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POLAR PIONEER
M. JURO

750







GLOBAL DIVING & SALVAGE INC.

PRUDHUE BAY

Conversation Contents

Fwd: Shell Alaska - today NTSB will release its report on Kulluk incident

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:16:49 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - today NTSB will release its report on Kulluk incident

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Thu, May 28, 2015 at 9:17 AM
Subject: Shell Alaska - today NTSB will release its report on Kulluk incident
To: Michael.Farber@bsee.gov, celina.cunningham@boem.gov,
brandi_colander@ios.doi.gov

Folks - Perhaps you are aware, but just in case you aren't. . . . Today the National Transportation Safety Board (NTSB) is expected to release its report on the Kulluk tow incident.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior

Conversation Contents

Fwd: Shell Alaska - Seattle

/1. Fwd: Shell Alaska - Seattle/1.1 IMG_1958.jpg

/1. Fwd: Shell Alaska - Seattle/1.2 image1.jpg

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:17:43 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - Seattle
Attachments: IMG_1958.jpg image1.jpg

----- Forwarded message -----

From: <Sara.Glenn@shell.com>

Date: Thu, May 14, 2015 at 6:12 PM

Subject: Shell Alaska - Seattle

To: brandi_colander@ios.doi.gov, celina.cunningham@boem.gov,
Michael.Farber@bsee.gov

Brandi, Mike, Celina - Brief update on Seattle. Please share as appropriate.

Attached are photos of the Transocean Polar Pioneer rig just now getting close to Terminal 5 at the Port of Seattle, where final preparations for mobilization to Alaska will begin.

A Festival of Resistance planned for this weekend in Seattle, and a "day of mass nonviolent direct action + rally" is planned for Monday.

Articles from today:

- Arctic oil fuels jobs in Puget Sound – includes footage shot today at T5 and

highlights the economic benefits to PNW. <http://www.king5.com/story/news/local/seattle/2015/05/13/arctic-oil-jobs-economic-impact-puget-sound/27278779>

- Editorial from the Seattle Times: <http://www.seattletimes.com/opinion/editorials/wishy-washy-rhetoric-on-port-lease>
- A Seattle Times story: <http://www.seattletimes.com/seattle-news/shell-oil-rig-arriving-today-just-the-start-of-arctic-drilling-fleet>

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:17:49 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - Seattle

----- Forwarded message -----

From: **Brandi Colander** <brandi_colander@ios.doi.gov>
Date: Thu, May 14, 2015 at 9:22 PM
Subject: Re: Shell Alaska - Seattle
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thx for he update Sarah.

> On May 14, 2015, at 6:13 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> Brandi, Mike, Celina - Brief update on Seattle. Please share as appropriate.

>

> Attached are photos of the Transocean Polar Pioneer rig just now getting close to Terminal 5 at the Port of Seattle, where final preparations for mobilization to Alaska will begin.

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> A Festival of Resistance planned for this weekend in Seattle, and a "day of mass nonviolent direct action + rally" is planned for Monday.

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> Articles from today:

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> * Arctic oil fuels jobs in Puget Sound - includes footage shot today at T5 and highlights the economic benefits to PNW. <http://www.king5.com/story/news/local/seattle/2015/05/13/arctic-oil-jobs-economic-impact-puget-sound/27278779>

>

> * Editorial from the Seattle Times: <http://www.seattletimes.com/opinion/editorials/wishy-washy-rhetoric-on-port-lease>

>

> * A Seattle Times story: <http://www.seattletimes.com/seattle-news/shell-oil-rig-arriving-today-just-the-start-of-arctic-drilling-fleet>

>

>

> Sara Glenn Director, Federal Government Relations & Senior Counsel * Shell Oil Company * 1050 K Street NW Suite 700 * Washington DC 20001-4449 * ph 202 466 1400 * cell 202 299 6472

>

> <IMG_1958.jpg>

> <image1.jpg>

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Brandi A. Colander

Deputy Assistant Secretary

Land & Minerals Management

U.S. Department of the Interior

Conversation Contents

Fwd: Shell Alaska - Seattle update

Attachments:

/2. Fwd: Shell Alaska - Seattle update/1.1 TOPP T5 2.jpg

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:17:16 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - Seattle update
Attachments: TOPP T5 2.jpg

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Fri, May 15, 2015 at 8:24 AM
Subject: Shell Alaska - Seattle update
To: brandi_colander@ios.doi.gov, Michael.Farber@bsee.gov,
celina.cunningham@boem.gov

Hi -

Polar Pioneer arrived into Terminal 5 last night. See photo. Lots of spectators, 30-40 protesters no impact.

Law enforcement visible presence with est. 100 officers in the T5 area from Port of Seattle Police, King County Sheriff, and Seattle Police Department. USCG and law enforcement well-coordinated on the water.

USCG and local law enforcement, including Port Police, activated a Joint Incident Command yesterday and will remain strong through the weekend planned protest, some reports est 300 police will work Monday protest.

USA Today editorial "Allow Shell drilling in the Arctic: Our view"

<http://www.usatoday.com/story/opinion/2015/05/14/shell-oil-drilling-arctic-chukchi-sea->

[editorials-debates/27334111](#)

Local affiliate King 5 on TOPP arrival: <http://www.king5.com/story/news/local/shell-oil-rig/2015/05/14/shell-oil-rig-seattle-thursday/27292545>

Seattle Times' story on the arrival: <http://www.seattletimes.com/seattle-news/protesters-launching-kayaks-to-unwelcome-oil-rig-to-seattle>

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior

Conversation Contents

Fwd: Shell Alaska - request for meeting June 9

"Farber, Michael" < michael.farber@bsee.gov >

From: "Farber, Michael" < michael.farber@bsee.gov >
Sent: Mon May 18 2015 13:57:51 GMT-0600 (MDT)
To: Richard Cardinale < richard_cardinale@ios.doi.gov >
Subject: Fwd: Shell Alaska - request for meeting June 9

Hi Rich - Brian and Abby can meet with Shell the morning of June 9 - can Janice do it?

----- Forwarded message -----

From: **Lindow, Emily** < emily.lindow@boem.gov >
Date: Mon, May 18, 2015 at 3:53 PM
Subject: Re: Shell Alaska - request for meeting June 9
To: "Cunningham, Celina" < celina.cunningham@boem.gov >
Cc: "Farber, Michael" < michael.farber@bsee.gov >, Tracie Lassiter < tracie_lassiter@ios.doi.gov >, Thomas Lillie < thomas.lillie@bsee.gov >, Brandi Colander < brandi_colander@ios.doi.gov >, Karla Cook < karla.cook@boem.gov >

Abby is available.

On Mon, May 18, 2015 at 3:52 PM, Cunningham, Celina < celina.cunningham@boem.gov > wrote:

+ Emily

On Mon, May 18, 2015 at 3:36 PM, Farber, Michael < michael.farber@bsee.gov > wrote:
I've dropped Sara from this e-mail chain; how about starting at 9:30 or 10 on June 9? Are Janice and Abby available?

On Mon, May 18, 2015 at 11:38 AM, < Sara.Glenn@shell.com > wrote:

All - Ann Pickard, EVP Shell Arctic, will be in Washington on **Tuesday June 9** and would like to meet with Janice Schneider, Brian Salerno and Abby Hopper between 8:00 am – 12:00 to provide a status report on preparations for our Alaska exploration program and to discuss any issues of concern.

Can you help get this set? Thanks,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company ·
1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299
6472

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Michael D. Farber
Senior Advisor to the Director
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Bureau of Safety and Environmental Enforcement
1849 C Street, NW
Washington DC 20240
(202) 208-3976

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Emily Lindow
Chief of Staff
Bureau of Ocean Energy Management
US Department of the Interior
202-208-6300 (main)
202-513-0825

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Michael D. Farber
Senior Advisor to the Director
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1849 C Street, NW
Washington DC 20240
(202) 208-3976

Brandi Colander <brandi_colander@ios.doi.gov>

From: Brandi Colander <brandi_colander@ios.doi.gov>
Sent: Mon May 18 2015 13:59:23 GMT-0600 (MDT)

To: "Lindow, Emily" <emily.lindow@boem.gov>
Subject: Re: Shell Alaska - request for meeting June 9

+ Rich

On May 18, 2015, at 3:53 PM, "Lindow, Emily" <emily.lindow@boem.gov> wrote:

Abby is available.

On Mon, May 18, 2015 at 3:52 PM, Cunningham, Celina
<celina.cunningham@boem.gov> wrote:

+ Emily

On Mon, May 18, 2015 at 3:36 PM, Farber, Michael
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202-513-0825

"Cardinale, Richard" <richard_cardinale@ios.doi.gov>

From: "Cardinale, Richard" <richard_cardinale@ios.doi.gov>
Sent: Mon May 18 2015 15:22:22 GMT-0600 (MDT)
To: "Farber, Michael" <michael.farber@bsee.gov>
Subject: Re: Shell Alaska - request for meeting June 9

Hi Mike,

Yes. She is available all morning on the 9th.

Rich

On Mon, May 18, 2015 at 3:57 PM, Farber, Michael <michael.farber@bsee.gov> wrote:
Hi Rich - Brian and Abby can meet with Shell the morning of June 9 - can Janice do it?

----- Forwarded message -----

From: **Lindow, Emily** <emily.lindow@boem.gov>
Date: Mon, May 18, 2015 at 3:53 PM
Subject: Re: Shell Alaska - request for meeting June 9
To: "Cunningham, Celina" <celina.cunningham@boem.gov>
Cc: "Farber, Michael" <michael.farber@bsee.gov>, Tracie Lassiter <tracie_lassiter@ios.doi.gov>, Thomas Lillie <thomas.lillie@bsee.gov>, Brandi Colander <brandi_colander@ios.doi.gov>, Karla Cook <karla.cook@boem.gov>

Abby is available.

On Mon, May 18, 2015 at 3:52 PM, Cunningham, Celina <celina.cunningham@boem.gov> wrote:

+ Emily

On Mon, May 18, 2015 at 3:36 PM, Farber, Michael <michael.farber@bsee.gov>

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"Cardinale, Richard" <richard_cardinale@ios.doi.gov>

From: "Cardinale, Richard" <richard_cardinale@ios.doi.gov>
Sent: Mon May 18 2015 15:23:16 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Re: Shell Alaska - request for meeting June 9

Either of those times would work for Janice as well.

Rich

On Mon, May 18, 2015 at 3:59 PM, Brandi Colander <brandi_colander@ios.doi.gov> wrote:

+ Rich

On May 18, 2015, at 3:53 PM, "Lindow, Emily" <emily.lindow@boem.gov> wrote:

Abby is available.

On Mon, May 18, 2015 at 3:52 PM, Cunningham, Celina <celina.cunningham@boem.gov> wrote:

+ Emily

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202-513-0825

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:17:05 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - request for meeting June 9

----- Forwarded message -----

From: <Sara.Glenn@shell.com>

Date: Mon, May 18, 2015 at 11:38 AM

Subject: Shell Alaska - request for meeting June 9

To: tracie_lassiter@ios.doi.gov, thomas.lillie@bsee.gov

Cc: brandi_colander@ios.doi.gov, Michael.Farber@bsee.gov,
celina.cunningham@boem.gov

All - Ann Pickard, EVP Shell Arctic, will be in Washington on **Tuesday June 9** and would like to meet with Janice Schneider, Brian Salerno and Abby Hopper between 8:00 am – 12:00 to provide a status report on preparations for our Alaska exploration program and to discuss any issues of concern.

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Brandi A. Colander

Deputy Assistant Secretary

Land & Minerals Management

U.S. Department of the Interior

Conversation Contents

Fwd: Seattle Dive Park Cleanup

Attachments:

/5. Fwd: Seattle Dive Park Cleanup/1.1 dive 10.jpg

/5. Fwd: Seattle Dive Park Cleanup/1.2 dive 15.jpg

/5. Fwd: Seattle Dive Park Cleanup/1.3 dive cleanup 16.jpg

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:16:19 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Seattle Dive Park Cleanup
Attachments: dive 10.jpg dive 15.jpg dive cleanup 16.jpg

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Tue, Jun 16, 2015 at 10:05 AM
Subject: Seattle Dive Park Cleanup
To: tommy_beaudreau@ios.doi.gov, Michael.Farber@bsee.gov,
celina.cunningham@boem.gov, brandi_colander@ios.doi.gov

Folks - You might be interested to know. Yesterday clean up efforts successfully removed the debris (concrete blocks and steel mooring cables) dropped into the water by a barge affiliated with anti-Shell protesters in Seattle. The debris damaged an underwater park. Shell and Foss provided majority of funding for the effort.

This was known as the Seacrest Dive Park Removal Project GUE Seattle, a local Seattle dive association, approached Shell several weeks ago expressing concern about the situation. GUE worked with Global Diving and Salvage to identify and successfully cleanup the debris left by the "Solar Pioneer."

Seattle local NBC affiliate, King 5, covered the cleanup: <http://www.king5.com/story/tech/science/environment/2015/06/15/divers-clean-up-activist-site-as-polar-pioneer-leaves/28785969/>

GUE Seattle issued a press release <http://www.gue-seattle.org/2015/06/15/activist-barge-environmental-debris-cleanup-effort-a-complete-success>

Several photos of the cleanup are attached.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior

Conversation Contents

Fwd: Shell Alaska - Houston Chronicle

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:15:50 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - Houston Chronicle

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Tue, Jul 7, 2015 at 1:19 PM
Subject: Shell Alaska - Houston Chronicle
To: tommy_beaudreau@ios.doi.gov, brian.salerno@bsee.gov,
abigail.hopper@boem.gov, janice_schneider@ios.doi.gov
Cc: Michael.Farber@bsee.gov, brandi_colander@ios.doi.gov

We spoke with this reporter around noon. I believe this is the first article on the topic.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Shell's Arctic icebreaker damaged in Alaska

Posted on July 7, 2015 | By Jennifer A. Dlouhy

WASHINGTON — Shell's drive to resume Arctic drilling this summer has hit another speed bump, with the discovery of a hole in the hull of an ice management vessel meant to safeguard the company's operations in the Chukchi Sea.

The MSV Fennica was on its way from Dutch Harbor, Alaska to the Chukchi Sea on Friday when a ballast tank leak was discovered by crew members and a certified Alaska

marine harbor pilot on board the vessel.

The 22-year-old icebreaker has since returned to the port in Dutch Harbor and is being examined by marine experts, but it is uncertain how quickly the breach in its hull can be repaired and whether this will delay Shell's hopes to begin drilling an oil well in the Chukchi Sea later this month.

The Fennica is just one of the 29 vessels in Shell's Arctic fleet, which includes another icebreaker, the MSV Nordica, and at least two other anchor handlers tasked with helping to keep ice away from the company's drilling site. But Shell's contracted Fennica is unique in that it is carrying a critical piece of the company's Arctic containment system: a capping stack designed to fit on top of a damaged well in case of a blowout or other emergency.

Shell spokesman Curtis Smith said the company does not believe the Fennica damage will delay the company's planned Chukchi Sea operations. "Any impact to our season will ultimately depend on the extent of the damage," Smith said.

The company also is waiting on at least one drilling permit before it can begin boring a single well into its Burger prospect about 70 miles off the coast. Regulators at the Bureau of Safety and Environmental Enforcement are still scrutinizing Shell's applications to bore two wells, about 8.9 miles apart.

Shell is already being forced to scale back its plans to drill two of its Burger wells at the same time, following a ruling by the Interior Department that wildlife protection regulations do not allow simultaneous drilling operations within 15 miles.

And the government's handling of the issue is under fire from environmentalists who say the 15-mile separation requirement compels the Interior Department to rescind its earlier approval of Shell's broad Chukchi Sea exploration plan and hold off on issuing any drilling permits.

It is not clear what caused the hole in the side of the Fennica's hull, which is about 39 inches long and less than a half an inch wide. At the time the leak was discovered, it was moving through charted Alaska waters, having barely left its mooring in Dutch Harbor.

And while those waters are shallow, the Fennica's planned route kept it in depths of at

least 42 feet. The vessel, which is owned by Arctia Offshore and contracted by Shell, drafts at roughly 27 feet.

It is possible the Fennica encountered a shallow-water hazard that has gone undocumented and uncharted.

Marine experts are now examining the Fennica in Dutch Harbor and assessing whether it can be repaired on site or will require more extensive work in a dry dock.

Any significant repair that sidelines the Fennica for the brief Arctic drilling season almost certainly would require Shell to get a new authorization from regulators at the Interior Department because it would represent a departure from the company's government-approved Chukchi Sea exploration plan. That exploration plan outlines the vessels Shell plans to use and their main missions during normal operations and any emergency.

Shell's Smith said authorities were promptly notified of the ballast leak and hull breach. Neither the vessel and its crew were in danger, he said, and the Fennica's ballast pumps continue to perform normally.

Although it is "an unfortunate potential setback," Smith said, "in no way does it characterize the preparations we have made to operate exceptionally well."

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior

Conversation Contents

Fwd: Shell Alaska - Fennica repairs

"Colander, Brandi" <brandi_colander@ios.doi.gov>

From: "Colander, Brandi" <brandi_colander@ios.doi.gov>
Sent: Wed Aug 19 2015 16:15:37 GMT-0600 (MDT)
To: Richard Cardinale <Richard_Cardinale@ios.doi.gov>
Subject: Fwd: Shell Alaska - Fennica repairs

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Mon, Jul 13, 2015 at 1:50 PM
Subject: Shell Alaska - Fennica repairs
To: Michael.Farber@bsee.gov, brandi_colander@ios.doi.gov,
celina.cunningham@boem.gov
Cc: tommy_beaudreau@ios.doi.gov

All - FYI. We have made the decision to move the Fennica to a shipyard in Portland for repairs. See the attached news article. Happy to answer any questions.

Please share as appropriate. Many thanks,

Sara

<http://fuelfix.com/blog/2015/07/13/shell-contracted-icebreaker-to-get-repairs-in-oregon/#33766101=0>

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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Brandi A. Colander
Deputy Assistant Secretary
Land & Minerals Management
U.S. Department of the Interior



Shell Exploration & Production

U.S Fish and Wildlife Services
Marine Mammals Management
Attn: Christopher Putnam
1011 East Tudor Road, MS-341
Anchorage, AK 99503

Shell
3601 C Street, Suite 1000
Anchorage, AK 99503
Tel. (907) 646-7112

Email susan.childs@shell.com
Internet <http://www.shell.com/>

April 20, 2015

Re: Supplement to Request for Letter of Authorization (LOA) for the Incidental Take of Polar Bears and Pacific Walrus; Exploration Drilling Program, Chukchi Sea, Alaska

Dear Mr. Putnam:

Upon the request of the U.S. Fish & Wildlife Service (USFWS), Shell Gulf of Mexico Inc. (Shell) hereby supplements our September 16, 2014, request for a Letter of Authorization (LOA) from the USFWS for the non-lethal incidental, unintentional "take" of small numbers of Polar Bears and Pacific Walrus, which may occur during execution of Shell's Outer Continental Shelf (OCS) exploration drilling program during 2015 in the Chukchi Sea, Alaska.

While Shell believes it has complied with the LOA application process described in 50 C.F.R. § 18.114, we have, nevertheless, agreed to supplement our original LOA application. The supplemental analysis attached hereto describes, in more precise detail, Shell's 2015 Burger Prospect exploration drilling program; provides the USFWS with additional data and analysis concerning walrus ecology in the Chukchi Sea; describes the potential environmental effects of our program on walrus; identifies our proposed mitigation and monitoring measures; and, substantiates that the use of two active drilling rigs operating approximately nine miles of one another for a limited period of time in 2015 will not result in significant synergistic or cumulative effects on walrus foraging or movement in or through the area.

Shell's 2015 exploration drilling program falls within the scope of activities considered by the USFWS in its 2013 Chukchi Sea ITR. Also, based on our current understanding, Shell will be the only offshore oil and gas company engaged in LS 193 activities this summer. The nature of our activities, combined with the extensive suite of mitigation and monitoring proposed to be implemented is expected to limit any take to short-term and temporary Level B harassment (behavioral disturbance). This taking is expected to be small relative to the population of walrus, will have a negligible impact, and not have an unmitigable adverse impact on the availability of walrus for taking for subsistence uses.

If you have any questions regarding this submission, please contact me at (907) 646-7112 or at Susan.Childs@Shell.com, or Greg Horner at (907) 646-7131 or at Greg.Horner@Shell.com.

Thank you,

A handwritten signature in blue ink that reads "Susan Childs".

Susan Childs
Alaska Venture Support Integrator, Manager

Enclosure:

Drilling Rig Separation Distance Impact Analysis Exploration Drilling Program Chukchi Sea, Alaska



Drilling Rig Separation Distance Impact Analysis Exploration Drilling Program Chukchi Sea, Alaska

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Letter of Authorization Request

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1.0 Introduction

On September 16, 2014, Shell Gulf of Mexico Inc. (Shell) requested a Marine Mammal Protection Act Letter of Authorization (LOA) from the U.S. Fish and Wildlife Service (USFWS) for non-lethal “take” of small numbers of Polar Bears and Pacific Walrus incidental to Shell’s 2015 Chukchi Sea Outer Continental Shelf (OCS) exploration drilling program. Shell prepared its LOA application in accordance with the USFWS’ Chukchi Sea oil and gas incidental take regulations (ITR). See 73 Fed. Reg. 35364 (June 12, 2013); 50 C.F.R. § 18.114.

As noted in our LOA application, Shell proposes to use two drilling units (*M/V Noble Discoverer and Transocean Polar Pioneer*) to drill exploration wells on the Burger Prospect located approximately 64 miles off the Chukchi Sea coast. The drilling units will be accompanied by support vessels that include supply and support tugs, ice management vessels, anchor handlers, oil spill response vessels, and other support vessels during the drilling program. Exploration drilling activities will begin on or about July 1, 2015, and will continue until on or about October 31, 2015, while the unmooring and movement off-site of the drilling units and support vessels may continue into November 2015. See *Revised Outer Continental Shelf Lease Exploration Plan, Chukchi Sea, Alaska, Burger Prospect: Posey Area Blocks 6714, 6762, 6764, 6812, 6912, 6915, Chukchi Sea Lease Sale 193; [Chukchi Sea Exploration Plan {EP} Revision 2]*; <http://www.boem.gov/shell-chukchi/>.

Consistent with the Outer Continental Shelf Lands Act (OCSLA), and after investing over \$6 billion in lease acquisition and exploration activities, Shell designed its exploration drilling program so it may promptly and efficiently complete its exploration operations and develop the geologic information necessary to evaluate the resource potential of its federal OCS lease holdings. The Burger Prospect is believed to be the most highly prospective hydrocarbon accumulation in the Chukchi Sea planning area. Shell selected its well locations using geologic information developed from its historic exploration drilling operations at this location, as well as information generated from recent 3D seismic mapping. These well locations, which are located within approximately 15 miles of one another, were chosen because they are anticipated to generate the new, high quality, detailed geologic data required to determine whether there is an economic project on the subject leases within the short window for exploration operations allowed by the Department of the Interior (DOI). Information developed from these initial wells will allow Shell and the DOI to plan future drilling operations to optimize the resource recovery from the federal lands and minimize overall environmental impacts by reducing the number of seasons required to evaluate the resource potential of the subject leases.

Shell’s exploratory drilling program involves the use of the two drilling units operating simultaneously on the Burger Prospect. In 2015, the drilling units will be separated by approximately 9 miles. The USFWS’ requirement at 50 C.F.R. § 18.114(a)(4)(ii) that “. . . operators must maintain a minimum spacing of 24 km (15 mi) between all active seismic and/or drill rigs during exploration activities” is impracticable, particularly in light of the Burger Prospect’s well site locations. Adherence to this measure would effectively preclude Shell from exploring its leases in the manner described in our Chukchi Sea EP Revision 2. As described in the previous paragraph, exploration drilling programs are designed to generate geologic data to determine future decisions and well sites are carefully chosen to provide the necessary data. Also, the weight of evidence, as Shell explains below, demonstrates that its drilling program will not result in significant synergistic or cumulative effects on foraging or migrating walrus or diminish the conservation value that the USFWS intended to achieve through the implementation of this provision. It is this aspect of Shell’s 2015 exploration drilling program for which Shell supplements our LOA request with further information and analysis.

2.0 Purpose of Supplemental Document

The purpose of this document is to: (1) describe, in more precise detail, Shell's 2015 Burger Prospect exploration drilling program; (2) provide the USFWS with additional data and analysis concerning walrus ecology in the Chukchi Sea (e.g., distribution and habitat use patterns in and around the Burger Prospect); (3) describe the potential environmental impacts of the drilling program on walruses; (4) describe the suite of mitigation and monitoring measures Shell proposes to employ in 2015 and how their implementation will support the conservation goals of the USFWS ITRs; and (5) substantiate that the use of two active drilling rigs operating approximately 9 miles of one another for a limited period of time in 2015 will not result in significant synergistic or cumulative effects on foraging or walruses moving through the area.¹

Shell expects that the supplemental information presented below will allow the USFWS, in accordance with the process described in the Chukchi Sea ITRs, to conduct a comprehensive evaluation of Shell's 2015 drilling activities, and conclude that any take of marine mammals from Shell's 2015 drilling activities as proposed in Shell's Chukchi Sea EP Revision 2 will be negligible, not have an unmitigable adverse impact on subsistence users, and only result in the take of small numbers of walrus.²

3.0 Description of Specified Activity

The locations of lease blocks where the planned exploration drilling will occur, and the locations of activities in support of exploration drilling, are shown in **Figure 3.0-1**. Shell plans to use two drilling units the drillship *Noble Discoverer* (*Discoverer*) and semi-submersible *Transocean Polar Pioneer* (*Polar Pioneer*) to drill the exploration wells. The drilling units will be accompanied by support tugs, ice management vessels, oil spill response (OSR) vessels, and other support vessels during the exploration drilling program. Activities conducted in 2015 will include exploration drilling, anchor handling while mooring a drilling unit at a drill site, MLC construction, vessels on DP when tending to a drilling unit, ice management, and ZVSP surveys. See *Revised Outer Continental Shelf Lease Exploration Plan, Chukchi Sea, Alaska, Burger Prospect: Posey Area Blocks 6714, 6762, 6764, 6812, 6912, 6915, Chukchi Sea Lease Sale 193; [Chukchi Sea Exploration Plan {EP} Revision 2]*; <http://www.boem.gov/shell-chukchi/>.

