United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

19 JAN 2012

Ms. Karen Bryant-Duncan
Great Bear Petroleum, LLC
601 West 5th Avenue, Suite 505
Anchorage, Alaska 99501

Dear Ms. Bryant-Duncan:

Thank you for your September 16, 2011, request for Letters of Authorization (LOA) for the incidental and intentional take of polar bears in regards to the Great Bear Petroleum, LLC (GBP) 2012 Exploration and Evaluation Program (E&E Program) on the North Slope of Alaska.

Our Incidental Take Regulations authorize incidental takes within 25 miles (about 40 km) of the Beaufort Sea coast. The majority of the GBP project activities are located outside the 25-mile area identified in our regulations. Past experiences at sites which are located at farther distances from the coast indicate that it is less likely that polar bears will be encountered in the area of your project. Regardless, please use caution and report any polar bear sightings to the U.S. Fish and Wildlife Service (Service), Marine Mammals Management Office.

Enclosed is an LOA (12-04) granting GBP authorization to take small numbers of polar bears incidental to that portion of GPB's oil and gas industry E&E activities identified in your request that will occur within the geographic area of the Incidental Take Regulations (25 miles inland from the Arctic coast) as it applies to this LOA. Great Bear Petroleum, LLC proposes to conduct E&E activities within GBP's North Slope Oil and Gas leases along the Dalton Highway corridor commencing winter 2012 through early 2013. This E&E Program is expected to include the following major activities:

- Transport equipment, materials, and personnel from North Slope oilfield infrastructure to and between the well site locations along the Dalton Highway and gravel spur access roads.
- Construct drill pads utilizing rig mats.
- Drill up to four wells to extract core samples, perform well logging and reservoir evaluation, and, if successful, drill side track or lateral wells from the boreholes on the original surface locations.
- Perform short-term production flow tests using hydraulic fracturing technology.
- Establish production using portable processing units which will be transported by truck to the Trans Alaska Pipeline System.

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All provisions contained within GBP's *Bear Avoidance, Interaction, Mitigation and Monitoring Plan North Slope, Alaska (January 2012)* are incorporated by reference into this LOA. This authorization is issued in accordance with Marine Mammal Protection Act (MMPA) Incidental Take Regulations published in the *Federal Register (*76 FR 47010), dated August 3, 2011. Please review these regulations. If questions or concerns arise during the project period, Service biologists are available for consultation at the phone numbers listed below and noted in your Interaction Plan.

If any changes develop in your project please notify the Service prior to the planned operation. This will allow us to evaluate the activity and, if appropriate, amend your LOA.

In addition to the incidental take LOA mentioned above, this letter includes an LOA for an Intentional Take Authorization (12-INT-05) granting GBP and its representatives authorization to take polar bears by harassment (deterrent activities) for the protection of both human life and polar bears while conducting activities 2012 E&E Program on the North Slope of Alaska. This LOA is issued specifically to GBP which is responsible for ensuring that trained and qualified personnel are assigned the task of harassing (deterring) polar bears. It is the responsibility of GBP personnel to report all polar bear harassment events to the Marine Mammals Management Office within 24 hours. Intentional take is authorized under Sections 101 (a)(4)(A), 109(h), and 112(c) of the MMPA.

If a polar bear interaction escalates into a life threatening situation, Section 101(c) of the MMPA allows, without specific authorization, the take (including lethal take) of a polar bear if such taking is necessary for self-defense or to save the life of a person in immediate danger, and such taking is reported to the Marine Mammals Management Office within 24 hours.

Issuance of this LOA also fulfills the requirements for Tier 2 Consultation of the Programmatic Biological Opinion (BO) for the activities described herein and consequently fulfills the requirements of Section 7 of the Endangered Species Act of 1973 (ESA), as amended. In the "Programmatic Biological Opinion for Polar Bears (*Ursus maritimus*) on Beaufort Sea Incidental Take Regulations" (Regulations) (June 2008; Tier 1 BO) the Marine Mammals Management Office determined that the total take anticipated as a result of the issuance of the Regulations was not likely to result in jeopardy to the polar bear. In order for the Tier 2 BO to be consistent with the "no jeopardy" conclusion of the Tier 1 BO and for an ESA Incidental Take Statement (ITS) to be provided: (1) the proposed activity must provide the required information, as described in §18.124 of the Regulations, (2) the LOA must include any mitigation measures that the Marine Mammals Management Office believes appropriate for the specific activity and location, as described in §18.128 of the Regulations, and (3) the Marine Mammals Management Office must determine that the incidental take for the specific activity will be consistent with the negligible impact finding for the total take allowed under the Regulations.

