

**2016 OPEN WATER SEASON
PROGRAMMATIC CONFLICT AVOIDANCE
AGREEMENT**

BETWEEN

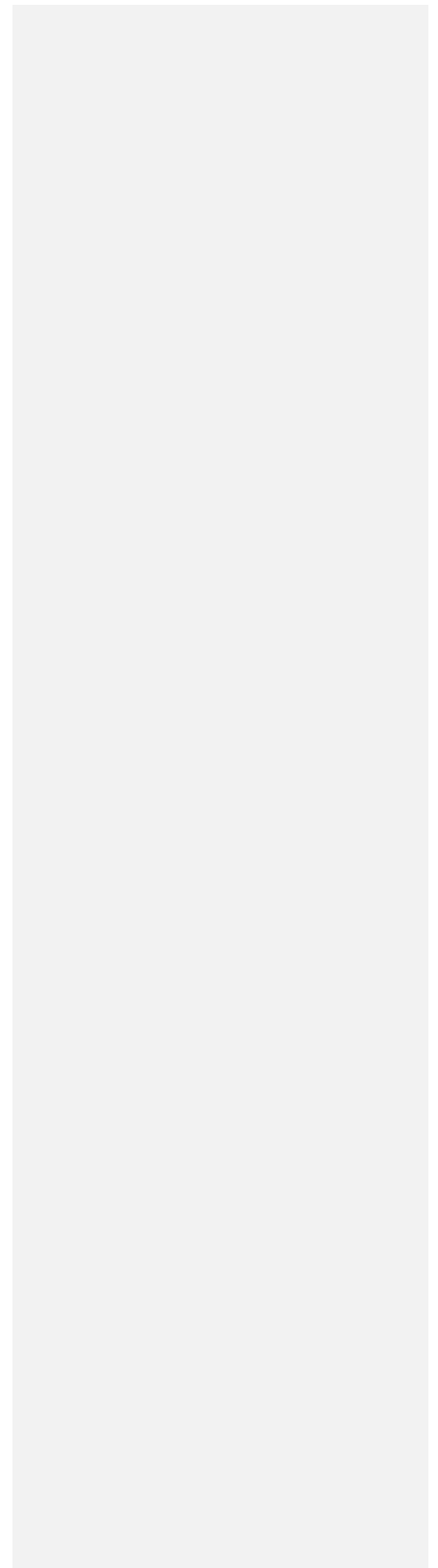
**ENI US OPERATING CO, INC.
EXXON MOBIL CORPORATION
CAELUS ENERGY ALASKA, LLC.
SAExploration
HILCORP ENERGY COMPANY
FAIRWEATHER, LLC**

AND

**THE ALASKA ESKIMO WHALING COMMISSION
THE BARROW WHALING CAPTAINS' ASSOCIATION
THE GAMBELL WHALING CAPTAINS' ASSOCIATION
THE KAKTOVIK WHALING CAPTAINS' ASSOCIATION
THE KIVALINA WHALING CAPTAINS' ASSOCIATION
THE LITTLE DIOMEDE WHALING CAPTAINS'
ASSOCIATION
THE NUIQSUT WHALING CAPTAINS' ASSOCIATION
THE PT. HOPE WHALING CAPTAINS' ASSOCIATION
THE PT. LAY WHALING CAPTAINS' ASSOCIATION
THE SAVOONGA WHALING CAPTAINS'
ASSOCIATION
THE WAINWRIGHT WHALING CAPTAINS'
ASSOCIATION
THE WALES WHALING CAPTAINS' ASSOCIATION**

APPENDIX 1: INDIVIDUALS TO CONTACT

APPENDIX 2: LOCAL SAR CONTACTS



SECTION 1: PURPOSE

The purpose of this Agreement is to provide:

- A. Equipment and procedures for communications between Subsistence Participants and Industry Participants;
- B. Avoidance guidelines and other mitigation measures to be followed by the Industry Participants working in or transiting the vicinity of active subsistence hunters, in areas where subsistence hunters anticipate hunting, or in areas that are in sufficient proximity to areas expected to be used for subsistence hunting that the planned activities could potentially adversely affect the subsistence bowhead whale hunt through effects on bowhead whales;
- C. Measures to be taken in the event of an emergency occurring during the term of this Agreement; and
- D. Dispute resolution procedures.

SECTION 2: AVOIDING CONFLICTS DURING THE OPEN WATER SEASON

Industry Participants are reminded that Sections 101(a)(5)(A) and (D) of the Marine Mammal Protection Act provide, among other things, that the Secretary can authorize the incidental taking of small numbers of marine mammals of a species or population stock if the Secretary finds, among other things, that the total of such takings during the authorized period will not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses.

The following Operating Guidelines apply in the Beaufort Sea and Chukchi Sea, except as otherwise specified and in all cases with due regard to environmental conditions and operational safety. These Operating Guidelines are in addition to any permit restrictions or stipulations imposed by the applicable governmental agencies.

A. VESSELS AND AIRCRAFT

1. Routing Vessels and Aircraft

(a) All vessel and aircraft routes shall be planned so as to minimize any potential conflict with bowhead whales or bowhead subsistence whaling activities. All vessels shall avoid areas of active or anticipated whaling activity.

(b) Beaufort Sea. Vessels transiting east of Bullen Point to the Canadian border should remain at least five (5) miles offshore during transit along the coast, provided ice and sea conditions allow.

(c) Chukchi Sea. Vessels should remain as far offshore as weather and ice conditions allow, and at least five (5) miles offshore during transit.

(d) Safe Harbor / Loitering. Notwithstanding paragraphs 2 and 3, from August 31 to October 31 vessels in the Chukchi Sea or Beaufort Sea shall remain at least 20 miles offshore of the coast of Alaska from Icy Cape in the Chukchi Sea to Pitt Point on the east side of Smith Bay in the Beaufort Sea whether in transit or engaging in activities in support of oil and gas operations unless ice conditions or an emergency that threatens the safety of the vessel or crew prevents compliance with this requirement. This paragraph shall not apply to vessels actively engaged in transit to or from a coastal community to conduct crew changes or logistical support operations.

2. Aircraft Altitude Floor and Flight Path

(a) AIRCRAFT SHALL NOT OPERATE BELOW 1500 FEET unless the aircraft is engaged in marine mammal monitoring, approaching, landing or taking off, or unless engaged in providing assistance to a whaler or in poor weather (low ceilings) or any other emergency situations. Aircraft engaged in marine mammal monitoring shall not operate below 1500 feet in areas of active whaling; such areas to be identified through communications with the Com-Centers.

(b) Except for airplanes engaged in marine mammal monitoring, aircraft shall use a flight path that keeps the aircraft at least five (5) miles inland until the aircraft is directly south of its offshore destination, then at that point it shall fly directly north to its destination.

3. Vessel Speeds: Vessels shall be operated at speeds necessary to ensure no physical contact with whales occurs, and to make any other potential conflicts with bowhead whales or whalers unlikely. Vessel speeds shall be less than 10 knots in the proximity of feeding whales or whale aggregations.

4. Vessels Operating in Proximity of Bowhead Whales: If any vessel inadvertently approaches within 1.6 kilometers (1 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales by taking one or more of the following actions, as appropriate:

- (a) reducing vessel speed to less than 5 knots within 900 feet of the whale(s);
- (b) steering around the whale(s) if possible;

(c) operating the vessel(s) in such a way as to avoid separating members of a group of whales from other members of the group;

(d) operating the vessel(s) to avoid causing a whale to make multiple changes in direction; and

(e) checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.

