff and Sag oil and gas formations. In 2008, Eni began Nikaichuq Development construction activities, which included an onshore production and processing facility named Oliktok Production Pad (OPP) at Oliktok Point, Alaska and the SID a single man-made gravel island just south of the Spy Island barrier island (Figure 2). Additional infrastructure includes a subsea pipeline bundle from SID to OPP.

Each year Eni builds a single ice road and three ice pads to support operations at the SID (Figure 2). The ice road extends 4.2 mi (6.8 km) offshore from OPP to SID. This ice road has both supported on water (floating) and grounded ice sections; the first 800 ft (244 m) of the road from shore is grounded ice (i.e., frozen to the bottom). In addition, Eni typically also builds two floating ice pad parking areas at SID: A 500 ft by 200 ft (152 m by 6 m) area located on the southeast side of SID; and a 300 ft by 150 ft (91 m by 46 m) area on the northeast side, as well as one grounded ice pad at the Oliktok Point end of the ice road.

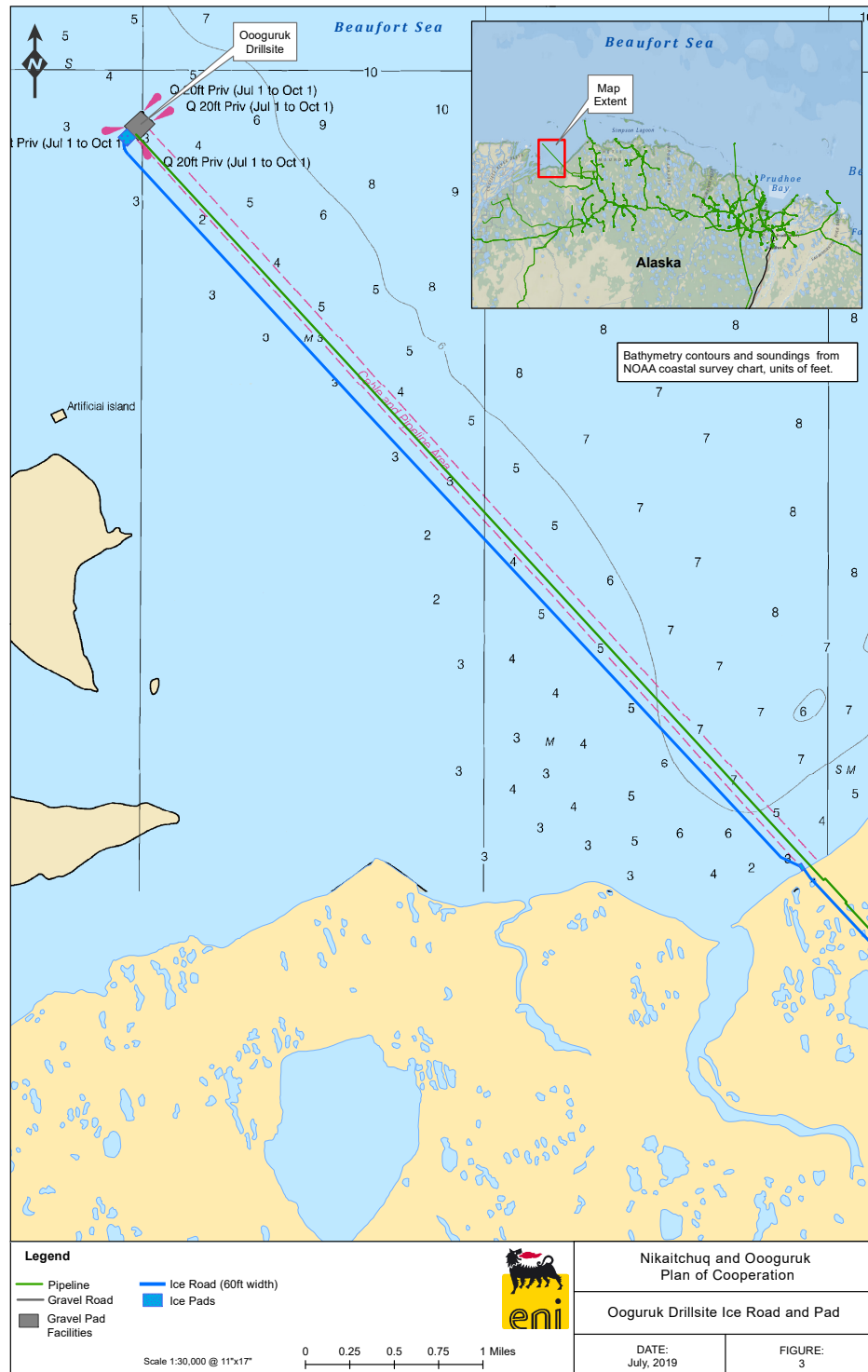
## **2.2 Oooguruk**

A single ice road and staging area ice pad are required each year to operate the Oooguruk Drillsite (ODS). As shown in Figure 3, the typical or proposed ice road extends 5.5 mi (8.9 km) offshore to the ODS. An alternative ice road as shown on Figure 4 would be located in shallower water and, therefore, can be grounded and used earlier in the season. The alternative route extends 7 mi (11.2 km) offshore and is used in years when an early road completion is required or when extra heavy loads, such as a drilling rig are expected. Either ice road is up to approximately 50 ft (10.7 m) wide with a similar width shoulder area on each side. The shoulders of the road are used when traffic must periodically detour around equipment or in areas where ice road maintenance is occurring. In addition, a grounded ice pad staging area is constructed on the southwest edge of the ODS (see Figures 3 and 4). The dimensions of the staging area are approximately 600 by 450 ft (180 by 140 m).

