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Public Comments Processing
ATTN: FWS-R7-ES-2015-0141
U.S. Fish and Wildlife Service
MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041-3803

Re: Comments of the Alaska Oil and Gas Association and American Petroleum Institute on Five-Year Review of the Polar Bear

To Whom It May Concern:

This letter provides the comments of the Alaska Oil and Gas Association (“AOGA”) and the American Petroleum Institute (“API”) (the “Associations”) in response to the U.S. Fish and Wildlife Service’s (the “Service”) notice that it is initiating a five-year review for the polar bear under the Endangered Species Act (“ESA”). *See* 80 Fed. Reg. 61,443 (Oct. 13, 2015). The Associations appreciate the Service’s consideration of these comments.

I. INTRODUCTION

AOGA is a professional trade association whose mission is to foster the long-term viability of the oil and gas industry for the benefit of all Alaskans. AOGA represents 11 companies that are exploring, developing, producing, refining, or marketing oil and gas on the North Slope, in the Cook Inlet, and in the offshore areas of Alaska. AOGA and its members are longstanding supporters of wildlife conservation, management, and research across the areas in which its members operate. AOGA’s members include the principal industry stakeholders that operate in the Alaskan Arctic within the range of the polar bear. Our members have significant experience implementing conservation measures to protect polar bears, and have been doing so since before the polar bear was listed as a threatened species under the ESA.

API is a national trade association representing over 625 member companies involved in all aspects of the oil and natural gas industry. API's members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry, including those operating in the Alaskan Arctic within the range of the polar bear. API and its members are dedicated to meeting environmental requirements, while economically developing and supplying energy resources for consumers.

The Associations submit these comments to primarily address two key topics. *First*, in anticipation that the Service will receive comments from advocacy organizations urging the Service to uplist the polar bear to "endangered" status, we address the reasons why the polar bear does not qualify as an endangered species. *Second*, we provide information documenting the continuing success of collaborative programs implemented by the Service and the Alaska oil and gas industry to protect and conserve polar bears. To ensure the continued efficient and effective operation of these programs, it is essential that the polar bear 4(d) rule remain intact.

II. COMMENTS

A. The Polar Bear Is Not an Endangered Species

Under the ESA, an "endangered species" is "any species which is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6) (emphasis added). With specific regard to the polar bear, the Service has interpreted this definition to mean that an endangered species is one that is "currently on the brink of extinction in the wild." Memorandum, U.S. Dept. of Interior, Fish and Wildlife Service, Supplemental Explanation for the Legal Basis of the Department's May 15, 2008, Determination of Threatened Status for Polar Bears, FWS/AES047069, at 15 (Dec. 22, 2010) ("Polar Bear Memo").¹

In the Polar Bear Memo, the Service explained that endangered species generally fit into one or more of four categories: (1) species facing an imminent and certain catastrophic threat (*e.g.*, snail darter); (2) species with an extremely limited endemic range or population size (*e.g.*, Devil's Hole pupfish); (3) species with a previously expansive range that has dramatically contracted (*e.g.*, California condor); and (4) species with relatively widespread distribution that have suffered major reductions in population size (*e.g.*, red-cockaded woodpecker). *Id.* at 5-6. The Service further convincingly explained why the polar bear species is not on the "brink of extinction" and does not fit into any of these four categories:

[P]olar bears fit into none of the four categories for species currently on the brink of extinction. They do not face a sudden and

¹ The Polar Bear Memo was prepared and filed by the Service in the litigation addressing the listing of the polar bear as a threatened species under the ESA. The Alaska oil and gas industry intervened in that litigation to defend the polar bear listing rule against claims by advocacy organizations that the polar bear should be listed as endangered, and in defense of the polar bear 4(d) rule. The court upheld both the polar bear listing rule and the polar bear 4(d) rule under the ESA. *See In re Polar Bear Endangered Species Act Listing & § 4(d) Rule Litig.*, 794 F. Supp. 2d 65 (D.D.C. 2011); *In re Polar Bear Endangered Species Act Listing & § 4(d) Rule Litig.*, 818 F. Supp. 2d 214 (D.D.C. 2011).

calamitous threat analogous to that of Tellico Dam. They are not a narrowly endemic species vulnerable to extinction from elevated threats. They are instead a widespread, indeed circumpolar, species that has not been restricted to a critically small range or critically low numbers, and has yet to suffer any substantial reduction in numbers or range. Thus, they are unlike any of the species described in those four categories. They face a serious threat, the loss of sea ice habitat, as the Service found when it made its listing determination, but they currently are not rare, on the brink of extinction, or critically imperiled.