¹ Per the USFWS' request, this supplement provides additional information concerning the potential effects to Pacific walrus from Shell's 2015 drilling program, and addresses specifically, the 2013 Chukchi ITR provision concerning the spacing of drilling units. The data we have provided include: 1) multiple lines of evidence as to the seasonal distribution and movement patterns of Pacific walruses within the Chukchi Sea Lease area, 2) a detailed understanding of sound propagation associated with drilling related activities within the Chukchi Sea Lease area, and 3) plans for the implementation of the proposed drilling program that indicate the general location and activities of vessel and aerial assets in relation to walrus distribution. Any impacts to polar bears from 2015 operations are addressed in the ITR and Shell's LOA application for 2015 exploration drilling activities.

² It is also worth noting that the level of activity considered by the USFWS in the 2013 Chukchi Sea ITRs was far in excess of what Shell proposes in 2015 and we are unaware of any other oil and gas activities proposed to be conducted in the LS 193 area.

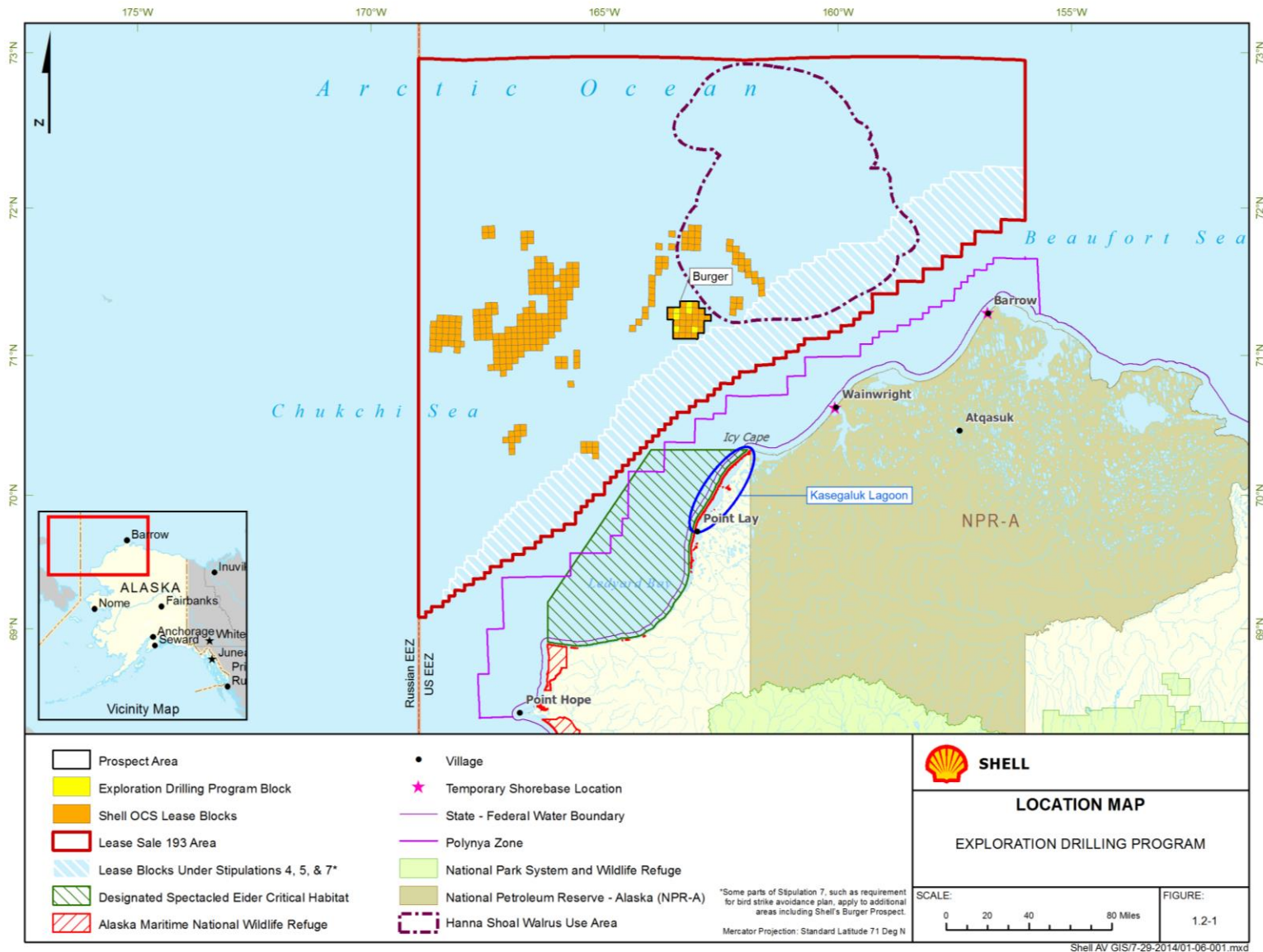


Figure 3.0-1 Planned Exploration Drilling Area

Exploratory Drilling and Drilling Unit Operations

Shell plans to continue its exploration drilling program on BOEM Alaska Outer Continental Shelf (OCS) leases at drill sites which are greater than 64 miles (mi) (103 kilometers [km]) from the Chukchi Sea coast during the 2015 drilling season (see **Figure 3.0-1**). Shell plans to conduct exploration drilling on up to four lease blocks at the Burger Prospect (see **Table 4.0-1**). A mudline cellar (MLC) will be constructed at each drill site. The MLCs will be constructed in the seafloor using a large diameter bit operated in the same manner as drilling the bottom sections of the wellbore

All planned exploration drilling in the identified lease blocks will be conducted with the *Discoverer* and the *Polar Pioneer*. The *Discoverer* is an ice strengthened drillship and can mobilize under its own power. It is a largely self-contained drilling unit that offers full accommodations for a crew of up to 124 persons, with quarters, galley, and sanitation facilities. The *Polar Pioneer* is a towed semi-submersible drilling unit capable of drilling in ice environments. It is a largely self-contained drilling unit that offers full accommodations for a crew of up to 114 persons, with quarters, galley, and sanitation facilities. General specifications for the *Discoverer* and the *Polar Pioneer* are provided below in **Table 3.0-1**.

Table 3.0-1 Specifications of the Discoverer and the Polar Pioneer

Specification	<i>Discoverer</i>	<i>Polar Pioneer</i>
Dimensions		
Hull Length	514 ft (156.7 m)	279 ft (85 m)
Hull Width	85 ft (26.0 m)	233 ft (71 m)
Height	274 ft (83.2 m)	319 ft (97.3m)
Derrick Height	175 ft (53.3 m)	170 ft (51.8 m)
Draft		
Transit Draft	26.9 ft (8.2 m)	30 ft (9.15 m)
Operating Draft at Loadline	26.9 ft (8.2 m)	75.4 ft (23 m)
Berths	124 berths	114 berths
Storage Capacity		
Potable Water	1,670 barrels (bbl) (266 cubic meters [m ³])	4,843 bbl (770 m ³)
Drill Water	5,798 bbl (922 m ³)	11,140 bbl (1,770 m ³)
Liquid Mud	2,400 bbl (382 m ³)	6,180 bbl (982 m ³)
Bulk Cement	6,400 cubic feet (ft ³) (180 m ³)	12,678 ft ³ (359 m ³)
Fuel	6,497 bbl (1,033 m ³)	11,290 bbl (1,794 m ³)
Propulsion Engines	(1) MAN Diesel B&W 1, 6,480 horse power (hp)	N/A
Power Plant	(6) Caterpillar 3512, 1,476 hp	(5) Bergen KVG-18 3,890 hp
Mooring		
Anchors	9 - 15 metric (mt) ton Stevshark, 8 each	9 - 15 mt ton Stevshark 8 each
Anchor Lines	2.75 inch (in.) (7 centimeters [cm]) wire rope 2.5-in. (6 cm) chain	3.3 in (88 millimeters [mm]) K-4 chain
Anchor Line Length	(8 each) 2,750 ft (838 m) wire + 1,150 ft (351 m) chain (useable) per anchor	(8 each) 1,969-2,035 m chain per anchor
Transit Speed	8.0 knots	NA (non-self-propelled)
Marine Sanitation Device	OMNIPUR Series 55	Piranha WRS-40

Support Vessel Operations

During this exploration drilling program, the *Discoverer* and *Polar Pioneer* will be supported by the types of vessels listed in **Table 3.0-2**. The drilling units will be accompanied by an expanded number of support vessels and oil spill response vessels than were deployed by Shell during 2012 exploration drilling in the Chukchi Sea. Two ice management vessels will support the drilling units. These vessels will enter and exit the Chukchi Sea with or ahead of the drilling units, and will generally remain in the vicinity of the drilling units during the drilling season. Ice management and ice scouting is expected to occur at distances of 20 mi (32 km) and 30 mi (48 km) respectively. However, scouting may have to expand beyond these ranges depending on ice conditions.

Up to three anchor handlers will support the drilling units. These vessels will enter and exit the Chukchi Sea with or ahead of the drilling units, and will generally remain in the vicinity of the drilling units during the drilling season. When the vessels are not anchor handling, they will be available to provide other general support. Two of the three anchor handlers may be used to perform secondary ice management tasks if needed.

The planned exploration drilling operations will use three offshore supply vessels (OSVs) for resupply of the drilling units and support vessels. Drilling materials, food, fuel, and other supplies will be picked up in Dutch Harbor (with possible minor resupply coming out of Kotzebue) and transported to the drilling units and support vessels.

Some vessels will not be in the Lease Sale 193 Area for extended periods but may be used on the prospect on occasion. The resupply barges and tugs, the nearshore OSR tug and barge, the containment system tugs and shallow water vessels will be primarily located outside the Lease Sale 193 Area. A staging location for these vessels has been identified near Goodhope Bay in Kotzebue Sound.

Shell plans to use up to two science vessels; one primary and one back up, from which sampling of drilling discharges (drill discharge monitoring) will be conducted. The science vessel specifications are based on larger OSVs, but smaller vessels may be used.

Two tugs will tow the *Polar Pioneer* from Dutch Harbor to the Burger Prospect. After the *Polar Pioneer* is moored, the tugs will remain in the vicinity of the drilling units to help move either drill rig in the event that either has to be moved off the drilling site due to ice or any other event. The *Discoverer* is self-propelled.

Table 3.0-2 Chukchi Sea Exploration Drilling Program – Proposed Vessel Types

Specification	Ice Management Vessel (x2) ^{1,2}	Anchor Handler (x3) ^{1,3}	OSV (x3) ^{1,4}	Science Vessel (x2) ^{1,5}	Shallow Water Vessels (x2) ^{1,6}	Support Tugs (x2) ^{1,7}	Resupply Tug and Barges (x2) ^{1,8}	
							Tug	Barge
Length	380 ft. (116 m)	361 ft. (110.1 m)	300 ft. (91.5 m)	300 ft. (91.5 m)	134 ft. (40.8 m)	146 ft. (44.5 m)	150 ft. (45.7 m)	400 ft. (122 m)
Width	85 ft. (26 m)	80 ft. (24.4 m)	60 ft. (18.3 m)	60 ft. (18.3 m)	32 ft. (9.7 m)	46 ft. (14 m)	40 ft. (12.2 m)	99.5 ft. (30.3m)
Draft	27 ft. (8.4 m)	28 ft. (8.5 m)	15.9 ft. (4.9 m)	15.9 ft. (4.9 m)	6 ft. (1.8 m)	21 ft. (6.4 m)	19.5 ft. (5.9 m)	25 ft. (7.6 m)
Accommodations	82	64	50	50	22	13	11	--
Maximum Speed	16 knots (30 km/hr.)	15 knots (28 km/hr.)	13 knots (24 km/hr.)	13 knots (24 km/hr.)	10 knots (18 km/hr.)	16 knots (30 km/hr.)	12 knots (22 km/hr.)	--

Available Fuel Storage	14,192 bbl (2,256m ³)	11,318 bbl (1,799 m ³)	5,786 bbl (920 m ³)	5,786 bbl (920 m ³)	667 bbl (106 m ³)	5,585 bbl (888 m ³)	4,800 bbl (774 m ³)	--
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¹ Or similar vessel

² Based on *Nordica*

³ Based on *Aiviq*

⁴ Based on the *Harvey Champion*

⁵ Based on the *Harvey Champion*

⁶ Based on the *Arctic Seal*

⁷ Based on the tug *Ocean Wave*

⁸ Based on the *Lauren Foss* (tug) and *Tuuq* (barge)

The tug and barge will be used for nearshore oil spill recovery. The nearshore tug and barge will be moored near Goodhope Bay in Kotzebue Sound. The nearshore tug and barge will also carry response equipment, including one 47 ft. (14 m) skimming vessel, 34 ft. (10 m) workboats, mini-barges, boom and duplex skimming units for nearshore recovery and possibly support nearshore protection. The nearshore tug and barge will also carry designated response personnel and will mobilize to recovery areas, deploy equipment and begin response operations. The OSR vessel types supporting the exploration drilling program are listed in **Table 3.0-3**.

Table 3.0-3 Chukchi Sea Exploration Drilling Program – Proposed Oil Spill Response Vessel Types

Specification	OSR Vessel ^{1,2}	Offshore OSR ^{1,3}		Nearshore OSR ^{1,4}		OST ^{1,5}	OST ^{1,6}	Containment Barge ^{1,7}	
		Tug	Barge	Tug	Barge			Tug	Barge
Length	301 ft. (91.9 m)	126 ft. (38.4)	333 ft. (101.5)	90 ft. (27.4 m)	205 ft. (62.5 m)	748 ft. (228 m)	813 ft. (248 m)	150 ft. (45.7 m)	316.5 ft. (96.5 m)
Width	60 ft. (18.3 m)	34 ft. (10.4 m)	76 ft. (23.1 m)	32 ft. (9.8 m)	90 ft. (27.4 m)	105 ft. (32 m)	141 ft. (48 m)	40 ft. (12.2 m)	105 ft. (32 m)
Draft	19 ft. (5.8 m)	17 ft. (5.2 m)	22 ft. (6.7 m)	10 ft. (3 m)	15 ft. (4.6 m)	66 ft. (20 m)	69 ft. (21 m)	19.5 ft. (5.9 m)	12.5 ft. (3.8 m)
Accommodations	41	15	--	8	25	25	25	11	72
Maximum Speed	16 knots (30 km/hr.)	12 knots (22 km/hr.)	--	--	--	15 knots (28 km/hr.)	15 knots (28 km/hr.)	10 knots (19 km/hr.)	--
Available Fuel Storage	7,692 bbl (1,223 m ³)	1,786 bbl (284 m ³)	390 bbl (62 m ³)	1,286 bbl (204.5 m ³)	--	16,121 bbl (2,563m ³)	20,241 bbl (3,218 m ³)	4,800 bbl (763 m ³)	6,630 bbl (1,054 m ³)
Available Liquid Storage	12,245 bbl (1,947 m ³)	--	76,900 bbl (12,226 m ³)	--	17,000 bbl (5,183 m ³)	106,000 bbl (16,852 m ³)	670,000bbl (106,518 m ³)	--	--
Workboats	(3) 34 ft. work boats	--	--	--	(1) skim boat 47 ft. (14 m) (3) work boats 34 ft. (10 m) (4) mini-barges --	--	--	--	--

¹ Or similar vessel

² Based on the *Nanuq*

³ Based on the tug *Guardsman* (tug) and *Klamath* (barge)

⁴ based on the *Point Oliktok* (tug) and Endeavor (barge)

⁵ Based on a Panamax type tanker

⁶ Based on an Aframax type tanker

⁷ Based on the *Corbin Foss* (tug), *Arctic Challenger* (barge) and the *Ross Chouest* (anchor handler)

Aircraft Operations

Offshore operations will be serviced by up to three helicopters operated out of an onshore support base in Barrow. Sikorsky S-92s (or similar) will be used to transport crews between the onshore support base and the drilling units and support vessels with helidecks. The helicopters will also be used to haul small amounts of food, materials, equipment, samples and waste between vessels and the shorebase. Approximately 40 Barrow to Burger Prospect round trip flights will occur each week to support the additional crew change necessities for an additional drilling unit, support vessels, required sampling and analytical requirements under the NPDES exploration facilities General Permit (**Table 3.0-4**).

The route chosen will depend on weather conditions and if subsistence users are active on land or at sea. The routes may be modified depending on weather and subsistence uses. Generalized flight corridors over the onshore and nearshore areas are indicated on **Figure 3.0-3**.

Shell will also have a dedicated helicopter for Search and Rescue (SAR). The SAR helicopter is expected to be a Sikorsky S-92 (or similar). This aircraft will stay grounded at the Barrow shorebase location except during training drills, emergencies, and other non-routine events. The SAR helicopter and crews plan training flights for approximately 40 hours per month.

A fixed wing propeller or turboprop aircraft, such as Saab 340-B, Beechcraft 1900, or De Havilland Dash 8, will be used to transport crews, materials, and equipment between Wainwright and hub airports such as Barrow or Fairbanks. It is anticipated that there will be one round trip flight every three weeks.

A fixed wing aircraft, Gulfstream Aero-Commander (or similar), will be used for photographic surveys of marine mammals. These flights will take place daily depending on weather conditions. PSO flight paths are located in the Marine Mammal Monitoring and Mitigation Plan (4MP) (*See* LOA application).

An additional Gulfstream Aero Commander may be used to provide ice reconnaissance flights to monitor ice conditions around the Burger Prospect. Typically, the flights will focus on the ice conditions within 50 mi (80 km) of the drill sites, but more extensive ice reconnaissance may occur beyond 50 mi (80 km). These flights will occur at an altitude of approximately 3,000 ft. (915 m).

Table 3.0-4 Trip Information for Support Aircraft

Aircraft Type 1 / Purpose	Trip Frequency or Duration
(1) Saab 340 B, Beechcraft 1900, Dash 8, or similar fixed-wing aircraft for transport from shorebase to regional jet service in Deadhorse or Barrow	1 trip every 3 weeks between Wainwright and Barrow or Anchorage
(3) S-92, EC225, or similar helicopters for crew rotation & groceries/supply	Approximately 40 round trips/week between shorebase & prospect – approx. 3.0 hr./trip
(1) S-61, S-92, EC225, or similar helicopter for search-and-rescue	Stationed in Barrow – 40 hours/month for proficiency training & trips made in emergency
(2) Gulfstream 690 Aero Commander (or similar)	Photographic marine mammal surveys and ice reconnaissance; both to occur daily when possible

¹ Similar model of aircraft may be contracted for these purposes

Shorebase Locations

Barrow and/or Wainwright have been selected as the temporary shorebase locations for the Chukchi Sea exploration drilling program. However, no exploration drilling program activities are planned to occur onshore. Nearshore or onshore incursions by exploration drilling program support activities (e.g., OSR training exercises) may occur at the shorebase in Wainwright, on a limited basis. The Barrow shorebase will be used as the primary airbase for crew changes and SAR between land and the drilling units and for temporary housing for these crewmembers.

Vicinity Map and Travel Routes

The locations of the planned exploration drilling activities relative to the shoreline and shorebase facilities and the primary route of the drilling units and routes of support vessels when entering and exiting the Chukchi Sea are indicated in **Figure 3.0-2**. Generalized flight corridors that helicopters will take between the shorebase and the Burger Prospect are indicated in **Figure 3.0-3**. The primary helicopter route between shorebase and the Burger Prospect is from the Barrow airport, then directly offshore to the Burger Prospect. Helicopters would alternatively travel between Wainwright and the Burger Prospect under special circumstances.

Fuel Storage Information and Trip information for Support Vessels

The frequencies of trips the above-referenced marine vessels and aircraft are expected to make during the planned exploration drilling program are listed below in **Table 3.0-5**.

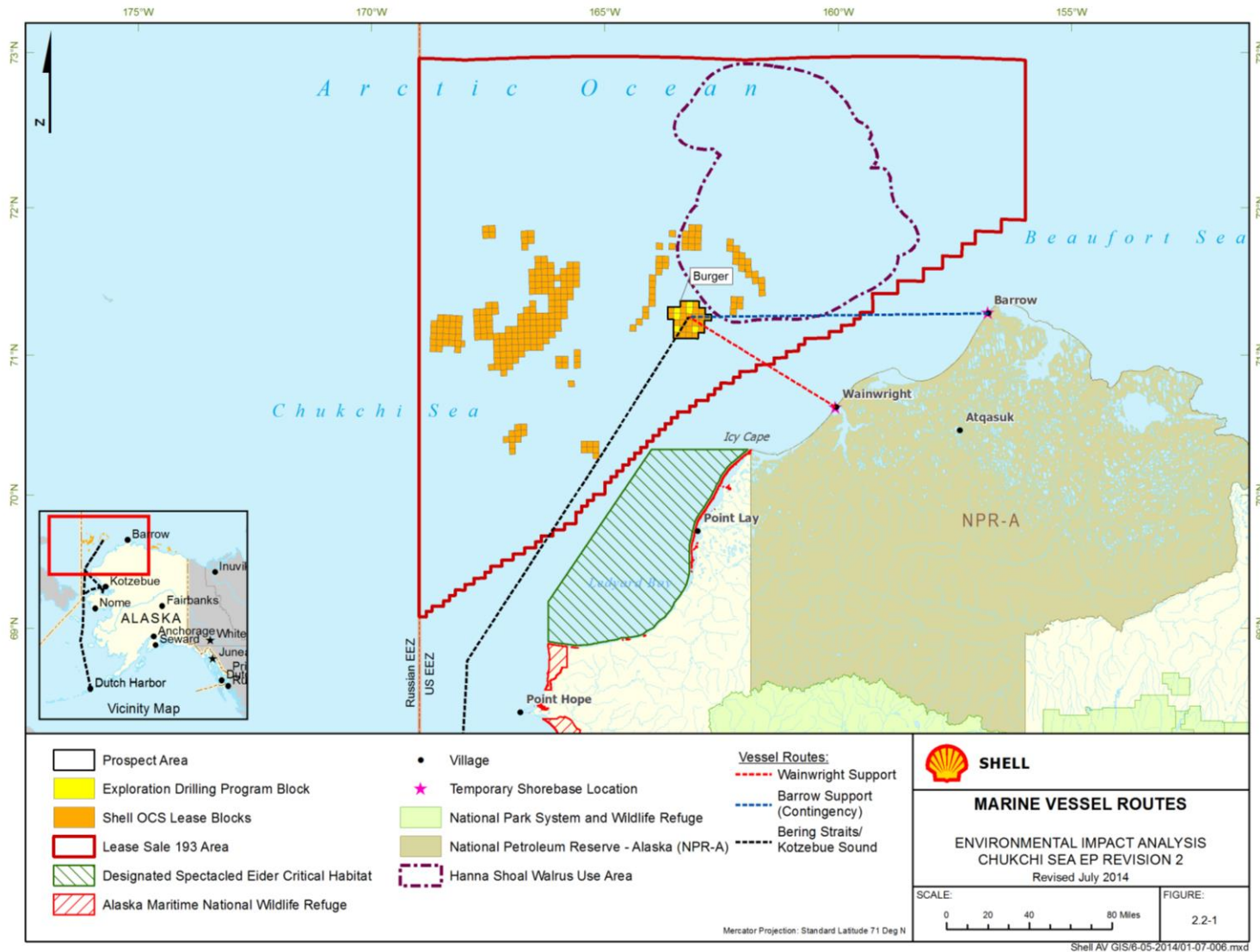


Figure 3.0-2 Marine Vessel Routes

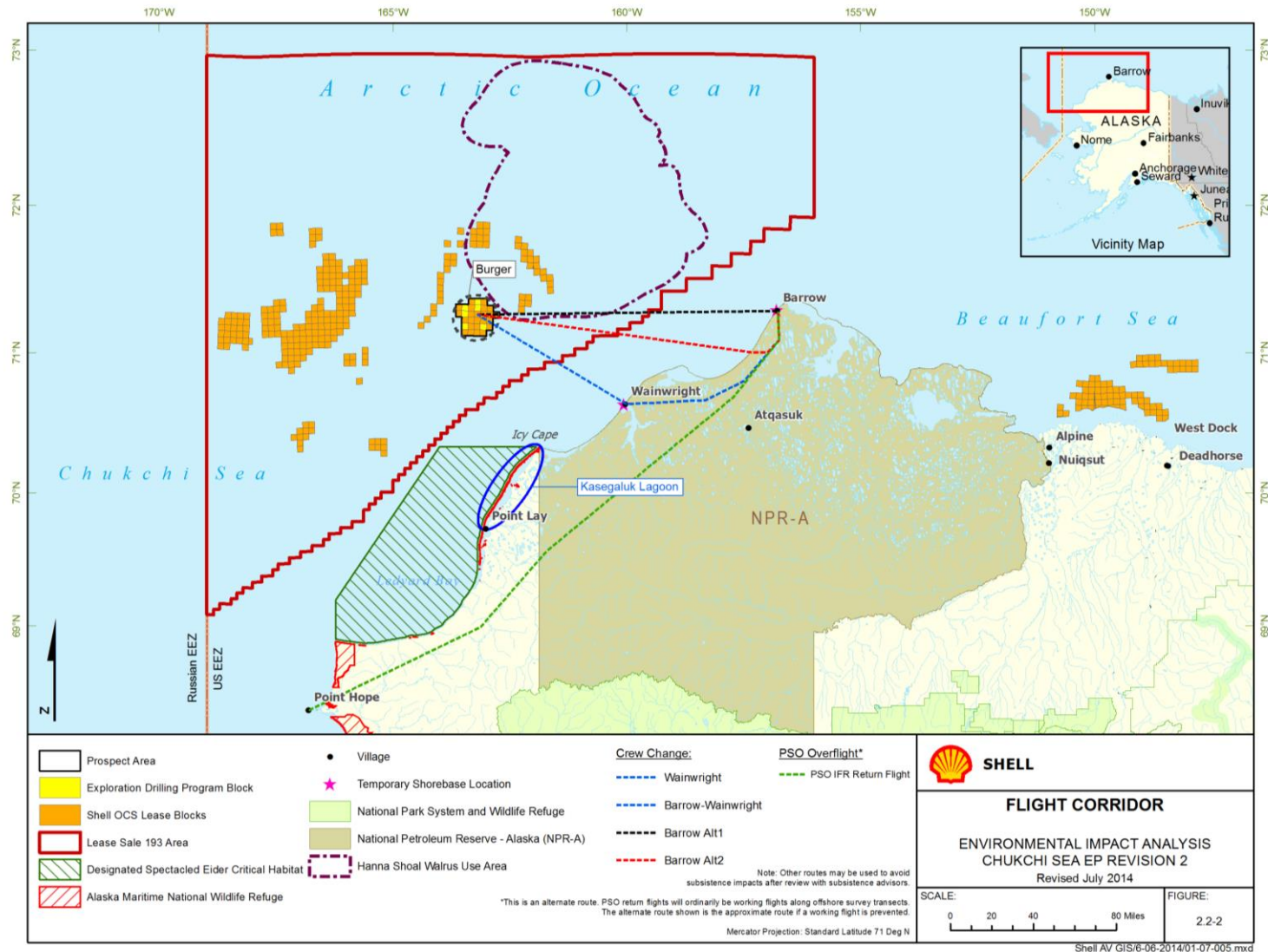


Figure 3.0-3 Flight Corridors

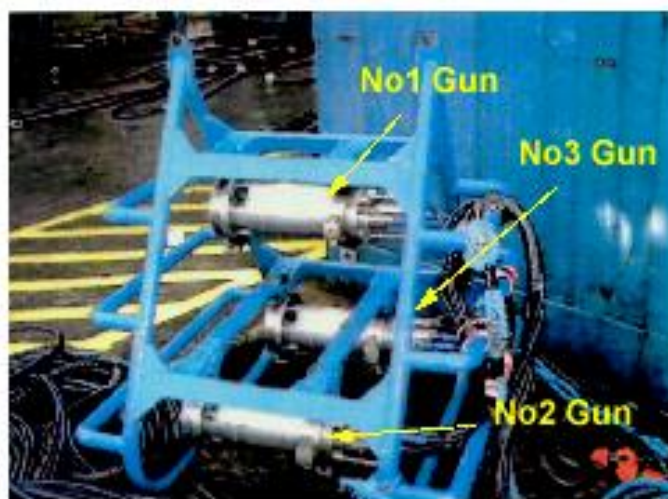
Table 3.0-5 Expected Fuel Storage Capacity and Trip Information for Support Vessels