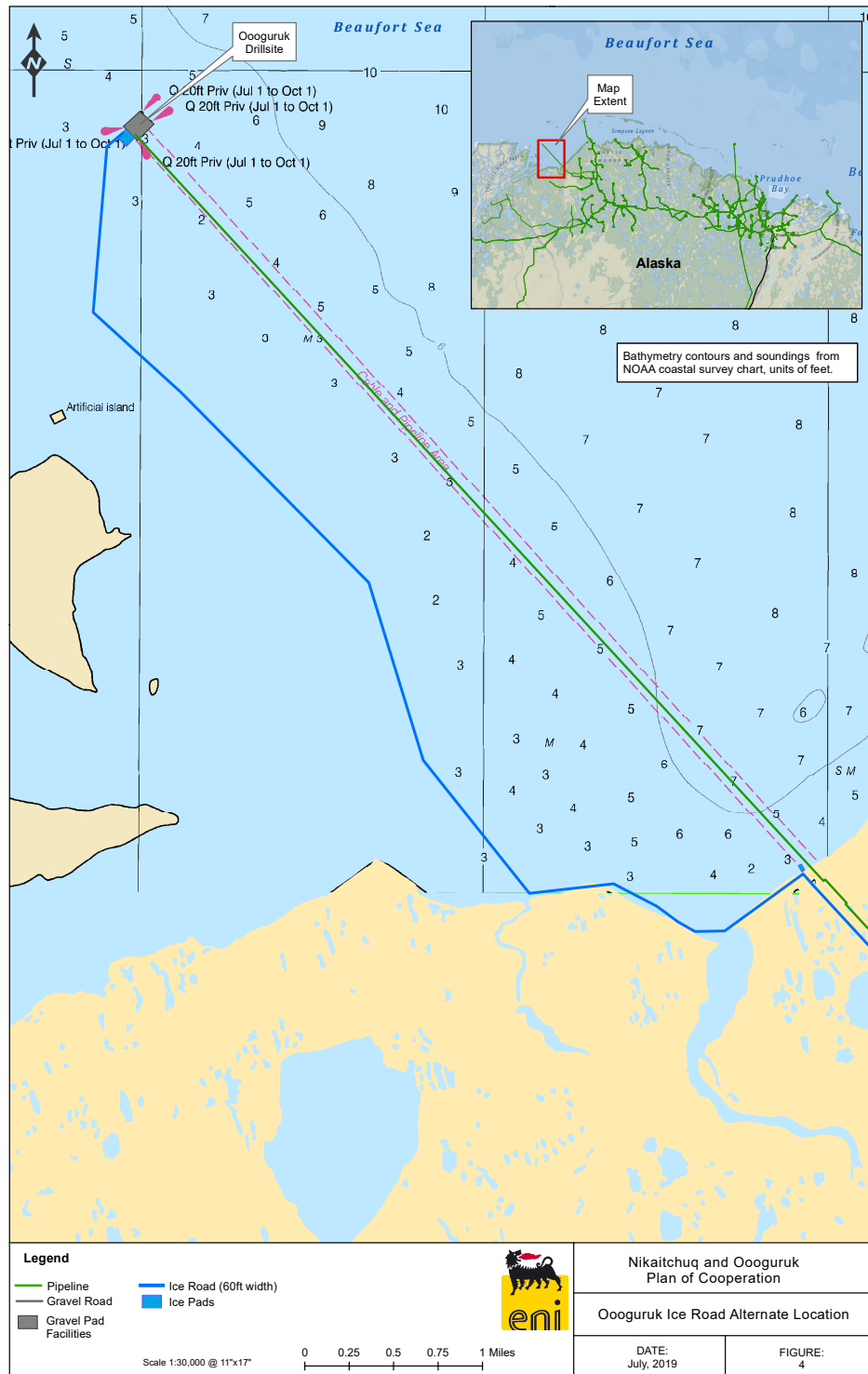
**Figure 2. Spy Island Drillsite Ice Road and Ice Trails**



**Figure 3. Oooguruk Drillsite Ice Road and Ice Pad**



**Figure 4. Oooguruk Drillsite Alternate Ice Road Location**





### **3.0 Cooperation and Coordination**

Eni will continue to comply with the 2017-2018 and future Conflict Avoidance Agreements (CAA). Eni visits both Utqiagvik (Barrow) and Nuiqsut on multiple occasions since development of Nikaichuq and will continue to do so for Oooguruk due to Eni's recent acquisition of the Oooguruk unit from Caelus Energy Alaska. Additionally, quarterly phone call updates with village and community leaders have been conducted. Eni meets with the following organizations in Utqiagvik:

- The Alaska Eskimo Whaling Commission,
- Arctic Slope Regional Corporation,
- Native Village of Utqiagvik
- North Slope Borough Mayor's Office, Wildlife Department, and Planning Department,
- Inupiat Community of the Arctic Slope.

When possible, Eni meets with the following organizations in Nuiqsut:

- Kuukpik Corporation,
- Trapper School,
- Kuukpik Subsistence Oversight Panel.

Robert Province, Manager for Alaska Land and Public Relations for Eni, is the lead on all community stakeholder engagement activities.. At no time during any scheduled or unscheduled meetings in Utqiagvik or Nuiqsut has Eni received or been advised of complaints that Eni's operations have caused negative impacts on polar bear or other subsistence activities.

### **4.0 Measures to Reduce Impacts**

#### **4.1 Pacific Walrus and Polar Bear**

The probability of encountering a Pacific walrus within the vicinity of Eni's North Slope assets along and in the Beaufort Sea is low, and for the life of the facilities walrus sightings have been rare. However, if a walrus encounter were to occur, all employees and contractors are trained to follow Eni's policy of non-interference with all wildlife and are instructed to never approach, pursue, harass, hunt, capture, collect, or kill, or attempt to approach, pursue, harass, hunt, capture, collect, or kill any animal.

Unlike walrus, the probability of encountering a polar bear within the vicinity of OPP, SID or ODS is high. Eni intends to operate in a manner that will minimize impacts to polar bears and polar bear subsistence activities from on-going operations, as described in the Polar Bear Interaction Plan (Attachment C). In the event that authorized hazing is required to protect worker safety, Eni would employ specially trained and USFWS certified security personnel (Attachment



D) so that any hazing efforts conducted to protect workers will have the least adverse impact on polar bears as possible.

#### **4.2 Whales and Seals**

Eni intends to operate in a manner that will minimize impacts to subsistence species. Eni, along with Hilcorp Alaska, LLC (Hilcorp) has developed a Marine Mammal Monitoring and Mitigation Plan (4MP) for the construction, maintenance and use of ice roads and sea ice trails at the SID and ODS. The 4MP outlines measures that are or will be implemented to reduce the likelihood of impacts on marine mammals or subsistence, and combine active monitoring of the area of operations and the implementation of mitigation measures designed to minimize operational impacts to marine resources. In addition, in conjunction with NMFS, Eni and Hilcorp have developed Best Management Practices (BMPs) for Ice Road Construction, Management, and Use (Attachment B).

The 4MPs and BMPs outline how the mitigation and monitoring objectives will be met by:

- Conducting specific training for personnel involved in ice road construction maintenance to include but not limited to: identification of seal pups and adults, habitat and diet, importance of lairs and potential effects of disturbance of seals and lairs;
- Initiating ice road construction prior to March 1<sup>st</sup> to minimize potential impacts to ringed seals establishing birthing lairs;
- After March 1<sup>st</sup> limiting tracked vehicle operations to previously disturbed ice roads and trails, as safety allows;
- Notifying the Environmental Specialist and NMFS if seals are observed within 150 ft of the ice roads;
- Monitoring and marking seal and seal lair locations;
- Vehicles will not stop within 150 ft of seals and within 500 ft of identified seal lairs.

In addition, as described in section 3.0 Eni will comply with all measures stated in the current CAA.



## **5.0 Future Plan of Cooperation Consultations**

As described in Section 3.0 Eni plans to continue to engage with affected subsistence communities regarding its North Slope Operations.

Expected outreach activities for 2019 include the following:

- Attendance at AEWC Quarterly Meetings
- Nuiqsut Community Meeting and meeting with Nuiqsut Whaling Captains Association
- North Slope Borough Planning Department

Eni has requested and encourages all stakeholders to contact them directly if there are any concerns with operations interfering with subsistence activities:

Robert Province  
Manager - Land and Public Relations  
3800 Centerpoint Dr., Ste. 300  
Anchorage, AK 99503  
907-865-3300  
robert.province@eni.com

Larry Burgess  
Manager - Safety, Environmental and  
Quality (SEQ)  
Same address and phone as Robert  
larry.burgess@eni.com



**Attachment A**

**LOA Notice of Transfer of Ownership**



**eni us operating**

2600 Centerpoint Dr., Suite 300  
Anchorage, AK 99503  
Tel. 907-865-3200 Fax 907-865-3390

May 21, 2019

Christopher Putnam  
U.S. Department of Interior  
Marine Mammals Management  
1011 E. Tudor Road, MS 341  
Anchorage, Alaska 99503

**Re: Notice of Transfer of Ownership, Request to Amendment Permits**

Dear Mr. Putnam:

This is to notify the United States Fish and Wildlife Service (USFWS) that Caelus Natural Resources Alaska, LLC ("Caelus") and Eni U.S. Operating Co. Inc. ("Eni") have finalized a transaction resulting in the transfer and assignment of all Caelus working interest in the Oooguruk production operations. As discussed by e-mail and phone, USFWS has recommended amending the current Eni permits to include Oooguruk operations. Eni and Caelus are requesting the amendment of current Eni permits by the date of the change of operatorship, scheduled for August 1, 2019.