Id. at 15. This summary of the status of the polar bear species—provided by the Service in 2010—accurately describes the species’ present status.

The International Union for Conservation of Nature (“IUCN”) recently performed an updated assessment of the status of the polar bear species, and found that the species continues to have a “vulnerable” status just as it did in 2008. *See* IUCN Red List of Threatened Species (2015), <http://www.iucnredlist.org/details/22823/0>.² The IUCN’s 2015 polar bear assessment is based, in part, on a comprehensive analysis performed by the IUCN’s Polar Bear Specialist Group, which concluded that the polar bear population size ranges between 22,000 and 31,000 animals and that the polar bear species continues to exist in 19 subpopulations, which overlap geographically and genetically. *Id.* (citing Obbard et al. 2010). As a comparison, the Service determined that the population size of the polar bear species was 20,000 to 25,000 animals when it issued its listing rule in 2008. 73 Fed. Reg. 28,212, 28,215 (May 15, 2008). In its listing rule, the Service also concluded, similar to the IUCN’s 2015 assessment, that the 19 polar bear subpopulations are not “distinct” and that all subpopulations comprise a single species. *Id.* at 28,293-97.³

In addition to the IUCN 2015 assessment, the following is a brief summary of some of the primary new polar bear-related information that has been published since the polar bear was listed as a threatened species in 2008:

- The Southern Beaufort Sea (“SBS”) polar bear stock has recently undergone periods of higher and lower population health since 2000 (Rode et al. 2014). A new population assessment was released for the SBS stock estimating a current population size of 900 bears (Bromaghin et al. 2015). There is evidence of declines in abundance from 2004 to 2006, with increased survival rates from 2008 to 2010 (*id.*). The hypothesized causes for the decline between 2004 and 2006 are unfavorable ice

² On the IUCN risk scale, “vulnerable” is the status between “near threatened” and “endangered.” *Id.*

³ This determination was also upheld in a judicial challenge. *See In re Polar Bear Endangered Species Act Listing & § 4(d) Rule Litig.*, 709 F.3d 1, 11-12 (D.C. Cir.) (rejecting claim that Service should have divided polar bear species into distinct population segments for purposes of listing decision), *cert. denied sub nom. Safari Club Int’l v. Jewell*, 134 S. Ct. 310 (2013).

conditions that limited access to prey during multiple seasons and low prey abundance (*id.*)⁴

- Evidence suggests that body condition and reproductive rates of the Chukchi Sea polar bear stock have been stable or improved over the last 20 years, despite large sea ice declines (Rode et al. 2014). The Chukchi Sea stock has higher recruitment indices compared to most other polar bear stocks to date (*id.*).
- Increased terrestrial food consumption by polar bears is linked with declines in body condition and survival rates (Rode et al. 2015).
- Recent past as well as the future distribution of polar bears may be linked to the loss of optimal sea ice habitat (Rode et al. 2014).
- Under both stabilized and unabated greenhouse gas emissions models, polar bears are expected to have decreased persistence throughout the region (Atwood et al. 2015). Population decline is expected to result from decreased female survival and reduced breeding. Primary stressors include reduced sea ice and a related decrease in prey and seal hunting habitat (*id.*). Human activities (*e.g.*, industrial, subsistence) are expected to have a much smaller influence, if any, on polar bear stocks (*id.*; Regehr et al. 2015).

In sum, there is no information demonstrating that any change in the listing status of the polar bear species is warranted. Similar to when the species was listed as threatened in 2008, some subpopulations are decreasing and others are increasing, but the overall abundance of the species remains stable. The polar bear species also continues to occupy its entire historical range, and cannot be separated into “distinct population segments” for ESA purposes. Moreover, all of these findings were recently reiterated by the Service in its Polar Bear Draft Conservation Management Plan (“Draft Plan”).⁵ The polar bear species is not on the “brink of extinction,” and its ESA listing status should remain as “threatened.”