Reasonable and prudent mitigation measures, as well as implementing terms and conditions were included by the Marine Mammals Management Office in the Tier 1 BO and have been incorporated into the LOA process. Issuance of this ITS, with an LOA completes ESA requirements for authorization of incidental take of the polar bear. Compliance with the terms

and conditions of these LOAs insures that the LOA holder is also in compliance with the ESA.

An additional requirement of these LOA's is for GBP to provide observational data of polar bears throughout the project and a complete report of all observations at the conclusion of the project to document take. This final report must be provided to the Marine Mammals Management Offiee within 90 days after eompletion of the project. This report meets the tracking and reporting requirements relative to the documentation of take as required by the MMPA and the ESA.

If you should have any further questions, please contact Mr. Craig Perham, at (907) 786-3810, or Mr. Christopher Putnam, at (907) 786-3844, of our Marine Mammals Management Office.

Sincerely,

Jenifer Kohout
Acting Chief, Marine Mammals Management

Enclosure

cc: Mr. Richard Shideler, Alaska Department of Fish and Game
Fairbanks Fish and Wildlife Field Office (FFWFO)
Office of Law Enforcement (OLE)
North Slope Borough Department of Law

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

U.S. Fish and Wildlife Service

LETTER OF AUTHORIZATION
(12-04)

ISSUED: January 19, 2012
EXPIRES: December 31, 2012

Great Bear Petroleum, LLC (GBP) is hereby authorized to take small numbers of polar bears incidental to activities conducted during that portion of the 2012 Exploration and Evaluation Program (E&E Program) identified in your request that will occur within the geographic area of the Incidental Take Regulations, 25 miles (approximately 40 km) inland from the Arctic coast. Great Bear Petroleum, LLC proposes to conduct E&E Program activities within GBP's North Slope Oil and Gas leases along the Dalton Highway corridor commencing winter 2012 through early 2013. This E&E Program is expected to include the following major activities:

- Transport equipment, materials, and personnel from North Slope oilfield infrastructure to and between the well site locations along the Dalton Highway and gravel spur access roads.
- Construct drill pads utilizing rig mats.
- Drill up to four wells to extract core samples, perform well logging and reservoir evaluation, and, if successful, drill side track or lateral wells from the boreholes on the original surface locations.
- Perform short-term production flow tests using hydraulic fracturing technology.
- Establish production using portable processing units which will be transported by truck to the Trans Alaska Pipeline System.

This Letter of Authorization (LOA) and the required conditions below include contractors of GBP performing GBP-approved work under the scope of operations for the 2012 E&E Program. The LOA is subject to the following conditions:

1. GBP's *Bear Avoidance, Interaction, Mitigation and Monitoring Plan North Slope, Alaska (January 2012),* (Plan) is approved. All provisions must be complied with unless specifically noted otherwise in this LOA. A copy of the Plan must be available on site for all personnel.

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of implementing the conditions of this LOA.

3. Intentional take is prohibited under this LOA.

4. This authorization is valid only for those activities identified in the request for a Letter of Authorization dated September 16, 2011.

5. Polar bear monitoring, reporting, and survey activities must be conducted in accordance with 50 CFR Section 18.128. In addition, GBP must comply with the following monitoring, mitigation, and reporting requirements:

   - GBP must cooperate with the U.S. Fish and Wildlife Service (Service), and other designated Federal, State, or local agencies to monitor the impacts of oil and gas exploration activities on polar bears.

   - GBP must not conduct activities that operate nor pass within one mile (1.6 km.) of known polar bear dens, and all observed dens must be reported to the Service, Marine Mammals Management Office immediately. Should occupied dens be identified within one mile of activities, GBP must cease work in the immediate area and contact the Marine Mammals Management Office for guidance. The Marine Mammals Management Office will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and GBP must comply with any additional measures specified.

   - If any changes develop in GBP's project, such as activities or location, GBP must notify the Marine Mammals Management Office prior to the planned operation.

   - GBP must designate a qualified individual or individuals to observe, record, and report the effects of the activity on polar bears to the Marine Mammals Management Office within 24 hours of visual observation.