The following is a list of permits between Eni and the USFWS that are affected by the transaction:

- LOA Incidental Take 16-05 (expires August 5, 2021)
- LOA Intentional Take 17-INT-13 (expires September 20, 2019)

The following permits are currently held by Caelus, and need to be active until the transitional period is over and Eni becomes the operator on the scheduled date of August 1, 2019.

- LOA Intentional Take 18-INT-14 (expires January 14, 2021)
- LOA Incidental Take 16-11 (expires August 5, 2021)

Eni will, in its role as operator of the Oooguruk Development Project, accept responsibility for compliance with the amended permits and will pay all associated future fees.

Sincerely,

Whitney Grande  
Vice President – Safety, Environment and Quality  
Eni U.S. Operating Co. Inc.

J. Patrick Foley  
Senior Vice President  
Caelus Natural Resources Alaska LLC

## **Attachment B**

### **Ice Road Best Management Practices (BMPs)**

## **Alaska North Slope Ice Road and Ice Trail Best Management Practices**

### **Best Management Practices Introduction and Definitions**

The following Best Management Practices (BMPs) and monitoring measures are applicable to operations on the Alaska North Slope. They are proposed for the construction and maintenance of sea ice roads and sea ice trails in areas where water depth is greater than 10 feet (ft) (the minimum depth required to establish ringed seal lairs) as well as any open leads in the sea ice requiring a temporary bridge during the ice road season. These BMPs do not apply to land-based ice roads/trails or ice roads/trails crossing lakes. These measures are intended to avoid and minimize interactions with ringed seals. For the purposes of these BMPs, sea ice roads and trails are generally defined<sup>1</sup> as follows:

- Sea Ice Road: a route across sea ice created by clearing and grading snow, then pumping seawater through drilled holes in the sea ice until the desired thickness is achieved. The top layer is typically strengthened by a fresh water cap of ice.
- Sea Ice Trail: a route across sea ice created, used and maintained by equipment such as Tuckers, PistenBullys, snow machines or similar tracked equipment. Sea ice trails do not require seawater flooding.

These BMPs and monitoring activities are organized into the following categories:

Section 1: Wildlife Training

Section 2: General BMPs Implemented Throughout the Ice Road/Trail Season

Section 3: BMPs Implemented Before March 1<sup>st</sup>

Section 4: BMPs Implemented After March 1<sup>st</sup>

Section 5: Reporting

### **Section 1: Wildlife Training**

Prior to initiation of sea ice road- and ice trail-related activities, project personnel associated with ice road construction, maintenance, use or decommissioning (i.e., ice road construction workers, surveyors, security personnel, and the environmental team) will receive annual training<sup>2</sup> on these BMPs. Personnel are advised that interactions with, or approaching, any wildlife is prohibited. Annual training also includes reviewing the company's Wildlife Management Plan<sup>3</sup>. In addition to the BMPs, other topics in the training will include:

- Ringed Seal Identification and Brief Life History
- Physical Environment (habitat characteristics and how to potentially identify habitat)
- Ringed Seal Use in the Ice Road Region (timing, location, habitat use, birthing lairs, breathing holes, basking, etc.)
- Potential Effects of Disturbance
- Importance of Lairs, Breathing Holes and Basking to Ringed Seals

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<sup>1</sup> Specific construction techniques may vary depending on site-specific conditions. However, this description generally describes the process by which a sea ice road is constructed.

<sup>2</sup> Training rosters can be made available to audit if requested.

<sup>3</sup> May also be referred to as a Wildlife Interaction Plan.

## Brief Summary of Applicable Laws and Regulatory Requirements

- Marine Mammal Protection Act (MMPA)
- Endangered Species Act (ESA)

### **Section 2: General BMPs Implemented Throughout the Ice Road/Trail Season**

General BMPs will be implemented through the entire ice road/trail season including during construction, maintenance, use and decommissioning.

1. Ice road/trail speed limits will be no greater than 45 miles per hour (mph); speed limits will be determined on a case-by-case basis based on environmental, road conditions and ice road/trail longevity considerations. Travel on ice roads and trails is restricted to industry staff.
2. Following existing safety measures, delineators will mark the roadway in a minimum of ¼-mile increments<sup>4</sup> on both sides of the ice road to delineate the path of vehicle travel and areas of planned on-ice activities (e.g., emergency response exercises). Following existing safety measures currently used for ice trails, delineators will mark one side of an ice trail a minimum of every ¼ mile. Delineators will be color-coded<sup>5</sup>, following existing safety protocol, to indicate the direction of travel and location of the ice road or trail.
3. Corners of rig mats, steel plates, and other materials used to bridge sections of hazardous ice, will be clearly marked or mapped using GPS coordinates of the locations.
4. Project personnel will be instructed that approaching or interacting with ringed seals is prohibited.
5. Personnel will be instructed to remain in the vehicle and safely continue, if they encounter a ringed seal while driving on the road.
6. If a ringed seal is observed within 150 ft of the center of an ice road or trail, the operator's Environmental Specialist<sup>6</sup> will be immediately notified with the information provided in the Reporting section below.
  - a. The Environmental Specialist will relay the seal sighting location information to all ice road personnel and the company's office personnel responsible for wildlife interaction, following notification protocols described in the company-specific Wildlife Management Plan. All other data will be recorded and logged.
  - b. The Environmental Specialist or designated person will monitor the ringed seal to document the animal's location relative to the road/trail. All work that is occurring when the ringed seal is observed and the behavior of the seal during those activities will be documented until the animal is at least 150 ft away from the center of the road/trail or is no longer observed.
  - c. The Environmental Specialist or designated person will contact appropriate state and federal agencies as required<sup>7</sup> (see company-specific Wildlife Plans for notification details).

### **Section 3: BMPs Implemented Prior to March 1<sup>st</sup>**

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<sup>4</sup> The interval between delineators is specific to existing ice road safety measures and relates to how drivers assess and report weather and roadway conditions.

<sup>5</sup> For example, a specific color to the driver's right or left will indicate direction of travel as well as the route.

<sup>6</sup> Also referred to as an Environmental Advisor in Wildlife Management / Interaction Plans.

<sup>7</sup> As detailed in the Wildlife Management Plan.

Winter sea ice road/trail construction and use will begin as early as possible (typically December 1<sup>st</sup> through mid-February). It is anticipated that all ice road construction activities will be initiated prior to March 1<sup>st</sup>, before the time when female ringed seals establish birth lairs. Prior to establishing lairs, ringed seals are mobile and are expected to generally avoid the ice roads/trails and construction activities.

Other on-ice activities occurring prior to March 1<sup>st</sup> could also include spill training exercises, pipeline surveys, snow clearing, and work conducted by other snow vehicles such as a PistenBullys, snow machines, or rollagons. Prior to March 1<sup>st</sup>, these activities could occur outside of the delineated ice road/trail and shoulder areas. During this period, General BMPs (described in Section 2) will be implemented.