B. GEOPHYSICAL ACTIVITY LIMITATIONS

The following operating limitations are to be observed and the operations are to be accompanied by a monitoring plan as set forth in Section 403 and Attachment III of this Agreement. The Industry Participants conducting geophysical activity agree to coordinate the timing and location of such activity so as to reduce, by the greatest extent reasonably possible, the level of noise energy entering the water from such activity at any given time and at any given location.

1. Limitations on Geophysical Activity in the Beaufort Sea: All geophysical activity in the Beaufort Sea shall be conducted in accordance with the terms set forth below.

(a) **Kaktovik**: No geophysical activity from the Canadian Border to the Canning River (146 deg. 4 min. W) from 25 August to close of the fall bowhead whale hunt in Kaktovik and Nuiqsut.¹ From August 10 to August 25, Industry Participants will communicate and collaborate with AEWC on any planned vessel movement in and around Kaktovik and Cross Island to avoid impacts to the whale hunt.

(b) **Nuiqsut**:

(i) Pt. Storkerson (~148 deg. 42 min. W) to Thetis Island (~150 deg. 10.2 min. W).

(A) *Inside the Barrier Islands*: No geophysical activity prior to July 25. Geophysical activity is allowed from July 25 until completion of operations

¹ The bowhead whale subsistence hunt will be considered closed for a particular village when the village Whaling Captains' Association declares the hunt ended or the village quota has been exhausted (as announced by the village Whaling Captains' Association or the AEWC), whichever occurs earlier.

(B). *Outside the Barrier Islands*: No geophysical activity from August 25 to close of fall bowhead whale hunting in Nuiqsut. Geophysical activity is allowed at all other times.²

(C) Canning River (~146 deg. 4 min. W) to Pt. Storkerson (~148 deg. 42 min. W): No geophysical activity from August 25 to the close of bowhead whale subsistence hunting in Nuiqsut.

(c) Barrow: No geophysical activity from Pitt Point on the east side of Smith Bay (~152 deg. 15 min. W) to a location about half way between Barrow and Peard Bay (~157 deg. 20 min. W) from September 15 to the close of the fall bowhead whale hunt in Barrow.

(d) Limitations on Geophysical Activity in the Chukchi Sea: All geophysical activity in the Chukchi Sea shall be conducted in accordance with the terms set forth below.

(i) Beginning September 15, and ending with the close of the fall bowhead whale hunt,³ if Wainwright, Pt. Lay, or Pt. Hope intend to whale in the Chukchi Sea, no more than two geophysical activities employing geophysical equipment within 60 miles of the coastline will occur at any one time in the Chukchi Sea. During the fall bowhead whale hunt, geophysical equipment will not be used by Participants within 30 miles of any point along the Chukchi Sea coastline. Industry Participants will contact the Whaling Captains' Associations of each of those villages to determine if a village is prepared to whale and will notify the AEWG of any response.

(ii) Safe harbor will be at sites selected by the Industry Participants and the AEWG. Safe harbor sites will be agreed upon no later than the beginning of operations and shall be listed in Attachment IV. However, a vessel captain will seek safety for his assets (vessel and personnel) as is his duty under the Law of the Sea.

(iii) Any vessel operating within 60 miles of the Chukchi Sea coast will follow the communications procedures set forth in Section 3 of this Agreement. All vessels will adhere to the conflict avoidance measures set forth in Section 2. A. of this Agreement.

² Geophysical activity allowed in this area after August 25 shall include a source array of no more than 12 air guns, a source layout no greater than 8 m x 6 m, and a single source volume no greater than 880 in³.

³ The bowhead whale subsistence hunt will be considered closed when village Whaling Captains' Associations of Wainwright, Pt. Lay, and Pt. Hope have each declared that (A) they do not intend to hunt, (B) their village hunt has ended, or (C) the village quota has been exhausted (as announced by the village Whaling Captains' Association or the AEWG), whichever occurs earlier.

(iv) If a dispute should arise, the resolution process set forth in Section 6. D. of this Agreement shall apply.

(v) Notwithstanding any other provision of this Agreement, any Industry Participant who engages exclusively in geophysical activities that are conducted at least 45 miles or more from the Alaska coast in the Chukchi Sea shall only be responsible for complying with consultation with the AEWC regarding the timing and location of their proposed activities and any mitigation measures required to avoid conflict with subsistence whaling activities.

C. DRILLING AND PRODUCTION

1. Camden Bay: For exploratory drilling and production between 144 deg. W and the Canning River (~146 deg. 4 min. W), zero discharge of:

- (a) drilling fluids;
- (b) cuttings after 20" casing;
- (c) treated sanitary and gray water; and
- (d) ballast and bilge water.

2. Drilling Operations in the Beaufort Sea East of Cross Island: No drilling equipment or related vessels used for at-sea oil and gas operations shall be onsite at any offshore drilling location east of Cross Island from 25 August until the close of the bowhead whale hunt in Nuiqsut and Kaktovik. However, such equipment may remain within the Beaufort Sea in the vicinity of 71 degrees 25 minutes N and 146 degrees 4 minutes W., or at the edge of the Arctic ice pack, whichever is closer to shore.

3. Drilling Operations in the Beaufort Sea West of Cross Island: In 2016, no drilling equipment or related vessels used for at-sea oil and gas operations shall be moved onsite at any location outside the barrier islands west of Cross Island until the close of the bowhead whale hunt in Barrow.

4. Oil Spill Mitigation Agreement: Industry Participants engaged in drilling operations agree to enter into a binding oil spill mitigation agreement with the Alaska Eskimo Whaling Commission, the North Slope Borough, and the Inupiat Community of the Arctic Slope to provide for hunter transport to alternate hunting locations in the event of an oil spill.

D. SHORE-BASED SERVICE AND SUPPLY AREAS.

Shore-based service and supply areas used by Industry Participants shall be located and operated so as to ensure compliance with the terms of this Agreement.

E. TERMINATION OF OPERATIONS AND TRANSIT THROUGH THE BERING STRAIT

All Industry Participant vessels shall complete operations in time to allow such vessels to complete transit through the Bering Strait to a point south of 59 degrees North latitude no later than November 15, 2016. Any Industry Participant vessel that encounters weather or ice that will prevent compliance with the date in the preceding sentence shall coordinate its transit through the Bering Strait to a point south of 59 degrees North latitude with the appropriate Com-Centers. All Industry Participant vessels shall, weather and ice permitting, transit east of St. Lawrence Island and no closer than 12 miles from the shore of St. Lawrence Island.

F. POST-SEASON REVIEW / PRESEASON INTRODUCTION

1. Beaufort Sea Post-Season Joint Meeting: Following the end of the fall 2016 bowhead whale subsistence hunt and prior to the 2017 Pre-Season Introduction Meetings, the Industry Participant that establishes the Deadhorse and Kaktovik Com Centers will offer to the AEWC Chairman to host a joint meeting with all whaling captains of the Villages of Nuiqsut, Kaktovik and Barrow, the Marine Mammal Observer / Inupiat Communicators stationed on the Industry Participants' vessels in the Beaufort Sea, and with the Chairman and Executive Director of the AEWC, at a mutually agreed upon time and place on the North Slope of Alaska, to review the results of the 2016 Beaufort Sea Open Water Season, unless it is agreed by all designated individuals or their representatives that such a meeting is not necessary.