Vessel Type	Maximum Fuel Tank Storage Capacity (each vessel)	Trip Frequency or Duration/Location
Marine Support Vessels (or similar)		
Ice management vessels (x2)	14,192 bbl (2,256 m ³)	Will remain in the vicinity of the drilling units until their mission is finished
Anchor handlers (x3)	11,318 bbl (1,799 m ³)	Will remain in the vicinity of the drilling units until their mission is finished
OSVs (x3)	5,786 bbl (920 m ³)	Up to 30 round trips (combined for all OSVs) for resupply between drilling unit and Dutch Harbor/Kotzebue during each drilling season
Supply Tugs (x2) and barges (x2)	4,800 bbl (774 m ³)	Will generally remain in Kotzebue Sound for storage
Support Tugs (x2)	5,585 bbl (888 m ³)	Support for the <i>Polar Pioneer</i>
Science Vessel (x1)	5,786 bbl (920 m ³)	Will remain in the vicinity of the drilling units until their mission is finished
Shallow water vessels (x2)	43 bbl (6.8 m ³)	Occasional trips as needed in vicinity of Kotzebue
OSR Support Vessels (or similar)		
OSRV	7,692 bbl (1,223 m ³)	Will remain in the vicinity of the drilling units until its mission is finished
OSR tug (x1) and barge (x1) (offshore)	1,786 bbl (284 m ³)	Will remain in the vicinity of the drilling units until its mission is finished
OSR tug (x1) and barge (x1) (nearshore)	1,286 bbl (204.5 m ³)	Staged in Kotzebue Sound
OST (Panamax)	16,121 bbl (2,563 m ³)	Will remain in the vicinity of the drilling units until its mission is finished
OST (Aframax)	20,241 bbl (3,218 m ³)	Stationed outside the Chukchi Sea lease sale planning area
Containment system tugs (x2) and barge (x1)	6,630 bbl (1,054 m ³)	Staged in Kotzebue Sound
Aircraft (or similar)		
Saab 340 B, Beechcraft 1900, or Dash 8 fixed-wing or similar – transport from shorebase to regional jet service in Barrow	9 bbl (1.4 m ³)	1 trip every 3 weeks between Wainwright and Barrow or Anchorage
Gulfstream 690 Aero Commander (or similar)(x2)	9 bbl (1.4 m ³)	Science Overflights (offshore aerial wildlife monitoring photographic survey) and ice reconnaissance; both to occur daily when possible
Helicopter S-92 (or similar)(x3) for crew rotation & groceries/supply	18 bbl (2.9 m ³)	Approximately 40 trips/ week between Barrow and the Burger Prospect (approximately 3 hours /trip)
Helicopter S-92 (or similar) – SAR	18 bbl (2.9 m ³)	Stationed in Barrow – 40 hr/week for proficiency training & trips made in emergency

Vertical Seismic Profile

Shell may conduct a geophysical survey referred to as a vertical seismic profile (VSP) survey at each drill site where a well is drilled in 2015. During VSP surveys, an airgun array is deployed at a location near or adjacent to the drilling units, while receivers are placed (temporarily anchored) in the wellbore. The sound source (airgun array) is fired, and the reflected sonic waves are recorded by receivers (geophones) located in the wellbore. The geophones, typically in a stringer configuration, are then raised up to the next wellbore interval and the process is repeated until the entire wellbore is surveyed. The purpose of the VSP is to gather geophysical information at various depths, which can then be used to tie-in or ground-truth geophysical information from the seismic surveys with geological data collected within the wellbore.

Shell will be conducting a particular form of VSP referred to as a zero-offset VSP (ZVSP), in which the sound source is maintained at a constant location near the wellbore (**Figure 3.0-4**). Shell may use one of two typical sound sources: 1) a three-airgun array consisting of three, 150 cubic inches (in³) (2,458 cubic centimeters [cm³]) airguns; or 2) a two-airgun array consisting of two, 250 in³ (4,097 cm³) airguns. Specifications for the maximum volume of the array are provided in **Table 3.0-6**. An airgun array is shown within its frame or sled in the photograph below. Typical receivers would consist of a standard wireline four-level vertical seismic imager (VSI) tool, which has four receivers 50 feet. (15.2 meters) apart.



Photograph of the 3-airgun array in sled

Table 3.0-6 Sound source (airgun array) specifications for ZVSP surveys in the Chukchi Sea in 2015

Source Type	No. Sources	Max. Total Chamber Size	Pressure	Source Depth	Zero-Peak Sound Pressure Level
Sleeve Array	(3) airguns	450 in ³	3,000 psi	23 ft. (7.0 m)	241 dB rms re 1 μPa @ 1m
	(3) 150 in ³	7,374 cm ³	207 bar		
Sleeve Array	(2) airguns	500 in ³	3,000 psi	23 ft. (7.0 m)	239 dB rms re 1 μPa @ 1m
	(2) 250 in ³	8,194 cm ³	207 bar		

dB re 1 μPa – decibels referenced at one micro Pascal
dB – decibel

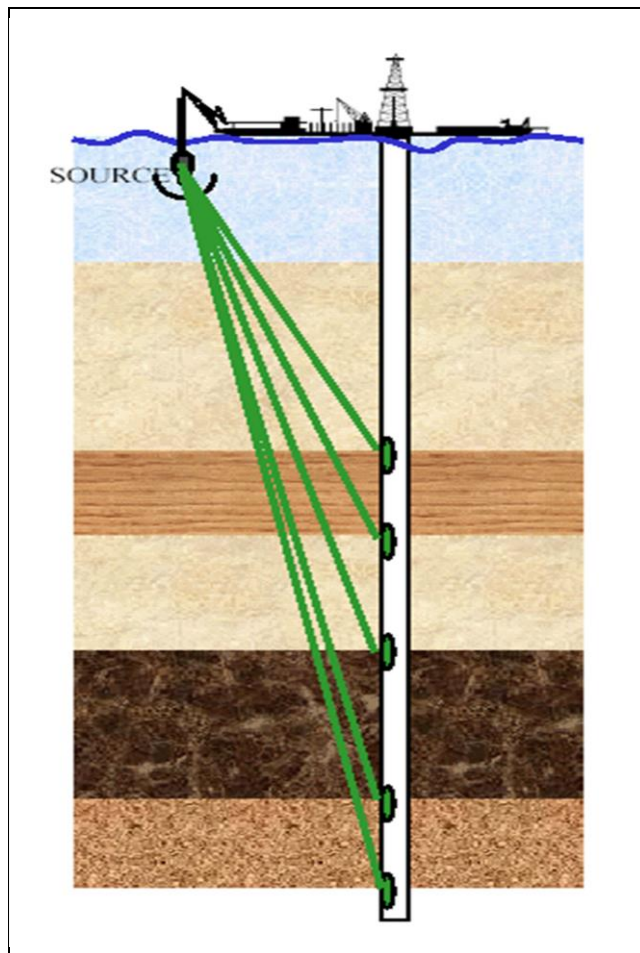


Figure 3.0-4 Schematic of ZVSP

A ZVSP survey is normally conducted at each well after total depth is reached, but may be conducted at a shallower depth. For each survey, Shell would deploy the sound source (airgun array) over the side of the *Discoverer* or *Polar Pioneer* with a crane, the sound source will be 50-200 ft. (15-61 m) from the wellhead depending on crane location, and reach a depth of approximately 10-23 ft. (3-7 m) below the water surface. The VSI along with its four receivers will be temporarily anchored in the wellbore at depth. The sound source will be pressured to 3,000 pounds per square inch (psi) (207 bar), and activated 5-7 times at approximately 20-second intervals. The VSI will then be moved to the next interval of the wellbore and re-anchored, after which the airgun array will again be activated another 5-7 times. This process will be repeated until the entire wellbore is surveyed. The interval between anchor points for the VSI is usually 200-300 ft. (61-91 m). A normal ZVSP survey is conducted over a period of about 10-14 hours depending on the depth of the well and the number of anchoring points.

3.1 Ice Management and Forecasting

Shell recognizes the exploration drilling program is located in an area that is characterized by active sea ice movement, ice scouring, and storm surges. In anticipation of potential ice hazards that may be encountered, Shell will implement a Drilling Ice Management Plan (DIMP) to ensure real-time ice and weather forecasting that will identify conditions that could put operations and personnel at risk, thereby allowing Shell to modify its activities accordingly. Additional information on the DIMP can be found in

the LOA Application document titled *Polar Bear, Pacific Walrus, Grizzly Bear Avoidance and Human Encounter/Interaction Plan, Exploration Drilling Program, Chukchi Sea, Alaska*, submitted to the FWS on September 16, 2014. Shell's DIMP relies heavily on the observations and experience of its ice specialists and ice advisors, a group of seasoned Arctic mariners whose sole duty is to provide critical information and advice drilling unit supervisors and the drilling unit master about any and all ice-related threats. These observers and advisors will be stationed on the drilling units, the ice management vessels, and the anchor handling vessels.

Shell's ice management fleet will consist of four vessels: two ice management vessels and two anchor handler/ice management vessels. Ice management that is necessary for safe operations during Shell's planned exploration drilling program will occur far out in the OCS, remote from the vicinities of any routine marine vessel traffic in the Chukchi Sea, thereby resulting in no threat to public safety or services that occur near to shore. Shell vessels will also communicate movements and activities through the 2015 North Slope Communications Centers (Com Centers). Management of ice will occur during the drilling season predominated by open water, thus it will not contribute to ice hazards, such as ridging, override, or pileup in an offshore or nearshore environment.

The ice-management/anchor handling vessels will manage the ice by deflecting any ice floes that could affect the *Discoverer* or *Polar Pioneer* when they are drilling or anchor mooring buoys even if the drilling units are not anchored at a drill site. When managing ice, the ice management vessels will generally operate upwind of the drilling units, since the wind and currents contribute to the direction of ice movement. Ice reconnaissance or ice scouting forays may occur out to 48.3 km (30 miles) from the drilling units and are conducted by the ice management vessels into ice that may move into the vicinity of exploration drilling activities. This will provide the vessel and shore-based ice advisors with the information required to decide whether or not active ice management is necessary. The actual distances from the drilling units and the patterns of ice management (distances between vessels, and width of the swath in which ice management occurs) will be determined by the ice floe speed, size, thickness, and character, and wind forecast.

Ice floe frequency and intensity is unpredictable and could range from no ice to ice densities that exceed ice-management capabilities, in which case drilling activities might be stopped and the drilling units disconnected from their moorings and moved off site. The *Discoverer* was disconnected from its moorings once during the 2012 season to avoid a potential encounter with multi-year ice floe of sufficient size to halt activities. Advance scouting of ice primarily north and east of the Burger A well by the ice management vessels did not detect ice of sufficient size or thickness to warrant disconnecting the *Discoverer* from its moorings during the remainder of the 2012 season. If ice is present, ice management activities may be necessary in early July, at discrete intervals at other times during the season, and towards the end of operations in late October. However, data regarding historic ice patterns in the area of activities indicate that it will not be required throughout the planned 2015 drilling season.

Figure 3.1-1 depicts the vessel tracks of the *Fennica* and *Tor Viking* in the Chukchi Sea from August 31 to September 13, 2012, during which active ice management, including some intermittent periods of ice-scouting, occurred in relation to the location of the Burger A drill site. Combined, these vessel tracks show the maximum patterns of ice management by vessels and the duration of time necessary for active ice management in 2012. In total, *only* seven days of active ice management by vessels occurred in support of Shell's exploration drilling program in the Chukchi Sea during the 2012 season.

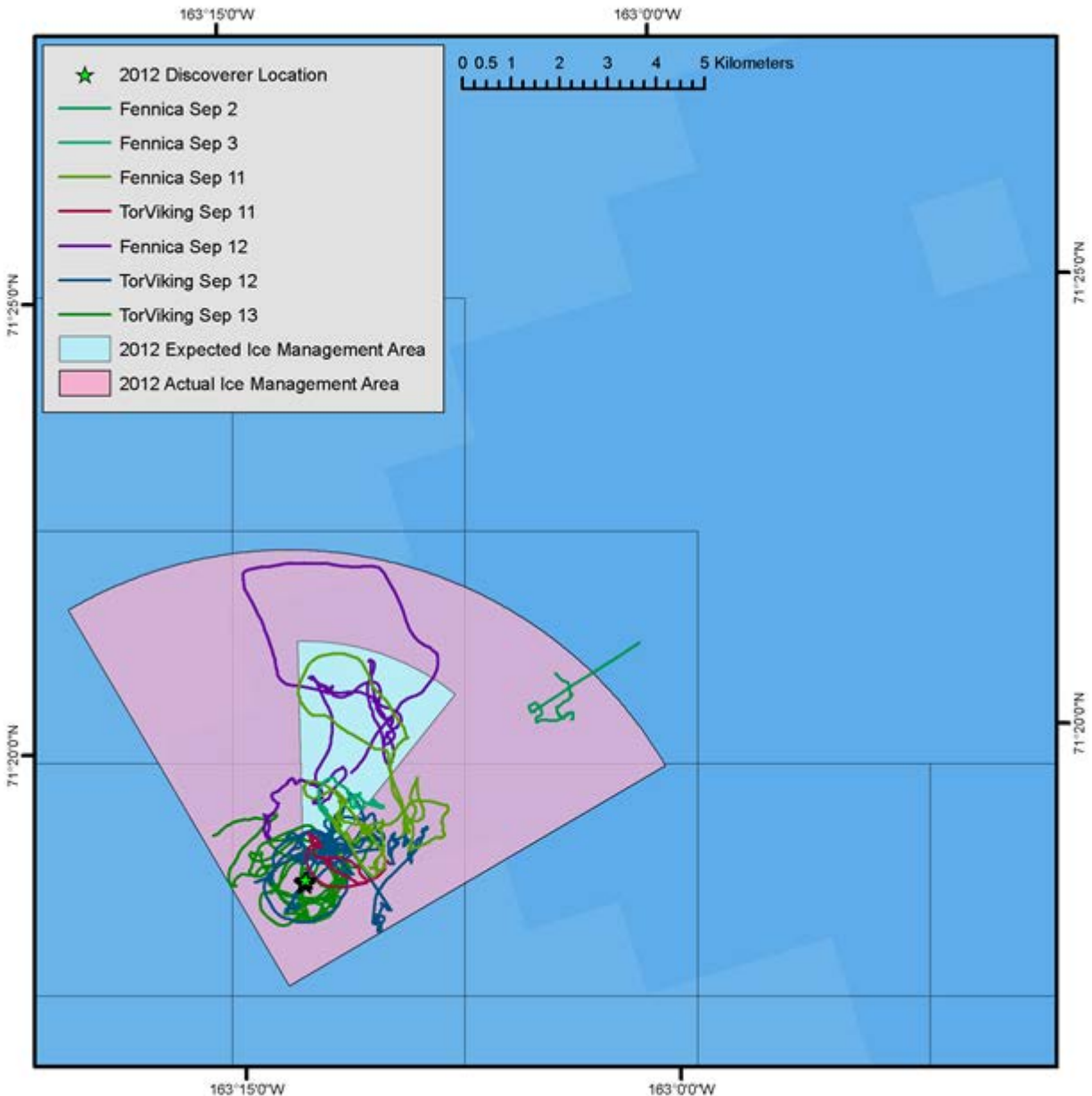


Figure 3.1-1 Ice Management Vessels Configuration During 2012 in the Chukchi Sea

When ice is present at a drill site, ice disturbance will be limited to the minimum amount needed to allow drilling to continue. First-year ice will be the type most likely to be encountered. The ice-management vessel will be tasked with managing the ice so that it flows easily around the drilling units and their anchor moorings without building up in front of either. This type of ice is managed by the ice-management vessel continually moving back and forth across the drift line, directly updrift of the drilling units and making turns at both ends, or in circular patterns. During ice-management, the vessel's propeller is rotating at approximately 15 to 20 percent of the vessel's propeller rotation capacity. Ice management occurs with slow movements of the vessel using lower power and therefore slower propeller rotation speed (*i.e.*, lower cavitation), allowing for fewer repositions of the vessel, and thereby reducing cavitation effects in the water. Occasionally, there may be multi-year ice features that would be managed at a much slower speed than that used to manage first-year ice.

As detailed in Shell's DIMP, in 2012 Shell's ice management vessels conducted ice management to protect moorings for the *Discoverer* after the drilling unit was moved off of the Burger A well. This work consisted of re-directing flows as necessary to avoid potential impact with mooring buoys, without the necessity to break up multi-year ice flows. Actual breaking of ice may need to occur in the event that ice conditions in the immediate vicinity of activities create a safety hazard for the drilling unit, or its moorings. In such a circumstance, operations personnel will follow the guidelines established in the DIMP to evaluate ice conditions and make the formal designation of a hazardous ice alert condition, which would trigger the procedures that govern any actual icebreaking operations. Despite Shell's experience in 2012, historical data relative to ice conditions in the Chukchi Sea in the vicinity of Shell's planned 2015 activities, establishes that there is a *low probability* for the type of hazardous ice conditions that might necessitate icebreaking (e.g., records of the National Naval Ice Center archives; Shell/SIWAC). The probability could be greater at the beginning and/or the end of the drilling season (early July or late October). For the purposes of evaluating possible impacts of the planned activities, Shell has assumed icebreaking activities for a limited period of time, and estimated incidental exposures of marine mammals from such activities.

3.2 Oil Spill Response

Shell is committed to conducting safe and environmentally responsible operations in the Chukchi Sea. To achieve this goal, oil spill prevention is a primary priority in all aspects of operations. Shell's Chukchi Sea Regional Exploration Program Oil Spill Response Plan (OSRP) emphasizes the prevention of oil pollution by employing the best control mechanisms for blowout prevention, fuel transfer operations, as well as implementing mandatory prevention training programs for field operating personnel. Prevention training will include strict procedures and management practices to eliminate spills in all aspects of operations. More information can be found in the *Revised Outer Continental Shelf Lease Exploration Plan, Chukchi Sea, Alaska, Burger Prospect: Posey Area Blocks 6714, 6762, 6764, 6812, 6912, 6915, Chukchi Sea Lease Sale 193; [Chukchi Sea Exploration Plan {EP} Revision 2]*; <http://www.boem.gov/shell-chukchi>.

The Wildlife Protection Plan is contained in Appendix I of the Shell Oil Spill Response Plan, and is supported by the Alaska Clean Seas Technical Manual, Volume 1 Tactics W-1 through W-6. The Wildlife Protection Plan also includes procedures to provide for walrus protection in the event of an oil spill. The primary objective is to protect wildlife by preventing birds and mammals from entering a spill or containment area. Containment areas will be monitored until the USFWS and/or the Alaska Department of Fish and Game determine that monitoring is no longer required. In general, wildlife protection strategies include, but are not limited to;

- containment and controls to limit the spread of oil, and the area influenced by the spill and response options;
- the drillship and associated response vessel are manned with protected species observers (PSOs) at all times;
- deflection strategies for birds and mammals;
- capture and relocation of wildlife in direct threat; and
- aircraft surveillance monitoring both visual and on-board infrared cameras.

Additional information and detail can be found in the following documents (not attached):

- Chukchi Sea Regional OSRP Appendix I - Wildlife Response Plan;
- ACS Tactics Manual, Volume 1, Tactics Descriptions – Sections W1 through W6; and

4.0 Time Period and Duration of Exploration Drilling Activities

Mobilization and Demobilization of the *Discoverer* and *Polar Pioneer*

The schedule for exploration drilling activities in the Chukchi Sea will depend on ice conditions and other factors. Both drilling units and their supporting ice management vessels, anchor handlers, OSV, OST and OSR support vessels will transit into the Chukchi Sea on or about 1 July. The 1 July date for entry north of Point Hope into the Chukchi Sea is in accordance with past MMPA authorization requirements that Shell not enter the Bering Strait prior to this date. The July entry is also responsive to concerns voiced by the local communities of Wainwright and Point Lay; these communities have requested that entry into the Chukchi Sea be delayed until after the walrus and beluga whale hunts. PSOs will be onboard transiting vessels while in the Bering and Chukchi Seas. Approximate travel routes for mobilization of the drilling units and support vessels from Dutch Harbor through the Bering Sea and Chukchi Sea to the Burger Prospect are indicated on **Figure 3.0-2**. The vessel route reflects Shell's commitment to avoid transit of any part of the Ledyard Bay Critical Habitat Unit (LBCHU) by operational marine traffic.

Exploration Drilling

Shell has identified a total of six Chukchi Sea lease blocks on the Burger Prospect in which to conduct exploration drilling. All six drill sites listed in **Table 4.0-1** are located more than 64 mi (103 km) off the Chukchi Sea coast. During 2015, the *Discoverer* and *Polar Pioneer* will be used to conduct exploration drilling activities at up to four of the drill sites. As with any Arctic exploration program, weather and ice conditions will dictate actual operations.

The drilling units will remain at the drill sites except when mobilizing and demobilizing to and from the Chukchi Sea, transiting between drill sites, or temporarily moving off location if it is determined ice conditions require such a move to ensure the safety of personnel and/or the environment.

Table 4.0-1 Drill Site Locations and Water Depths

Drill Site	Approximate Distance from shore (statute miles)	Lease Block No.	Surface Location (NAD 83)		Water Depth
			Latitude (north)	Longitude (west)	Feet/Meters
Burger A ¹	75	6764	71° 18' 30.92"	163° 12' 43.17"	150/45.8
Burger F	76	6714	71° 20' 13.96"	163° 12' 21.75"	149/45.4
Burger J	69	6912	71° 10' 24.03"	163° 28' 18.52"	144/44.0
Burger R	75	6812	71° 16' 06.57"	163° 30' 39.44"	143/43.7
Burger S	78	6762	71° 19' 25.79"	163° 28' 40.84"	147/44.9
Burger V	65	6915	71° 10' 33.39"	163° 04' 21.23"	147/44.7

¹ Burger A drill site where a partial well was begun in 2012

Exploration drilling is expected to commence no earlier than 4 July. Exploration drilling activities will continue until on or about 31 October, depending on ice and weather conditions. The drilling unit(s) and associated vessels will then exit the Chukchi Sea along approximately the same route they used for entry.

Mooring of the Drilling Units

Each drilling unit will be positioned and moored over the drill site with its system of eight anchors with the support of the anchor handlers. Anchors for the *Discoverer* are typically pre-set before the drillship is moved into position; the *Polar Pioneer* carries its own anchors and is conventionally moored. Mooring is further described in the *2015 Chukchi Sea EIA Revision 2* submitted to BOEM.

Mudline Cellar Construction

A mudline cellar (MLC) will be constructed at each drill site. The MLCs will be constructed in the seafloor using a large diameter bit (disk harrow) operated by hydraulic motors and suspended from the *Discoverer* or *Polar Pioneer*. The purpose of the MLC is to ensure that the top of any portion of the wellhead and BOP is located below the maximum ice keel gouge depth as described in the 2015 *Chukchi Sea EIA Revision 2* submitted to BOEM.

Drilling

Standard rotary drilling technology and water-based drilling fluids will be used for exploration drilling. The geologic formations and fluids within each wellbore will be evaluated with down hole techniques, including mud logging while drilling LWD, and electric wire line (EWL) logging. The wells will not be flow tested and no oil or gas will be produced. Once the exploration well is drilled to its final total depth and logging ZVSP survey program is completed, it will be permanently plugged and abandoned in accordance with Bureau for Safety and Environmental Enforcement (BSEE) regulations. Drilling is further described in the 2015 *Chukchi Sea EIA Revision 2* submitted to BOEM.