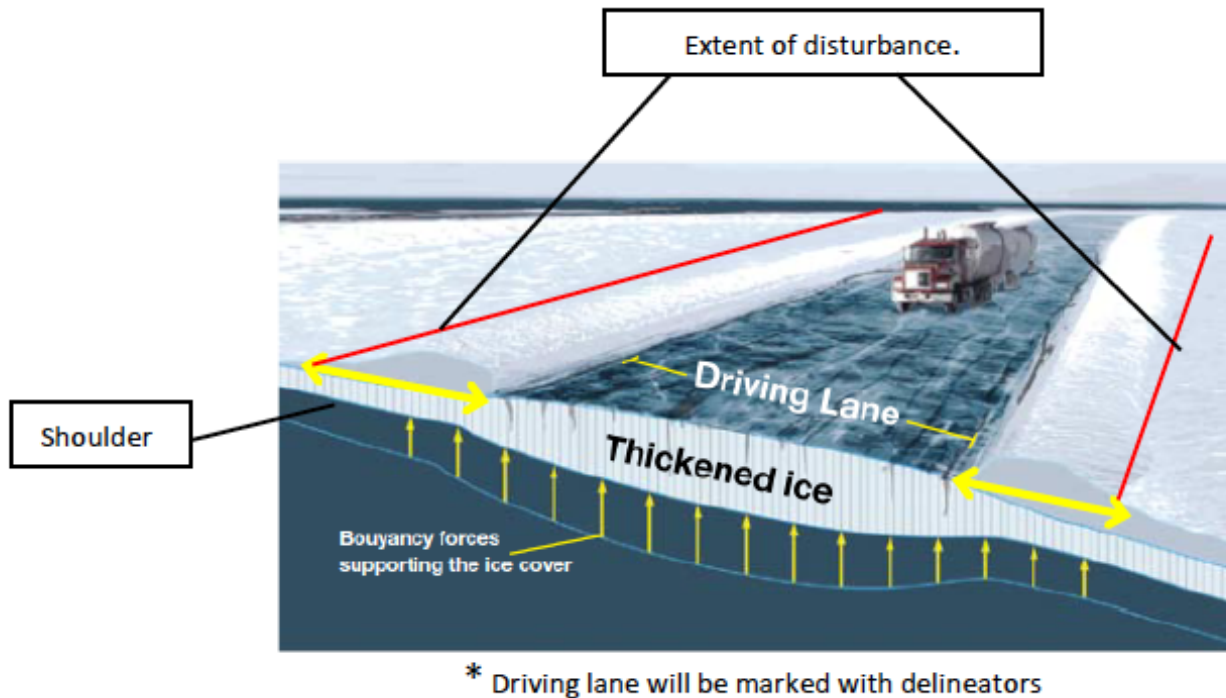
#### **Section 4: BMPs Implemented After March 1<sup>st</sup>**

After March 1<sup>st</sup>, and continuing until decommissioning of ice roads/trails in late May or early June, the on-ice activities mentioned above can occur anywhere on sea ice where water depth is less than 10 ft (i.e., habitat is not suitable for ringed seal lairs). However, if the water is greater than 10 ft in depth, these activities should only occur within the boundaries of the driving lane or shoulder area of the ice road/trail and other areas previously disturbed (e.g., spill and emergency response areas, snow push areas) when the safety of personnel is ensured.

In addition to the general BMPs, the following BMPs will also be implemented after March 1<sup>st</sup>:

7. Ice road/trail construction, maintenance and decommissioning will be performed within the boundaries of the road/trail and shoulders, with most work occurring within the driving lane. To the extent practicable and when safety of personnel is ensured, equipment will travel within the driving lane and shoulder areas (see Figure 1).
8. Blading and snow blowing of ice roads will be limited to the previously disturbed ice road/shoulder areas to the extent safe and practicable. Snow will be plowed or blown from the ice road surface.
9. In the event snow is accumulating on a road within a 150 ft radius of an identified downwind seal or seal lair, operational measures will be used to avoid seal impacts, such as pushing snow further down the road before blowing it off the roadway. Vehicles will not stop within 150 ft of identified seals or within 500 ft of known seal lairs.
10. To the extent practicable and when safety of personnel is ensured, tracked vehicle operation will be limited to the previously disturbed ice trail areas. When safety requires a new ice trail to be constructed after March 1<sup>st</sup>, construction activities such as drilling holes in the ice to determine ice quality and thickness, will be conducted only during daylight hours with good visibility. Ringed seal structures will be avoided by a minimum of 150 m (500 ft) during ice testing and new trail construction. Any observed ringed seal structures will be reported following BMP #6. Once the new ice trail is established, tracked vehicle operation will be limited to the disturbed area to the extent practicable and when safety of personnel is ensured.

**Figure 1. Graphic Representation of Ice Road**



11. If an ice road or trail is being actively used<sup>8</sup>, under daylight conditions with good visibility, a dedicated observer (not the vehicle operator) will conduct a survey along the sea ice road/trail to observe if any ringed seals are within 500 ft of the roadway corridor. The following survey protocol will be implemented:
  - a. Surveys will be conducted every other day during daylight hours.
  - b. Observers for ice road activities need not be trained Protected Species Observers (PSOs), but they must have received the training described in Section 1 and understand the applicable sections of the Wildlife Management Plan. In addition, they must be capable of detecting, observing and monitoring ringed seal presence and behaviors, and accurately and completely recording data.
  - c. Observers will have no other primary duty than to watch for and report observations related to ringed seals during this survey. If weather conditions become unsafe, the observer may be removed from the monitoring activity.
  
12. If a seal is observed on ice within 150 ft of the centerline of the ice road/trail, BMP #6 shall be initiated and:
  - a. Construction, maintenance or decommissioning activities associated with ice roads and trails will not occur within 150 ft of the observed ringed seal, but may proceed as soon as the ringed seal, of its own accord, moves farther than 150 ft distance away from the activities or has not been observed within that area for at least 24 hours. Transport vehicles (i.e., vehicles not associated with construction,

<sup>8</sup> Any days when there is no traffic on an ice road, monitoring for ringed seals will not occur in order to minimize potential for interactions with seals.



maintenance or decommissioning) may continue their route within the designated road/trail without stopping.

**13.** If a ringed seal structure (i.e., breathing hole or lair) is observed within 150 m (500 ft) of the ice road/trail, the location of the structure will be reported to the Environmental Specialist who will then carry out notification protocol identified in BMP #7 above and:

- a. The location of the seal will be physically marked with a visible marker while maintaining a distance of at least 50 ft (15 m) from the seal.
- b. a qualified observer (see BMP #11) will monitor the structure every six hours on the day of the initial sighting to determine whether a ringed seal is present. Monitoring for the seal will occur every other day the ice road is being used unless it is determined the structure is not actively being used (i.e., a seal is not sighted at that location during monitoring). A lair or breathing hole does not automatically imply that a ringed seal is present.
- c. Construction, maintenance or decommissioning work will proceed following all other BMPs to minimize impacts or disturbance in the area.

#### **Section 5: Reporting (as needed)**

A final end-of-season report compiling all ringed seal observations will be submitted to NMFS Alaska Region Protected Resources Division ([greg.balogh@noaa.gov](mailto:greg.balogh@noaa.gov)) and NMFS Office of Protected Resources Permits Division ([jaclyn.daly@noaa.gov](mailto:jaclyn.daly@noaa.gov)) within 90 days of decommissioning the ice road/trail. The report will include:

- a. Date, time, location of observation.
- b. Ringed seal characteristics (i.e., adult or pup, behavior [avoidance, resting, etc.]).
- c. Activities occurring during observation including equipment being used and its purpose, and approximate distance to ringed seal(s).
- d. Actions taken to mitigate effects of interaction emphasizing: 1) which BMPs were successful; 2) which BMPs may need to be improved to reduce interactions with ringed seals; 3) the effectiveness and practicality of implementing BMPs; 4) any issues or concerns regarding implementation of BMPs; and 5) potential effects of interactions based on observation data.
- e. Proposed updates (if any) to Wildlife Management Plan(s) or BMPs.
- f. Reports should be able to be queried for information.