2. Chukchi Sea Post-Season Village Meetings: Following the completion of the 2016 Chukchi Sea Open Water Season and prior to the 2016 Pre-Season Introduction Meetings, the Industry Participants involved, if requested by the AEWC or the Whaling Captain's Association of each village, will host a meeting in each of the following villages: Wainwright, Pt. Lay, Pt. Hope, Kivalina, Little Diomed, Wales, Savoonga, and Barrow (or a joint meeting of the whaling captains from all of these villages if the whaling captains agree to a joint meeting) to review the results of the 2016 operations and to discuss any concerns residents of those villages might have regarding the operations. The meetings will include the Marine Mammal Observer / Inupiat Communicators stationed on the Industry Participants' vessels in the Chukchi Sea. The Chairman and Executive Director of the AEWC will be invited to attend the meeting(s).

3. Pre-season Introduction Meetings:

(a) Immediately following each of the above meetings, and at the same location, the Industry Participants will provide a brief introduction to their planned operations

for the 2016 Open Water Season. Each Industry Participant should provide hand-outs explaining their planned activities that the whaling captains can review.

(b) Subsistence Participants understand that any planned operations discussed at these Pre-Season Introduction Meetings, and the corresponding maps, will represent the Industry Participant's best estimate at that time of its planned operations for the coming year, but that these planned operations are preliminary, and are subject to change prior to the 2016 Open Water Season Meeting.

4. Map of Planned Industry Participant Activities: As practicable, Industry Participants shall jointly prepare and provide the AEWG with a large-scale map of the Beaufort and Chukchi Seas showing the locations and types of oil and gas and barge and transit activities planned by each Industry Participant.

G. EMERGENCY AND OTHER NECESSARY ASSISTANCE

1. Emergency Communications: ALL VESSELS SHOULD NOTIFY THE APPROPRIATE COM-CENTER IMMEDIATELY IN THE EVENT OF AN EMERGENCY. The appropriate Com-Center operator will notify the nearest vessels and appropriate search and rescue authorities of the problem and advise them regarding necessary assistance. (See attached listing of local search and rescue organizations in Appendix 2.)

2. Emergency Assistance for Subsistence Whale Hunters: Section 403 of Public Law 107-372 (16 U.S.C. 916c note) provides that "Notwithstanding any provision of law, the use of a vessel to tow a whale, taken in a traditional subsistence whale hunt permitted by Federal law and conducted in waters off the coast of Alaska is authorized, if such towing is performed upon a request for emergency assistance made by a subsistence whale hunting organization formally recognized by an agency of the United States government, or made by a member of such an organization, to prevent the loss of a whale." Industry Participants will advise their vessel captains that, under the circumstances described above, assistance to tow a whale is permitted under law when requested by a Subsistence Participant. Under the circumstances described above, Industry Participants will provide such assistance upon a request for emergency assistance from a Subsistence Participant, if conditions permit the Industry Participant's vessel to safely do so.

SECTION 3: OPEN WATER SEASON COMMUNICATIONS

A. PROTECTED SPECIES OBSERVERS (PSOs)

1. Each Industry Participant agrees to employ a local PSO on board each Primary Sound Source Vessel owned or operated by such Industry Participant in the Beaufort Sea or Chukchi Sea. Native residents of the eleven villages represented by

the Alaska Eskimo Whaling Commission shall be given preference in hiring for local PSO positions.

Except that:

Industry Participants whose seismic acquisition operations are limited to an area exclusively within the barrier islands may employ a PSO on one Primary Sound Source Vessel only.

Industry Participants are not required to employ a PSO on Near Shore Operations Support Vessels.

For Industry Participants conducting sealift operations in which two tugs towing barges are accompanied within ½ mile by a third light tug at all times, a PSO is required to be employed on the light tug only.

2. Duties of Protected Species Observer: Each PSO is to be employed as an observer and Inupiat communicator for the duration of the 2016 Open Water Season on the vessel on which he or she is stationed.

As a member of the crew, the PSO will be subject to the regular code of employee conduct on board the vessel and will be subject to discipline, termination, suspension, layoff, or firing under the same conditions as other employees of the vessel operator or appropriate contractor.

Once the source vessel on which the PSO is employed is in the vicinity of a whaling area and the whalers have launched their boats, the PSO's primary duty will be to carry out the communications responsibilities set out in this Title.

At all other times, the PSO will be responsible for keeping a lookout for bowhead whales and/or other marine mammals in the vicinity of the vessel to assist the vessel captain in avoiding harm to the whales and other marine mammals.

It is the PSO's responsibility to call the appropriate Com-Center as set out below.

The PSO will be responsible for all radio contacts between vessels owned or operated by each of the Industry Participants and whaling boats covered under this Agreement and shall interpret communications as needed to allow the vessel operator to take such action as may be necessary pursuant to this Agreement.

The PSO shall contact directly subsistence whaling boats that may be in the vicinity to ensure that conflicts are avoided to the greatest possible extent.

The PSO will maintain a record of his or her communications with each Com-Center and the subsistence whaling boats, as well as any marine mammal sightings by the PSO.

B. 2016 COM-CENTER GENERAL COMMUNICATIONS SCHEME

1. Reporting Positions for Vessels Owned or Operated by the Industry Participants

(a) All vessels shall report to the appropriate Com-Center at least once every six hours commencing with a call at approximately 06:00 hours. Each call shall report the following information:

Industry Participant Vessel:

- (i) Name of caller and vessel.
- (ii) Vessel location, speed, and direction.
- (iii) Time of call.
- (iv) Anticipated movements between this call and the next report.
- (v) Reports of any industry or subsistence activities.

(b) The appropriate Com-Center shall be notified if there is any significant change in plans, such as an unannounced start-up of operations or significant deviations from announced course, and such Com-Center shall notify all whalers of such changes. A call to the appropriate Com-Center shall be made regarding any unsafe or unanticipated ice conditions.

(c) In the event that the Industry Participant's operation includes seismic data acquisition, the operator reserves the right to restrict exact vessel location information and provide more general location information.

2. Reporting Positions for Subsistence Whale Hunting Crews⁴

(a) All subsistence whaling captains shall report to the appropriate Com-Center at the time they launch their boats from shore and again when they return to shore.

Subsistence Whale Hunting Boat:

- (i) Name of caller.
- (ii) GPS location of boat or camp.
- (iii) Time of call.
- (iv) Plans for travel.

⁴ Any report of the number of whales struck, lost, or landed, or of the number of strikes remaining, shall be kept confidential and shall not be disclosed by the Com-Center or any Com-Center operator to anyone other than the AEWC or the local Whaling Captains' Association. The location of whales struck, lost, or landed shall be kept confidential and shall not be disclosed except to the extent needed to avoid an Industry/Subsistence Whale Hunter conflict.

(v) Any special information such as caught whale, whale to be towed, or industry vessel conflicts with whale or whaler.

(b) All subsistence whaling captains shall report to such Com-Center the initial GPS coordinates of their whaling camps.

(c) The final call of the day shall include a statement of the whaling captain's general area of expected operations for the following day, if known at the time.