B. The Alaska Oil and Gas Industry Continues to Successfully Protect and Conserve Polar Bears

For decades, the Alaska oil and gas industry, in consultation with the Service, has implemented on-the-ground programs that have well-documented, demonstrated success in protecting polar bears and mitigating the potential impacts of human-bear interactions associated

⁴ Bromaghin et al.’s observations of abundance declines in 2004-2006 and of increased survival and abundance stabilization in 2008-2010 may be the result of cyclical changes that need to be examined over a longer time period. In addition, the confidence intervals in the estimates reported by Bromaghin et al. are very large and, consequently, there is substantial uncertainty in the estimates. A further study that provides additional data could help to narrow the confidence limits and to improve the accuracy and precision of the estimates.

⁵ U.S. Fish and Wildlife Service, Polar Bear Draft Conservation Management Plan (2015), <https://www.fws.gov/alaska/PDFs/PBRT%20Recovery%20Plan%20Book.pdf>.

with industry activities in northern Alaska. These protections are generally authorized and implemented under (1) incidental take regulations periodically requested by AOGA and issued by the Service under Section 101(a)(5) the Marine Mammal Protection Act (“MMPA”), and (2) intentional harassment authorizations issued by the Service under Sections 101(a)(4)(A), 109(h), and 112(c) of the MMPA.

The industry actions carried out under these programs have repeatedly been found by the Service and by the courts to have no more than a negligible impact on polar bears. Most recently, the Draft Plan acknowledges that oil and gas exploration, development, and associated activities are not a threat to polar bear populations now, and are expected to continue to have a “negligible impact” on polar bears in the future:

Documented direct impacts on polar bears by the oil and gas industry during the past 30 years are minimal. Currently, oil and gas exploration, development, and production activities do not threaten the species in Alaska based on: (1) mitigation measures in place now and likely to be used in the future; (2) historical information on the level of oil and gas development activities occurring within polar bear habitat; (3) the lack of direct quantifiable impacts to polar bear habitat from these activities noted to date in Alaska; (4) the current availability of suitable alternative habitat; and (5) the limited and localized nature of the development activities, or possible events, such as oil spills. (Schliebe et al. 2006).

Draft Plan at 11; *see also id.* at 7, 29, 30, 46; 73 Fed. Reg. at 28,289 (“[T]he actual history of oil and gas activities in the Beaufort and Chukchi Seas demonstrate that operations have been done safely and with a negligible effect on wildlife and the environment.”); 71 Fed. Reg. 43,926, 43,945 (Aug. 2, 2006) (“We evaluated the sum total of both subtle and acute impacts likely to occur from industrial activity and, using this information, we determined that all direct and indirect effects, including cumulative effects, of industrial activities would not adversely affect the [polar bear] species through effects on rates of recruitment or survival. Based on past monitoring reports, the level of interaction between Industry and polar bears ... has been minimal.”).⁶

The Alaska oil and gas industry’s polar bear conservation and protection programs provide an extraordinary set of best management practices based on decades of real world experience, as well as cutting edge efforts to utilize new technologies to protect bears and people. To help inform the Service’s five-year review, we provide below a summary of the management practices implemented by industry under Polar Bear Interaction Plans and the regulatory measures implemented under MMPA incidental take programs.

⁶ The Service and the courts have found, with particular regard to polar bear management, that the MMPA is more stringent and protective than the ESA. *See In re Polar Bear Endangered Species Act Listing*, 818 F. Supp. 2d at 222-23, 228-34 (upholding the polar bear 4(d) rule because Service properly found that MMPA has “comparable or stricter” regulatory provisions than ESA).

1. Polar Bear Interaction Plans

Numerous routine steps and extra initiatives have been undertaken by the oil and gas industry to minimize human-bear conflicts. Many of these actions are described in Polar Bear Interaction Plans, which are incorporated into MMPA authorizations issued by the Service. These plans typically specify the education, training, facilities management, and interaction procedures that are designed to avoid or minimize negative interactions between humans and polar bears. We summarize the measures typically included in these plans below.