NMFS, in consultation with the operator, may make modifications to these BMPs based on this information for the next ice road season.

In the unanticipated event a seal is killed or seriously injured by ice road/trail activities, NMFS will be notified immediately (see contact information above).

In the event ice road/trail personnel discover a dead or injured seal but the cause of injury or death is unknown or believed not to be related to ice road/trail activities, NMFS will be notified within 48 hours of discovery (see contact information above).

## **Citations**

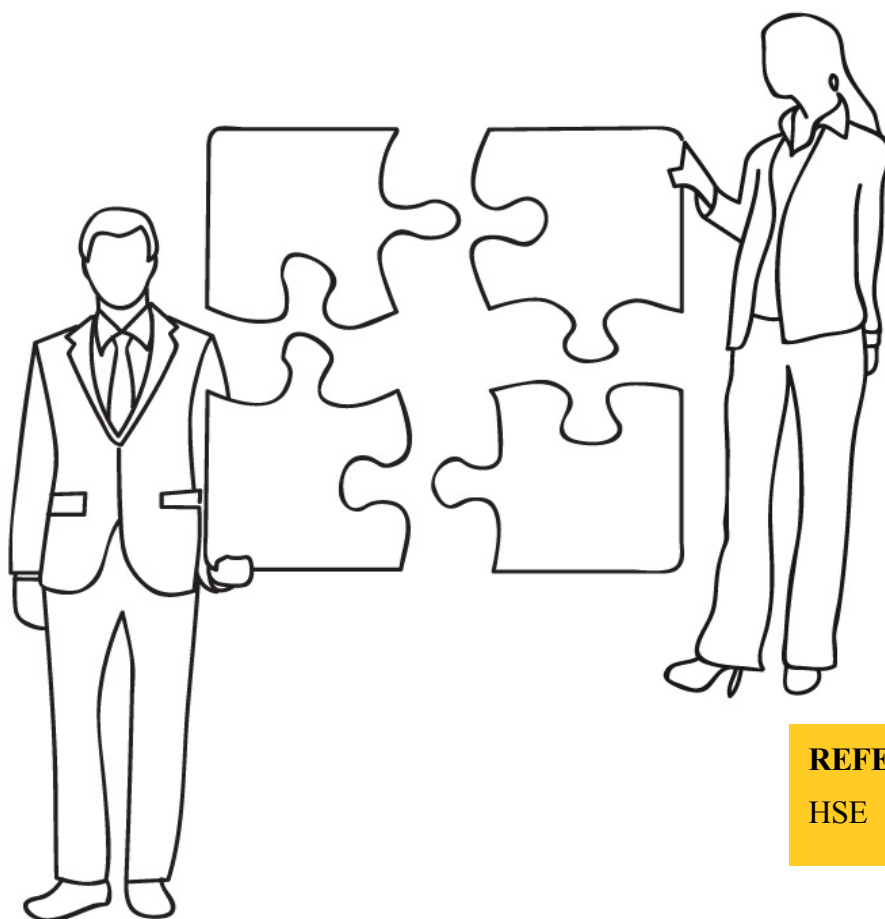
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## **Attachment C**

### **Polar Bear Interaction Plan**

# Procedure

## Polar Bear Interaction Plan



**REFERENCE MSG**  
HSE



**TITLE:**

Polar Bear Interaction Plan

**NOTE:**

The objective of this document is to provide guidance on limiting human-polar bear interactions and monitoring polar bear activity.

**ISSUE DATE:**

8/24/2017

**START DATE:**

8/24/2017

**PREPARED BY:**

Jane Thomas,  
Nikaitchuq Environmental Advisor

**VERIFIED BY:**

Victoria Gerber,  
Environmental Protection Manager

**APPROVED BY:**

Whitney Grande,  
VP SEQ



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Rev.	Date	Page	Changes
01	15 July 2016		Initial release
02	10 May 2017	9, 10, 17	Added section specifying deterrence procedures; several minor technical edits; updated USFWS contact name and phone number; replaced the Sample Polar Bear Sighting Report Form with current form; added Roles and Responsibilities section; updated References; and added Acronyms section.
03	24 August 2017	6, 8, 15	Added email addresses for USFW and ADF&G contacts; added BOEM and NMFS contact information and references related to reporting of polar bear sightings and takes; and added to the acronyms list.
04	10 May 2019	<u>5,6,</u>	Update Nikaitchuq to Alaska North Slope Operations. Descriptions of Oooguruk sites. Update procedure to include Oooguruk operations and leases. Include project map for Oooguruk.





## 1. Purpose

This procedure provides guidance on limiting human-polar bear interactions at all Alaska North Slope Operations and monitoring polar bear activity. Specific procedures are provided for the following:

- Monitoring polar bear activity observed from all Alaska North Slope Operations and reporting that information to regulatory agencies;
- Providing polar bear awareness training to workers; and
- Limiting human-bear interactions, which increases personnel safety and minimizes impacts to bears.



## 2. Scope

This plan describes the procedures that Eni US Operating Co. Inc. (Eni) uses to do the following, as required by 50 CFR 18.124(c)(2) and (3), as well as conditions of approval of Exploration Plans:

- Monitor the effects of activity on polar bears;
- Report sightings and takes of polar bears;
- Provide polar bear awareness training to workers; and
- Limit human-bear interactions, which increases personnel safety and minimizes impacts to bears.

Eni's on-site Environmental Advisors are responsible for implementing this plan.

Eni operates the Nikaitchuq and Oooguruk oil fields; See maps in Appendix A for the general project location. The project includes the following facilities:

- Oliktok Production Pad (OPP) - An onshore drilling and production facility at Oliktok Point
- Spy Island Drill site (SID) – A man-made offshore production pad in shallow water approximately 3 miles offshore of Oliktok Point in the vicinity of Spy Island
- Nikaitchuq Operations Center (NOC) – An onshore pad with housing, warehouse, and logistics facilities
- Subsea pipeline bundle's supporting Nikaitchuq and Oooguruk
- Onshore crude oil transmission pipeline, including the tie-in with the Kuparuk Pipeline at Kuparuk Pipeline Pad (KPP)
- Oooguruk Drill Site (ODS) – A man-made offshore production pad in shallow water
- Oooguruk Tie-In Pad (OTP) – An onshore pad with housing, warehouse, and logistics facilities
- 



This plan applies to all employees and contractors working on Eni facilities and leases.

### **2.1 Distribution**

Unless otherwise authorized by Eni, the distribution of this document is confined to Eni US Operating Co. Inc. employees and authorized Contractors.



### 3. Reference Documents

#### **3.1** Internal reference documents

- Eni spa Organizational Management and Control Model
- Eni Code of Ethics
- msg hse Eni spa – HSE Management System Guideline
- Eni Records Retention Schedule
- gui hse 091 env – HSE Biodiversity and Ecosystems Guideline
- opi hse 141 ahs – Alaska Wildlife Management Plan
- pro hse 002 ear – HSE Regulatory and Other Requirements

#### **3.2** External reference documents

- 50 CFR 18.124 (c)(2) and (3)
- Alaska North Slope Field Environmental Handbook
- Eni US Letters of Authorization from US Fish and Wildlife Service
- Exploration Plans Approval Mitigation Measures and Conditions

Any subsequent revisions, updates, or additions to the above references shall apply.