(d) Any subsistence whale hunter preparing to tow a caught whale shall report to the appropriate Com-Center before starting to tow.

(e) Each time a subsistence whaling camp is moved, it shall be reported promptly to the appropriate Com-Center, including the new GPS coordinates.

(f) Subsistence whale hunters shall notify the appropriate Com-Center promptly if, due to weather or any other unforeseen event, whaling is not going to take place that day.

(g) Subsistence whaling captains shall contact the appropriate Com-Center promptly and report any unexpected movements of their vessel.

C. RESPONSIBILITIES OF PARTICIPANTS

1. Monitoring VHF Channel 16: All vessels shall monitor marine VHF Channel 16 at all times.

2. Avoidance of Whale Hunting Crews and Areas: It is the responsibility of each vessel owned or operated by any of the Industry Participants to determine the positions of all of their vessels and to exercise due care in avoiding any areas where subsistence whale hunting is active.

3. Vessel-to-Vessel Communication: After any vessel owned or operated by any of the Industry Participants has been informed of or has determined the location of subsistence whale hunting boats in its vicinity, the PSO shall contact those boats in order to coordinate movement and take necessary avoidance precautions.

D. THE COMMUNICATIONS CENTERS (COM-CENTERS)

1. Chukchi Lead System Included in Com-Center Coverage: In addition to the Beaufort Sea and Chukchi Sea, the communications scheme shall apply in the Chukchi Sea lead system, as identified and excluded from leasing in the current MMS Five-Year Leasing Program.

2. 2016 Com-Centers and Village Points of Contact

- (a) KAKTOVIK: The Com-Center will be operational for 2016.
- (b) DEADHORSE: The Com-Center will be operational for 2016.
- (c) BARROW: Contact:

Barrow Search and Rescue: 907-852-2808
North Slope Borough Search and Rescue:
April Brower: april.brower@north-slope.org
852-2822 WK
852-6818 WK
878-2602 Cell

- (c) WAINWRIGHT: One Duty Phone installed from July 1 - August 31.

PHONE: 907 370-7006
EMAIL: wainwrightpoc@gmail.com

- (d) KOTZEBUE: One Duty Phone installed from June 15 - September 15.

PHONE: 907 538-5201
EMAIL: kotzebuepoc@gmail.com

(b) All Com-Centers and Duty Phones will be staffed by Inupiat operators. The Wainwright and Kotzebue Duty Phones will be staffed on 12-hour shifts from 0600 to 1800. The Kaktovik Com-Center will be staffed 0600 to 1600, or one hour prior to the whalers departure and one hour after their return. The Deadhorse Com-Center will be staffed 12 hours per day, from from 0600 to 1800, from August 15, or one week before the start of the fall bowhead whale hunt in each respective village, until the end of the bowhead whale subsistence hunt. GROUND TRANSPORTATION BE PROVIDED, IF NEEDED, FOR COM-CENTER OPERATIONS IN KAKTOVIK FOR POLAR BEAR AND BROWN BEAR SAFETY.

(c) Each Industry Participant shall contribute to the funding of the Com-Centers covering the areas in which it conducts oil and gas operations. The level of funding for the Com-Centers provided by each of the Industry Participants is intended to be in proportion to the scale of their respective activities, and shall be mutually agreed by the Industry Participants.

- (d) All Com-Center staff shall be local hire

3. Duties of the Com-Center Operators

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Comment [1]:
0600 to 1800 hours seven days a week

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Comment [2]:
Same as above - 0600 to 1800 for 12 hours per day

(a) The Com-Center operators shall be available to receive radio and telephone calls and to call vessels as described below. A record shall be made of all calls from every vessel contacted or calling in. The record of all reporting calls should contain the following information:

- (i) Industry Participant Vessel:
 - (A) Name of caller and vessel.
 - (B) Vessel location, speed, and direction.
 - (C) Time of call.
 - (D) Anticipated movements between this call and the next report.
 - (E) Reports of any industry or subsistence activities.

- (ii) Subsistence Whale Hunting Boat:
 - (A) Name of caller.
 - (B) Location of boat or camp.
 - (C) Time of call.
 - (D) Plans for travel.
 - (E) Any special information such as caught whale, whale to be towed,

or industry vessel conflicts with whale or whaler. Any report of the number of whales struck, lost, or landed, or of the number of strikes remaining, shall be kept confidential and shall not be disclosed by the Com-Center or any Com-Center operator to anyone other than the AEWC or the local Whaling Captains' Association. The location of whales struck, lost, or landed shall be kept confidential and shall not be disclosed except to the extent needed to avoid an Industry/Subsistence Whale Hunter conflict.

(b) Report of Industry/Subsistence Whale Hunter Conflict. In the event an industry/subsistence whale hunter conflict is reported, the appropriate Com-Center operator shall record:

- (i) Name of industry vessel.
- (ii) Name of subsistence whaling captain.
- (iii) Location of vessels.
- (iv) Nature of conflict, data, and time.

(c) If any vessels or boats have not reported to the appropriate Com-Center within one hour of the recommended time, that Com-Center operator shall attempt to call all non-reporting vessels to determine the information set out above under the Duties of the Com-Center operator.

(d) Com-Center operators shall plot the location and area of probable operations on the large map provided at the Com-Center, based on call information.

(e) If, in receiving information or plotting it, a Com-Center operator observes that operations by Industry Participants might conflict with subsistence whaling activi-

ties, such Com-Center operator shall contact the industry vessel involved and advise the Industry Participant's Local Representative(s) and the vessel operators of the potential conflict.

4. Standardized Log Books

The Industry Participants will provide the PSOs with identical log books to assist in the standardization of record keeping under this Agreement.

5. Communications Equipment

Communications Equipment to be Provided to Subsistence Whale Hunting Crews.

(a) *In General.* The Industry Participants will provide (or participate in the provision of) the communications equipment described in paragraphs (4) and (6) of this subsection and subsection (b) of this section.

(b) *Beaufort Sea.* The Industry Participants funding Com-Centers in Deadhorse and Kaktovik will fund the provision of communications equipment for the whaling captains of Kaktovik and Nuiqsut in the same proportion as they fund those Com-Centers.

(c) *Chukchi Sea.* The Industry participants conducting operations in the Chukchi Sea will coordinate with each other to participate in funding the provision of communications equipment for the whaling captains of Barrow, Wainwright, Pt. Hope, and Pt. Lay.

(d) *All-Channel, Water-Resistant VHF Radios.* These VHF radios are specifically designed for marine use and allow monitoring of Channel 16 while using or listening to another channel.

- (i) Kaktovik Subsistence Whaling Boats: 8
- (ii) Kaktovik Base and Search and Rescue: 2
- (iii) Nuiqsut Subsistence Whaling Boats: 12
- (iv) Nuiqsut Base and Search and Rescue: 3
- (v) Barrow Base and Search and Rescue: 2
- (vi) Wainwright Base and Search and Rescue: 2
- (vii) Wainwright Subsistence Whaling Boats: 4
- (viii) Pt. Hope Base and Search and Rescue: 2
- (ix) Pt. Hope Subsistence Whaling Boats: 10
- (x) Pt. Lay Base and Search and Rescue: 2
- (xi) Pt. Lay Subsistence Whaling Boats: 4

(e) *Specific VHF Channels For Each Village*

The whaling boats from each of the villages have been assigned individual VHF channels for vessel-to-vessel and vessel-to-Com-Center communications as follows:

- (i) Nuiqsut whaling crews will use Channel 68.
- (ii) Kaktovik whaling crews will use Channel 69.
- (iii) Barrow whaling crews will use Channel 72.
- (iv) Wainwright Whaling Crews will use Channel 12.
- (v) Pt. Lay Whaling Crews will use Channel 72.
- (vi) Pt. Hope Whaling Crews will use Channel 68.