5.0 Effects on Pacific Walrus from Shell's Planned Activities

The Pacific walrus managed by the USFWS and is likely to be encountered during the planned exploration drilling activities. The Burger lease area has a low abundance of walrus during the planned drilling period from mid-July through October; however, the nearby Hanna shoal, approximately 60 miles northeast, is known to be an important area for walrus aggregation in August and September. The location of Hanna Shoal on the northern shelf edge of the Chukchi Sea is associated with physical oceanographic conditions that have led to the development of rich biological assemblages and water current patterns around the Shoal allow summer ice to persist later than elsewhere. Due to these dynamic oceanographic conditions, the relatively slow retreat of sea ice from Hanna Shoal in summer makes it a productive feeding ground for the large numbers of walrus that use the ice as a platform to access the abundant populations of bivalves, crustaceans, and polychaete worms on the seabed. In most years, walrus are present within the Burger area through August, but at low densities, increasing in numbers when ice floes containing hauled out-walrus drift southwest from the Shoal. Walrus spread out widely from Hanna Shoal in September after the ice floes over Hanna Shoal melt away. Some relatively small portion of those departing walrus pass through the Burger area; the timing of that movement depends largely on the timing of ice retreat from Hanna Shoal. Based on the Chukchi Sea Environmental Studies Program (CESP) acoustic detection and USGS satellite tag results from 2007 to 2014 (Delarue et al. 2014; Taylor and Udevitz 2014), this movement away from Hanna Shoal sometimes causes a brief pulse in walrus movement through the Burger area in September, with the majority of the movement to the east of the prospect. For example, in 2007 and 2008, increased numbers of walrus were sighted from industry vessels in August, and in other years few walrus were seen (LGL and JASCO 2014).

On a more localized distributional scale, persistent concentrations of sea ice at or directly adjacent to the exploration drill sites are favorable conditions for the occurrence of walrus, but not for conducting drilling operations. Conversely, if expansive open water conditions exist in the activity area, which are favorable for conducting exploration drilling activities, very few walrus are likely to be present (USFWS 2013). The numbers of walrus sightings reported from monitoring of oil and gas exploration programs are highly variable and dependent on ice cover. Peak walrus sightings can occur from early August (e.g., 2009) to October (e.g., 2012 and 2013; Aerts et al. 2014; LGL and JASCO 2014). In 2012, increased numbers of walrus coinciding with sea ice were reported near the project area in late September (Bisson et al. 2013, Aerts et. al 2014).

Similar results were reported during previous drilling operations in 1989 and 1990 (Brueggeman et al. 1990, 1991). This distinct difference between conditions that favor walrus compared with exploration

drilling activities establishes a dynamic that minimizes the numbers of individual walrus found near active drillsites. The majority of the walrus recorded by PSOs during recent exploration programs in the Chukchi Sea were observed during routine transit and scouting periods near ice and were far from exploration activities which produce sounds potentially disruptive to walrus behavior. During these vessel activities, PSOs were actively engaged, vessels maintained a slow speed, and vessels maintained the separation distances from walrus in accordance with prior authorizations.

Shell's proposed 2015 drilling program will be conducted in an area that represents only minor proportions of the total range of the Pacific walrus population that occurs in the Chukchi Sea. The anticipated size of operational areas where individual walrus may be encountered are very small compared to the overall range of walrus in the region. USFWS (2013) estimated that active leases within the Lease Sale 193 area cover only 2% of the total Chukchi Sea. The majority of active leases within the Lease Sale 193 area will not be explored in a given year (USFWS 2013), and individual walrus in this region belong to a population that ranges throughout and beyond the Chukchi Sea; thus, the area where walrus may experience behavioral harassment incidental to Shell's proposed 2015 exploration drilling program represents an even smaller proportion of the Lease Sale 193 area and the total habitat available to walrus in the larger geographic region. Survey data from the combined efforts of BWASP, COMIDA and ASAMM indicate that walrus are dispersed throughout the Chukchi Sea and are highly concentrated northeast around Hanna Shoal. The data also show that the majority of walrus move to coastal haulouts along routes to the north and east of the Burger prospect (**Figure 5.0-1**; LGL and JASCO 2014; Clarke et al 2014). Thus, only small numbers of walrus are expected to be present in the vicinity of Shell's 2015 drilling activities. Additional details on ecology and impacts are discussed below.

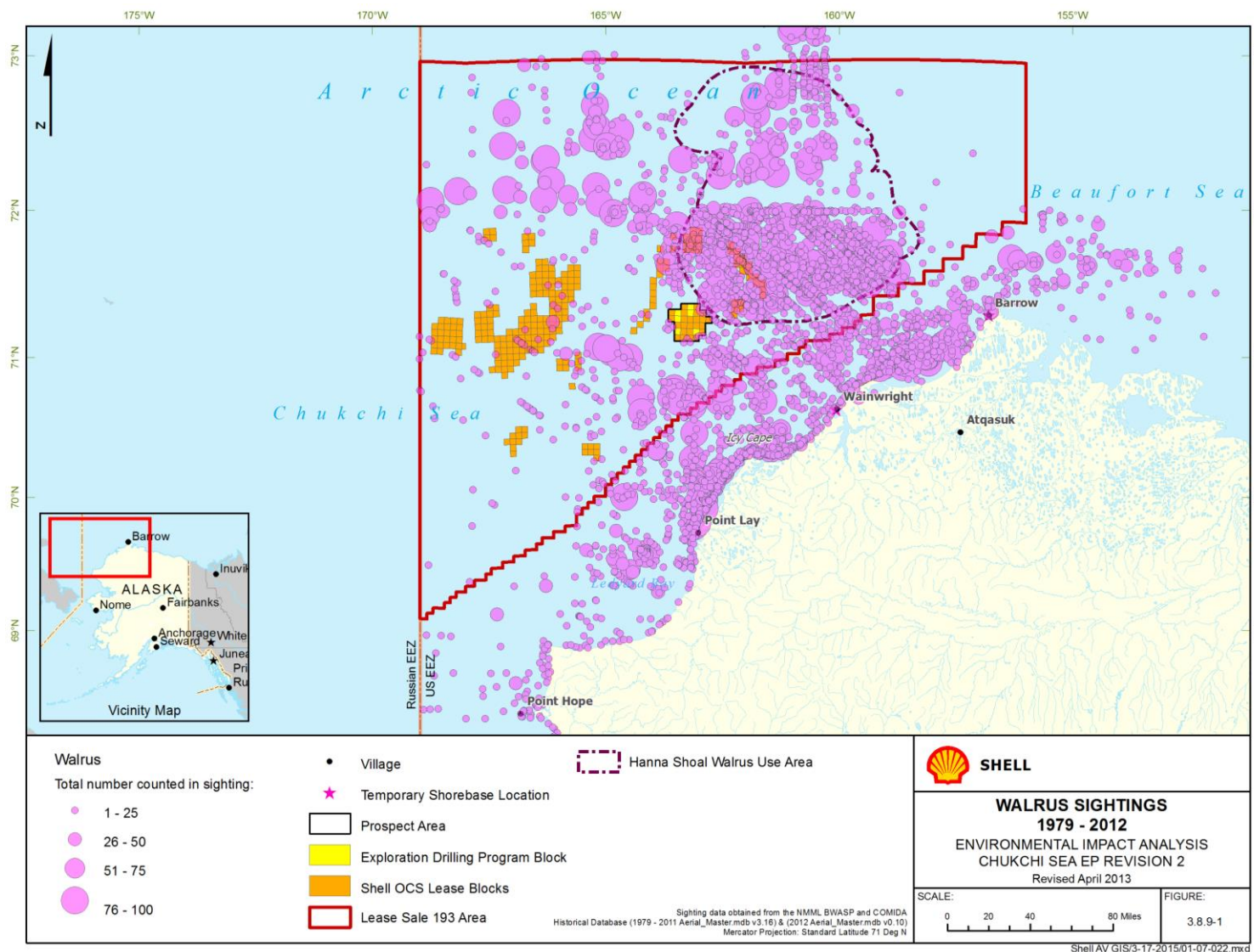


Figure 5.0-1 Pacific Walrus Sightings 1979-2012

5.1 Pacific Walrus (*Odobenus rosmarus divergens*) Ecology

Walrus occur in moving pack ice over shallow waters of the circumpolar Arctic coast (King 1983). There are two recognized subspecies of walrus: the Pacific (*O. r. divergens*) and Atlantic walrus (*O. r. rosmarus*). Only the Pacific subspecies occurs within the Chukchi Sea project area.

Population

Estimates of the pre-exploitation population of the Pacific walrus range from 200,000 to 400,000 animals (USFWS 2000). Over the past 150 years, the population has been depleted by over-harvesting and then periodically allowed to recover (Fay et al. 1989). Based on joint US-Russia surveys in 2006, the best estimate of the Pacific walrus population is 129,000 individuals (Allen and Angliss 2014; USFWS 2013). However, this estimate is known to be negatively biased (Allen and Angliss 2014; USFWS 2008b, 2013).

Distribution and Movement

The Pacific walrus ranges from the Bering Sea to the Chukchi Sea, occasionally moving into the East Siberian and Beaufort seas. Walrus, particularly females and calves, are often found moving with the pack ice year-round. In the winter, they are found in the Bering Sea, and in the summer (*see Figure 5.0-1*), they are found throughout the Chukchi Sea (USFWS 2010). Walrus are migratory, moving south with the advancing ice in autumn and north as the ice recedes in spring (Fay 1981). In the summer, most of the females and juveniles in the population move to either the western Chukchi Sea near the Wrangel and Herald Islands, or the eastern Chukchi Sea near Hanna Shoal, and several thousands (primarily adult males) aggregate and remain in the Gulf of Anadyr and in Bristol Bay (Angliss and Lodge 2004; USFWS 2008a). Limited numbers of walrus inhabit the Beaufort Sea during the open water season, and they are considered extralimital east of Point Barrow (Sease and Chapman 1988). The Pacific walrus population is widely distributed over several geographic regions during the open water period, and only a subset of the population is expected to occur near the proposed activity area (USFWS 2008b, 2013).

Table 5.1-1 The Habitat, Best Available Abundance Estimate, and Conservation Status of Walrus Populations Inhabiting the Proposed Activity Area

Species	Habitat	Abundance	ESA ¹	IUCN ²	CITES ³
<i>Pinnipeds</i> Walrus (<i>Odobenus rosmarus</i>)	Coastal, pack ice, ice margins	129,000 ⁴	Candidate Species	DD	III

¹ Endangered Species Act

² IUCN Red List of Threatened Species (2014.3). Codes for IUCN classifications: CR = Critically Endangered; EN = Endangered; VU = Vulnerable; LR = Lower Risk (-cd = Conservation Dependent; -nt = Near Threatened; -lc = Least Concern); DD = Data Deficient

³ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES 2014). Appendices for CITES classifications: I = threatened with extinction; II = may become threatened with extinction; III = trade is regulated to prevent unsustainable or illegal exploitation

⁴ Allen and Angliss 2014

Pacific walrus distribution varies widely in response to variations in ice cover. Aerial surveys in the eastern Chukchi Sea found that 80-96 percent of walrus were closely associated with sea ice and that the number of walrus observed in open water decreased significantly with distance from the pack ice (USFWS 2013). Walrus are most commonly found near the southern margins of the pack ice as opposed to deep in the pack where few open leads (polynyas) exist to afford access to the sea for foraging

(Estes and Gilbert 1978; Gilbert 1989; Fay 1982). Walrus are not typically found in areas of >80% ice cover (Fay 1982). Ice serves as an important mobile platform, transporting them to new foraging habitat and providing a place to rest and nurse their young.

This close relationship to the ice largely determines walrus distribution and the timing of their movements. As the pack ice breaks up in the Bering Sea and recedes northward in May–June, a majority of subadults, females and calves move with it. In contrast, many males stay in the Bering Sea for the entire year, with concentrations near Saint Lawrence Island and further south in Bristol Bay. Two northward movement pathways are apparent, either toward the eastern Chukchi Sea near Barrow or northwestward toward Wrangel Island. By late June to early July, concentrations of walrus moving northeastward spread along the Alaska coast concentrated within 200 km of the shore from Saint Lawrence Island to southwest of Barrow. In August, largely dependent on the retreat of the ice pack, walrus are found further offshore with principal concentrations to the northwest of Barrow (Fay 1982). In years of low ice concentrations, however, large Pacific walrus aggregations have been observed at terrestrial haulouts along the coast of Russia and northwestern Alaska (USFWS 2013; LGL and JASCO 2014). They are also known to use terrestrial haulouts along the Russian coast. By October, a reverse movement occurs out of the Chukchi Sea, with animals swimming ahead of the developing pack ice, as it is too weak to support them (Fay 1982).

Diet

Pacific walrus feed primarily on benthic invertebrates such as bivalves and gastropods, and occasionally on fish and cephalopods; more rarely, some adult male walrus prey on other pinnipeds (reviewed in Riedman 1990). Walrus typically feed in depths of 10–50 m (Vibe 1950; Fay 1982). In a study in Bristol Bay, 98% of the reported locations of walrus with satellite-linked radio tags were in water depths of 60 m or less (Jay and Hills 2005). Though the deepest dive recorded for a walrus was 133 m, they are more likely to be found in depths of 80 m or less in coastal or continental shelf habitats, where the clams and other mollusks walrus prefer are found (Fay 1982; Fay and Burns 1988; Reeves et al. 2002; Jay et al. 2012, 2014). One area of high prey biomass where walrus are expected to congregate is over Hanna Shoal, northeast of the project area (Jay et al. 2014).

5.2 Sound Propagation Estimation of Drilling Program Activity Scenarios

Underwater sounds produced by drilling related activities have the potential to affect the behavior (movement, feeding, communication) of marine mammals including walrus. Ensonification associated with previous Arctic offshore exploration have only considered sound sources independently of each other when estimating continuous sound levels ≥ 120 dB re $1\mu\text{Pa}$ rms. The sound level of 120 dB re $1\mu\text{Pa}$ rms is the current threshold for continuous sound that is thought to cause behavioral reactions in marine mammals. This method was appropriate for assessing a small number of continuous sound sources that did not consistently overlap in time and space. However, many of the continuous sounds from the activities described above (*see* Section 3.0) will operate concurrently at one or more locations in 2015 during Shell’s planned exploration drilling program in the Chukchi Sea. It is therefore appropriate to consider the concurrent operation of numerous sound sources and the additive acoustic effects from combined sound fields when estimating exposure areas of levels ≥ 120 dB re $1\mu\text{Pa}$ rms. These “activity scenarios” consider additive acoustic effects from multiple sound sources at nearby locations, and more closely capture the nature of a dynamic acoustic environment where numerous activities are taking place simultaneously. The area ensonified to ≥ 160 dB re $1\mu\text{Pa}$ rms from ZVSP, a pulsed sound source, is treated independently from the activity scenarios for continuous sound sources for purposes of assessing affects to individual animals.

The continuous sound sources used for sound propagation modeling of activity scenarios include 1) *drilling unit and drilling sounds*, 2) *supply and drilling support vessels using DP when tending to a drilling unit*, 3) *MLC construction*, 4) *anchor handling in support of mooring a drilling unit*, and 5) *ice management activities*. These sources are consistent with those used in recent oil and gas exploration programs in the Alaskan Chukchi Sea, including Shell's 2012 drilling program.

5.2.1 Total Estimated Areas Ensonified by Continuous or Nonpulsed Sounds to ≥ 120 dB re $1\mu\text{Pa}$ rms and Pulsed Sounds ≥ 160 dB re $1\mu\text{Pa}$ rms

A wide range of potential “activity scenarios” were derived from a realistic operational timeline by considering the various combinations of different continuous sound sources that may operate at the same time at one or more locations. The total number of possible activity combinations from all sources at up to four different drill sites would not be practical to assess or present in a meaningful way³. Additionally, combinations such as concurrent drilling and anchor handling in close proximity do not add meaning to the analysis given the negligible contribution of drilling sounds to the total area ensonified by such a scenario. For these reasons, various combinations of similar activities were grouped into representative activity scenarios shown in **Table 5.2-1**. Ensonified areas for these representative activity scenarios were estimated through sound propagation modeling. Activity scenarios were modeled for different drill site activity combinations and, as a conservative measure, the locations corresponding to the largest ensonified area were chosen to represent the given activity scenario. In other words, by binning all potential scenarios into the most conservative representative scenario, the largest possible ensonified areas for all activities were identified for analysis. A total of nine representative activity scenarios were modeled to estimate areas exposed to continuous sounds ≥ 120 dB re $1\mu\text{Pa}$ rms for Shell's planned 2015 exploration drilling program in the Chukchi Sea (**Table 5.2-1**). A tenth scenario was included for the ZVSP activities.

³ These scenarios are conservative, insofar as they represent the maximum amount of activity that could occur at any one time.

Table 5.2-1 Sound Propagation Modeling Results of Representative Drilling Related Activity Scenarios and Estimates of the Total Area Potentially Ensonified above Threshold Levels at the Burger Prospect in the Chukchi Sea, Alaska During the Planned 2015 Exploration Drilling Program

Activity Scenario Number	Activity Scenario Description	Threshold Level (dB re 1 μ Pa)	Area Potentially Ensonified (km ²)	
			Summer	Fall
1	Drilling at 1 site	120 dB	10.2	10.2
2	Drilling and DP Vessel at 1 site	120 dB	111.8	111.8
3	Drilling and DP Vessel (1 site) + Drilling and DP Vessel (2 nd site)	120 dB	295.5	295.5
4	Mudline Cellar Construction at 2 different sites	120 dB	575.5	575.5
5	Anchor Handling at 1 site	120 dB	1,534.9	1,534.9
6	Drilling and DP Vessel at 1 site + Anchor Handling at 2 nd site	120 dB	1,759.2	1,759.2
7	Mudline Cellar Construction at 2 different sites + Anchor Handling at 3 rd site	120 dB	2,046.3	2,046.3
8	Two-vessel Ice Management	120 dB	937.4	937.4
9	Four-vessel Ice Management	120 dB	1,926.0	1,926.0
10	ZVSP at 2 different sites	160 dB	0.0	898.0

As noted above, sound propagation modelling of ensonified areas involved multiple sources that would be operating at the same time. Such concurrent operations result in additive acoustic effects in areas where there is overlap in the sound fields produced by the equipment in use. Therefore, the ensonified areas associated with each of these scenarios represents the additive acoustic effects from concurrently-operating, continuous sound sources at different locations, and they result in irregular or non-circular ensonified areas when activities are occurring at different locations (*see* activity scenarios 3 and 4, and 6 through 9; **Table 5.2-1**). Unlike a circular acoustic footprint from a single continuous sound source or sources at a single location, these irregular areas do not have easily defined radii.

Figures 5.2-1 through 5.2-4 depict estimated areas ensonified by continuous sound levels ≥ 120 dB re 1 μ Pa rms for a representative sample of activity scenarios (1, 3, 7, and 8 from **Table 5.2-1**). Sound propagation modeling of each activity scenario was performed by incorporating each of the respective individual, continuous sound sources using measured source levels, and then again after adding a 1.3 dB re 1 μ Pa rms “safety factor” to each source level.

The areas potentially ensonified by each activity scenario assume all sound sources identified for that scenario would be operating concurrently. Generally each scenario consists of one to three sources; scenarios 3 and 9 are the exceptions, each of which includes four sources (**Table 5.2-1**). This approach was an attempt to move away from assessing ensonified areas stemming from different sources in isolation, or independently one-by-one, and instead assess the acoustic environment more realistically as an aggregate of multiple sound sources operating together. This approach to sound propagation modeling allows for the consideration of additive acoustic effects from overlapping sound fields produced by numerous, continuous sound sources (**Figures 5.2-2 through 5.2-3**). Ultimately, this method attempts to more accurately simulate the underwater acoustic environment resulting from an exploratory drilling program such as that proposed by Shell in 2015.

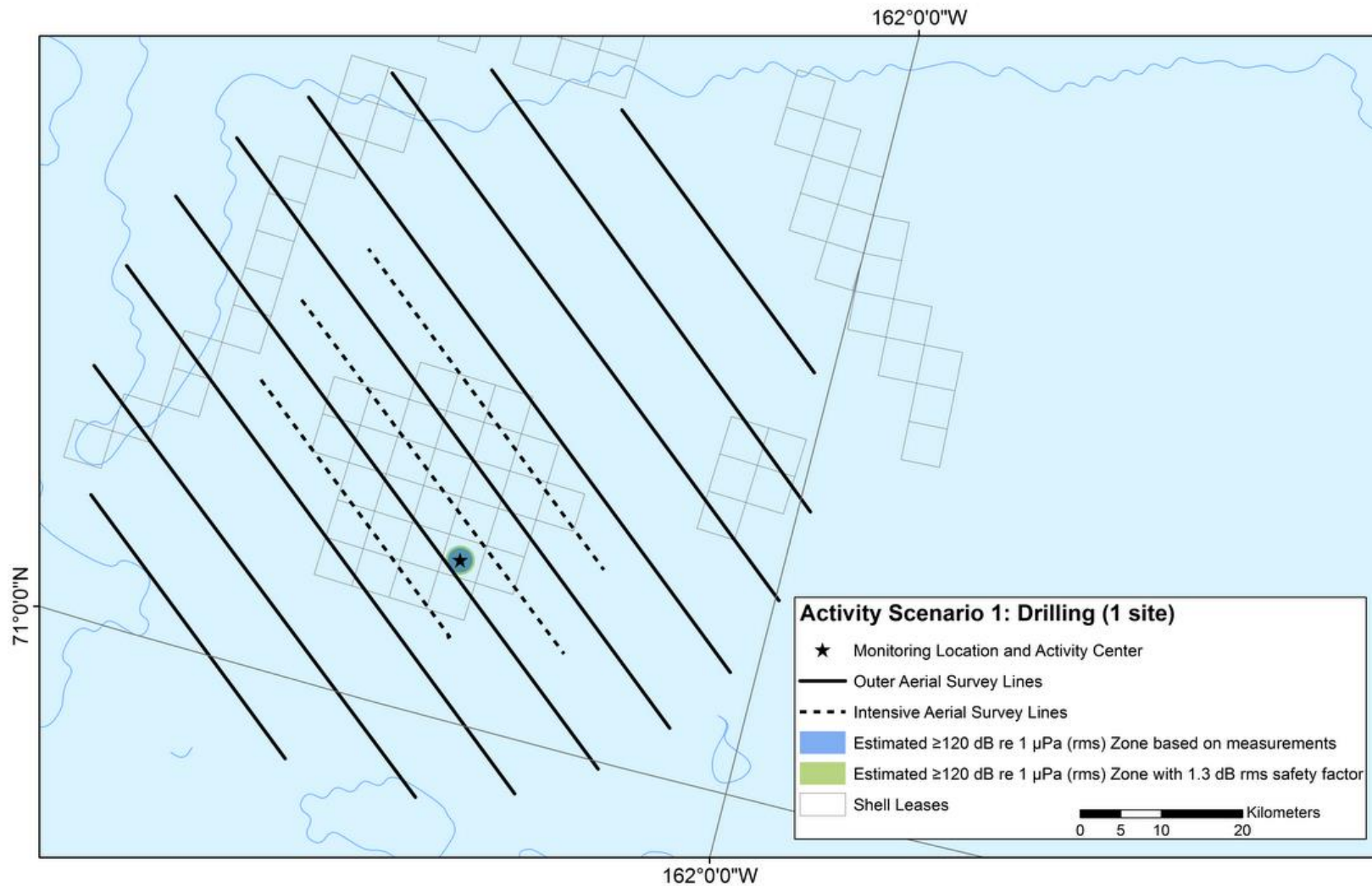


Figure 5.2-1 Estimated Areas Ensonified by Continuous Sound Levels ≥ 120 dB re 1 μ Pa rms from Activity Scenario 1, Drilling at a Single Site. Aerial Survey Transects are also Shown. The Smaller Area (Blue) Reflects the Measured Source Value and the Larger Area (Green) Accounts for Addition of the 1.3 dB re 1 μ Pa rms Safety Factor to the Source.

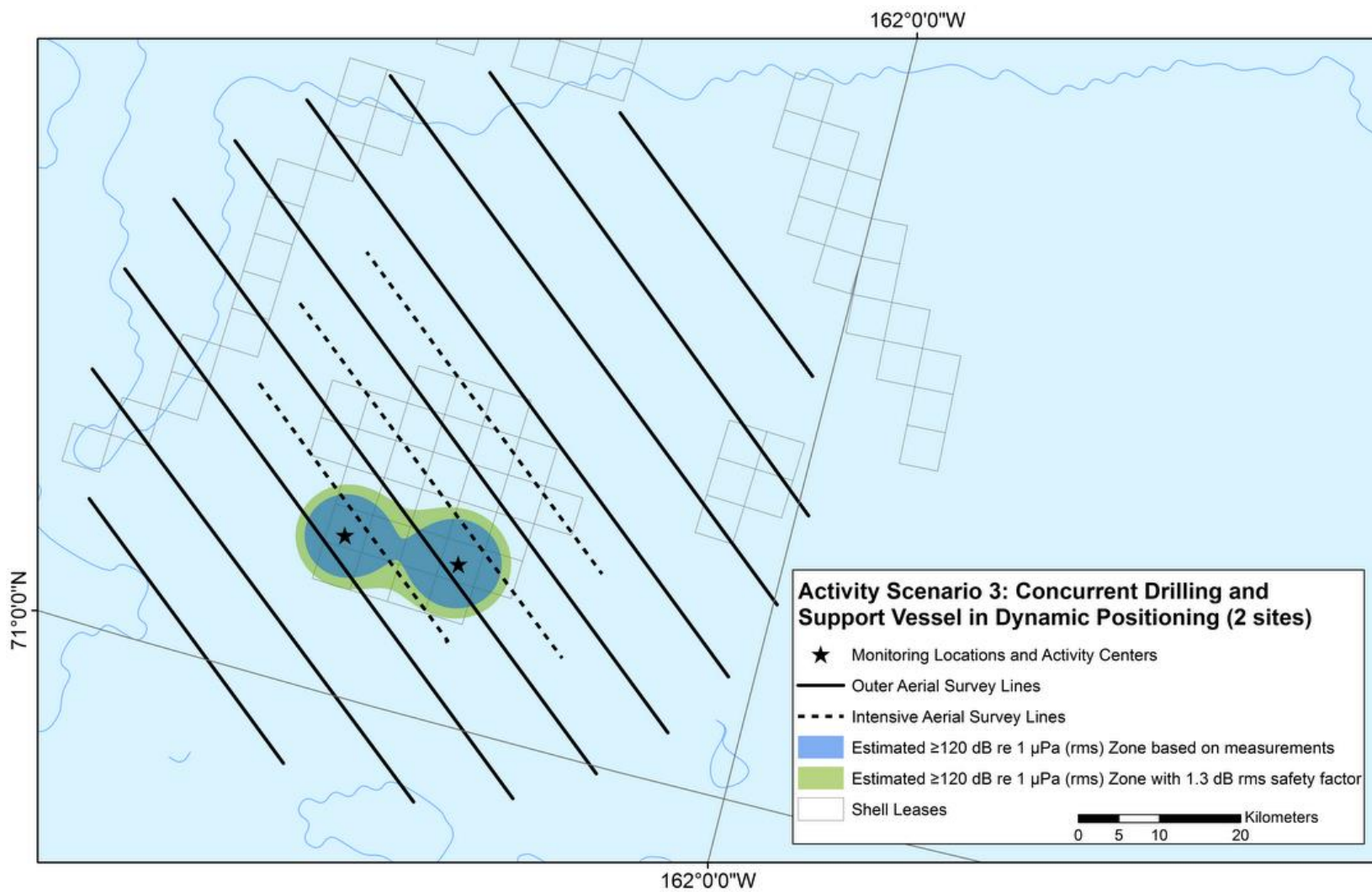


Figure 5.2-2 Estimated Areas Ensonified by Continuous Sound Levels ≥ 120 dB re 1 μPa rms from Activity Scenario 3, Concurrent Drilling with an Adjacent Support Vessel in DP at Two Sites. Aerial Survey Transects are also Shown. The Smaller Area (Blue) Reflects the Measured Source Value and the Larger Area (Green) Accounts for Addition of the 1.3 dB re 1 μPa rms Safety Factor to each Source.