### 4. Definitions, Abbreviation, Acronyms

**ADF&G:** Alaska Department of Fish and Game

**BOEM:** Bureau of Ocean Energy Management

**FLIR:** Forward Looking Infrared Camera

**KPP:** Kuparuk Pipeline Pad

**MMPA:** Marine Mammal Protection Act. Prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.

**NMFS:** National Marine Fisheries Service

**NOC:** Nikaitsuq Operations Center

**ODS:** Oooguruk Drill Site

**OPP:** Oliktok Production Pad

**OTS:** Oooguruk Tie-In Pad

**Protected species:** Include those protected under the Endangered Species Act and the Marine Mammal Protection Act.

**PSO:** Protected Species Observer

**SID:** Spy Island Drill site

**USFWS:** US Fish and Wildlife Service



### 5. Roles & Responsibilities

#### 5.1 Alaska SEQ Manager

- Has overall responsibility for the Polar Bear Interaction Plan

#### 5.2 Environmental Protection Manager

- Ensures records related to the Polar Bear Interaction Plan are maintained per Eni Records Retention Schedule, Model 231, and Integrated Management System
- Reviews the Polar Bear Interaction Plan updates

#### 5.3 Environmental Advisor

- Maintains awareness and understanding of applicable regulations and permit stipulations
- Ensures the Polar Bear Interaction Plan remains current and shall update the plan and associated training materials, as needed
- Annually provides training on the site-specific procedures described in this plan
- Transmits training rosters to the Eni Training Manager for tracking and retention
- Conducts necessary communications with associated agencies, stakeholders, and other interested parties
- Ensures that Polar Bear Sighting Reports are submitted to appropriate regulatory agencies for each sighting in a timely manner
- Maintains an electronic file of all Polar Bear Sighting Reports submitted to regulatory agencies
- Notifies Regulatory Manager and Environmental Protection Manager of HSE Regulatory notifications
- Reviews and logs polar bear sighting and interaction event details
- Completes PSO Training, if necessary



### **5.4 Permitting and Compliance Coordinator**

- Maintains awareness and understanding of applicable regulations and permit stipulations.
- Identifies and obtains required regulatory permits and permit renewals to support plan activities
- Submits annual monitoring reporting to USFWS Marine Mammals Management Office

### **5.5 Security Captain**

- Annually provides training on the site-specific procedures described in this plan and provides completed training rosters to the Environmental Advisor
- Communicates with the Environmental Advisor and USFWS for guidance, as needed
- Provides guidance to Security and support personnel during polar bear management actions, as needed
- Identifies and dispatches appropriate resources, as needed, to support polar bear management actions.
- Informs Environmental Advisor of polar bear deterrence activities implemented
- Submits Polar Bear Sighting Reports to USFWS Marine Mammals Management Office and ADF&G within 24 hours of each sighting event, copying Environmental Advisors

### **5.6 Security Desk Officers**

- Receive verbal reports of polar bear sightings and dispatch Security Rover to monitor and manage, as appropriate
- Make radio all-calls to all appropriate Nikaitchuq radio frequencies when a bear is in close proximity to a work area and when work is clear to resume after a bear has departed the area
- Post warning signs in camps when a polar bear is in the area and it is unsafe to exit the building





- Provide additional notification to the Security Captain when a polar bear is reported at a location that poses risk for an encounter with personnel

### **5.7 Security Rovers**

- Perform the role of Wildlife Monitor
- Patrol project locations and respond to reports of potential bear sightings
- Monitor polar bears in the project vicinity and communicate activities to the Security Desk Officer and Security Captain, as appropriate
- Communicate with Security Captain regarding resources, support, and/or guidance needed during a polar bear management action
- Secure project locations and implement appropriate deterrence techniques, when necessary, to protect the health and safety of personnel and polar bears
- Notify Security Desk Officer when a bear has departed the project area and it is safe for work to resume
- Provide written reports to the Security Captain each work shift documenting each polar bear sighting during that work shift
- Completes PSO training, if necessary

### **5.8 Eni US Employees, Contractors and Visitors**

- Do not approach, feed, or harass polar bears or other wildlife
- Be alert for bears and bear sign in the project vicinity and immediately notify Security if a bear or potential bear sign are observed
- Follow all security personnel instructions and posted signage
- Safely halt work activities and proceed to a secure location if instructed to do so by security personnel or if a bear is sighted in, or near, the area
- Ensure all bear cage doors remain closed when not in use



- Consult with Security Desk Officer regarding recent bear sightings prior to starting each work shift
- Plan and execute work activities to minimize potential for bear encounters and ensure safe evacuation routes exist in the event of an encounter
- Maintain reliable communications with team members and Security throughout work activities
- Manage food and food waste appropriately. Do not store food or food wastes outdoors or inside vehicles
- Stay clear of areas where Security personnel are actively monitoring or deterring a bears



## 6. Background Information

### 6.1 Polar Bear Habitat

Polar bears commonly traverse, hunt, and den along the Beaufort Sea shoreline. Polar bears are frequent fall visitors along the mid-Beaufort coastal stretch. The freeze-up, as early as late September and as late as mid-December, provides a suitable habitat for foraging bears. Since the construction of the Distant Early Warning Line site at Oliktok Point in the 1950s, bears have been regularly observed in the area. Ringed seals are the principal prey of polar bears and are found in both Harrison Bay and the river channels near the delta front.

### 6.2 Protection Status of the Polar Bear

The Federal agency responsible for managing polar bears is the US Fish and Wildlife Service (USFWS). The polar bear is a marine mammal species, fully protected by provisions of the Marine Mammals Protection Act (MMPA). The MMPA states that it is illegal to “harass, injure, capture, kill or to attempt to harass, injure, capture or kill” a marine mammal. The term used to describe any of these activities is “take.” Intentional take (including harassment) of polar bears is prohibited without a Letter of Authorization from the USFWS and implementation of a polar bear interaction plan. Additionally, the polar bear has been listed as a threatened species under the Endangered Species Act.

As described in this plan, Eni takes significant precautions to avoid accidental encounters between bears and project personnel that might result in a take, including takes by harassment.



## **7. Polar Bear Monitoring and Deterrence**

### **7.1 Wildlife Monitors**

Human safety is of top priority, and so early bear detection and avoidance measures are critical. Security Rovers perform the role of Wildlife Monitors. They patrol the project area, watching for polar bears and signs of polar bear activity, and respond to reports of potential bear sightings. Their goal is to prevent encounters that might result in harm to workers or polar bears. Any worker who sees a polar bear or bear sign must immediately communicate the details of that sighting to Security. The Security Rover will be directed to the location. Security will monitor the bear, with the main objectives to keep workers safe and to allow the bear to travel through the area undisturbed. To facilitate that, Security keeps workers and traffic from the area of the bear and clear of the area toward which the bear is travelling. In the unlikely event that a bear remains in a work area, Security will implement appropriate deterrence techniques and contact USFWS and ADF&G for guidance if needed.