a. Education, training, and safety measures

Polar bear and wildlife awareness is a primary topic included in mandatory training for all industry workers on the North Slope through the North Slope Training Cooperative Unescorted Program as well as project-specific training programs. This training covers the life history and biological status of the SBS polar bear population, relevant MMPA and ESA regulations, and the measures to be taken to minimize human-bear encounters. In addition to this training, the Alaska oil and gas industry implements many other measures to reinforce bear-related safety and conflict prevention messages, such as:

- Additional targeted training sessions as needed for certain specialized tasks, such as enhanced den detection, identification, and response training to personnel who have a higher likelihood of encountering bears;
- Annual refresher classes for designated bear monitors and authorized hazers;
- Seminars with polar bear scientists that are available to employees or interested members of the public to increase bear awareness, answer questions, and discuss innovative research;
- Safety meetings to increase and reinforce awareness of polar bears and how to avoid problems;
- The conspicuous posting of guidance and important informational material at all facilities;
- The conspicuous posting of warning signs at all facility exits and other potentially dangerous locations;
- Periodic handouts and environmental bulletins regarding bear safety and interactions;
- Videos about bears and related safety issues broadcast on closed circuit television at some facilities.
- Safety/observation cages around outside doors in certain areas;
- Bear fencing and industrial gates around facilities to keep bears out of human-use areas;

- Central waste management collection sites and bear-proof dumpsters to avoid attracting bears; and
- Storage of food, chemicals, and supplies in secured areas.

b. Individual worker responsibilities

Proper employee conduct is critical to the success of the Polar Bear Interaction Plans. Industry holds regular meetings with employees to emphasize procedures that must be followed to ensure the safety of workers and polar bears. Some of the messages included in employee trainings include the following:

- Take personal responsibility for safety, and be alert at all times.
- Always look around before leaving a vehicle or building. Check for bears outside doors, around stairs, corners of buildings, conexes, material storage, and especially areas such as dumpsters or incinerators.
- Be extra cautious when working outside during evening or early morning hours and hours of darkness, or when fog or blowing snow reduces visibility. Remain within the lighted work areas.
- Immediately notify on-site security personnel when bears are sighted or when bear signs (*e.g.*, tracks, scat, excavations, or dens) are sighted.
- Avoid bear encounters and retreat to safety when appropriate (*i.e.*, whenever a bear is sighted nearby, or when a designated sequence of warning horn blasts is heard). Never approach bears or linger in exposed areas. Do not take photographs or videos.
- Drive with particular care when bears are in the vicinity—wildlife have the right of way.
- Never feed bears or any other wildlife.
- Always remove food and garbage from vehicles, watercraft, and aircraft. Operators are responsible for the cleanliness of their vehicles, watercraft, and aircraft. Never litter or pour unfinished beverages on the ground. Only place food-associated wastes in waste containers that are designated for food wastes, and not in non-food waste containers.
- Immediately report any potential or confirmed polar bear dens.

c. Innovative technology pilot programs

Early detection and safe avoidance procedures provide the best guarantee that a harmful encounter (for either bears or people) does not occur. AOGA members have, in some instances, implemented new technologies and additional measures in pilot programs to detect polar bears approaching a facility, particularly in diminished weather conditions. Although field success and

further deployment of these programs remain under evaluation, some examples of such innovative approaches are as follows.

First, one pilot program would accomplish 360-degree coverage by both visual and thermal imaging cameras around pads, critical areas of the airstrip, and other infield locations. Thermal imaging cameras allow bear detection during periods of darkness, and camera systems can use analytic software to automatically detect bears and send an alert even when no personnel are observing the monitor screens.

Second, Ground Surveillance Radar (“GSR”) for detecting polar bears is in operation at some facilities, and is designed to cover areas that polar bears use most frequently when approaching industrial areas. The GSR system has been valuable as a method of detecting approaching bears, particularly in conditions of fog, darkness, blowing snow, and other low-visibility conditions that frequently occur on the North Slope.

Third, at least one member company has worked with the Service and local contract companies on several innovative pilot projects to assess alternate methods of hazing/deterrence for human bear conflict. This has expanded the list of “tools” used to deter bears from facilities, thus keeping people and bears safer. Some examples include the use of “pepperball guns” (safe for bears and people), vocalizations (*e.g.*, growling male polar bear), and NOVA rounds/blanks as an alternative to shotgun-based cracker shells.

d. Wildlife monitor and hazer responsibilities

In addition to the responsibilities shared by workers, designated wildlife monitors may be maintained on location to observe and identify evidence of bear presence. Although human safety is the top priority, it must be emphasized that early detection and avoidance measures are equally designed to prevent encounters that might result in harm to bears. The early detection of bears is one of the wildlife monitor’s essential duties and substantially reduces the risk of harm to both bears and people.