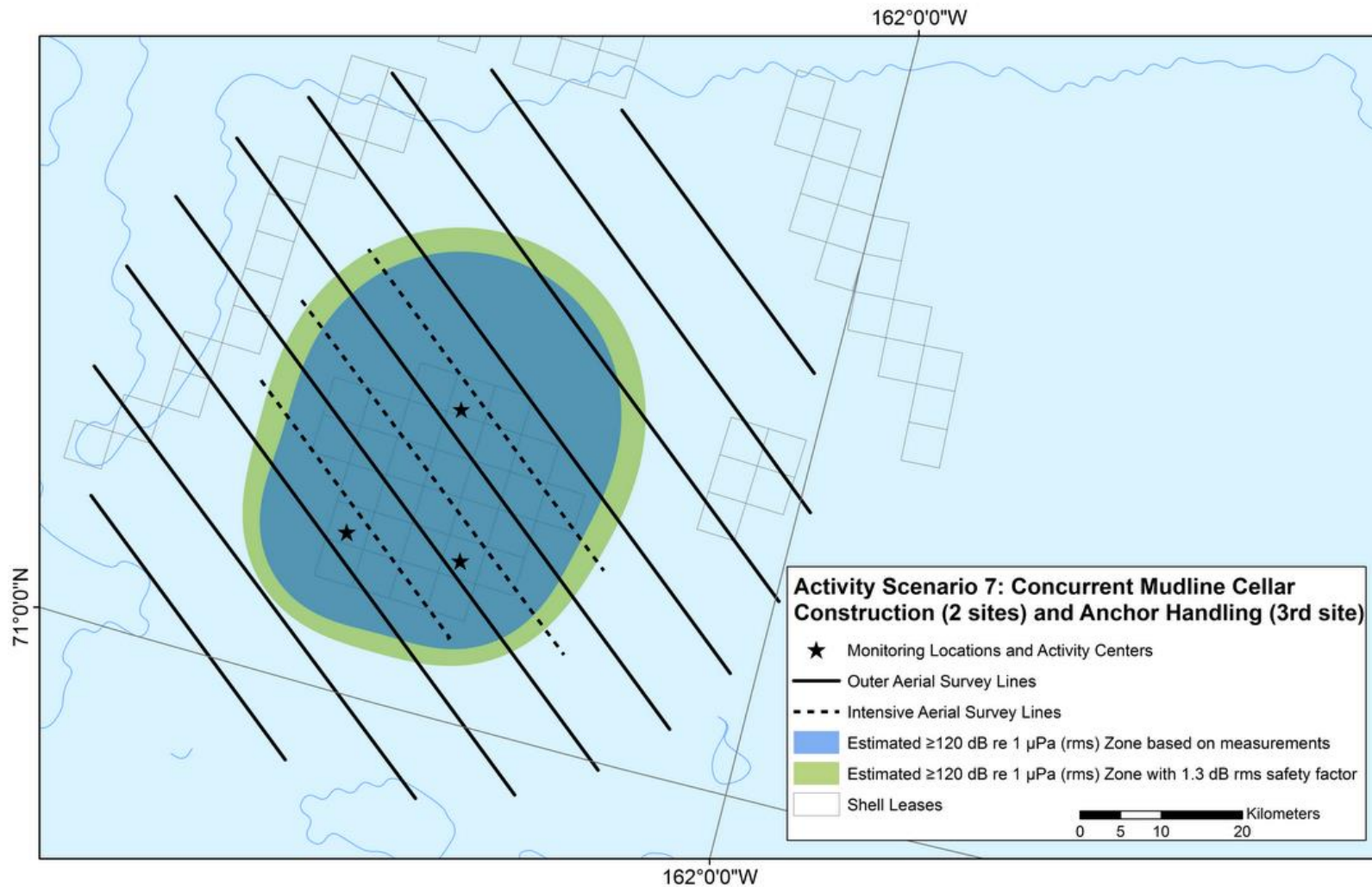


Figure 5.2-3 Estimated Areas Ensonified by Continuous Sound Levels ≥ 120 dB re $1 \mu\text{Pa}$ rms from Activity Scenario 7, Concurrent Mudline Cellar Construction at Two Sites and Anchor Handling at a Third Site. Aerial Survey Transects are also Shown. The Smaller Area (Blue) Reflects the Measured Source Value and the Larger Area (Green) Accounts for Addition of the 1.3 dB re $1 \mu\text{Pa}$ rms Safety Factor to each Source.

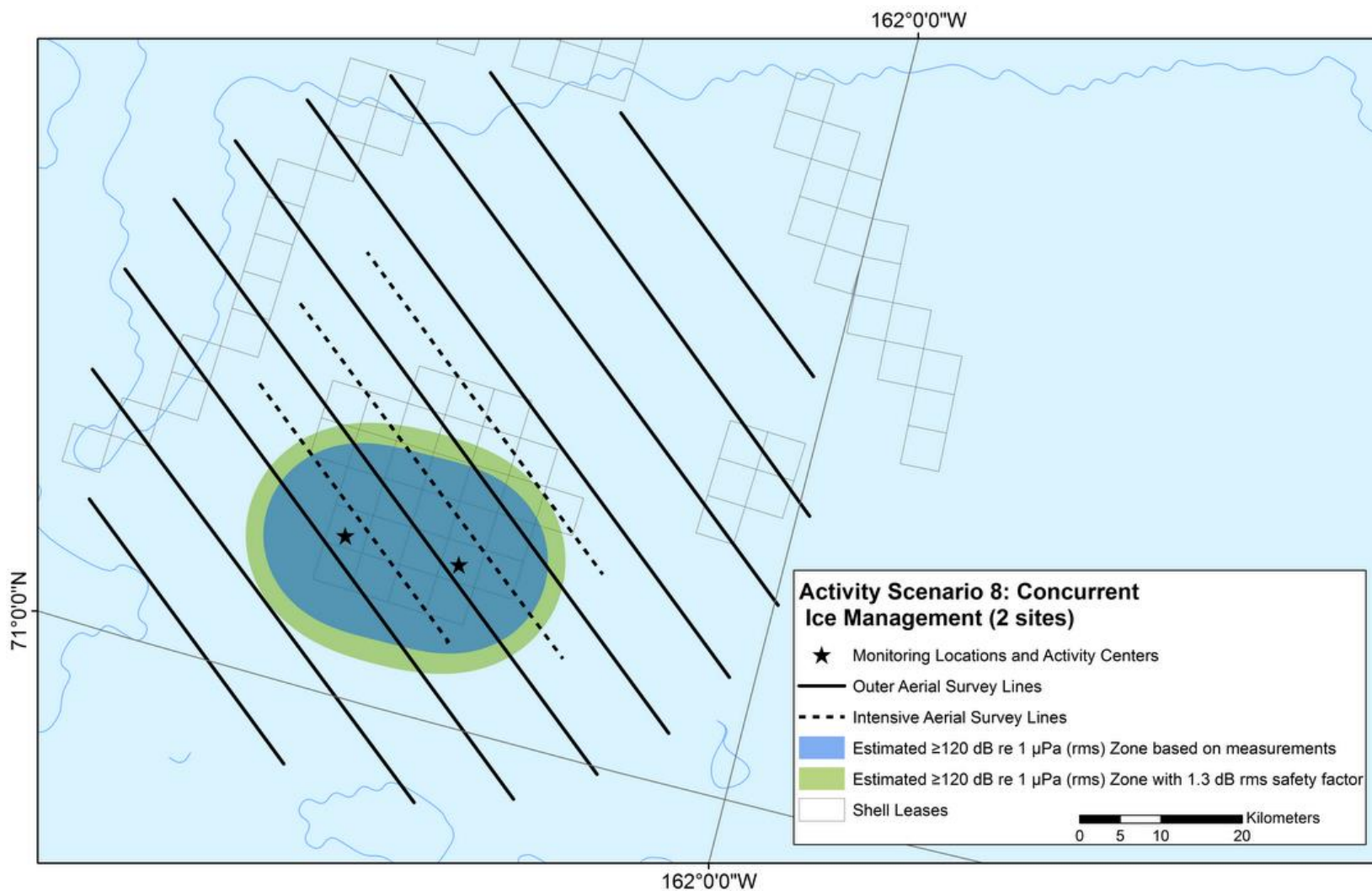


Figure 5.2-4 Estimated Areas Ensonified by Continuous Sound Levels ≥ 120 dB re 1 μ Pa rms from Activity Scenario 8, Concurrent Ice Management at Two Sites (Offset 500 Meters to the NE of Each Well). Aerial Survey Transects are also Shown. The Smaller Area (Blue) Reflects the Measured Source Value and the Larger Area (Green) Accounts for Addition of the 1.3 dB re 1 μ Pa rms Safety Factor to each Source.

The largest area estimated to be ensonified by continuous sounds of ≥ 120 dB re 1 μ Pa rms from a single activity scenario was 2,046.3 km² and resulted from concurrent MLC construction at two different sites and anchor handling at a third site (activity scenario 7; **Table 5.2-1; Figure 5.2-3**). The smallest area estimated to be ensonified by continuous sound levels ≥ 120 dB re 1 μ Pa rms was 10.3 km², which represented drilling alone at a single site by the *Discoverer* (activity scenario 1; **Table 5.2-1; Figure 5.2-1**). The *Discoverer* was used as the sound source for the single site drilling-only scenario as a conservative measure because it is expected to be the louder of the two drilling units. The specific estimated sound source levels for the *Discoverer* and the *Polar Pioneer* were used for modeling activity scenarios that involved concurrent drilling at two different drill sites. In general, scenarios that involved anchor handling and/or MLC construction resulted in the largest estimated areas that would be ensonified to levels ≥ 120 dB re 1 μ Pa rms (activity scenarios 4-7; **Table 5.2-1; Figures 5.2-3 and 5.2-4**). It should be noted that these activities are generally of short duration (one to 10 days). Activity scenarios that involved drilling and/or DP vessel operations produced the smallest acoustic footprints (activity scenarios 1-3; **Table 5.2-1; Figures 5.2-1 and 5.2-2**) and represent the majority of days of activity expected in 2015.

It is possible that ice management and drilling activities could have overlapping acoustic footprints; however, it is difficult to meaningfully quantify the multiple ways in which this could occur due to the temporal and spatial variability of ice conditions. It is also likely that ice management will occur at distances from the drill sites that would result in independent, non-overlapping acoustic footprints with respect to continuous sound sources operating at or near exploration drill sites. For these reasons, concurrent ice management activity scenarios were modeled separately from non-ice management scenarios, and results from each were summed together below to conservatively estimate the maximum total area ensonified to continuous sound levels ≥ 120 dB re 1 μ Pa rms.

The two scenarios that were modeled to estimate areas ensonified by continuous sounds ≥ 120 dB re 1 μ Pa rms from ice management involved either two or four vessels engaged in concurrent operations. The two-vessel scenario assumed a single ice management vessel positioned 500 meters to the northeast of each of two different drill sites. The four-vessel scenario assumed ice management associated with two different drill sites with one vessel located 500 meters to the northeast of each site and a second vessel positioned 2 kilometers to the northeast of each site. The estimated areas ensonified by continuous sounds ≥ 120 dB re 1 μ Pa rms from two- and four-vessel ice management activities were 937.4 and 2,046.3 km², respectively (*see* activity scenarios 8 and 9; **Table 5.2-1**).

No ZVSP surveys are expected to occur in the summer. Following the completion of drilling at each of the first two exploration wells in fall of 2015, a ZVSP survey will be conducted at each site, but the surveys are not expected to be conducted simultaneously. This would result in ensonification of twice the area from a single ZVSP survey to pulsed sound levels ≥ 160 dB re 1 μ Pa rms, or 898 km² (activity scenario 10; **Table 5.2-1**).

5.2.2 Background on Model Inputs used to Estimate Areas Ensonified by to Continuous or Nonpulsed Sounds to ≥ 120 dB re 1 μ Pa rms and Pulsed Sounds ≥ 160 dB re 1 μ Pa rms

The information used to generate sound level characteristics for each continuous sound source is summarized below to provide background on the model inputs. **Table 5.2-2** summarizes the 120 dB re 1 μ Pa rms radii for individual sound sources, both the “original” radii as measured in the field, and the “adjusted” values that were calculated by adding a “safety factor” of 1.3 dB re 1 μ Pa rms to each source. The “safety factor” was added to the source level for each sound source prior to modeling activity scenarios to account for variability across the project area associated with received levels at different depths, geoacoustical properties, and sound-speed profiles. The addition of the 1.3 dB re 1 μ Pa rms

safety factor to source levels resulted in an approximate 20 percent increase in the distance to the 120 dB re 1 μ Pa rms threshold for each continuous source.

The pulsed sound sources used for sound propagation modeling of activity scenarios consisted of two small airgun arrays proposed for ZVSP activities. All possible array configurations and operating depths were modeled to identify the arrangement with the greatest sound propagation characteristics. The resulting ≥ 160 dB re 1 μ Pa rms radius was multiplied by 1.5 as a conservative measure prior to estimating exposed areas, which is discussed in greater detail below.

Table 5.2-2 Measured and Adjusted 120 dB re 1 μ Pa rms Radii for Individual, Continuous Sound Sources (Adjusted Radii Were Used for Sound Propagation Modeling of Activity Scenarios)

Activity / Continuous Sound Source	Radii of 120 dB re 1 μ Pa (rms) Isopleth (meters)	
	Original Measurement	With 1.3 dB re 1 μ Pa Added to Source Level
Drilling at 1 Site	1,500	1,800
Vessel in DP	4,500	5,500
Mudline Cellar Construction at 1 Site	8,200	9,300
Anchor Handling at 1 Site (Assumed to be 2 Vessels)**	19,000	22,000
Single Vessel Ice Management	9,600	11,000

**The measurement of anchor handling in 2012 involved a single vessel. Anchor handling in 2015 is likely to involve two concurrently-operating vessels at a single site. To account for this, the 2012 anchor handling measurement was treated as two separate but concurrently-operating sound sources and modeled for subsequent application in activity scenarios involving anchor handling.

Drilling Units and Drilling Sounds

During 2012 exploration drilling activities, measurements of sounds produced by the *Discoverer* were made on the Burger prospect. The recorded data show a number of tonal components likely produced by vibrations from rotating machinery. Most of the acoustic energy was contained in the 100-1000 Hertz (Hz) and 1-10 kHz frequency bands, both of which typically were at levels just below 120 dB re 1 μ Pa rms. When no other vessels were present near the *Discoverer* and drilling was occurring, broadband sound levels fell below 120 dB re 1 μ Pa rms at 1.5 km (Austin et al. 2013). This measurement of the *Discoverer* in 2012, plus addition of the 1.3 dB re 1 μ Pa rms safety factor, was used for sound propagation modeling of all activity scenarios involving the *Discoverer*.

Measured sound levels for the *Polar Pioneer* while drilling were not available, therefore the ≥ 120 dB re 1 μ Pa sound footprint was estimated using JASCO Applied Science's Marine Operations Noise Model (MONM). An average source level for the *Polar Pioneer* was derived from a number of acoustic measurements of comparable semi-submersible drill units. Taken into account were reported sound levels from the drilling units *Ocean Bounty* (Gales 1982), SEDCO 708 (Greene 1986), and *Ocean General* (McCauley 1998). One-third-octave band received sound levels were extracted from these reports and were back-propagated to a range of 1 meter. The resulting 1/3-octave source levels were averaged to provide a distribution that was input to MONM as a surrogate for the *Polar Pioneer*. The model yielded a propagation range of 350 meters for rms sound pressure levels of 120 dB re 1 μ Pa rms for the *Polar*

Pioneer while drilling at the Burger Prospect. This estimate of the *Polar Pioneer*, plus the safety factor, was used for sound propagation modeling of activity scenarios involving the *Polar Pioneer*.

Supply and Drilling Support Vessels using Dynamic Positioning

When support vessels arrive to transfer materials to or from drilling units, or to conduct other drilling support activities, dynamic positioning (DP) thrusters are commonly used to keep the vessel stationary next to the drilling unit or on location.

Acoustic measurements of the *Nordica* in DP mode while supporting Shell's 2012 drilling operation in the Chukchi Sea were made from multiple recorders deployed to monitor sounds from the overall drilling operation. Distances to these recorders ranged from 1.3 km to 7.9 km and maximum sound pressure levels ranged from 112.7 dB re 1 μ Pa rms to 129.9 dB re 1 μ Pa rms. Analysis of the data indicates the maximum 120 dB re 1 μ Pa rms distance was approximately 4 km from the vessel.

More recently, the *Nordica* was operated by Shell in 2013 at the Burger Prospect to conduct well site maintenance activities. The vessel operated in DP much of the time and was measured during these periods by a line of hydrophones moored to the seafloor at distances of 0.5, 1, 2, 4, and 8 km from the well (JASCO and Greeneridge 2014). Results indicated a strong relationship between sound levels received at the hydrophones and the orientation of the vessel relative to the linear array of recorders. Measured distances to the 120 dB re 1 μ Pa rms threshold were nearly three times greater when the vessel was perpendicular to the line of acoustic recorders compared to when it was oriented nearly parallel along the same line as the recorders. The 90th percentile distance to the 120 dB re 1 μ Pa rms threshold for periods when the *Nordica* was broadside to the line of recorders was 4.5 km (JASCO and Greeneridge 2014). This measurement of the *Nordica*, plus the 1.3 dB re 1 μ Pa rms safety factor, was used for sound propagation modeling of activity scenarios involving supply and drilling support vessels in DP.

Mudline Cellar Construction

An MLC is a relatively large-diameter hole constructed so that equipment at the top of the well can be installed below the level of the seabed, hence below the greatest depth of a potential ice keel gouge. The construction of this hole during Shell's 2012 exploration drilling program in the Chukchi Sea generated broadband sounds that were recorded by hydrophones moored to the seafloor at distances of 1, 2, 4, and 8 km. JASCO (2014) calculated that these sounds diminished below the 120 dB re 1 μ Pa rms threshold at 8.2 km from the drill site. This 2012 *Discoverer* MLC measurement (JASCO and Greeneridge 2014), plus the safety factor, was used for sound propagation modeling of all activity scenarios involving construction of MLCs.

Anchor Handling

The *Discoverer* drillship was held in place at the Chukchi Sea well site in 2012 by connecting to eight large anchors that were placed and set into the seabed prior to the arrival of the *Discoverer*. The setting of these anchors, as well as the process of connecting the *Discoverer* to the anchors, generated sound levels above those of drilling alone. JASCO (2014) measured sound levels produced by the *Tor Viking* during activities associated with anchor handling in the Chukchi Sea during Shell's 2012 exploration drilling program at Burger. Distance to the 120 dB re 1 μ Pa rms distance during these activities was estimated to be 14 km (JASCO and Greeneridge 2014). This measurement; however, involved only a single vessel, whereas anchor handling in 2015 may involve two vessels working in tandem. To account for this, the 2012 anchor handling measurement (JASCO and Greeneridge 2014) was scaled upward using the safety factor and treated as two separate but concurrently-operating sound sources for sound propagation modeling of activity scenarios involving anchor handling.

Ice Management Activities

During exploration drilling operations on the Burger Prospect in 2012, encroachment of sea ice required the *Discoverer* to temporarily depart the drill site. While it was standing by to the south, ice management vessels remained at the drill site to protect buoys that were attached to the anchors. Sounds produced by vessels managing the ice were recorded and the distance to the 120 dB re 1 μ Pa rms isopleth was calculated to occur at 9.6 km (JASCO and Greeneridge 2014).

Measurements of ice management sounds near Burger in 2012 involved only a single vessel, the *Tor Viking II* (JASCO and Greeneridge 2014). Operations in 2015 could involve up to four ice management vessels operating at one time, split between two drill sites. To account for this difference, the 2012 measurement of ice management was scaled upward using the 1.3 dB re 1 μ Pa rms safety factor and treated as four separate but concurrently-operating sound sources for sound propagation modeling. A second ice management activity scenario was modeled to estimate areas exposed to ≥ 120 dB re 1 μ Pa rms when only two vessels were managing ice at a given time.

Ice management could occur at any time in the vicinity of the Burger Prospect during Shell's planned 2015 exploration drilling program. The need to manage ice; however, is expected to be greater in summer compared to fall when the Burger Prospect becomes sea-ice free in most years.

ZVSP Activities

Two sound sources have been proposed by Shell for the ZVSP surveys in 2015. The first is a small airgun array that consists of three 150 in³ (2,458 cm³) airguns for a total volume of 450 in³ (7,374 cm³). The second ZVSP sound source consists of two 250 in³ (4,097 cu cm³) airguns with a total volume of 500 in³ (8,194 cm³). Sound footprints for each of the two proposed ZVSP airgun array configurations were estimated using JASCO Applied Sciences MONM. The model results were maximized over all water depths from 9.8 to 23 ft. (3 to 7 m) to yield precautionary sound level isopleths as a function of range and direction from the source. The 450 in³ airgun array at a source depth of 7 m yielded the maximum ranges to the ≥ 190 , ≥ 180 , and ≥ 160 dB re 1 μ Pa rms isopleths.

There are two reasons that the radii for the 450 in³ airgun array are larger than those for the 500 in³ array. First, the sound energy does not scale linearly with the airgun volume, rather it is proportional to the cube root of the volume. Thus, the total sound energy from three airguns is larger than the total energy from two airguns, even though the total volume is smaller. Second, larger volume airguns emit more low-frequency sound energy than smaller volume airguns, and low-frequency airgun sound energy is strongly attenuated by interaction with the surface reflection. Thus, the sound energy for the larger-volume array experiences more reduction and results in shorter sound threshold radii.

The estimated 95th percentile distances to the following thresholds for the 450 in³ airgun array were: ≥ 190 dB re 1 μ Pa rms = 170 m, ≥ 180 dB re 1 μ Pa rms = 920 m, and ≥ 160 dB re 1 μ Pa rms = 7,970 m. The ≥ 160 dB re 1 μ Pa rms distance was multiplied by 1.5 for a distance of 11,960 m. This radius was used for estimating areas ensonified by pulsed sounds to ≥ 160 dB re 1 μ Pa rms during a single ZVSP survey. ZVSP surveys may occur at up to two different drill sites during Shell's planned 2015 exploration drilling program in the Chukchi Sea.

5.3 Summary of Potential Effects of Exposure to Underwater Sound

The activity scenarios outlined previously have the potential to result in temporary and short-term behavioral impacts to marine mammals, primarily due to the introduction of underwater sound energy introduced to the marine environment. Walrus are benthic feeders and, therefore, could be exposed to underwater sound energy in the water column. The effects will depend on whether the animal is in the water or on ice and the behavior of the animal at the time of the encounter, as well as the distance of the

animal from the sound source. It should be noted that at no time will sound levels be high enough to cause injury to walrus in the vicinity of the drilling activities.

The effects of sound on marine mammals are highly variable, and can be categorized as follows (based on Richardson et al. 1995a):

1. The sound may be too weak to be heard at the location of the animal, i.e. lower than the prevailing ambient noise level, the hearing threshold of the animal at relevant frequencies, or both.
2. The sound may be audible but not strong enough to elicit any overt behavioral response. This has been demonstrated upon exposure of bowhead whales to low levels of seismic, drilling, dredge, or icebreaker sounds (Richardson et al. 1986; 1990; 1995a,b).
3. The sound may elicit reactions of variable conspicuousness and variable relevance to the wellbeing of the animal. These can range from subtle effects on respiration or other behaviors (detectable only by statistical analysis) to active avoidance reactions.
4. Upon repeated exposure, animals may exhibit diminishing responsiveness (habituation), or disturbance effects may persist. The latter is most likely with sounds that are highly variable in characteristics, unpredictable in occurrence, and associated with situations that the animal perceives as a threat.
5. Any man made sound that is strong enough to be heard has the potential to reduce (mask) the ability of marine mammals to hear natural sounds at similar frequencies, including calls from conspecifics, echolocation sounds of odontocetes, and environmental sounds such as ice or surf noise.
6. Very strong sounds have the potential to cause temporary or permanent reduction in hearing sensitivity. Effects of sounds on hearing thresholds of some marine mammals species have been studied (e.g., Finneran et al. 2005; Mooney et al. 2009; Kastak et al. 2005). Received sound levels must far exceed the animal's hearing threshold for any Temporary Threshold Shift (TTS) to occur. The TTS threshold depends on duration of exposure; the sound level necessary to cause TTS is higher for short sound exposures than for long sound exposures. Received levels must be even higher to risk permanent hearing impairment (probably at least 10 dB above the TTS threshold).