(f) *Satellite Telephones*

The satellite telephones or other satellite technology may be used as backup for the VHF radios. Satellite communication for use on subsistence whaling boats are for emergency use only and should be programmed for direct dial to the nearest Com-Center.

- (i) Kaktovik Base Phones: 2
- (ii) Kaktovik Subsistence Whaling Boats: 8
- (iii) Nuiqsut Base Phones: 2
- (iv) Nuiqsut Subsistence Whaling Boats: 12
- (v) Barrow Subsistence Whaling Boats: 2
- (vi) Wainwright Subsistence Whaling Boats: 4
- (vii) Pt. Lay Subsistence Whaling Boats: 2

(g) *Distribution and Return of Equipment*

The distribution of the VHF radios and satellite telephone equipment to whaling captains for use during the 2016 fall bowhead subsistence whale hunting season shall be completed no later than August 15, 2016. All such units and telephone equipment provided under this Agreement, whether in this section or otherwise, will be returned promptly by the Subsistence Participants to the Industry Participant or the person providing such units and equipment at the end of each Village's 2016 fall bowhead whale subsistence hunt.

(h) *Communications Equipment on Vessels Owned or Operated by the Industry Participants and/or their Contractors*

The PSOs onboard source vessels owned or operated by the Industry Participants and/or their contractors will also be supplied with all-channel VHF radios. The PSOs have been assigned Channel 7 for their exclusive use in communicating with the Com-Center. Such radios shall be returned upon the completion or termination of the PSO's assignment.

Administrator 5/4/2016 10:58 AM

Comment [3]:

To allow for the use of DeLormes

(i) *Radio Installation and User Training*

The Whaling Captains of Nuiqsut, Kaktovik, Wainwright, Pt. Lay, and Pt. Hope, with assistance from the Industry Participants, will be responsible for the installation of the VHF radio equipment, if needed.

SECTION 4: DEFINITIONS

- A. “Agreement” means this 2016 Open Water Season Programmatic Conflict Avoidance Agreement and any attachments to such agreement.
- B. “At-sea oil and gas operations” does not include gravel islands or fixed platform developments located near shore (for example Northstar or Ooguruk) or Near Shore Operations Support Vessels.
- C. “Barge” means a non-powered vessel that is pushed or towed, and the accompanying pushing or towing vessel, which is used solely to transport materials through the Beaufort Sea or Chukchi Sea. Such term does not include any vessel used to provide supplies or support to at-sea oil and gas operations or Near Shore Operations Support Vessels.
- D. “Beaufort Sea” means all waters off the northern coast of Alaska from Point Barrow to the Canadian border.
- E. “Chukchi Sea” means all waters off the western and northern coasts of Alaska from Cape Prince of Wales to Point Barrow.
- F. “Com-Center” means a communications systems coordination center established under Section 203.
- G. “Geophysical activity” means any activity the purpose of which is to gather data for imaging the marine subsurface environment, including but not limited to use of air guns, sonar, and other geophysical equipment used for seismic exploration or shallow hazard identification. “Geophysical activity” does not include support vessels that are not actively employing geophysical equipment, or other supporting activities that do not generate sound waves for the purposes of imaging the subsurface marine environment.
- H. “Geophysical equipment” means equipment, such as air gun arrays over 300 cubic inches or sparker arrays over 20,000 kJ, employed on a vessel or a towed array, that generates sound waves for the purpose of imaging the subsurface marine environment for exploration and development purposes. The term does not include vessel engines, generators, or sources such as fathometers, fish finders, side-scan sonar, or other sources intended for engineering and /or transportation purposes.
- I. “Industry Participants” means all parties to this Agreement who are not Subsistence Participants.

J. “Protected Species Observer”⁵ means an observer hired by an Industry Participant for the purpose of spotting and identifying marine mammals in the area of that Industry Participant’s operations during the Open Water Season. The PSO also serves as the on-board Inupiat communicator who can communicate directly with whaling crews.

K. “Near Shore Operations Support Vessels” means vessels (including aircraft) used to support related activities (such as supply, re-supply, crew movement, and facility maintenance) for near shore oil and gas operations by an Industry Participant.

L. “NSB” and “NSB DWM” mean the North Slope Borough and the North Slope Borough Department of Wildlife Management, respectively.

M. “Oil and gas operations” means all oil and gas exploration, development, or production activities (including, but not limited to, geophysical activity, exploratory drilling, development activities (such as dredging or construction), production drilling, or production, and related activities (such as supply, re-supply, crew movements, and facility maintenance) by or for any Industry Participant, including aircraft and vessels of whatever kind used in support of such activities, occurring in the Beaufort Sea or Chukchi Sea, whether occurring near shore or offshore, but does not include vessel traffic not associated with the above.

N. “Open Water Season” means the period of the year when ice conditions permit navigation or oil and gas operations to occur in the Beaufort Sea or Chukchi Sea, as appropriate.

O. “Participants” means all parties identified in this Agreement by name and whose representative(s) has signed the Agreement, and all contractors of such parties. When used alone the term includes both Industry Participants and Subsistence Participants.

P. “Primary Sound Source Vessel” means a vessel owned or operated by or for an Industry Participant that (A) employs air gun arrays greater than 300 cubic inches or sparkers greater than 20,000 kJ, for imaging the subsurface environment, (B) is used to monitor any safety zone around a vessel described in subsection (A), (C) is engaged in ice-breaking, or (D) is the lead vessel in a group of barge or transit vessels.

Q. “Sonar” means equipment, employed as hull mounted or towed array, intended for the active location of surface or underwater vessels. The term does not include vessel engines, generators, or sources such as fathometers, fish finders, side-scan sonar, or other sources intended for engineering, cable laying or routing, and/or transportation purposes.

⁵ Formerly referred to as “Marine Mammal Observer / Inupiat Communicator” or “MMO/IC.”

R. “Subsistence Participants” means the Alaska Eskimo Whaling Commission (AEWC) and its members, including the whaling captains’ associations identified on the cover of this Agreement, as well as any individual members of those associations.

S. “Transit vessel” means a powered vessel that is used solely to transport materials through the Beaufort Sea or Chukchi Sea. Such term does not include a vessel used to provide supplies or other support to at-sea oil and gas operations or Near Shore Operations Support Vessels.

SECTION 5: AGREED RESEARCH EFFORTS

A. SOUND SIGNATURE TEST.

Unless the AEWC approves an alternate approach for providing sound source verification, the following testing shall be required:

1. Sound Source Verification Testing

(a) *Geophysical Equipment.* For purposes of obtaining a sound signature for Industry Participants’ geophysical equipment, the Industry Participants shall have initiated a test of all geophysical equipment within 72 hours of initiating or having initiated operations in the Beaufort Sea or Chukchi Sea. Such tests shall be conducted as set forth in section 402(b).