### **7.2 Deterrence Activities**

In the event that a polar bear remains in a work area, it may become necessary to implement deterrence (hazing) techniques to protect the safety and welfare of personnel and the bear. Deterrence techniques must not cause the injury or death of a polar bear. Deterrence techniques may include vehicles, sirens and horns, flashing lights, heavy equipment, air horns, electric fences, bear spray, acoustic recordings and projectiles such as bean bags. Deterrence activities may only be conducted by personnel who have been specifically authorized by Eni to do so. Prior to conducting a deterrence activity, authorized personnel must:

1. Make a reasonable effort to reduce or eliminate attractants;
2. Secure the site, notify supervisor, and move personnel to safety;
3. Ensure the bear has an escape route(s); and
4. Ensure communication with all personnel.
5. Store impact and non-impact projectile deterrents separately, clearly label each, and identify under what circumstances each is to be used to avoid mistakenly using an impact projectile when a non-impact round was intended.

When conducting a deterrence activity, authorized personnel must:



1. Never deter a polar bear for convenience or to aid project activities. The safety and welfare of the bear is second only to the safety and welfare of humans in a deterrence situation;
2. Shout at the bear before using projectiles or other techniques;
3. Begin with the lowest level of force or intensity that is effective and increase the force or intensity of the technique, or use additional techniques, only as necessary to achieve the desired result.

After a deterrence event authorized personnel must:

1. Monitor the bear's movement (to ensure no return);
2. Notify supervisor and personnel when it is safe to resume work; and
3. Submit a report to USFWS, BOEM, and NMFS within 24 hours.

### **7.3 Reporting**

For each polar bear sighting, the Security Captain submits a Polar Bear Sighting Report (form included in Appendix B) to the USFWS, ADF&G, BOEM, and NMFS. The Permitting and Compliance Coordinator submits the annual monitoring report to USFWS. Following is the key contact information for these agencies:

Mr. Christopher Putnam  
Marine Mammals, USFWS  
1011 East Tudor Road  
Anchorage, AK 99503  
Telephone: (907) 786-3800 or  
(907) 786-3844  
Fax: (907) 786-3816  
[Fw7\\_mmm\\_reports@fws.gov](mailto:Fw7_mmm_reports@fws.gov)

NMFS, Alaska Region, Protected Resources Division  
(907) 586-7248  
[Aleria.Jensen@noaa.gov](mailto:Aleria.Jensen@noaa.gov)

Mr. William Ingersoll  
BOEM, Alaska Region  
Telephone: (907) 334-5224  
[william.ingersoll@boem.gov](mailto:william.ingersoll@boem.gov)

Mr. Dick Shideler  
Habitat Division, ADF&G  
1300 College Road  
Fairbanks, AK 99709  
Telephone: (907) 459-7283  
Fax: (907) 456-3091  
[Dick.Shideler@alaska.gov](mailto:Dick.Shideler@alaska.gov)

Ms. Aleria Jensen



## 8. Awareness Training

All Eni and contractor personnel will receive an environmental orientation as part of the North Slope Training Cooperative training before commencing work. This training covers the basic measures taken to minimize human/bear encounters, as well as procedures to follow should a bear be sighted.

The Environmental Advisors and/or Security Captains annually provide training on the site-specific procedures described in this plan. This training is generally held at the safety meetings of on-site work groups. The training is documented in sign-in sheets maintained by the Environmental Advisors.

The instruction is based on the following two fundamental principles:

- Early detection and safe avoidance procedures are the best guarantees that a harmful encounter (for either bears or people) will not occur.
- Denning locations are to be avoided by at least one mile during winter work and travel activities. Based on the USFWS electronic tracking program and recent FLIR studies, no dens are presently identified in the project area. However, suitable habitat for denning does exist to the north and northeast of the project location. Den locations, if found, should be reported to Security, who will verify the location and gather additional information. Security and/or the Environmental Advisor will report the dens to the USFWS, Marine Mammals Management Office.



## 9. Polar Bear Avoidance and Encounter Procedures

Should a bear or bear sign (such as tracks) be discovered within the vicinity of a work area, workers are to contact Security, providing their name and contact number, then stay in the area, if safe to do so, until Security arrives.

Security will make radio all-calls to all appropriate radio frequencies when a bear is in close proximity to a pad or other work area. The announcements are to include information on the location of the bear, instructions on appropriate avoidance, and/or area-specific safety measures.

Such announcements may include instructions for workers to evacuate to secure areas, such as buildings (excluding warm-up shacks and similar light structures) and cabs of large trucks or other heavy equipment. If only a pickup truck or similar-size vehicle is available, personnel should drive the vehicle away from the bear.

Security will monitor and deter or haze the bear, as necessary. Only when it has been determined by subsequent inspection that bears are no longer present, will the alert be lifted. Heavy equipment operators should sweep their headlights around the work area or use portable light plants before exiting their trucks.

The steps outlined below are applicable to all workers. The central purpose of these procedures is to detect the presence of polar bears in work areas in order to avoid the chance of encounters:

- If your work assignment requires that you be outside of areas secure from polar bears, supervisors are to check with Security as to whether bears or bear signs have been reported. Potential situations where this may apply are: when walking between enclosed structures at drill pad locations and when outside vehicles at various work locations.
- Arrange with your crew foreman to maintain either radio or visual contact with Security, so that you can be immediately alerted to select a secure place in an event of a polar bear approaching the area.
- Plan in advance the best route from where you are working to secure locations.
- When working off the pads or in areas of less illumination or low visibility, exercise special alertness to the possibility of bears. Pay particular attention to the snow push areas, around dumpsters, and behind buildings/structures.
- If it is necessary to remain away from the camp dining hall for meals, snacks or coffee breaks, make sure that all food is safely stored in containers and inside vehicles during transport to your place of work. Leave no food, food wastes, or other material that may



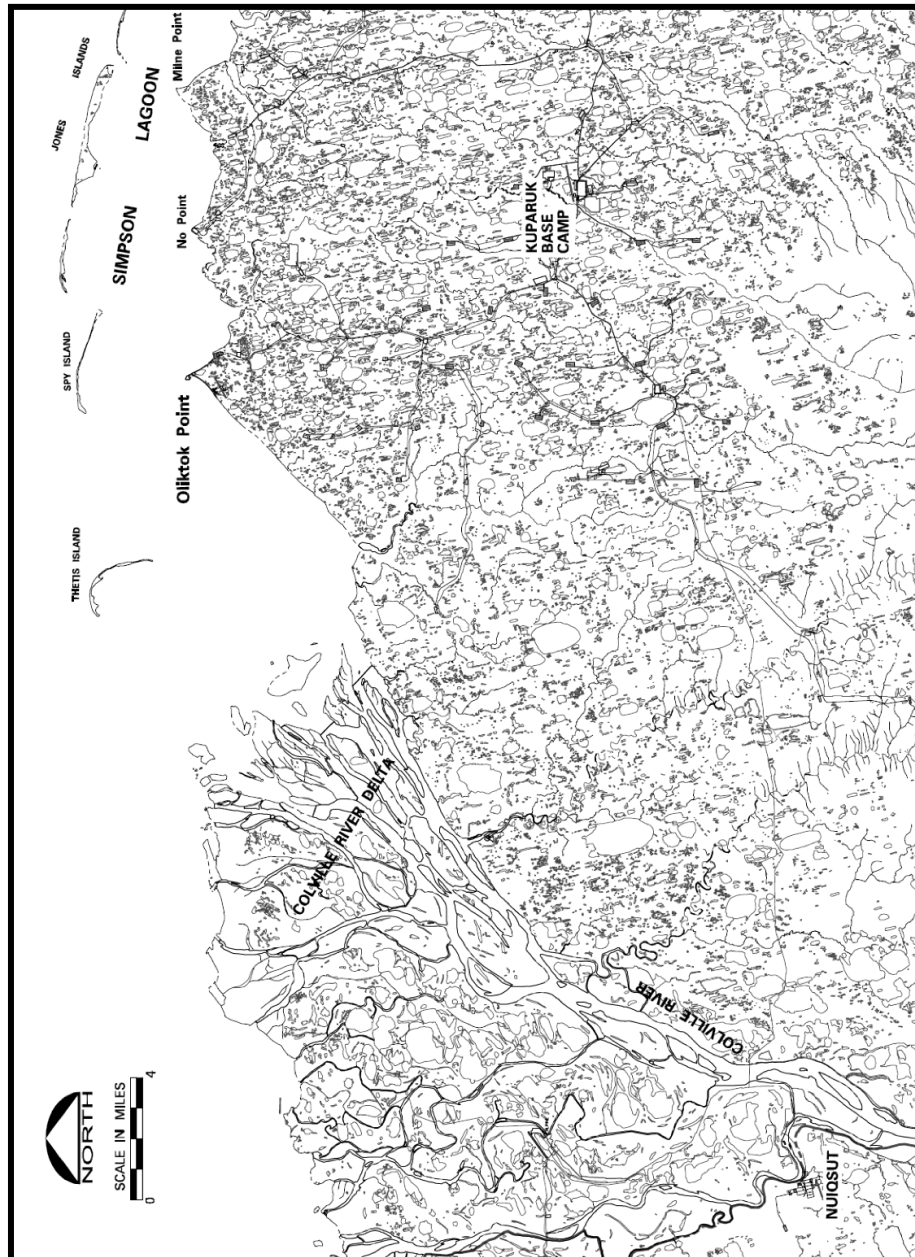
attract bears in an unoccupied vehicle or outside. Do not place food waste garbage (wrappers) in pick-up beds.