Shell's environmental effects analysis and conclusions regarding small numbers, negligible impacts, and no unmitigable adverse impact to subsistence users was informed by the factors identified in the USFWS' 2013 Chukchi Sea ITR. These include, but are not limited to, the following: (1) seasonal distribution and habitat use patterns of walruses; (2) the timing, scale, and habitats associated with our proposed activities and the limited geographic area of impact in open water habitats; (3) the effectiveness of our mitigation and monitoring measure; (4) biological characteristics of walrus; (5) the nature of our activity; and (6) historical data regarding the timing and location of subsistence harvests and effectiveness of mitigation to minimize impacts to subsistence users.

5.4 Impacts of Sounds from Drilling and Associated Activities

The potential effects of sounds from the proposed exploration drilling and ice management activities might include one or more of the following: tolerance, masking of natural sounds, behavioral disturbance, and at least in theory, hearing impairment or non-auditory physical effects (Richardson et al. 1995; USFWS 2013). It is highly unlikely that there would be any cases of temporary or especially permanent hearing impairment, or non-auditory physical effects. All potential effects are anticipated to be short-term, highly-localized, and biologically insignificant with respect to the fitness of individual walrus and the respective population.

5.4.1 Acoustic Tolerance

Numerous studies have shown that underwater sounds from industry activities are often readily detectable in the water at distances of many kilometers (reviewed in Richardson et al. 1995; JASCO and Greeneridge 2014; USFWS 2013). Multiple studies have also shown that marine mammals at distances more than a few kilometers away often show no apparent response to industry activities of various types (Moulton et al. 2005; Harris et al. 2001; LGL et al. 2014). Received levels of continuous and pulsed sounds are reduced near the surface because of the pressure release effect at the water's surface (Greene and Richardson 1988; Richardson et al. 1995) and walrus typically travel near or at the surface where sound levels are attenuated.

5.4.2 Masking

There are no definitive studies to identify the size of the potential area of masking around a drilling unit. Masking of the ability of individuals to hear other animals or to make their calls heard by other individuals could occur in proximity to operations, particularly for species with lower-frequency hearing sensitivities such as walrus (Kastelein et al. 2002). Larger numbers of animals could experience masking in a year when oceanographic conditions created feeding opportunities in and around the project area that attracted greater numbers of individuals into areas closer to operations.

Masking effects of drilling sounds are expected to be minimal given the relatively small acoustic footprint from drilling. Acoustic recorders were concentrated on the seafloor around Shell's drillsite in the Chukchi Sea during 2012. Few walrus grunts were detected on the receivers stationed near the drillsite in comparison to the number of detections in other locations, possibly owing to masking effects of drilling sounds as well as avoidance of the activities (Delarue et al. 2013).

5.4.3 Disturbance Reactions

Reactions to sound by marine mammals, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors. If a marine mammal does react briefly to an underwater sound by changing its behavior or moving a small distance, the impacts of the change are unlikely to be biologically significant to the individual, let alone the stock or the species as a whole. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on the animals, or populations could be significant.

Walrus typically travel near or at the surface where sound levels are attenuated (Richardson et al. 1995), however walrus could be exposed to underwater sound energy at depth while foraging. Pinniped responses to underwater sound from some types of industrial activities such as seismic exploration appear to be temporary and localized (Harris et al. 2001; Reiser et al. 2009). Few data are available on walrus disturbance reactions to continuous sound; however, existing data suggest that walrus typically display no reaction when exposed to continuous sound associated with drilling ≥ 120 dB (rms) re 1μ Pa (Case et al. 2011; Hartin et al. 2013; LGL and JASCO 2014). For example, a walrus spent ~ 14 continuous hours present around a vessel that was using dynamic positioning thrusters to conduct geotechnical coring operations in the Chukchi Sea (Case et al. 2011). The animal finally departed the vessel when it moved ~ 70 m to a nearby coring location.

Pinnipeds generally seem to be less responsive to exposure to underwater industrial sound than most cetaceans. Southall et al. (2007) reviewed literature describing responses of pinnipeds to non-pulsed sound and reported that the limited data suggest exposures between ~ 90 and 140 dB re 1μ Pa rms generally do not appear to induce strong behavioral responses in pinnipeds exposed to nonpulse sounds in water; no data exist regarding exposures at higher levels. It is important to note that among these studies of pinnipeds responding to nonpulse exposures in water, there are some apparent differences in responses between field and laboratory conditions. In contrast to the mid-frequency odontocetes, captive pinnipeds

responded more strongly at lower levels than did animals in the field. Again, contextual issues are the likely cause of this difference.

Shell anticipates that some walrus may exhibit minor, short-term disturbance responses to underwater sounds from drilling and associated support activities. Alternatively, some walrus may show interest or attraction to the vessels and investigate the activities. Any potential impacts on walrus behavior would be localized within the activity area and would be highly unlikely to result in population-level effects. Walrus hauled out on ice would not be exposed to sound levels as high as those underwater at the same location.

5.4.4 Hearing Impairment and Other Physical Effects

None of the equipment planned for use will produce continuous sounds loud enough to cause detrimental physical effects (e.g., temporary reduction in hearing sensitivity or permanent hearing damage) in walrus. Consequently, mitigation, as described for seismic activities including ramp ups, power downs, and shut downs, should not be necessary for exploration drilling and other support activities emitting continuous sounds.

5.4.5 Conclusion

All potential impacts from acoustic exposures to sounds from drilling and associated activities are expected to be in the form of temporary changes in behavior. The extensive mitigation and monitoring measures to be applied (*see 5.8 Mitigation Measures*) are expected to prevent disturbance in the first instance or minimize the impact of any disturbance that may occur. Disturbance reactions are likely to vary among species and individuals. Impacts could potentially consist of: no reaction to temporary avoidance of activities and/or underwater sounds, and other reactions to sounds or visual cues such as “attention,” or “approach,” masking, tolerance, and very low probabilities of temporary or permanent hearing threshold shifts.

Lastly, neither Shell nor USFWS (2013) believe that the presence of an individual walrus near an exploration activity is inherently synonymous with behavioral harassment to those individuals. Short-term and localized reactions that can be expected from a minority of individuals, including attention, approach, avoidance, and flee, fall within their normal range of activity and are not considered to be significant by USFWS (USFWS 2013).

5.5 Impacts of Sounds from ZVSP Surveys

The effects of sounds from airguns on marine mammals might include one or more of the following: tolerance, masking of natural sounds, behavioral disturbance, and, at least in theory, the possibility of temporary or permanent hearing impairment, or non-auditory physical effects (Richardson et al. 1995a). Given the brief duration and moderate size of the sound sources planned for each survey, no walrus are expected to experience temporary or permanent hearing impairment, or non-auditory physical effects. However, Shell will implement a number of mitigation measures to minimize any potential effects and avoid harm to marine mammals (*see 5.8 Mitigation Measures Underwater Sounds from ZVSP Surveys*).

As described in previous sections, Shell plans to conduct a geophysical activity referred to as a ZVSP survey at each Chukchi drill site. A two-airgun (2×250 in.³ airguns) or three-airgun array (3×150 in.³) will likely be used to perform each ZVSP survey. Unlike the continuous sound sources discussed above, ZVSPs will not be conducted concurrently to avoid seismic interference. Airguns function by venting high-pressure air into the water. The pressure signature of an individual airgun consists of a sharp rise and then fall in pressure, followed by several positive and negative pressure excursions caused by oscillation of the resulting air bubble. Typical high-energy airgun arrays emit most energy at 10 to 120

Hz. However, the pulses contain energy up to 500 to 1,000 Hz and some energy at higher frequencies (Goold and Fish 1998; Potter et al. 2007).

5.5.1 Tolerance

Numerous studies have shown that pulsed sounds from airguns are often readily detectable in the water at distances of many kilometers. Numerous studies have shown that marine mammals at distances more than a few kilometers from operating seismic vessels often show no apparent response. That is often true even in cases when the pulsed sounds must be readily audible to the animals based on measured received levels and the hearing sensitivity of the particular mammal group. Although various baleen whales, toothed whales, and (less frequently) pinnipeds have been shown to react behaviorally to airgun pulses under some conditions, at other times mammals of all three types have shown no overt reactions. In general, pinnipeds seem to be more tolerant of exposure to airgun pulses.

5.5.2 Masking

Masking effects of pulsed sounds (even from large arrays of airguns) on marine mammal calls and other natural sounds are expected to be limited, although there are very few specific data of relevance. Some whales are known to continue calling in the presence of seismic pulses. It is unlikely that walrus will experience masking effects from the ZVSP surveys, and any effects would be short in duration.

5.5.3 Disturbance Reactions

Disturbance includes a variety of effects, including subtle changes in behavior, more conspicuous changes in activities, and displacement. Based on conclusions reported by NMFS (2001), we assume that simple exposure to sound, or brief reactions that do not disrupt behavioral patterns in a potentially significant manner, do not constitute harassment or “taking.” By potentially significant, we mean “in a manner that might have deleterious effects to the well-being of individual marine mammals or their populations.”

Walrus are not likely to show a strong avoidance reaction to the small-sized airgun source that will be used for the ZVSP surveys. Visual monitoring from seismic vessels has shown only slight (if any) avoidance of airguns by pinnipeds, and only slight (if any) changes in behavior (Hartin et al. 2013; LGL and JASCO 2014). Pinnipeds frequently do not avoid the area within a few hundred meters of operating airgun arrays (e.g., Miller et al. 2005; Harris et al. 2001). However, initial telemetry work suggests that avoidance and other behavioral reactions to small airgun sources may, at times, be stronger than evident to date from visual studies of pinniped reactions to airguns (Thompson et al. 1998). Even if reactions of the species occurring in the proposed survey area are as strong as those evident in the telemetry study, reactions are expected to be confined to relatively small distances and durations, with no long-term effects on pinniped individuals or populations.

Existing data suggest that walrus typically display no reaction when exposed to pulsed sound levels ≥ 160 dB (rms) re 1μ Pa and continuous sound associated with drilling ≥ 120 dB (rms) re 1μ Pa (Hartin et al. 2013; LGL and JASCO 2014). Shell assumes that simple exposure to sound or brief reactions that do not disrupt behavioral patterns in a potentially significant manner, and do not constitute harassment. A similar conclusion was made by USFWS (2013) when assessing walrus disturbance reactions in response to acoustic exposures:

“These behavioral responses are generally not biologically significant in terms of altering the survival or reproductive potential of the individual or the population.” (78 Fed. Reg. 35364, 35413 (June 12, 2013))

5.5.4 Hearing Impairment and Other Physical Effects

Temporary or permanent hearing impairment is a possibility when marine mammals are exposed to very strong sounds, but there has been no specific documentation of this for free-ranging marine mammals exposed to sequences of airgun pulses during realistic field conditions. In pinnipeds, TTS thresholds

associated with exposure to brief puses (single or multiple) of underwater sounds have not been measured. Current USFWS policy regarding exposure of marine mammals to high-level pulsed sounds is that walrus should not be exposed to sound levels ≥ 180 dB re $1\mu\text{Pa}$, mitigation should be implemented for groups of 12 or more walrus in areas with received levels ≥ 160 dB re $1\mu\text{Pa}$ (ultimately, this is designed to prevent exposures of individuals to ≥ 180 dB re $1\mu\text{Pa}$ when larger numbers of walrus are known to be present), as measured on an “rms over the duration of the pulse” basis (78 Fed. Reg. 35402 (June 12, 2013)). However, these criteria were established based on precedents set before there were any data on the minimum received levels of sounds necessary to cause temporary auditory impairment in marine mammals and are considered to be conservative.

Temporary Threshold Shift – TTS is the mildest form of hearing impairment that can occur during exposure to a strong sound (Kryter 1985). While experiencing TTS, the hearing threshold rises and a sound must be stronger in order to be heard. TTS can last from minutes or hours to (in cases of strong TTS) days. For sound exposures at or somewhat above the TTS threshold, hearing sensitivity recovers rapidly after exposure to the noise ends. In pinnipeds, TTS thresholds associated with exposure to brief pulses (single or multiple) of underwater sound have not been measured.

Permanent Threshold Shift – When PTS occurs, there is physical damage to the sound receptors in the ear. In some cases, there can be total or partial deafness, whereas in other cases, the animal has an impaired ability to hear sounds in specific frequency ranges. There is no specific evidence that exposure to pulses of airgun sound can cause PTS in any marine mammal, even with large arrays of airguns. However, given the possibility that walrus close to an airgun array might incur TTS, there has been further speculation about the possibility that some individuals occurring very close to airguns might incur PTS.

It is highly unlikely that marine mammals could receive sounds strong enough (and over a sufficient duration) to cause permanent hearing impairment during a project employing the medium-sized airgun sources planned here. For the proposed project, walrus are unlikely to be exposed to received levels of seismic pulses strong enough to cause TTS. Walrus would probably need to be within 328 to 656 ft (100 to 200 m) of the airguns and be exposed for some time period for TTS to occur. Given the higher level of sound necessary to cause PTS, it is even less likely that PTS could occur. In fact, even the levels immediately adjacent to the airgun may not be sufficient to induce PTS, especially because a mammal would not be exposed to more than one strong pulse unless it remained immediately alongside the airgun for a period longer than the inter-pulse interval. The planned ZVSP survey monitoring and mitigation measures, including visual monitoring, power downs, and shut downs of the airguns when mammals are seen within the “safety radii”, will minimize the already-minimal probability of exposure of marine mammals to sounds strong enough to induce PTS.

5.5.5 Conclusion

Given the small size of the sound sources planned for the ZVSP survey activity, the very short duration it will be conducted at each drill site, and mitigation measures to be applied, it is highly unlikely that there would be any cases of temporary or permanent hearing impairment, or non-auditory physical effects in any walrus that would be found in the project area. Effects would be minimized by fully implementing mitigation measures (see 5.8 Mitigation Measures) including ramp-up and shut down procedures. In addition, some walrus may show avoidance of the approaching vessel or of the immediate area with high received levels of sound (see above). In those cases, the avoidance responses of the animals themselves will reduce or (most likely) avoid any possibility of hearing impairment. These non-lethal effects are not anticipated to last beyond minutes to hours after the ZVSP survey activities are complete and will not accumulate across multiple seasons.

5.6 Impacts of Vessel Traffic

This section identifies potential types of impacts due to encounters with vessels and addresses the impacts that could result from various elements of the proposed activity. Walruses, especially those hauled out on ice, also react to varying degrees to the presence of vessels in their vicinity. The potential effects of encounters with project vessels might include no reaction to changes in behavior, movement, and displacement (USFWS 2013). As previously noted, disturbance reactions, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors. If marine mammals react briefly by changing behavior or subtly altering distribution, the impacts of the change are unlikely to be significant to the individual animal, and less so to the population (USFWS 2013). However, if an encounter displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on the animals could be significant.

All encounters with vessels have the potential to disturb walruses. Encounters with walruses are most likely to occur near the ice edge where densities are higher or when walruses move out of the Hanna Shoal region as the ice retreats of the continental shelf. The drilling units will be stationary at most times and any encounters with them would likely be initiated by the movements of walruses or the drifting of ice near the drill site. Ice scouting and management activities occur near ice and thus are the most likely activity during which walruses will be encountered.

5.6.1 Changes in Behavior

Walruses were observed during numerous seismic surveys, as well as during geotechnical coring programs and an exploration drilling program from 2006 to 2012 in the Chukchi Sea. Walruses most commonly exhibited no detectable reaction to these activities; however, approximately 23% of walruses exhibited an attention reaction, or “looking” at the vessel (LGL unpublished data). Brief attention is not a meaningful change in behavior for individual walruses, and would not rise to the level of incidental take (USFWS 2013). Regardless of the vessel activity during recent exploration programs, approximately 4% of walruses exhibited an escape reaction (movement from the ice to the water or vigorously swimming away from the vessel).

Reactions of walruses to icebreakers are described more thoroughly in literature than reactions to other activities, likely because both walruses and icebreaking activities are closely associated with ice. When comparing the reaction distances of walruses to icebreaking ships versus other ships traveling in open water, Fay et al. (1984) found that walruses reacted at longer distances away from icebreakers. Fay et al. (1984) noted that male walruses entered the water and swam away when the vessel was 0.1–0.3 km away while females and young reacted similarly when the ship was 0.5–1 km away. Brueggeman et al. (1991) found that approximately 87% of walruses hauled out on ice entered the water within 500 meters of a passing icebreaker while fewer than 27% entered the water at distances greater than one kilometer away. However, it was also noted that some walruses hauled-out onto ice when an icebreaker was oriented toward them.

In another study of 202 walrus groups observed on ice floes during icebreaking activities, approximately 32% dove into the water and approximately 6% became alert on the ice when approached (Brueggeman et al. 1990, 1991, 1992). Aerial surveys concurrent with ice management activities indicated that walruses hauled out on ice floes may have avoided icebreaking activities occurring within 10–15 km (Brueggeman et al. 1990).

Walruses on ice and walruses in water react differently to encounters with vessels. In general, walruses in the water appear to be less readily disturbed by vessels than walruses hauled out on land or sea ice (USFWS 2013). Walruses in water show little concern about approaching vessels and will dive or swim away (Fay et al. 1984; Case et al. 2011; Hartin et al. 2013; LGL and JASCO 2014; USFWS 2013). Observations of walruses in water from industry vessels show avoidance of vessels more often than walruses on ice; however, this is likely influenced by the implementation of mitigation measures,

especially minimum separation distances from walrus on ice, during collection of these data (LGL unpublished data). Walrus in water were commonly observed diving or swimming away at a moderate speed (avoidance), while walrus on ice were observed moving from the ice in to the water (escape reaction); however, the majority of walrus, whether on ice or in water, did not exhibit a discernible reaction (LGL unpublished data).

Planned mitigation measures (*see Section 5.8*) are expected to reduce encounters with walrus on ice. Results from industry data on walrus encounters and subsequent reactions provide support for the marine exclusion zone mandated by USFWS, or an 805 m buffer between vessels and walrus on ice (LGL and JASCO 2014). Walrus are much less likely to enter the water when vessels maintain this distance (LGL and JASCO 2014). Ice management activities are expected to have the greatest potential for disturbance of walrus on ice; however, most groups of walrus resting on the ice showed little reaction when they were beyond 0.5 mi (805 m) from the activity (Brueggeman, et al. 1990, 1991).

5.6.2 Changes in Distribution

The probability of encountering walrus during drilling or ice management operations is highly dependent on the distribution of ice in the area. Walrus tend to only occur in the Burger area when ice is nearby or during the walrus movement from diminishing pack ice to haul outs on land; however, the main pathway that walrus move to the shore is typically to the north and east of Burger. Walrus distribution around drilling activities in 2012 was likely more related to the distribution of ice around the drill site than it was to drilling activities (LGL 2014). However, fewer walrus calls were detected near the Shell drill site than were detected north, northeast, and east of the drill site in 2012, suggesting either slight avoidance of the area or masking (Delarue et al. 2013).

Results from earlier monitoring studies indicate that walrus did not exhibit an avoidance reaction when drilling vessels were anchored or drifting (Brueggeman et al. 1990). However, walrus distribution changed during operations, primarily ice management activities. Walrus were fairly evenly distributed across the pack ice and from the ice edge before operations, but they became more distant and clumped during ice management operations. After ice management ceased, walrus resumed their previous, even distribution, indicating that any distributional effects were brief in duration and that walrus may acclimate to drilling activities (Brueggeman et al. 1990). The effects of drilling operations on the distribution of walrus appear to be limited in time, space, and the proportion of the population, lasting only as long as the ice and the walrus are in the localized area around drilling activities (Brueggeman et al. 1990).

5.6.3 Conclusion

Potential effects on walrus from vessel traffic associated with the exploration drilling activities will be avoided or minimized with implementation of Shell's mitigation measures. These measures prohibit vessels from operating within 0.5 mi (800 m) of walrus when observed on ice, and 1.0 mi (1.6 km) of groups of walrus observed on land. Vessels underway must reduce vessel speed and avoid multiple course changes when seals are present in the water, or on ice to avoid separating members from a group. Vessel speed will also be reduced during inclement weather conditions in order to avoid accidental collisions with seals or walrus. In general, walrus may leave the ice, make hasty dives or move away from the area. Brueggeman et al. (1991) noted that the behavioral effect on walrus was very brief, with displaced walrus occasionally re-occupying ice floes as soon as the vessel passed. USFWS (2013) concluded that

“anticipated takes resulting from encounters with industry operations will be limited to minor behavioral modifications due to temporary, nonlethal disturbances.”

Given these mitigation measures and pinniped tolerance of vessels, any impacts of vessel traffic on walrus will be minor and short-term, consisting only of temporary displacement or temporary deflection away from the vessel.

5.7 Impacts of Aircraft Traffic

Helicopter and fixed-wing aircraft overflights may disturb marine mammals as sound sources or visual cues. Regular aircraft traffic will consist of helicopter traffic between the drilling units and shorebase facilities flown along the corridors identified in **Figure 2.2-2** and science or ice reconnaissance overflights with a fixed wing aircraft in the region of operations.

The hearing of marine mammals probably constitutes their most important distance receptor sense. The reasonably expected impacts of aircraft activity on walrus will be related primarily to localized, short-term acoustic disturbance from aircraft travel. Effects on walrus may include alterations in swimming behavior or avoidance of a localized area.

Under calm conditions, rotor and engine sounds are coupled into the water through ice within a 26° (degree) cone beneath the aircraft (Snell's law; Urick 1972 in Richardson et al. 1995). Scattering and absorption, however, will limit lateral propagation in the relatively shallow water of the Chukchi sea (Greene and Moore 1995).

Dominant tones in noise spectra from helicopters are generally below 500 Hz (Greene and Moore 1995). Harmonics of the main rotor and tail rotor usually dominate the sounds from helicopters; however, many additional tones associated with the engines and other rotating parts are sometimes present. Because of Doppler shift effects, the frequencies of tones received at a stationary site diminish when an aircraft passes overhead. The apparent frequency is increased while the aircraft approaches and is reduced while it moves away. Aircraft flyovers are heard underwater for a short duration, especially when compared to the length of time they are heard in air as the aircraft approaches a location and leaves a location.

Evidence from flyover studies of certain pinnipeds suggests that a reaction to helicopters is more common than to fixed wing aircraft, all else being equal (Born et al. 1999; Burns and Frost 1979). Documented reactions range from simply becoming alert and raising the head, to escape behavior such as hauled out animals entering the water.

Walrus responses to overflights of terrestrial haulouts vary from attention reactions to escape reactions (Fay et al. 1984), but few data exist on walrus responses when hauled out on ice. Walrus hauled out on land may react at a distance of over 2.5 kilometers from the aircraft (Salter 1978). Brueggeman et al. (1991) evaluated walrus reactions to survey aircraft flying at an altitude of 305 m (1,000 ft) over the pack ice and 152 m (500 ft) over open-water. They observed that 17 percent of the walrus groups on ice and none in water reacted to the aircraft indicating that walrus hauled out on land or ice appear to be more sensitive to overflights (Brueggeman et al. 1990). Hauled-out walrus reacted to flights between 197 and 492 ft (60 and 150 m) above the water surface within 0.62 miles (1 km) lateral distance by either orienting towards the aircraft or escaping into the water (Brueggeman et al. 1990).

Alterations in direction or altitude of aircraft near walrus haulouts may trigger escape reactions. During industry operations in 2012, a group of walrus hauled out on ice approximately 2.5 kilometers away from a helicopter did not react to the helicopter activities until the helicopter altered direction, at which point the walrus moved from the ice into the water (LGL and JASCO 2014).

Previous offshore aviation activity is not believed to have resulted in long-term impacts to marine mammals, as demonstrated by results from a wide range of monitoring programs and scientific studies. Impacts to marine mammals from aviation activities in Arctic offshore habitats have been shown to be, at most, short-term and highly-localized in nature (e.g., Richardson et al. 1985a,b; Patenaude et al. 2002; Born et al. 1999).

5.7.1 Conclusion

Disturbances of walrus by aircraft supporting Shell's proposed operations as described in Section 3.0 will be temporary and localized to small numbers of walrus hauled out on remnant ice floes or already in the water. A small portion of the Hanna Shoal walrus use area (HSWUA) may be traversed by helicopter flights between Barrow and the Burger Prospect. The potential impacts on walrus from aircraft traffic will be minimized by implementing mitigation measures including flying along predetermined routes at altitudes of at least 1,500 ft (457 m), except when safety concerns require otherwise (e.g., altitude reduction or course alterations for personnel safety reasons). Marine mammal monitoring from platforms supporting offshore take-offs and landings will help inform decisions about when and where such activities occur and thereby help reduce potential impacts to walrus, as was done in 2012. Furthermore, flights between Barrow and Wainwright will occur along a corridor 5 miles (8 km) inland to minimize effects on subsistence and subsistence resources including marine mammals that may occur along the coast.

The potential impacts from aircraft, consistent with previous findings, are predicted to be short-term, highly-localized, and involve only small numbers of individual walrus. Impacts from aircraft traffic associated with Shell's proposed activities will not be significant and will have a negligible effect on walrus.

5.8 Mitigation Measures

Shell's planned exploration drilling activities incorporate design features and operational procedures aimed at minimizing potential impacts on marine mammals and subsistence hunts. The drilling and associated activities previously described have the potential to cause behavioral harassment of walrus as a result of underwater sound energy introduced to the marine environment and from walrus encounters with vessels and aircraft incidental to drilling activities. A combination of active monitoring in the area of operations and the implementation of mitigation measures is designed to minimize impacts. Monitoring will provide information on the numbers of walrus potentially affected by exploration activities, in addition to facilitating real time mitigation to prevent injury of walrus by industrial sounds or other activities. The mitigation measures described below are in place to avoid contact with and incidental harassment of walrus and other marine mammals and were acknowledged to be "highly effective" at eliminating or mitigating adverse impacts to Pacific walrus (USFWS 2013). Shell will implement mitigation measures from prior MMPA authorizations and other measures including the following:

- Aircraft over land or sea shall not operate below 1,500 ft (457 m) altitude unless engaged in marine mammal monitoring, approaching, landing or taking off, in poor weather (fog or low ceilings), or in an emergency situation.
- If aircraft must be operated below 1,500 ft (457 m) because of weather, the operator will avoid areas of known walrus concentrations and will take precautions to avoid flying directly over or within 0.5 mi (805 m) of these areas. Helicopters will not operate at an altitude lower than 3,000 ft (914 m) within 1 mile (1.6 km) of walrus groups observed on land, and fixed-wing aircraft will not, except in an emergency, operate at an altitude lower than 1,500 ft (457 m) within 0.5 mi (805 m) of walrus groups observed on land.
- Except in an emergency, helicopters will not land on or depart from vessels if walrus are on ice within 0.5 mi (805 m) of the vessel.
- PSOs will be aboard the drilling unit(s) and transiting support vessels facilitate the implementation of mitigation measures.
- Vessels will maintain the maximum distance possible from concentrations of walrus.