Industry personnel are instructed to report any bear sightings or interactions to the designated wildlife monitor and the on-site security contact. Wildlife monitors investigate reports of bear tracks or bears on the pad, may be assigned to guard work crews, and may haze and deter bears in rare occasions when bears approach people too closely. Upon finding bear signs or sighting a bear, wildlife monitors notify the on-site security contact, and continually watch the bear while it is in the vicinity. They also perform routine safety checks and are responsible for maintaining the daily log. Unannounced drills are performed to verify compliance and to facilitate continuous improvement in the performance of the monitoring programs.

Most polar bears that encounter facilities are walking along the Arctic Ocean shoreline in summer months. Polar bears typically pass without incident, and are not engaged or interfered with unless they access an area in which workers are present or an area where bears should not be, such as near waste management areas or building entrances/egresses. As indicated above, wildlife monitors are assigned to observe each bear until it disappears from sight. On rare occasions, bears must be hazed away from workers, and this is usually accomplished with

vehicle headlights or a horn. Hazed bears typically change direction and move off the pad, continuing in the same general direction they were headed before hazing.

e. Protection of polar bear dens

As required by MMPA authorizations, activities are restricted within one mile of any known polar bear den. To locate dens before activities are initiated, a survey is conducted to ensure that no maternal polar bear dens are located within one mile of the planned activity. Surveys have also been conducted annually by helicopter or fixed-wing aircraft equipped with forward looking infra-red (“FLIR”) cameras. FLIR cameras show the heat emanating from polar bears beneath the snow, which allows for verification of active dens. Surveys are typically completed in several days, and all video is reviewed by industry staff and by Service staff. If a den is located within one mile of planned industry activities, then those activities are redesigned to avoid conflicts with the denning bear. The locations of all collared bears are also obtained each year from both the Service and the U.S. Geological Survey.

After a den is located, member companies work with the Service to create a den management/avoidance plan. If a den is identified near facilities, an ice road, or proposed project, the Service and the company may work together to confirm whether the den is active. Investigation techniques include the use of handheld or truck-based FLIR cameras, the use of specially trained service dogs, or the installation of den monitoring cameras. More recently, industry is working with the Service and researchers on the use of FLIR cameras mounted on Unmanned Aerial Surveillance Systems (*i.e.*, drones) to confirm or identify dens.

Additionally, industry is studying new potential methods for maternal den detection and verification. For example, synthetic aperture radar and electromagnetic wavelength-based applications may provide additional or alternative measures to identify dens and to assist in areas where the use of FLIR may be compromised. In undertaking these pilot programs, the Alaska oil and gas industry is proactively pursuing potential new conservation measures, beyond what is required by existing authorizations. Finally, for many years member companies have provided funding and support for independent researchers to study polar bear dens.

f. Strategic monitoring and research on seasonal polar bear movements, aggregations, and important habitats

All polar bear observations are rigorously documented on forms (provided by the Service) that require specific details regarding the time, place, and circumstances of the observation. This form is transmitted to the polar bear regulatory staff at the Service within 24 hours of the observation. Industry also prepares and submits annual reports that summarize the details of all observations occurring over the year. This information assists the Service in analyzing polar bear presence, movements, and degree of interaction with industry activities. An extremely robust database of information has been accumulated through the many years of implementing these polar bear protection and conservation programs.