- If you see a bear or bear sign close to your work area, immediately seek refuge in a secure place and alert other workers in your area (e.g., by a radio call or by three short blasts of an air horn or vehicle horn).
- Never remain in an exposed position or travel closer to a known bear in order to view or photograph the bear.
- Do not follow or interfere with Security when they are monitoring a bear. Do not attempt to deter or make the bear move.





## 8. APPENDIX A – Project Vicinity Maps for the Nikaitchuq and Oooguruk Development









## 9. APPENDIX B – Sample Polar Bear Sighting Report Form



**Eni US Operating Co. Inc.**  
**Polar Bear Sighting Report**  
 United States Department of the Interior  
 FISH AND WILDLIFE SERVICE  
 1011 E. Tudor Road  
 Anchorage, Alaska 99503-6199

**Company:** Eni US Operating Co. Inc.

**Date:** [Click here to enter a date.](#)

**Time:** Time of encounter.

**LOA #:** 16-INT-13

**Observer Name:** [Click here to enter text.](#)

**Contact Number/Email:** 907-685-1450

[NIKSecurityCaptains@enipetroleum.com](mailto:NIKSecurityCaptains@enipetroleum.com)

**Location of observer:** ☐ SID ☐ OPP ☐ NOC **Other:** [Enter location.](#)

**Location of bear(s):** [Click here to enter text.](#)

**Weather conditions:** ☐ Fog ☐ Snow ☐ Rain ☐ Clear ☐ Cloudy

**Temperature:** [Enter in degree F.](#) **Visibility:** [Choose an item.](#) **Ice conditions:** [Choose an item.](#)

**Wind speed:** [Enter speed in mph.](#) **Wind direction:** [Enter direction.](#)

**Number of bears:**

<a href="#">Enter #</a>	<b>Adult:</b> <input type="checkbox"/> M <input type="checkbox"/> F	<a href="#">Enter #</a>	<b>Sub-Adult</b>	<a href="#">Enter #</a>	<b>Age Unknown</b>
<a href="#">Enter #</a>	<b>Cub(s)</b>				

**Estimated distance of bear(s) from Personnel:** [Click here to enter distance \(yds\).](#)

**Estimated distance of bear(s) from Facility:** [Click here to enter distance \(yds\).](#)

**Possible attractants present:** [Click to enter attractants.](#)

**Bear behavior (initial contact):**

<input type="checkbox"/> Curious	<input type="checkbox"/> Ignore	<input type="checkbox"/> Aggressive	<input type="checkbox"/> Walk	<input type="checkbox"/> Run	<input type="checkbox"/> Swim	<input type="checkbox"/> Hunt	<input type="checkbox"/> Feed
<input type="checkbox"/> Rest	<input type="checkbox"/> Passing through	<input type="checkbox"/> Other:	<a href="#">Click here to enter behavior.</a>				

**Bear behavior (after contact):**

<input type="checkbox"/> Curious	<input type="checkbox"/> Ignore	<input type="checkbox"/> Aggressive	<input type="checkbox"/> Walk	<input type="checkbox"/> Run	<input type="checkbox"/> Swim	<input type="checkbox"/> Hunt	<input type="checkbox"/> Feed
<input type="checkbox"/> Rest	<input type="checkbox"/> Passing through	<input type="checkbox"/> Other:	<a href="#">Click here to enter behavior.</a>				

**Description of encounter:** [Click here to enter text.](#)

**Duration of encounter:** [Enter X Hours.](#) [Enter X Minutes.](#)

**Deterrents used:**

<input type="checkbox"/> None	<input type="checkbox"/> Vehicle	<input type="checkbox"/> Super Sock	<input type="checkbox"/> Horn/siren	<input type="checkbox"/> Spotlight/headlight
-------------------------------	----------------------------------	-------------------------------------	-------------------------------------	--

☐ Other: [Click here to enter deterrent.](#)

**Report Distribution and Agency Contacts:**

USFWS: Christopher Putnam (907)786-3844; Fax: 907-786-3816; email [fw7\\_mmm\\_reports@fws.gov](mailto:fw7_mmm_reports@fws.gov)  
 ADF&G: Dick Shideler ([Dick.Shideler@alaska.gov](mailto:Dick.Shideler@alaska.gov); 907-459-7283; Fax: 907-459-7332)  
 BOEM: William Ingersoll ([william.ingersoll@boem.gov](mailto:william.ingersoll@boem.gov); 907-334-5224)  
 NMFS: Aleria Jensen ([Aleria.Jensen@noaa.gov](mailto:Aleria.Jensen@noaa.gov); 907-586-7248)  
 Eni Environmental ([NikEnvCoord@enipetroleum.com](mailto:NikEnvCoord@enipetroleum.com); 907-685-1457)

Email sent to above distribution on: [Click here to enter a date.](#)

pro-hse-121-ahs-B

Polar Bear Interaction Plan

Rev. 02 (24 August 2017)



**Attachment D****Personnel with USFWS Certification for MMPA Polar Bear Hazing**

Antrim, Marc  
Bartley, Jacob A.  
Bauer, Leigh J.  
Busby, Bruce  
Butler, Ryan  
Coulman, Cory  
Crowell, Charles  
Culbreth, David  
Dutton, Billie  
Duyck, TerryAnn  
Elmer, Randy  
Gonzalez, Angel  
Lavka, Ryan  
Lee, Dennis  
McCarthy, Sean  
Miller, Randy  
Morgan, Julie  
Nagel, Bryan  
Ono, Wolsung  
Ramsey, Daniel  
Reeves, Alex  
Reimer, Thomas  
Shaver, Jamie  
Sloan, Kathleen  
Springer, Nathan  
Thurnau, Chris  
Villaluz, Gerardo  
Walgamott, Spencer  
Waters, Randell  
Wikheim, Chadwick  
Williamson, Walter