- Except in an emergency, vessels will not approach within an 0.5 mile (805-m) radius of walruses observed on ice.
- Except in an emergency, vessels will not approach within 1 mile (1,610 m) of groups of walruses observed on land.
- Vessel operators will take every precaution to avoid harassment of concentrations of feeding walruses when a vessel is operating near these animals.
- Vessels will not operate in such a way as to separate members of a group of walruses from other members of the group.
- Vessels will take all reasonable precautions (i.e., reduce speed, change course) to maintain a minimum operational exclusion zone of 0.5 miles (805 m) around groups of 12 or more walruses in the water.
- Vessel speed will be reduced during inclement weather conditions in order to avoid collisions with marine mammals.
- Shell will communicate and coordinate with the Commination Centers regarding all vessel transit.
- Airgun arrays will be ramped up slowly during ZVSP surveys to warn pinnipeds in the vicinity of the airguns and provide time for them to leave the area and avoid potential auditory injury or impairment.. Ramp ups from a cold start when no airguns have been firing will begin by firing a single airgun in the array. A ramp up to the required airgun array volume will not begin until there has been a minimum of 30 min of observation of the safety zone by PSOs to assure that no marine mammals are present. For walruses, the safety zone is the extent of the 180 dB ensonification radius. The entire safety zone must be visible during the 30-min pre-start watch to an array ramp up. If a marine mammal(s) is sighted within the safety zone during the 30-min watch prior to ramp up, the ramp up will be delayed until the marine mammal(s) is sighted outside of the safety zone or the animal(s) is not sighted for 30 min.
- Shell has developed and will implement an Adaptive Approach to Ice Management in Areas Occupied by Pacific Walruses. Additional detail can be found in Appendix A-1 of the LOA Application document titled *Polar Bear, Pacific Walrus, Grizzly Bear Avoidance and Human Encounter/Interaction Plan, Exploration Drilling Program, Chukchi Sea, Alaska*, submitted to the FWS on September 16, 2014.

5.8.1 Plan of Cooperation

A Plan of Cooperation (POC) has been developed as a required component of a LOA application under 50 CFR 18.114(c)(4). A POC is also required as part of an application for an IHA from NMFS under 50 CFR § 216.104(a) (12), and under the BOEM lease stipulation 5 for lease sale 193. A POC was prepared and was submitted with the initial Chukchi Sea EP, and addenda have been submitted with successive revisions of the Chukchi Sea EP. Each addendum to the POC was prepared with updated POC information regarding proposed changes to the exploration drilling program, and includes documentation from meetings undertaken to inform stakeholders about the proposed exploration drilling program. For this LOA application, Shell has prepared a POC Addendum for the 2015 drilling season. The POC Addendum includes documentation of meetings undertaken to specifically gather feedback from stakeholder communities on Shell's implementation of the 2012 exploration drilling program, plus inform and obtain input regarding the proposed 2015 program.

The POC Addendum identifies the measures that Shell has developed in consultation with North Slope communities and will implement during its planned Chukchi Sea exploration drilling program to minimize any adverse effects on the availability of marine mammals for subsistence uses. In addition, the

POC Addendum details Shell's communications and consultations with local communities concerning the approved Chukchi Sea EP, potential conflicts with subsistence activities, and means of resolving any such conflicts (50 CFR § 18.128(d) and 50 CFR § 216.104(a) (12) (i), (ii), (iv)). Shell has documented its contacts with the North Slope communities, as well as the substance of its communications with subsistence stakeholder groups. Additional information on the POC can be found in the LOA Application document titled *Polar Bear, Pacific Walrus, Grizzly Bear Avoidance and Human Encounter/Interaction Plan, Exploration Drilling Program, Chukchi Sea, Alaska*, submitted to the FWS on September 16, 2014.

6.0 Analysis of Potential Cumulative or Synergistic Effects on Pacific walrus

As part of the 2013 ITR Final Rule, the USFWS included a mitigation measure specifying that “operators must maintain a minimum spacing of 24 km (15 mi) between all active seismic source vessels and/or drill rigs during exploration activities.” 50 C.F.R. § 18.118 (a)(4)(ii). The USFWS's stated rationale was that the spacing requirement will “. . . ameliorate potential impacts to walrus by ensuring a corridor for walrus to transit without experiencing take caused from seismic or drill activities” (USFWS 2013).

Of particular concern to the USFWS were potentially significant cumulative or synergistic effects of having multiple operations occurring close together. The USFWS identified a number of benefits of the 15-mile separation distance. Several of these benefits relate to sounds introduced into the marine environment from oil and gas activities during seismic and drilling operations. These include: a reduction in the potential for hearing damage caused by anthropogenic sounds introduced into the marine environment; a reduction of potential noise density in a single area while allowing routes for walrus to exit an area; and that it would allow for uninterrupted communication between walrus and walrus groups. Additional benefits suggested were: a reduction of the potential number of animals exposed to multiple activities simultaneously, or in sequence within a short period of time, thus reducing the potential for taking of marine mammals by disturbance; reducing cumulative effects of operations that are close in proximity to each other and to walrus, and; reducing the potential for interference with subsistence hunters (USFWS 2013). There were no scientific studies or analyses provided, however, to substantiate these benefits, at least with respect to the spacing of drill rigs.

6.1 The Relative Importance of the Burger Drilling Site to Pacific Walrus in the Chukchi Sea

Oceanographic processes in the Chukchi Sea that tend to concentrate ice on Hanna Shoal also create linkages between primary production in the water column and the distributions of invertebrate fauna in the Chukchi Sea. Pelagic grazers are reduced due to an absence of deep-water, over-wintering habitat for zooplankton, and the reduced grazing results in a large influx of phytoplankton detritus to the benthos (Dunton et al. 2005, Grebmeier et al. 2006). Abundant and diverse benthic infaunal (Schonberg et al. 2014) and epifaunal communities (Blanchard et al. 2013, Ravelo et al. 2014) are supported by this abundance of unconsumed production and include large, energy-rich prey for marine mammals, particularly walrus. Walrus often aggregate on ice near Hanna Shoal but are also widely distributed along the ice edge.

As described in the earlier sections of this document, the typical pattern of walrus movements into the Chukchi Sea during spring migration follows the receding pack ice. Walrus use the ice edge habitat for feeding and resting and tend to remain with the ice as long as it is present over the continental shelf. In most years, the ice will have retreated north of the Burger prospect before Shell's exploration activities begin; most operations would not begin if large amounts of ice were on or near the prospect. As indicated

by USFWS (2013), activities occurring during the open-water period away from known feeding areas are expected to affect relatively small numbers of animals.

In some years the pack ice recedes from the continental shelf into the deeper waters of the Arctic Ocean and walrus abandon the ice and move to haulouts along the Chukchi Sea coast. The timing of walrus movements to coastal haulouts is variable and depends on how rapidly the pack ice retreats from the continental shelf and the amount of remnant ice that persists in the Chukchi Sea following retreat. Most walrus move to the coast from the Hanna Shoal area north of the Burger prospect and, thus will not appreciably interact with the drilling activities (*see* sub-section **Walrus Tagging Data; Figure 5.0-1**). To a large extent, the amount of ice and its location will determine how much interaction walrus are likely to have with Shell's operations in the Chukchi Sea. The location of the Burger prospect to the south and west of Hanna Shoal means that there will be some interaction of animals with operations, but that in most years it is likely to be minimal. Once coastal haulouts are established, Jay et al. (2012) suggest that walrus make foraging trips to Hanna Shoal.

Multiple lines of evidence support the conclusion that the Burger prospect, and particularly the southern portion of the Burger prospect where Shell plans to drill in 2015, is not high use habitat for walrus in the Chukchi Sea. The following sub-sections summarize tagging, acoustic, aerial, and sightings data that support these findings.

Walrus Tagging Data

Figure 6.1-1 shows representative locations of animals tagged in 2012, but animals tagged since 2008 show similar movement patterns (Jay et al. 2012; USGS 2015). Multi-year data (2008-2011) show that early season (June) locations included the Burger prospect as walrus followed the receding pack ice front in the Chukchi Sea. By July, the Burger area was used less than surrounding areas to the north and by August, walrus are concentrated well to the north of Burger, primarily near Hanna Shoal (Jay et al. 2012). Tagged walrus showed substantial variation in routes chosen when departing Hanna Shoal, typically in September. A few headed west and south towards the Russian Chukchi Sea coast, but most traveled east and then south along the U.S. Chukchi Sea coast before crossing to the Russian Coast from Cape Lisburne. In general, most walrus did not move south through the Burger prospect before heading east toward the coast. This movement pattern appears to be consistent whether or not coastal haulouts were established. In October and November, walrus continued to move south out of the Chukchi Sea toward the Bering Sea. Some animals interacted with exploration programs during these years (LGL and JASCO 2014), but movements of tagged animals toward the coast and migratory movements out of the Chukchi Sea in late fall did not appear to be impeded.

Acoustic Detections of Walrus

Acoustic recorders in the Chukchi Sea have detected walrus during summer in a relatively consistent pattern for multiple years. Call counts at recorders on or near Hanna Shoal are consistently higher than those farther south in the Burger area (**Figure 6.1-2**; LGL and JASCO 2014), which is consistent with other studies that found Hanna Shoal has been used both in past and present as a foraging area for walrus (Jay et al. 2012). As shown in **Figure 6.1-2**, call counts were concentrated north and east of the Burger location in 2009 and 2010. In 2011, call counts were highest to the east of the Burger area and somewhat south of the Hanna Shoal region. The year when the highest call counts occurred closest to the Burger area was actually 2012, when drilling activities took place (**Figure 6.1-2**).

In three of the four years shown in **Figure 6.1-2** (2010, 2011, and 2012), the recorders just off Point Lay also had high numbers of detections. Terrestrial haulouts were observed in the Point Lay area in 2007, 2010, and 2011, and likely explain the high numbers of detections in this area.

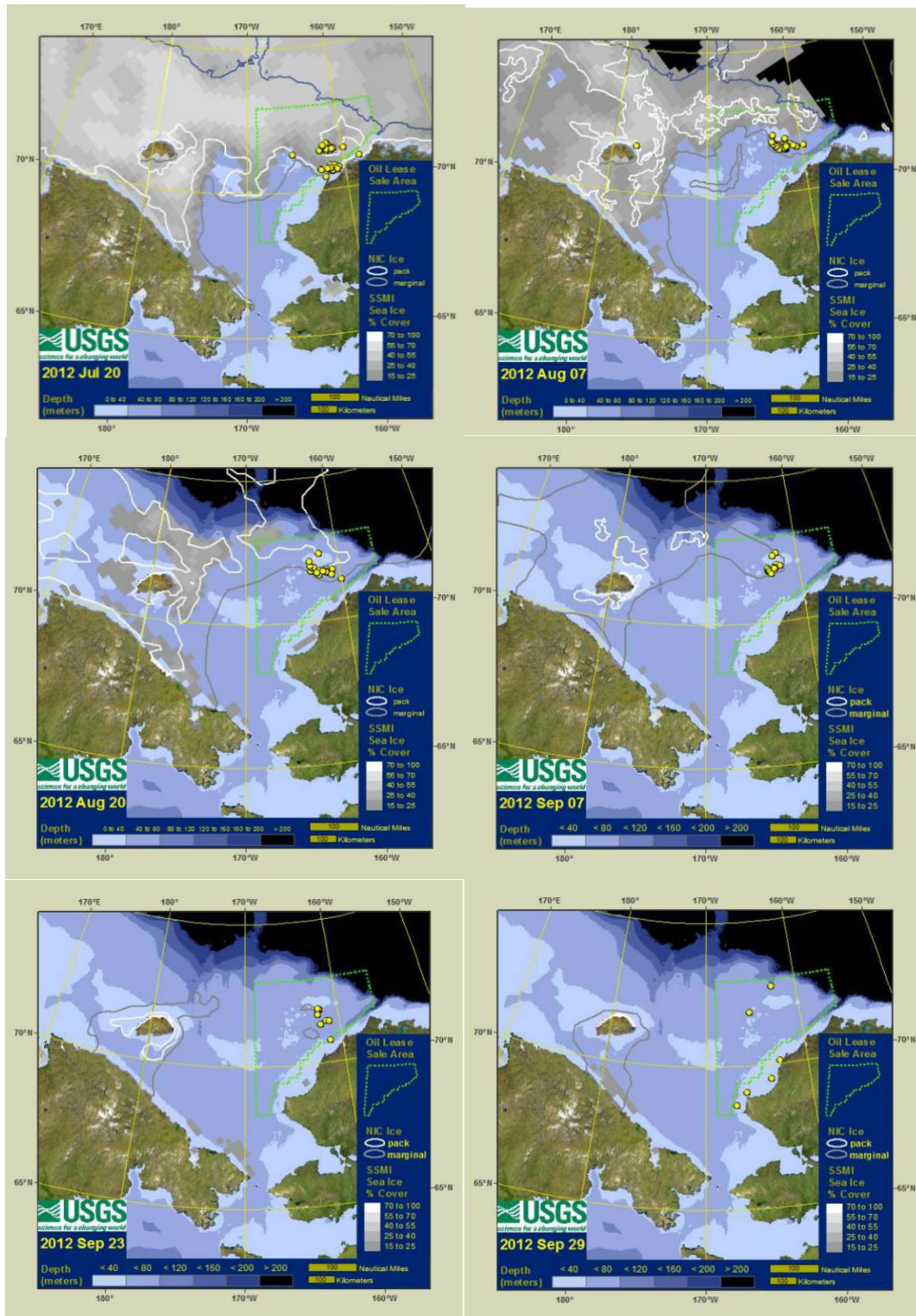


Figure 6.1-1 2012 USGS Walrus Tagging Data and Ice Concentrations from July, August and September.

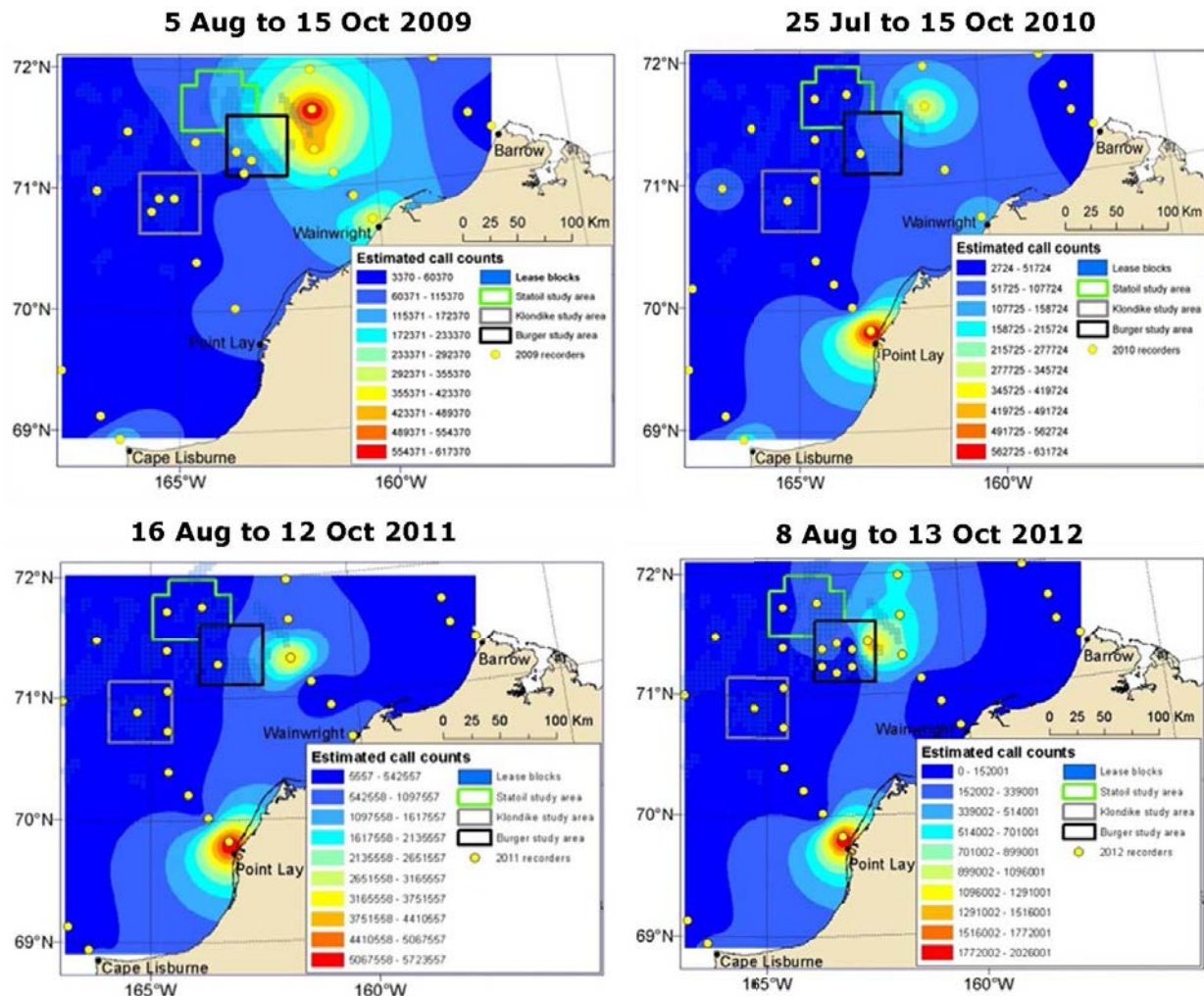


Figure 6.1-2 Summer Walrus Call Counts: Radial Basis-Interpolated Call Counts Based on the Sum of Automated Call Detections in all Files With Manual Detections at All Summer Recording Stations in the Northeastern Chukchi Sea.

Aerial Surveys

Schonberg et al. (2013) showed that aerial sightings of walrus from the Aerial Survey of Arctic Marine Mammals (ASAMM) program were strongly correlated with the locations of high benthic invertebrate concentrations. Areas that had high concentrations of invertebrates were located primarily north of the Burger prospect, particularly in the area adjacent to Hanna Shoal. Aerial surveys since 1979 from the BWASP, COMIDA and ASAMM programs operated by BOEM and NMML (shown in Figure 5.0-1 above) also indicate relatively few sightings of walrus in the Burger area.

Aerial surveys during Shell's drilling program in 2012 indicated that walrus were often present within the survey area (a 40-km diameter circle grid centered on the well site) when ice was present (Figure 6.1-3). Consistent with acoustic data presented above, most walrus were observed well to the north or east of operations, but some animals occurred near the drill site when ice floes they were occupying drifted to that location. Despite this relatively close proximity to the drill site, most of these animals did not interact directly with Shell's operations or appear to have been affected. Walrus tended to remain with the ice floes they occupied until late September. Table 6.1-1 shows the numbers of walrus sighted

during aerial surveys of the Burger prospect in 2012. Walrus were seen on 6 of 8 surveys from 9/8/2012 through 10/23/2012 with the greatest numbers present in September. Toward the end of September, most walrus were seen in the water rather than on ice as they began moving toward the Chukchi coast and out of the survey area. Very few walrus were reported during surveys in October when no ice was present in the survey area.

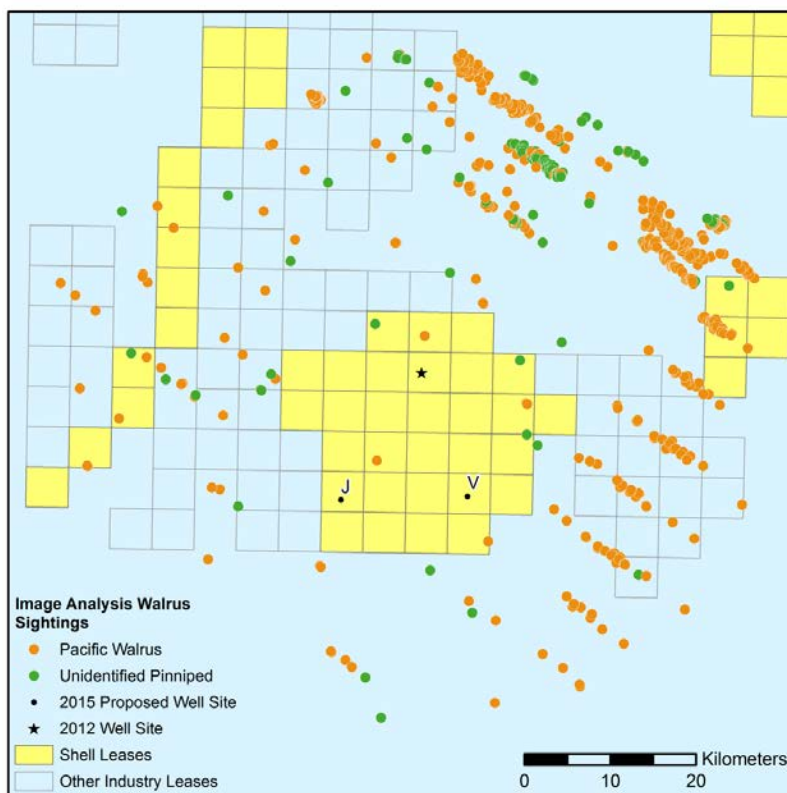


Figure 6.1-3. Aerial sightings of walrus during the 2012 open water season. Survey transects were within a forty-km radius circle centered over the well site.

Table 6.1-1 Walrus sightings during aerial surveys over the Burger prospect in 2012

Date of Burger Survey	Walrus/hr Surveyed	Total Walrus in Water	Total Walrus on Ice
9/8/2012	204.3	36	583
9/9/2012	168.0	29	480
9/10/2012	973.9	146	2805
9/29/2012	149.5	604	0
10/6/2012	1.0	3	0
10/15/2012	0.0	0	0
10/18/2012	0.3	1	0
10/23/2012	0.0	0	0

Distribution of Walrus Observed from Vessels in 2012

Vessel-based observations of marine mammals were collected during Shell's 2012 exploration drilling program in the Chukchi Sea. In addition to informing estimates of the numbers of individual Pacific walrus likely to be encountered during the proposed exploration drilling program in 2015, these data provide meaningful insight for the assessment of potential impacts from encounters with walrus.

Observation effort and walrus observed during Shell's exploratory drilling operations in 2012 are shown below in **Figures 6.1-4, 6.1-5 and 6.1-6**. Observation effort was greatest at the location of the drilling unit and at a location offshore between Icy Cape and Wainwright (**Figure 6.1-4**). Walrus, however, were observed in the greatest concentrations to the northeast of the drill site (**Figure 6.1-5; 6.1-6**) where there was minimal observation effort. These walrus observations occurred almost exclusively during scouting periods near ice. Additionally, many of the sightings of walrus between the Burger lease blocks and the coastline occurred during ice scouting when ice was abundant in that location and drilling activities were suspended due to the high ice concentration.

Walrus sightings were more highly associated with the presence of ice than with increased vessel presence associated with 2012 activities. Generally, few walrus were observed at the drill site and during the routine transits of support vessels, even though these activities were responsible for the majority of observation effort. There was a single day (September 20, 2012) when a large number of walrus (>100 individuals per sighting) were observed at the drill site in (*see 6.1 Reactions of Walrus to Previous Exploration Programs* below for further details on this sighting).

Operations in 2012 show that persistent concentrations of sea ice at or directly adjacent to exploration drillsites are favorable conditions for the occurrence of walrus, but not for conducting drilling operations. Conversely, if expansive open water conditions exist in the activity area, which is favorable for conducting exploration drilling activities, very few walrus are likely to be present (USFWS 2013). Results have shown that periods with extensive open water habitat typically correlate with very low numbers of walrus encounters in those areas compared to observed densities close to the ice edge (LGL and JASCO 2014; LGL 2014). This difference between conditions that favor walrus compared with exploration drilling activities establishes a dynamic that minimizes the numbers of individual walrus found near active drillsites.

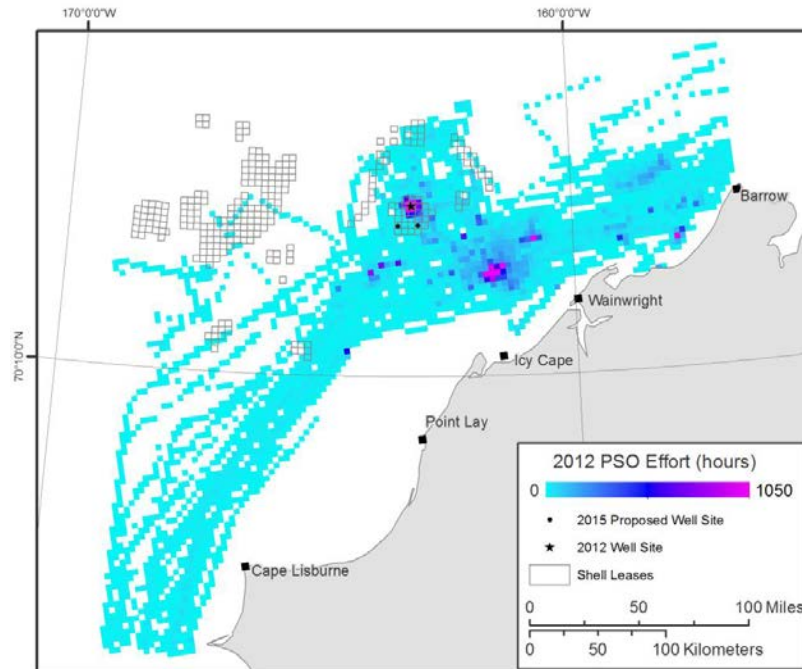


Figure 6.1-4 Observation Effort Within 4 km Grid Cells, by Vessel-based Observers Aboard Industry Vessels during the 2012 Open-water Season.