(b) *Vessels.* For vessels engaged in geophysical activity, Industry Participants will conduct a sound source verification test for all geophysical equipment used for geophysical activity. Each Industry Participant shall establish a sound source verification range or Industry Participants may participate jointly in establishing a range for the Chukchi Sea and Beaufort Sea, or both. A separate range shall be used for the Chukchi Sea and Beaufort Sea, and vessels shall use the appropriate range for each sea in which they operate. For testing each vessel shall proceed through the range and record information on the date, time, vessel speed, vessel route, vessel load, weather conditions, and equipment operating on the vessel (all noise generating equipment on the vessel, other than geophysical equipment subject to separate testing under paragraph (1), shall be in operation while the vessel is proceeding through the range). The range should be established near a location where details on wind speed and direction are regularly monitored and archived.

2. Mutual Agreement on Site for Testing; Advance Notice Required

(a) *In General.* Each geophysical equipment sound signature test shall be conducted at a site mutually agreed upon by the Industry Participant conducting such test and the AEWC. Each Industry Participant conducting such sound signature test(s)

will make a good faith effort to provide three (3) weeks advance notice to the AEWG and the NSB DWM of its intent to perform each test.

(b) *Beaufort Sea Testing.* For geophysical equipment sound signature tests conducted in the Beaufort Sea, the Industry Participant conducting such tests shall provide transportation for an appropriate number of representatives from: the AEWG, the whaling captains of the Villages of Barrow, Nuiqsut, and Kaktovik, and the NSB DWM to observe the sound signature tests.

(c) *Chukchi Sea Testing.* For geophysical equipment sound signature tests conducted on vessels to be used in the Chukchi Sea, the Industry Participant(s) conducting such tests shall provide transportation for an appropriate number of representatives from: the AEWG, the whaling captains of the Villages of Barrow, Wainwright, Pt. Lay, and Pt. Hope, and the NSB DWM to observe the sound signature tests.

3. Sound Signature Data to be Made Available

(a) Within fourteen (14) days of completing the sound signature field tests for geophysical equipment and within thirty (30) days of the end of the operating season for sound source verification ranges, each Industry Participant and/or its contractor conducting such test(s) will make preliminary and final quality controlled results of the sound signature test(s) available upon request to the AEWG and the NSB DWM. The Industry Participant and/or its contractor will also provide the AEWG and the NSB DWM the preliminary analysis of that data, as well as any other applicable sound signature data that is available and that the AEWG, the NSB DWM, and the Industry Participant agree is relevant to understanding the potential noise impacts of the proposed operations to migrating bowhead whales or other affected marine mammals.

(b) Once completed the final data analysis will be provided to the AEWG and the NSB DWM upon request. The final data report for the sound source verification testing shall be provided to the NSB DWM and the AEWG no later than December 31, 2016.

(c) Any Industry Participant who prepares a model of the sound signature of its vessels and operations, whether before or after the sound signature test, will provide copies of those models and any related analysis to the AEWG and the NSB DWM upon request.

B. MONITORING PLANS

1. Monitoring Plan Required

(a) Each Industry Participant agrees to prepare and implement a monitoring plan to collect data designed to determine the potential effects of its oil and gas operations on fall migrating bowhead whales.

(b) The monitoring plans shall be designed in cooperation with the AEWG, the NSB DWM, and NOAA Fisheries, together with the Bureau of Ocean Energy Management (BOEM) when operating in Federal waters. If additional outside review is requested by any of the above entities, the Industry Participant will evaluate the request on a case by case basis.

2. Beaufort Sea Monitoring Plans

In the Beaufort Sea, the monitoring plans should focus on the identity, timing, location, and numbers of marine mammals and their behavioral responses to the noise source. The monitoring plans will place emphasis on understanding potential impacts from industrial sounds on bowhead whales.

3. Chukchi Sea Monitoring Plans

In the Chukchi Sea, the monitoring plans should focus on the identity, timing, location, and numbers of marine mammals and their behavioral responses to the noise source. The monitoring plans will place emphasis on understanding potential impacts from industrial sounds on bowhead whales.

4. Use of Prior Information and Peer Reviewed Data

(a) Prior impact study results shall be incorporated into the monitoring plans prepared by each Industry Participant as applicable.

(b) Each monitoring plan for oil and gas operations shall be subject to peer review by stakeholders on a peer review panel identified by NOAA Fisheries at the 2016 Open Water Season Peer Review Meeting, convened by NOAA Fisheries. Draft plans will be submitted to the NSB DWM and AEWG no later than two weeks prior to the 2016 Open Water Peer Review Meeting.

5. Raw Data, Communication, and Summary Required

(a) Each Industry Participant conducting site-specific monitoring will:

(i) after quality control reviews are completed, make electronic data, available to the NSB DWM at the end of the season.

(ii) permit and encourage open communications among their contractors and the AEWG and NSB DWM.

b. Each Industry Participant will submit a summary of monitoring plan results and progress to the AEWG and NSB DWM every two weeks during the operating season.

C. CUMULATIVE NOISE IMPACTS STUDY

Each Industry Participant further agrees to make available upon request its monitoring plan and sound signature data, vessel tracks and timing of their activities (i.e. seismic surveying, mitigation airgun, drilling, etc.) and data on marine mammals for use in a cumulative effects analysis of the multiple sound sources and their possible relationship to any observed changes in marine mammal behavior, to be undertaken pursuant to a Cumulative Noise Impacts Study. This impact study will be coordinated through the North Slope Borough Department of Wildlife Management.

SECTION 6: GENERAL PROVISIONS

A. TERM, SCOPE, AND LIMITATIONS

1. Term: The term of this Agreement shall commence with the signing of this document by the Participants and shall terminate upon completion of the Nuiqsut, Kaktovik, Barrow, Wainwright, Pt Lay, and Pt. Hope Fall Bowhead Hunts or the Beaufort Sea Post Season Meeting required under Section 108(a) and Chukchi Sea Post-Season Meetings in Barrow, Wainwright, Pt. Lay, and Pt. Hope required under Section 108(b), whichever is later.

2. Scope: The Participants agree that, unless otherwise specified:

(a) The mitigation measures identified in this Agreement, which are intended to mitigate interference by oil and gas operations and barge and transit vessel traffic with the Alaskan Eskimo subsistence bowhead whale hunt, are designed to apply to all activities of each Participant during the 2016 Open Water Season, whether referenced specifically or by category, and to all vessels and locations covered by this Agreement, whether referenced specifically or by category.

(b) This Agreement is intended to apply to all oil and gas operations and barge and transit vessel traffic during the 2016 Open Water Season in the Beaufort Sea or Chukchi Sea.

(c) Vessels and locations covered by this Agreement include those identified in the Agreement, as well as any other vessels or locations that are employed by or for the Industry Participants in the Beaufort Sea or Chukchi Sea during the 2016 Open Water Season.

3. Limitations of Obligations: The following limitations apply to this Agreement.

(a) No cooperation among the Participants, other than that required by this Agreement, is intended or otherwise implied by their adherence to this Agreement. In no event shall the signatures of any representative of the Alaska Eskimo Whaling Commission (AEWC), or of the Barrow, Nuiqsut, Kaktovik, Wainwright, Pt. Hope, or Pt. Lay Whaling Captains' Associations, or of any other Whaling Captains' Association be taken as an endorsement of any Arctic operations or Beaufort Sea or Chukchi Sea OCS operations by any oil and/or gas operator or contractor.