   - Every polar bear observed must be recorded on a Polar Bear Observation Form. The observation report must include, but is not limited to:

     a. Date.
     b. Time.
     c. Observer name.
     d. Contact number/email.
     e. Location, with latitude, longitude, and datum, if applicable.
     f. Weather conditions at time of observation.
     g. Temperature.
     h. Visibility.
     i. Number of bears: sex and age.
     j. Estimated closest point of bears from personnel and facilities.

k. Possible attractants present.
l. Bear behavior.
m. A description of the encounter.
n. Duration of the encounter.
o. Type of deterrents used and distance from bear when used.
p. Agency/Contacts.

- Evidence of polar bears, such as tracks, carcass or dens, must also be reported.

- At the discretion of the Service, GBP must allow the Service to have an observer on the site to monitor the impacts of the activity on polar bears.

- GBP must submit a monitoring report to the Marine Mammals Management Office as required under 18 CFR 18.128(f), which will be received within 90 days after completion of the project.

6. In the *Programmatic Biological Opinion for Polar Bears, Pacific Walrus, and Polar Bear Critical Habitat on Beaufort Sea Incidental Take Regulations (Regulations) (July 2011)*, the Marine Mammals Management Office determined the total incidental take anticipated as a result of the issuance of the Regulations was not likely to result in jeopardy to the polar bear or Pacific walrus, and would not adversely modify polar bear critical habitat. In order for an Incidental Take Statement (ITS) to be provided: (1) the proposed activity must provide the required information, as described in the §18.124 of the Regulations; (2) the LOA must include mitigation measures appropriate for the specific activity and location, as described in §18.128 of the Regulations; and (3) the incidental take for the specific activity must be consistent with the negligible impact finding for the total take allowed under the Regulations.

   The Marine Mammals Management Office has determined that the proposed actions meet these three requirements. Therefore, issuance of this LOA also satisfies Endangered Species Act (ESA) of 1973, as amended, requirements. Compliance with the terms and conditions of the above LOA ensures that the LOA holder is also in compliance with the ESA.

7. This LOA is valid for the period indicated on this authorization, unless extended or terminated in writing by the U.S. Fish and Wildlife Service, Marine Mammals Management Office.

Jennifer Kohout
Acting Chief, Marine Mammals Management

1/19/12
Date

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:

AFES/MMM

U.S. Fish and Wildlife Service

AUTHORIZATION TO TAKE, BY HARASSMENT, POLAR BEARS (12-INT-05)

ISSUED: January 19, 2012
EXPIRES: December 31, 2012

Under Sections 101 (a)(4)(A), 109(h), and 112(c) of the Marine Mammal Protection Act of 1972 (MMPA), as amended, Great Bear Petroleum, LLC (GBP) is authorized to take, by harassment, polar bears during the 2012 Exploration and Evaluation Program (E&E Program) on the North Slope of Alaska. Great Bear Petroleum, LLC proposes to conduct E&E Program activities within GBP's North Slope Oil and Gas leases along the Dalton Highway corridor commencing winter 2012 through early 2013. This E&E Program is expected to include the following major activities:

- Transport equipment, materials, and personnel from North Slope oilfield infrastructure to and between the well site locations along the Dalton Highway and gravel spur access roads.
- Construct drill pads utilizing rig mats.
- Drill up to four wells to extract core samples, perform well logging and reservoir evaluation, and, if successful, drill side track or lateral wells from the boreholes on the original surface locations.
- Perform short-term production flow tests using hydraulic fracturing technology.
- Establish production using portable processing units which will be transported by truck to the Trans Alaska Pipeline System.

The purpose of authorizing taking by harassment, or deterrence, is to maintain human and bear safety and welfare in the North Slope oilfields. Authorizing Level B harassment take reduces the likelihood of death or injury of polar bears. This is accomplished by the following objectives:

1. Prevent bears from associating food with humans and facilities.
2. "Condition" bears to avoid people (avoidance conditioning).
3. Allow bears to use travel routes (natural and man-made) to move along the coast.
4. Prevent bears from extended use of areas around facilities.
5. Prevent bears from entering the developed parts of the oilfield.

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This harassment authorization is subject to the following conditions:

1. GBP's *Bear Avoidance, Interaction, Mitigation and Monitoring Plan North Slope, Alaska (January 2012),* (Plan) is approved. All provisions must be complied with unless specifically noted otherwise in this Letter of Authorization (LOA). A copy of the Plan must be available on site for all personnel.

