

Alaska Oil and Gas Association



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Director
Bureau of Ocean Energy Management
1849 C Street, NW
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Mr. James Watson
Director
Bureau of Safety and Environmental Enforcement
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Dr. James Kendall
Director, Alaska Region
Bureau of Ocean Energy Management
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Mr. Mark Fesmire
Director, Alaska Region
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**Re: Shell Offshore Inc.'s 2012 Revised Outer Continental Shelf Lease
Exploration Plan, Chukchi Sea, Alaska and associated Oil Discharge
Prevention and Contingency Plan**

Dear Directors Beaudreau and Watson and Regional Directors Kendall and Fesmire:

The Alaska Oil and Gas Association (“AOGA”) appreciates this opportunity to provide comments on Shell Offshore Inc.’s 2012 Revised Outer Continental Shelf (“OCS”) Lease Exploration Plan (“EP”), Chukchi Sea, Alaska, Burger Prospect: Posey Area Blocks 6714, 6762, 6764, 6812, 6912, and 6915. AOGA is a non-profit trade association whose member companies account for the majority of oil and gas exploration, development, production, transportation, refining, and marketing activities in Alaska.

AOGA firmly believes BOEM should approve Shell’s Chukchi Sea EP, and in a timeframe that will allow for an exploration drilling program in 2012. Shell submitted its initial EP to BOEM in May 2009, which BOEM approved in December 2009 following public comment and issuance of a final Environmental Assessment and Finding of No Significant Impact. Shell planned to begin exploration activities in the summer of 2010, but these plans were postponed at BOEM’s direction following the Deepwater Horizon incident in the Gulf of Mexico. Shell submitted this revised EP to BOEM in May 2011. Almost four years have passed since the lease sale and yet

not a single exploration well has been drilled. During that time, Shell's plans have undergone extensive environmental review and review by BOEM, other federal agencies and the public. Given this vetting, and for the reasons described in more detail below, it is time for exploration to be allowed to proceed.

The impacts associated with the revised EP are similar and in some respects substantially less than the initial plan BOEM already approved. Under the revised Chukchi Sea EP, Shell proposes to drill up to six exploration wells, utilizing the M/V *Noble Discoverer* ("*Discoverer*") drillship (reinforced for ice resistance specifically for Arctic operations) within the Burger Prospect beginning in the summer of 2012. Two of these wells were included in Shell's initial EP and the remaining four wells are all located within the same prospect area. Under the revised EP, no wells will be drilled within the Southwest Shoebill or Crackerjack prospects, thus reducing the footprint and environmental impacts of the exploration program compared to Shell's initial proposal.

Shell's proposed exploration program is specifically designed to have minimal or no effects on the environment, including humans and marine and terrestrial wildlife. Only minor incremental contributions to cumulative effects are expected. Air emissions associated with the program will have a negligible impact on air quality at coastal villages, or elsewhere on the North Slope. Modeling (which EPA acknowledges is conservative) shows that all National Ambient Air Quality Standards (designed to protect human health and public welfare) will be met. Any impacts associated with a small spill, which analysis shows is the most probable type and volume of spill, would have only minor and temporary effects on the environment. In the highly unlikely event of a large oil spill, Shell's Oil Discharge Prevention and Contingency Plan ("ODPCP") contains a three-prong approach providing protections onshore, nearshore and offshore at the drill site to mitigate any impacts to the environment, as discussed in more detail below.

Generally, Shell has committed to mitigation measures that not only meet but far exceed regulatory requirements, including marine mammal observers on all vessels, real time ice and weather forecasting, restrictions on aircraft altitude and vessel distance when marine mammals are observed, and transit routes which avoid known fragile ecosystems. Shell has also included mitigation measures specifically aimed at decreasing the potential for conflicts between exploration drilling activities and subsistence harvests, such as developing and implementing a communication plan with subsistence users and employing subsistence advisors from local communities. These are some but not all of the mitigation measures Shell will have in place during its proposed exploration program in the Chukchi.

Shell will also continue its Plan of Cooperation meetings with local communities potentially affected by the proposed exploration program to listen to and address any concerns. In addition,

Shell will offer several programs to train and subsequently hire local residents, including marine mammal observer, subsistence advisor, community liaison, and cultural awareness programs.

One of Shell's top priorities in any drilling project, including its planned exploration program in the Chukchi Sea, is oil spill prevention. Shell's ODPCP associated with the Chukchi Sea EP is specifically designed to aid Shell in its efforts to prevent oil spills, and in the highly unlikely event of a spill, is also designed to mitigate the impacts of a spill on the environment. Shell submitted the current version of its ODPCP in March 2011. This plan has also been subject to extensive review and public comment and was previously approved. Importantly, it meets and even exceeds all applicable federal and state regulatory standards. Like the EP, given the thorough vetting Shell's ODPCP has already received over the last four years, AOGA strongly urges the Bureau of Safety and Environmental Enforcement ("BSEE") to approve the plan.