(b) Adherence to the procedures and guidelines set forth in this Agreement does not in any way indicate that any Inupiat or Siberian Yupik whalers or the AEWC agree that industrial activities are not interfering with the bowhead whale migration or the bowhead whale subsistence hunt. Such adherence does not represent an admission on the part of the Industry Participants or their contractors that the activities covered by this Agreement will interfere with the bowhead whale migration or the bowhead whale subsistence hunt.

(c) No member of the oil and gas industry or any contractor has the authority to impose restrictions on the subsistence hunting of bowhead whales or associated activities of the AEWC, residents of the Villages of Nuiqsut, Kaktovik, Barrow, Wainwright, Pt. Lay, or Pt. Hope, or residents of any other village represented by the AEWC.

(d) In the event additional parties engage in oil and gas operations in the Beaufort Sea or Chukchi Sea during the summer or fall of 2016 the Participants shall exercise their good-faith efforts to encourage those parties to enter into this Agreement. Should additional parties enter into this Agreement at a date subsequent to the date of the signing of this document and before the termination of the 2016 bowhead whale subsistence hunting season, the AEWC will provide to all Participants a supplement to this document with the added signatures.

(e) No Participant is responsible for enlisting additional parties to adhere to the terms and conditions of the Agreement. Similarly, THE AEWC IS NOT RESPONSIBLE FOR, OR A PARTY TO, ANY AGREEMENT AMONG THE INDUSTRY PARTICIPANTS concerning the apportionment of expenses necessary for the implementation of this Agreement.

(f) In adhering to this Agreement, none of the Participants waives any rights existing at law. All Participants agree that the provisions of this document do not establish any precedent as between them or with any regulatory or permitting authority.

(g) PARTICIPANTS' OBLIGATIONS SHALL BE SEPARABLE: All Participants to this Agreement understand that each Participant represents a separate entity. The failure of any Participant to adhere to this Agreement or to abide by the terms and conditions of this Agreement shall not affect the obligation of other Participants to adhere to this Agreement and to proceed accordingly with all activities covered by this

Agreement. Nor shall any Participant's adherence to this Agreement affect that Participant's duties, liabilities, or other obligations with respect to any other Participant beyond those stated in this Agreement. If an Industry Participant does not receive permit approvals from regulatory agencies to conduct its proposed activities, then that company may withdraw from this Agreement.

B. INDIVIDUAL NOTIFICATION

In the event that any Industry Participant does not become a signatory to this Agreement, the local Whaling Captains' Associations shall be notified by the AEWG, no later than March 31, 2016, so that the local Whaling Captains' Associations can prepare to talk with the non-signatories to avoid conflict during that association's fall subsistence bowhead whaling season.

C. REGULATORY COMPLIANCE

1. United States Coast Guard Requirements: The Participants shall comply with all applicable United States Coast Guard requirements for safety, navigation, and notice.

2. Environmental Regulations and Statutes: The Participants shall comply with all applicable environmental regulations and statutes.

3. Other Regulatory Requirements: The Participants shall comply with all applicable federal, state, and local government requirements.

D. DISPUTE RESOLUTION

Subject to the terms of Section 6.A.3. of this Agreement, all disputes arising between any Industry Participants and any Subsistence Participants shall be addressed as follows:

1. The dispute shall first be addressed between the affected Participant(s) in consultation with the affected village Whaling Captains' Association and the Industry Participant(s)' Local Representative.

2. If the dispute cannot be resolved to the satisfaction of all affected Participants, then the dispute shall be addressed with the affected Participants in consultation with the AEWG.

3. If the dispute cannot be satisfactorily resolved in accordance with paragraphs (1) and (2) above, then the dispute shall be addressed with the AEWG and the affected Participants in consultation with representatives of NOAA Fisheries.

4. All Participants shall seek to resolve any disputes in a timely manner and work to ensure that requests for information or decisions receive prompt response.

SECTION 7: PARTICIPANTS

A. SUBSISTENCE WHALE HUNTING BOATS

The following is a list of the number of boats each of the Subsistence Participants plan to use during the summer and fall of 2016:

- | | | |
|----|----------------------|----|
| 1. | Nuiqsut (NWCA): | 16 |
| 2. | Kaktovik (KWCA): | 8 |
| 3. | Barrow (BWCA): | 40 |
| 4. | Wainwright (WWCA): | 7 |
| 5. | Pt. Hope (Pt. HWCA): | 14 |
| 6. | Pt. Lay (Pt. LWCA): | 4 |

If any additional boats are put in use by subsistence whaling crews, the Industry Participants will be notified promptly through the Com-Center.

B. INDUSTRY PARTICIPANT VESSELS AND EQUIPMENT

1. List of Vessels and Equipment Required

Each Industry Participant engaged in oil and gas operations shall provide a list identifying all vessels or other equipment (including but not limited to boats, barges, aircraft, or similar craft) that are owned and/or operated by, or that are under contract to the Industry Participants, for use in the Beaufort Sea or Chukchi Sea for oil and gas operations or for implementation of such Industry Participant's monitoring plan. Vessels and equipment used for oil and gas operations shall be listed in Attachment II, and vessels and equipment used for monitoring plans shall be listed in Attachment III.

2. Only Listed Vessels and Equipment (or Like Vessels and Like Equipment) May Be Used

NONE OF THE INDUSTRY PARTICIPANTS INTENDS TO OPERATE ANY VESSEL OR EQUIPMENT (EXCEPT FOR LIKE VESSELS OR LIKE EQUIPMENT)

NOT IDENTIFIED IN THE LISTS REQUIRED UNDER SUBSECTION (a) DURING THE TERM OF THIS AGREEMENT.

3. Notwithstanding paragraph 1, if any Industry Participant decides to use different vessels or equipment or additional vessels or equipment, such vessels and equipment shall be used only for purposes identified in Attachments II or III; and the AEW and the whaling captains of Nuiqsut, Kaktovik, Barrow, Wainwright, Pt. Hope, and Pt. Lay shall be notified promptly through the appropriate Com-Center, as identified in Section 203 of this Agreement, and in writing, of their identity and their intended use, including location of use.

C. SIGNATORIES

This Agreement shall be binding and effective when signed by the duly authorized representatives of the Participants. Signatures may be by facsimile on separate pages.

HARRY BROWER
AEWC Chairman
Dated: _____

Harry Brower, Jr.
AEWC Commissioner for Barrow
Dated: _____

Edmond Apassingok
AEWC Commissioner for Gambell
Dated: _____

Joseph Kaleak
AEWC Commissioner for Kaktovik
Dated: _____

Enoch Adams, Jr
AEWC Commissioner for Kivalina
Dated: _____

Ronald Ozenna Jr.
AEWC Commissioner for Little Diomed
Dated: _____

Thomas Napageak
AEWC Commissioner for Nuiqsut
Dated: _____

Herbert Kinneeveauk, Jr.
AEWC Commissioner for Pt. Hope
Dated: _____

Julius Rexford
AEWC Commissioner for Pt. Lay

George Noongwook
AEWC Commissioner for Savoonga

AEWC-ADMAN 5/17/2016 9:40 AM
Deleted: Isaac Nukapigak

Dated: _____

Dated: _____

John Hopson, Jr.
AEWC Commissioner for Wainwright
Dated: _____

Raymond Seetook
AEWC Commissioner for Wales
Dated: _____

Name:
Exxon Mobil Corporation
Dated: _____

Name:
CAELUS
Dated: _____

Name:
SAExploration
Dated: _____

Name:
Hilcorp Exploration Company
Dated: _____

Name:
Fairweather, LLC.
Dated: _____

APPENDIX 1

INDIVIDUALS TO CONTACT

Listed below are the primary contact names and phone numbers for each of the Participants.