2. GBP Operations Managers, or designees, must be fully aware, understand, and be capable of implementing the conditions of this LOA.

3. This authorization to take is restricted to harassment activities.

4. This authorization is valid only for those activities identified in the request for a Letter of Authorization dated September 16, 2011.

5. Authorized individuals are responsible for documenting and reporting to the U.S. Fish and Wildlife Service (Service) Marine Mammals Management Office, at (907) 786-3800, all instances involving harassment activities as soon as possible and not later than 24 hours after the occurrence.

6. GBP will not operate nor pass within one mile (1.6 km.) of known polar bear dens, and all observed dens will be reported to the Marine Mammals Management Office immediately. Should occupied dens be identified within one mile of activities, GBP must cease work in the immediate area and contact the Marine Mammals Management Office for guidance. The Marine Mammals Management Office will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential responses may range from cessation or modification of work to conducting additional monitoring. GBP must comply with any additional measures specified.

7. GBP is responsible for ensuring that trained and qualified personnel are assigned the task to deter polar bears. As stated in GBP's *Bear Avoidance, Interaction, Mitigation and Monitoring Plan North Slope, Alaska (January 2012)*, section 3.6.2, page 12, "firearms will not be used to haze bears."

8. A final report of all encounters and hazing events must be submitted to the Marine Mammals Management Office within 60 days from the expiration date of this LOA.

9. Hazing techniques must not cause the injury or death of a bear. Types of hazing techniques may include, but are not limited to:

    - Bear Monitors.
    - Air horns.
    - Electric fences.
    - Chemical repellents.
    - Acoustic recordings.

- Vehicles

10. Prior to conducting a harassment activity, operators must:

    - Make a reasonable effort to reduce or eliminate attractants.
    - Secure site; notify supervisor; move personnel to safety.
    - Ensure bear has escape route(s).
    - Ensure communication with all personnel.

11. When conducting a harassment activity, operators must:

    - Chose the method that will have the least effect on the bear and increase the intensity of the method or use additional methods only if necessary.
    - Shout at the bear before deterring the animal.
    - Move bear in proper direction; continue with minimally necessary deterrents to receive desired result.

12. After a harassment event has occurred, operators must:

    - Monitor bears movement (to ensure no return).
    - Notify supervisor and personnel when it is appropriate to resume work.
    - Report to the Marine Mammals Management Office as required under condition five, above (within 24 hours).

13. This LOA is valid for the period indicated on this authorization, unless extended or terminated in writing by the U.S. Fish and Wildlife Service, Marine mammals management office.

Jennifer Kohart

Acting Chief, Marine Mammals Management

1/19/12

Date

SURNAME

CPP 12Jan12
CPP 12Jan12 w/edits
CPP 18Jan
CPP 19Jan12 w/edits
JK 1/19/12 w/edits
CPP 20 Jan

SURNAME

JK 1/20
CS 1/20/12

AFES/MMM

Ms. Karen Bryant-Duncan
Great Bear Petroleum, LLC
601 West 5th Avenue, Suite 505
Anchorage, Alaska 99501

Dear Ms. Bryant-Duncan:

Thank you for your September 16, 2011, request for Letters of Authorization (LOA) for the incidental and intentional take of polar bears in regards to the Great Bear Petroleum, LLC (GBP) 2012 Exploration and Evaluation Program (E&E Program) on the North Slope of Alaska.

Our Incidental Take Regulations authorize incidental takes within 25 miles (about 40 km) of the Beaufort Sea coast. The majority of the GBP project activities are located outside the 25-mile area identified in our regulations. Past experiences at sites which are located at farther distances from the coast indicate that it is less likely that polar bears will be encountered in the area of your project. Regardless, please use caution and report any polar bear sightings to the U.S. Fish and Wildlife Service (Service), Marine Mammals Management Office.

Enclosed is an LOA (12-04) granting GBP authorization to take small numbers of polar bears incidental to that portion of GPB's oil and gas industry E&E activities identified in your request that will occur within the geographic area of the Incidental Take Regulations (25 miles inland from the Arctic coast) as it applies to this LOA. Great Bear Petroleum, LLC proposes to conduct E&E activities within GBP's North Slope Oil and Gas leases along the Dalton Highway corridor commencing winter 2012 through early 2013. This E&E Program is expected to include the following major activities:

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- Perform short-term production flow tests using hydraulic fracturing technology.
- Establish production using portable processing units which will be transported by truck to TAPS.