2. Additional Measures Carried Out Under Incidental Take Authorizations

The oil and gas industry has implemented a suite of rigorous measures that have been developed through decades of incidental take authorization on the North Slope and offshore in the Chukchi and Beaufort Seas. Specifically, polar bear monitoring, reporting, and survey activities must be conducted in accordance with 50 C.F.R. § 18.128 (Beaufort Sea and adjacent coast of Alaska) and § 18.118 (Chukchi Sea and adjacent coast of Alaska). These regulations contain numerous specific mitigation, monitoring, and reporting requirements, summarized as follows:

- Mitigation.
 - All applicants:
 - Must designate a qualified individual or individuals to observe, record, and report on effects of activities on polar bears.
 - Must have an approved Polar Bear Interaction Plan on file with the Service and available on-site, and polar bear awareness training may be required of certain personnel.
 - Must contact affected subsistence communities to discuss potential conflicts, pursuant to Plan of Cooperation.
 - Must, if required by the Service, hire and train a polar bear monitor to perform a specialist role of alerting workers of bear presence and initiating mitigation responses.
 - Onshore activities:
 - Must limit disturbances around polar bear dens.
 - Must locate dens before conducting activities, as described above, and report the same to the Service.
 - Must observe a one-mile exclusion zone around known dens during denning season. If a previously unknown den is discovered within one mile of activities, activities must cease and the Service must be contacted for guidance. The Service will review on a case-by-case basis and could modify or further cease work.
 - Operational and support vessels:
 - Must be staffed with dedicated marine mammal observers.
 - Must maintain maximum distance possible from polar bears, never approaching within one-half mile of polar bears observed on land or ice (other than in an emergency).

- Must avoid areas of known or anticipated hunting by polar bears as determined through community consultations.
- Aircraft:
 - Must at all times conduct activities at a maximum distance possible from polar bears.
 - Must not operate lower than 1,500 feet while within one-half mile of polar bears observed on land or ice. Helicopters may not hover or circle above such areas or within one-half mile of such areas. (Limited exceptions for emergencies or low cloud cover apply, but even then, the operator must avoid areas of known polar bear concentrations and take precautions to avoid flying directly over or within one-half mile of these areas.)
 - Due to the importance of some coastal bluffs as polar bear denning habitat, flight paths for surveys must be offset from the coastline of the Chukchi Sea by at least one-half mile and 1,500 feet above ground level.
 - Any changes in plans such as flight paths, activities, or locations must be communicated to the Service prior to the planned operation.
- Offshore seismic surveys:
 - Must establish and monitor an exclusion zone surrounding seismic airgun arrays when received level to polar bears would be greater than or equal to 190 dB.
 - Must use ramp-up procedures to allow polar bears to depart exclusion zone before seismic surveying begins. Visually monitor the exclusion zone and adjacent waters for absence of polar bears for at least 30 minutes prior to ramp-up. Do not initiate ramp-up procedures at night or when visual monitoring otherwise cannot be done.
 - Must shut down if bears are approaching exclusion zone or found in zone.
- Subsistence use:
 - Must minimize adverse impacts on availability of polar bears for subsistence uses.
 - Must consult with subsistence communities to discuss potential conflicts.
 - Must, when required by the Service, develop and implement a Plan of Cooperation with affected subsistence users.

- Monitoring.
 - Maintain trained, Service-approved, on-site observers to carry out monitoring program and initiate mitigation responses if bears are encountered.
 - Develop and implement a site-specific monitoring and mitigation plan.
- Reporting.
 - For exploratory and development activities, must submit a detailed report regarding activities conducted and bears encountered (*e.g.*, numbers, sex, ages, behavior, actions taken) within 90 days of completing activities.
 - Must submit in-season monitoring reports to keep the Service informed while conducting activities. Polar bear observation reports must be submitted within 24 hours of sightings and must include specific information (*e.g.*, number of bears, sex, age, distance, behavior, actions taken).

III. CONCLUSION

For the reasons set forth above, the best available information demonstrates that the polar bear species is not “on the brink of extinction” and continues to maintain its threatened status. As has been repeatedly determined by the Service, the activities that occur on the North Slope and offshore in the Beaufort and Chukchi Seas are not the cause of the polar bear’s threatened status and have occurred for decades with no more than a negligible impact on the species. The measures implemented through programs jointly developed by the Service and industry, as summarized above, have been extraordinarily successful and continue to protect and conserve polar bears. The continued efficient implementation of these programs is heavily dependent upon the ongoing application of the polar bear 4(d) rule, which has been judicially upheld and which wisely defers management of polar bears to the more restrictive standards of the MMPA.

The Associations and our members appreciate your consideration of these comments. If you have any questions, or would like us to provide any additional information on the topics addressed in this letter, please do not hesitate to contact the undersigned.

Sincerely,



Josh Kindred
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Richard Ranger
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