Exxon Mobil

BRIEN REEP: Brien.e.reep@exxonmobil.com
(907) 564-3617

SONIA HENRICK sonia.henrick@exxonmobil.com
(907) 564-3671 work | (907) 230-8063 cell

ERIC FEBBO eric.j.febbo@exxonmobil.com

CAELUS Energy Alaska, LLC.

DALE HOFFMAN: dale.Hoffman@caelusenergy.com
(907) 343-2108

SAExploration, Inc.

SUE SIMONDS: ssimonds@saexploration.com
(907)522-4499

Hilcorp Energy Company

JOHN BARNES: jbarnes@hilcorp.com
(907) 777-7350 work | (907) 382-4178 cell

WALTON CROWELL: wcrowell@hilcorp.com
(907) 777-8402

KATE KAUFMAN kkaufman@hilcorp.com

LORI NELSON lnelson@hilcorp.com

JAMES WINEGARNER jwinegarner@hilcorp.com
(907) 229-0881 cell & text

Fairweather

SHEYNA WISDOM sheyna.wisdom@fairweather.com
(907) 267-4611 work | (907) 748-5864 cell

The Village of Kaktovik

JOSEPH KALEAK: (907) 640-6213 | (907) 640-~~0018~~,
CHRISTOPHER GORDON: (907) 640-2808 home | (907) 640-0150
SHELDON BROWER sheldon.brower@hotmail.com |
 sheldon.brower@north-slope.org

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The Village of Nuiqsut

THOMAS NAPAGEAK: (907) 699-7082 cell

The Village of Barrow

HARRY BROWER, JR: (907) 852-0350 work
EUGENE BROWER: (907) 852-3601

The Village of Wainwright

JOHN HOPSON, JR: (907) 763-3464 H
OLIVER PEETOOK: (907)763-~~0837C~~,

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The Village of Pt. Hope

HERBERT KINNEEVEAUK: 907-368-2236 work
CLARK LANE, SR. (907) 368-2453 work | (907) 947-5190 cell
CHRISTOPHER OKTOLLIK: 907-368-1430 cell

The Village of Pt. Lay

JULIUS REXFORD: (907) 833-4592 home | (907) 833-2214 work
THOMAS NUKAPIGAK: (907) 833-6467 home | (907) 833-3838 work

The Village of Kivilina

ENOCH ADAMS: (907) 645-2138, home | (907) 907-645-5411C,

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AEWC-ADMAN 5/17/2016 9:47 AM
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The Village of Little Diomede

RONALD OZENNA, Jr (907) 684-1001 cell
HENRY SOOLOOK: (907) 686-3051 cell
RONALD OZENNA, Sr (907) 434-1436 cell

The Village of Wales

RAYMOND SEETOOK: (907) 664-2356 home | (907) 634-0484 cell

The Village of Savoonga

GEORGE NOONGWOOK: (907) 984-6008 work | (907) 891-2942 cell
THOMAS AKEYA: (907) 984-6825H | (907) 984-6649W,

AEWC-ADMAN 5/17/2016 9:48 AM
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AEWC-ADMAN 5/17/2016 9:48 AM
Deleted: (907) 984-6008 work | (907) 984-2069 cell

The Village of Gambell

EDMOND APASSINGOK: 907-985-2412 cell
RODNEY UNGWILUK: 907-985-5060 cel | 907-985-2630 cell
PAUL APANGALOOK: 907-985-2170 home

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The AEW

ARNOLD BROWER: (907) 852-2392 work
LESLEY HOPSON: (907) 852-2393 work

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APPENDIX 2

LOCAL SAR CONTACTS

LOCAL SEARCH AND RESCUE ORGANIZATIONS -

CONTACT PERSONS

(IN EMERGENCIES, ALWAYS DIAL 911)

**North Slope Borough
Search and Rescue (Pilots)**

Director	April Brower april.brower@north-slope.org 852-2822 WK 852-6818 WK 878-2602 Cell
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**Barrow Volunteer
Search and Rescue Station**

	852-2808 OFS
President	Crawford Patkotak 852-3798 HM 360-3477 Cell
Vice-Pres.	Johnny Adams 852-7761 HM 878-2411 Cell
Secretary	Stephane Lozano 244-4011 HM 382-6304 Cell
Treasurer	James Patkotak 852-4686 HM 855-0733 Cell
Coordinator	Larry Aiken 367-4936 Cell
Assistant Coordinator	Don Nungasak 250-8691

**Nuiqsut Volunteer
Search and Rescue Station**
Fire Chief

480-6613 (Fire Hall)
Steven Kunaknana
480-6613 WK

Coordinator

Gordon Brown
gordon.brown@north-slope.org

480-6225/6223
480-2109 HM
480-0116 Cell

Handler

Winford Ipalook Jr
480-2918 HM
480-0046 Cell

Handler

William Hopson Sr
480-6223 HM
888-9769 Cell

**Kaktovik Volunteer
Search and Rescue Station**
President

640-6212 (Fire Hall)
Lee Kayotuk
640-5893 HM
640-0033 Cell

Secretary

Nathan Gordon
640-6925 HM
978-0005 WK

Treasurer

Don Kayotuk
640-2947 HM
223-5313 Cell

Fire Chief

Sheldon Brower
640-6212 WK
640-0006 HM

Wainwright Volunteer Search and Rescue 763-2728 (Fire Hall)

Coordinator

Ben Ahmaogak, Jr.
763-1707 HM
925-1412 Cell

Handler	Abraham Itta 855-1250 HM
	John Hopson, Jr. 763-3464 HM 231-9178
	Raymond Hopson 231-9639 HM
	Carolyn Wade 763-0272 HM
Pt. Lay Volunteer Search and Rescue	833-2714 (Fire Hall)
President	Warren H Lampe wlampe@gmail.com 833-0049 HM
Vice Pres.	Leo Ferreira III 833-3185 HM
Secretary	Misty Plymale 833-1209
Treasurer	Lily Anniskett 833-0060
Captain	Anthony Neakok anthony.neakok@north-slope.org 833-2714 WK 913-991-8738 Cell
Coordinator 1	Marie Tracey marie.tracey@north-slope.org 833-2127 HM 833-2428 WK 350-9712 Cell
Coordinator 2	Cyrus Nukapigak cyrus.nukapigak@north-slope.org 833-1209 HM 833-2318 WK
Pt. Hope Volunteer Search and Rescue	368-2774 (Fire Hall)

Fire Chief-Coordinator

Othniel Oomittuk
othniel.oomittuk@north-slope.org
982-4113 HM
368-2774 Cell

Willard Hunnicutt Jr
willard.hunnicutt@north-slope.org
368-2227 HM
368-0228

Rocky Milligrock
368-2076 HM

North Slope Borough Disaster Relief Coordinator

Frederick Brower
852-0284 WK