Shell's oil spill response capability covers not only small operational spills (which analysis shows to be the most probable type and volume of spill) but a potential well blowout with a flow rate of 25,000 bbl/day for a duration of 30 days – a total volume of 750,000 bbl of oil, despite the very low likelihood of a large spill event. This meets BOEM's Worst Case Discharge ("WCD") planning scenario requirements and far exceeds the planning standards required by the State of Alaska (i.e. 5,500 bbl/day). Importantly, it is more than sufficient to cover a potential blowout of any exploration well in the revised Chukchi Sea EP; the highest calculated WCD for the proposed wells is approximately 23,000 bbl/day. Shell's ODPCP also includes capabilities to prevent and mitigate spills associated with fuel transfers.

Shell has taken significant precautions to minimize the potential for a loss of well control, including an extra set of redundant shear rams, testing every 7 days instead of every 14 days, and remotely operated vehicle/diver options on and near site. In the highly unlikely event that well control is lost, Shell will immediately mobilize its oil spill response capabilities, including subsea capping and containment systems. Shell will have pre-staged assets onshore, nearshore and offshore at the drill site, including barges, boats, booms, skimmers, helicopters, personnel, and other assets ready to begin oil recovery within one hour. In addition, if a relief well proves necessary, the drillship *Discoverer* would serve as its own primary relief well drilling vessel, but if that vessel cannot be used, a secondary relief well drilling vessel would be mobilized, most likely the M/V *Kulluk* ("Kulluk") from the Beaufort Sea. Shell's exploration activities will occur during open water conditions, from July through October. However, because of the possibility of ice incursions during the open water period, Shell has also included oil spill response strategies and tactics in the ODPCP designed to cover ice conditions.

Unlike conditions in the Gulf of Mexico, wells in the Arctic are "simple" wells from a well control standpoint. These wells are shallow in shallow water (less than 150 feet) and in

relatively uniform and strong rock with normal pressure conditions. In contrast, the Macondo well associated with the Deepwater Horizon incident was drilled in over 5,000 feet of water with down hole well pressures in excess of 15,000 psi. Shell's proposed exploration wells in the Chukchi are generally in less than 150 feet of water with down hole well pressures a quarter of the psi of the Macondo well.

Should Shell's EP and ODCCP be approved, which AOGA strongly recommends, Shell must also obtain several other federal permits and authorizations in order to proceed with an exploration program, including Applications for Permits to drill for each proposed well by BSEE, final approval of the air permit for the *Discoverer* from EPA, and Incidental Harassment Authorizations and Letters of Authorization for the incidental take of marine mammals, including bowhead whales and polar bears from National Marine Fisheries Service and U.S. Fish and Wildlife Service, respectively. This is not a project that is occurring without adequate oversight and necessary approvals.

The importance of the development of oil and gas resources in Alaska's OCS cannot be overstated. This largely untapped area holds an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas. By comparison, total production from the North Slope over the last 30 years is about 17 billion barrels of oil. Development of these resources is necessary for the continued operation of the Trans-Alaska Pipeline System ("TAPS"), which delivers 11% of domestic oil production to refineries on the West Coast and has been identified as critical infrastructure for national security. TAPS is currently operating at one-third capacity, or approximately 600,000 barrels of oil per day compared to 2 million barrels of per day in 1988, and will face operational challenges without additional supply.

In addition, the beneficial economic impact development these resources would have on the U.S. economy, at a time of increasing deficits and high unemployment, is undeniable. According to a recent study by Northern Economics and the University of Alaska, an annual average of 54,000 new jobs in Alaska and the rest of the U.S. would be created and sustained by OCS-related development for 50 years. This translates into \$63 billion in payroll to employees in Alaska and \$82 billion to employees in the Lower 48. Federal, state, and local governments would realize \$193 billion in revenues. Furthermore, development of Alaska's OCS resources is vital to U.S. energy security. In 2010, the U.S. consumed 19.1 million barrels of petroleum products per day and had to import half, costing billions of dollars and resulting in the export of hundreds of thousands of jobs. Clearly, development of Alaska's OCS would help turn the tide against the economic recession and increase the nation's energy independence.

Shell has a long history of safe, responsible, and environmentally sound operations worldwide, and in Alaska specifically. Over 150 wells have been drilled offshore in Arctic waters of the

U.S. and Canada, including more than 50 wells in the U.S. Beaufort and Chukchi Seas off Alaska's coast. Shell has drilled 33 wells in Alaska, 32 of which were offshore. During these operations, there has never been an oil spill caused by a well blowout in state or federal waters of the Alaskan or Canadian Arctic.

Finally, Alaska's OCS is probably the most studied and understood oil and gas basin in the world. Over \$500 million has been spent since 1973 on more than 5000 independent scientific studies, including marine mammal monitoring, ringed seal and walrus tagging studies, offshore, nearshore, and onshore ecological characterization studies, traditional knowledge studies, and health impact studies. Shell alone has invested more than \$60 million on baseline science in the Arctic since 2006. Shell has also entered into an agreement with the North Slope Borough on a science initiative which will funnel \$5 million annually to environmental research projects important to the local communities on the potential impacts of oil and gas development in the Arctic OCS.

Shell's Chukchi Sea EP and associated ODPCP have both been approved previously after thorough review by federal agencies and the public. The current plans include revisions which only serve to strengthen environmental protections and relations with local communities. AOGA urges BOEM and BSEE to approve Shell's Chukchi Sea EP and ODPCP so yet another exploration drilling season is not lost.

If you have any questions on these comments, please do not hesitate to contact me.

Sincerely,



KATE WILLIAMS
Regulatory Affairs Representative