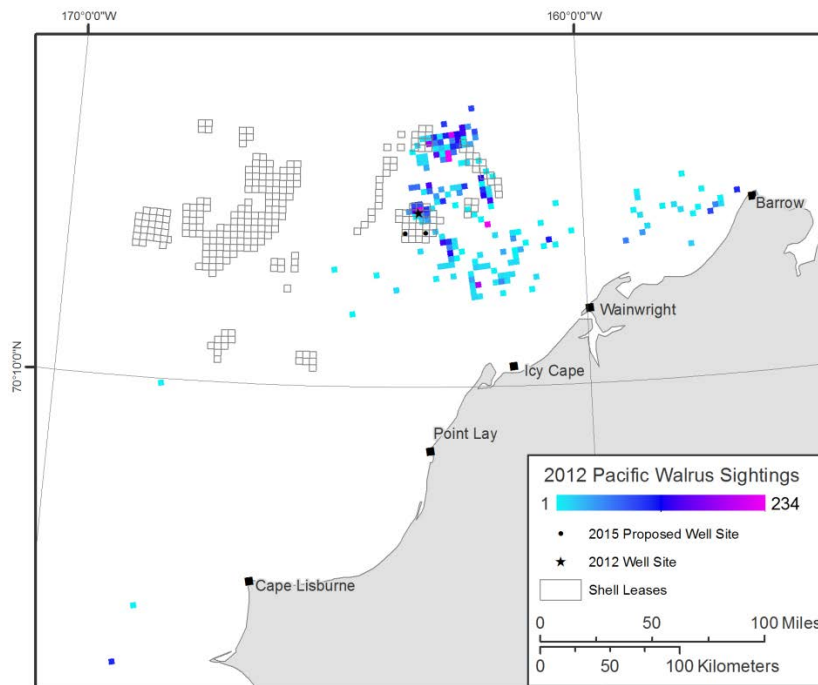


Figure 6.1-5 Pacific Walrus Sightings Within 4 km Grid Cells, Observed by Vessel-based Observers during the 2012 Open-water Season.

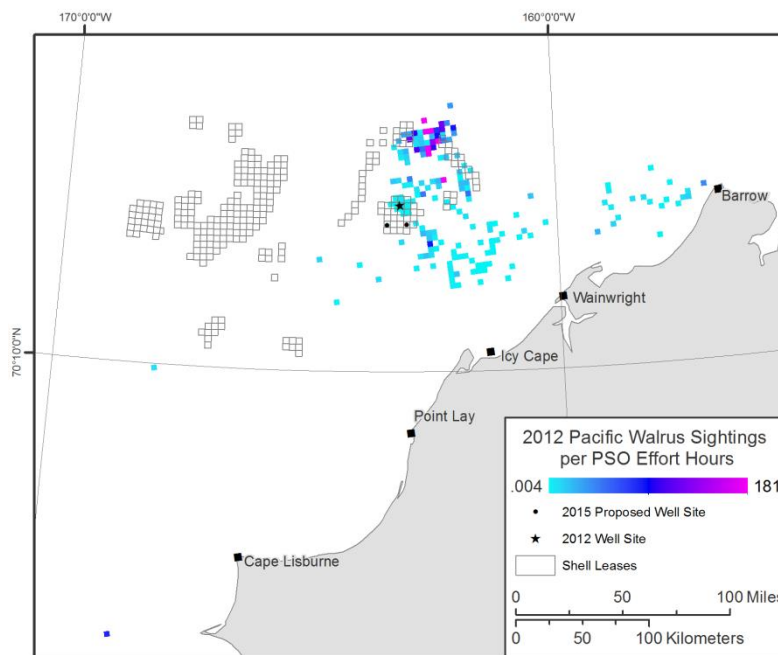


Figure 6.1-6 Pacific Walrus Sightings per Hour of Observer Effort Within 4 km Grid Cells, by Vessel-based Observers Aboard Industry Vessels during the 2012 Open-water Season.

Reactions of Walruses to Previous Exploration Program Activities

The numbers of Pacific walrus and associated reaction behaviors observed by PSOs while monitoring oil and gas exploration activities (e.g., seismic, exploration drilling, coring) in the Chukchi Sea from 2006–2012 are shown in **Table 6.1-2**. The vast majority of walruses (approximately 70%) encountered during industry exploration programs from 2006–2012 did not exhibit an observable reaction to exploration activities. The most common reaction of walruses recorded during these programs, approximately 23% of individuals, was an “attention” response (i.e., looking at a vessel). The remaining walruses encountered during industry exploration programs from 2006–2012, approximately 7%, reacted by approaching, avoiding, or fleeing exploration activities.

Table 6.1-2 The Numbers of Pacific Walruses and Reaction Behaviors Recorded by Vessel-based PSOs during Offshore Oil and Gas Exploration Programs in the Northeastern Chukchi Sea in 2006–2012

Year	Walrus Reaction					
	None	Attention	Approach	Avoidance	Flee	Unknown
2006	1,215	60	2	0	0	0
2007	2,472	814	18	55	62	0
2008	649	102	10	2	28	0
2009	87	40	3	1	0	0
2010	936	351	24	126	135	0
2011	42	59	5	37	4	0
2012	5,800	2,312	61	110	394	1

The numbers of Pacific walrus and associated reaction behaviors observed by PSOs while monitoring Shell’s exploration drilling operations in 2012 are shown in **Table 6.1-3**. As expected, the vast majority of walrus sightings recorded in 2012 were recorded from ice breakers (>88%) and many of these walrus did not exhibit a discernable reaction (72%). Ice breakers typically worked northeast of drilling operations near the ice edge (*see Figure 6.1-3*). Few walrus were seen from anchor handling vessels or support vessels, both of which were more active close to active drilling operations.

Table 6.1-3 The Numbers of Pacific Walrus and Reaction Behaviors Recorded by Vessel-based PSOs on Different Types of Vessels during Shell’s Exploratorion Drilling Program in the Northeastern Chukchi Sea in 2012

Vessel Type	Walrus Reaction					
	None	Attention	Approach	Avoidance	Flee	Unknown
Drilling Unit	6	607	1	2	0	0
Ice Breakers	5538	1623	51	78	376	0
Anchor Handlers	218	26	2	19	6	0
Support Vessels	38	56	7	11	12	1

Of the walrus observed from the drilling unit in 2012, the majority of walrus exhibited an “attention” response (i.e., looking at the vessel). Greater than 96% of the walrus sightings recorded by PSOs on the drilling unit in 2012 occurred on a single day (20 September) and were recorded as several sightings of many individuals. The numbers of individual walrus that demonstrated a reaction are considered to be overestimates since reactions were assigned to all individuals within a group regardless of whether only some individuals in the group demonstrated a reaction.

The total numbers of walrus recorded by PSOs during recent exploration programs are considerably greater than the actual numbers of distinct individuals that were likely present in activity areas. Most offshore exploration programs in Arctic Alaska, drilling in particular, involve numerous support vessels and respective PSO teams. Each PSO team records and reports marine mammal sightings independently, which results in frequent multiple-counting of individuals. For example, a transiting caravan of vessels can result in total walrus tallies of two to three or more times the number of distinct individuals. It is impossible to precisely quantify the degree of inflation in these cases, but it is important to recognize this inherent overestimation of the number of individual walrus that were recorded when interpreting these data.

Equally as important to recognize is the fact that PSOs begin new marine mammal tallies each day despite the likelihood that many individuals are recorded multiple times over subsequent days. This is particularly true for large numbers of walrus observed on ice. Again, it is impossible to quantify the degree of upward bias in these data, but this caveat is important to consider when interpreting the above results of walrus sightings during previous offshore oil and gas exploration programs in the Chukchi Sea.

Neither Shell nor USFWS (2013) believe that the presence of an individual walrus near an exploration activity is inherently synonymous with Level B harassment to those individuals. Regardless of the precise numbers of individual walrus likely to be encountered during Shell’s proposed exploration drilling program, data from previous monitoring programs suggest the majority of individuals will show no biologically significant reaction to exploration activities (**Tables 6.1-2 and 6.1-3**). These results are similar to conclusions drawn regarding previous drilling programs in the Chukchi Sea in 1989 and 1990

(Brueggeman et al. 1990, 1991). USFWS (2013) stated in regard to these earlier operations that “*effects of the drilling operations were short-term, temporary, and in a discrete area near the drilling operations, and the portion of the walrus population affected was small.*” Short-term and localized reactions that can be expected from a minority of individuals, including attention, approach, avoidance, and flee, fall within their normal range of activity and are not considered to be significant by USFWS (USFWS 2013).

6.2 Potential for Increased Risk of Vessel Strikes

Walrus are known to approach rigs and stationary ships even when engines, generators and dynamic positioning (DP) systems are operational (Case et al. 2011; LGL and JASCO 2014; Brueggeman 1990, 1991). Similarly, USFWS (2013) indicated that it was unlikely that walrus movements would be displaced by offshore stationary facilities, such as exploratory drill rigs. Further, USFWS (2013) pointed out in their Final Incidental Take Rule that vessel traffic associated with the drilling operations could temporarily interrupt the movement of walrus or displace some animals when passing through an area, but that this displacement would likely have minimal or no effect on animals and would last no more than a few hours.

The distribution and movement of support vessels will be relatively unaffected by the separation distance between drilling units; although, the 9 mile distance between drilling locations may result in somewhat shorter transits between the two locations compared to a separation distance of >15 miles, thereby potentially reducing the overall risk of vessel strikes. Vessel traffic will still be widely distributed throughout the area as support vessels each have specific duties that they must perform and specific timeframes in which to perform them. Only a few vessels (e.g. the discharge monitoring vessels and rig supply vessels) will operate in close proximity to the rigs on any regular basis and supply vessels will typically only be present in the area long enough to offload supplies. The paucity of support vessels in the immediate vicinity of the drilling units will allow walrus to move around and through the area of operations with only short term interruption of movement, if at all. If walrus approach the drilling sites, vessel traffic could temporarily interrupt the movement of walrus or displace them; however, the effects would be minimal and temporary (USFWS 2013).

Vessels operating within the vicinity of the drilling units will adhere to the mitigation measures that are described above (*see 5.8 Mitigation Measures*). The mitigation measures will limit vessel interactions with walrus in the water and will keep vessels 0.5 miles (805 m) or more away from walrus hauled out on ice. Communications between vessels will inform crews of potential interactions with any large groups of animals that might approach the area. These precautions and distances have been shown to be effective mitigation measures during previous exploratory operations in the Chukchi Sea (USFWS 2013). The presence of PSOs aboard each vessel and two PSOs on watch at all times on the drilling units, ice breakers, and anchor handlers, when they are engaged in operations, will provide unprecedented mitigation to protect walrus from vessel strikes or harassment that could prevent them from moving through or exiting the area. Only a few vessel strikes of marine mammals have been reported for the Chukchi Sea (Rosa 2009) and no vessel strikes of pinnipeds have been reported. Given the wide distribution and timing of vessel activities, the small numbers of walrus likely to be present, and the mitigation measures that will be enacted, it is very unlikely that vessel strikes would occur regardless of the separation distance between the drilling sites.

6.3 Potential for Hearing Damage Caused by Anthropogenic Sounds

Except for the brief period of time ZVSP surveys are conducted, sound levels associated with Shell’s planned drilling activities in 2015 (*see 5.2 Activity Scenarios*) will not reach levels that could cause hearing damage in walrus or other marine mammals. Measurements of various drilling activities and vessel operations from 2012 were used by JASCO to modelled the sound fields that are expected to be generated during activities in 2015. A suite of activity scenarios representing reasonable combinations of

simultaneous operations were used to model aggregate soundscapes in order to understand potential increases in sound that might occur as a result of the overlap of individual sound sources from the drilling sites spaced 9-miles apart. Overlapping areas of ensonification from multiple continuous sound sources during drilling will increase the sound levels and the total area where walrus may be exposed to anthropogenic sounds when compared to operation of a single sound source, but none of these sounds, individually or in combination, will reach levels that can cause auditory injury in marine mammals. Additional information regarding the increased sound levels and ensonified areas can be found below in section **6.5 Sound Aggregation from Multiple Activities Occuring Simultaneously**.

Pulsed sounds from airguns that will be used during planned ZVSP surveys of well boreholes could reach levels of sound ≥ 180 dB rms dB re 1μ Pa within a short distance around the sound source. This level has been determined by USFWS to potentially cause impacts to walrus hearing and requires mitigation procedures to limit the likelihood that an animal might be exposed to these sounds. ZVSP surveys will be of short duration lasting approximately 14 hrs. The airgun array that will be used is small relative to typical seismic arrays used for 2D or 3D surveys. Mitigation procedures commonly used during operation of airguns, described in previous sections, will be implemented during these surveys (i.e. ramp up procedures, mitigation gun, shut down and power down distances and multiple PSO teams monitoring the entire exclusion zone). Further, Shell will not conduct simultaneous ZVSP surveys at multiple well sites. Given that at least two PSOs will be on watch on the drilling unit when airguns are being used, there will be little chance that walrus are exposed to potentially injurious levels of sound.

6.4 Communication Between Walrus and Walrus Groups

Underwater drilling sounds could possibly mask environmental sounds (Terhune 1981) or communication between marine mammals (Perry and Renouf 1987). Masking effects of drilling sounds are expected to be minimal given the relatively small area ensonified from drilling sounds. Acoustic recorders were concentrated on the seafloor around Shell's drill site in the Chukchi Sea during 2012. Few walrus grunts were detected on the receivers stationed near the drill site in comparison to the number of detections in other locations, possibly owing to masking effects of drilling sounds; although, there may also have been localized avoidance of the area by walrus (Delarue et al. 2013). Distances at which masking of walrus vocalizations might occur around drilling operations has not been well studied, but it is unlikely that walrus would remain in areas where masking is occurring for long periods of time. In general, such effects will be short term and temporary as the animal passes through an area. Masking effects of sound would likely affect only small numbers of animals for relatively short periods of time regardless of the spacing between active rigs.

6.5 Sound Aggregation from Multiple Activities Occuring Simultaneously

Cumulative effects of the drilling operations may also occur if walrus are exposed to multiple activities simultaneously or in sequence within a short period of time. Such a scenario could potentially cause additional incidental harassment of animals by disturbance. The response of walrus to disturbance, like most animals, is highly variable and there is little data on behavioral responses to multiple stimuli together or in succession. Like most behavioral responses of marine mammals, the context in which the animal encounters the disturbance will be important in determining what the response is and to what extent the animal reacts, if at all.

In its analysis of potential effects of Chukchi Sea drilling operations on Pacific walrus, the Service cited the possibility of significant synergistic effects on sound propagation or cumulative effects that may result from multiple operations occurring within close proximity of one another as the rationale for the requirement of 15 mile spacing between drilling operations. It is not clear, however, from the ITR document or other supporting documentation, whether the Service conducted either quantitative or qualitative analyses of such synergistic effects. For the purpose of this LOA supplement, Shell has

conducted an analysis of such effects in order to quantitatively estimate the variation in the size of sound fields produced by two drilling operations conducted at varying distances of separation.

This analysis was conducted by JASCO Applied Sciences utilizing the Marine Operations Noise Model, a sound propagation model that has been widely utilized to estimate sound generation and propagation from industry activities. Source levels of drilling related assets (drilling units and vessels), and activities (drilling, mud-line cellar, dynamic positioning) used in the modeling were based upon numerous sound source characterization measurements conducted on these assets within the Chukchi Sea. For assets that have not previously been used in the Chukchi Sea (i.e. the Polar Pioneer), source levels were based upon measurements of similar equipment at other locations.

Sound level contours were modeled for a single drilling unit as well as the combined ensonified area of two drilling units conducting simultaneous operations. A range of separation distances between the drilling sites was considered, as well as several different types of activities simultaneously occurring at both sites. The total area ensonified at or above 120 dB re 1 μ Pa (i.e. the presumptive sound exposure level of continuous sounds that has the potential to produce behavioral effects in marine mammals) was computed for drilling unit separation distances between 1 mile and 20 miles, in 1 mile increments. **Figure 6.5-1** plots the ensonified areas as a function of rig separation distance for the following three activity scenarios:

- Discoverer drilling at one site and Polar Pioneer drilling at a second site, each with a vessel on dynamic positioning (DP) alongside;
- Mudline cellar construction (MLC) at each site;
- Discoverer drilling at one site and Polar Pioneer drilling at a second site, with no vessels alongside;

The most common scenario that will occur during the 2015 drilling program is drilling units conducting normal drilling operations while accompanied by at least one support vessel in close proximity to the rig. The drilling of mud line cellars is an activity that occurs over a period of 5-7 days and is not likely to be conducted by both drilling units at the same time, though there is a low likelihood of a period of overlap. Drilling operations that are not accompanied by support vessels are likely to be the lowest likelihood scenario.

In the case of two drilling units without vessels alongside on DP, there is no overlap of the ensonified areas at separation distances less than four miles. At separation distances less than four miles, there is a small decrease of the total ensonified area with increasing separation distance. Beyond four miles separation, the ensonified areas no longer overlap in an appreciable way and there is a constant ensonified area with increasing separation distance.

More significant ensonified area overlap occurs for the other two activity scenarios and because of synergistic effects of the propagating sounds there is a more complicated relationship between separation distance and total area ensonified area. At close ranges, the 120 dB cumulative acoustic footprint is oval-shaped (*see Figure 5.2-4* as an example, although for a different scenario than was modeled in this exercise), which becomes elongated with increasing separation distance. At these short and mid-ranges, the ensonified area increases with increasing separation distance until a transition point is reached (at 13 miles for MLC and at nine miles for combined drilling with vessel on DP; top of the curves shown in **Figure 6.5-1**). Beyond the transition point, the 120 dB contour begins to narrow between the two drilling units (creating a peanut shaped ensonified area as seen in **Figure 5.2-2**) and eventually becomes two distinct, circular areas. The ensonified area continues to decrease with increasing separation range beyond that transition point and then levels out to a constant ensonified area once the footprints are separated beyond the range where synergistic effects occur.

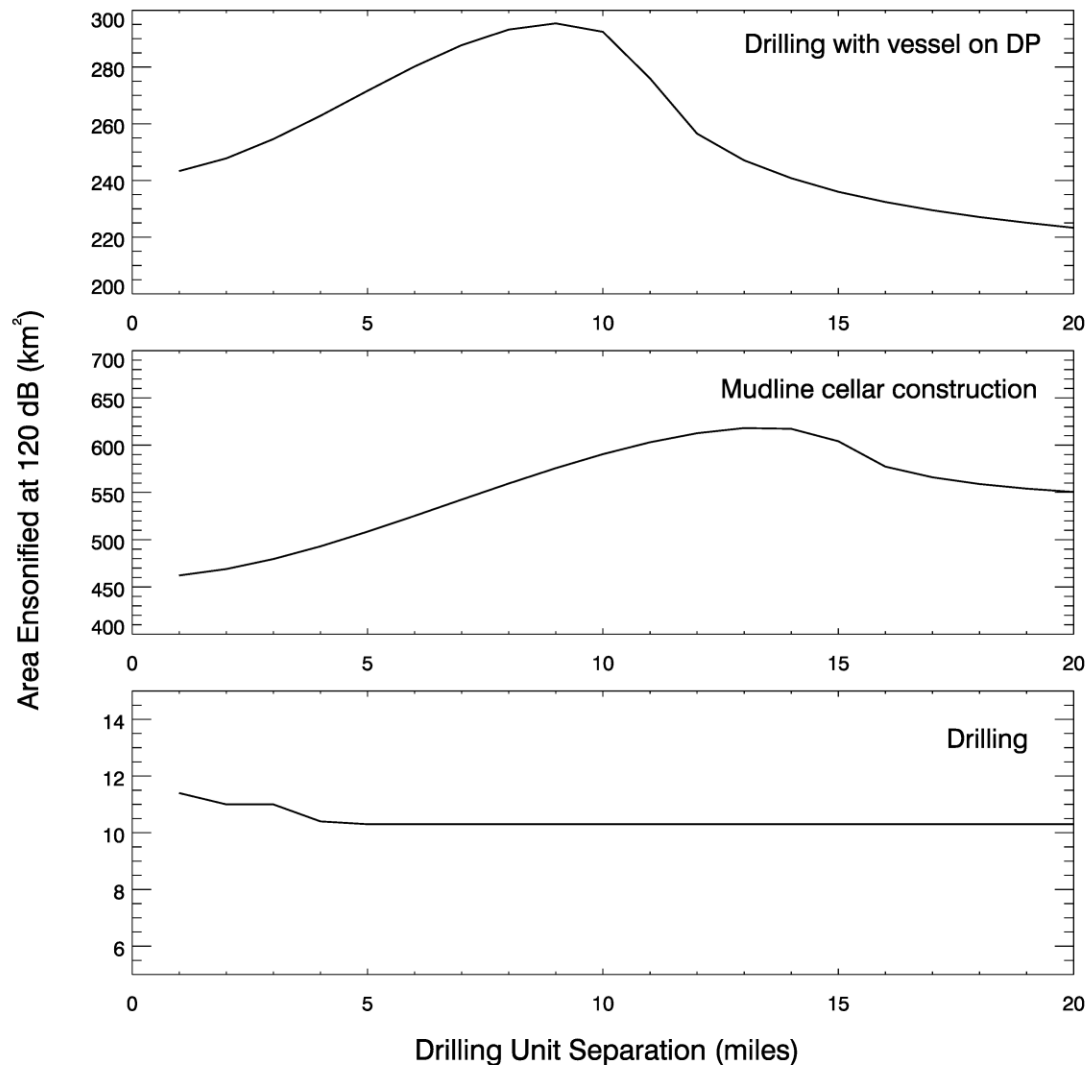


Figure 6.5-1 Total Area Ensonified at or Above 120 dB re 1 μ pa as a Function of Drill Unit Separation Distance for: the Discoverer and the Polar Pioneer Drilling, each with a Vessel on DP alongside (Top); For MLC Construction from the Discoverer and the Polar Pioneer (Middle); and for the Discoverer and the Polar Pioneer Drilling in Isolation (Bottom).

For the purpose of evaluating the nine-mile separation between proposed 2015 drilling locations, the modeled area of ensonification generated by the three selected scenarios at a single location was compared to the ensonified areas generated from conducting those activities simultaneously at nine miles separation and at 15 miles separation (**Table 6.5-1**). For two drilling units unaccompanied by support vessels, there is no difference in the total ensonified area between distances of nine and 15 miles separation. In the event that mud line cellars are drilled simultaneously, the ensonified area actually increases between nine miles and 15 miles separation by a total of 19 km² (3%). The difference between the *Discoverer* and *Polar Pioneer* drilling while accompanied by a vessel on dynamic positioning (DP) at a nine mile separation is an increase of 56 km² (20%) over the area ensonified at 15 miles of separation. While this difference in area of ensonification during the most common drilling scenario may seem to be

significant, the relatively low densities of walrus that occur on the Burger prospect during open water drilling operations (e.g. 0.0731 individuals/km²; Brueggeman et al. 1990) results in a very small increase in the number of individuals potentially exposed to sounds above 120 dB (~4 individuals) in relation to the total population.

Table 6.5-1. Areas ensonified to 120 dB re 1 μ Pa for three activity scenarios and drilling unit separations of 9 miles and 15 miles.

Activity	Area Ensonified at 120 dB re 1 μ Pa (km ²)		
	Single Occurrence	Simultaneous Occurrence with 9 mile separation	Simultaneous Occurrence with 15 mile separation
Drilling (drillship)	10	20	20
Drilling with vessel on DP alongside	112	295	236
Mudline cellar construction	269	576	595

All of the exploration activities planned for 2015 will occur within a small area relative to the amount of available habitat. As discussed above and shown in **Figure 6.5-1**, when certain activities are being conducted, a somewhat larger area may be ensonified by drilling operations spaced nine miles apart compared to 15 miles apart. At other times, when different activities are being conducted, spacing the drilling sites 15 miles apart could actually result in a larger area being ensonified. Regardless of the separation distance, in locations between the rigs where sounds are received from both operations simultaneously, the maximum increase in received sound level from the two sources would be 3 dB re 1 μ Pa. The area where received sound levels would be additive in this manner would be slightly larger, in most cases, for drilling sites located 9 miles apart compared to 15 miles apart. Since none of the continuous sounds produced during the planned activities are close to threshold levels where impacts to hearing sensitivity might occur, there is no chance that the combination of sounds received between drilling operations, whether at 9 or 15 miles separation distance, could lead to such effects.

Wider spacing of rigs and the required movement of vessels and helicopters between sites may expand the area of potential impact since a larger area would have to be traversed by walrus to either avoid the activities or to clear the area of operations once it has been entered. This situation could result in similar or greater numbers of animals being affected by operations when compared to those occurring with more closely spaced rigs. Additionally, there is no evidence to suggest that walrus would be more likely to transit between two drilling operations spaced 15 versus nine miles apart. Given the very low rates of response and the short distances between vessels and walrus required to generate responses (<1 km), it is unlikely that walrus would be restricted from passing between drilling operations until they were much closer than 9 miles (14 km) apart.

Figure 6.5-2 shows the area of Shell's planned 2015 operations with support helicopter routes and marine mammal monitoring aerial survey transects. Additionally, modelled ensonified areas representing simultaneous ice management and drilling at two sites with support vessels alongside the drill rigs are shown. The modeled drilling activities were separated by nine miles. This scenario produced one of the largest modeled ensonified areas. The position of the pack ice shown in the figure is representative of

likely ice position in 2015 when Shell would begin operations. Further, ice management activities under the ice conditions represented in the figure would not actually occur since the ice edge is quite distant from the drilling sites.

Helicopters would travel along the prescribed flight corridors unless safety concerns required them to alter their flight path. Approach to the rigs or ice breakers for landing and for subsequent takeoff would be coordinated with personnel onboard the ship with the latest information regarding the location of walrus in the area. If walrus are present, mitigation measures outlined in section **5.8 Mitigation Measures** and implemented in 2012 would be followed.

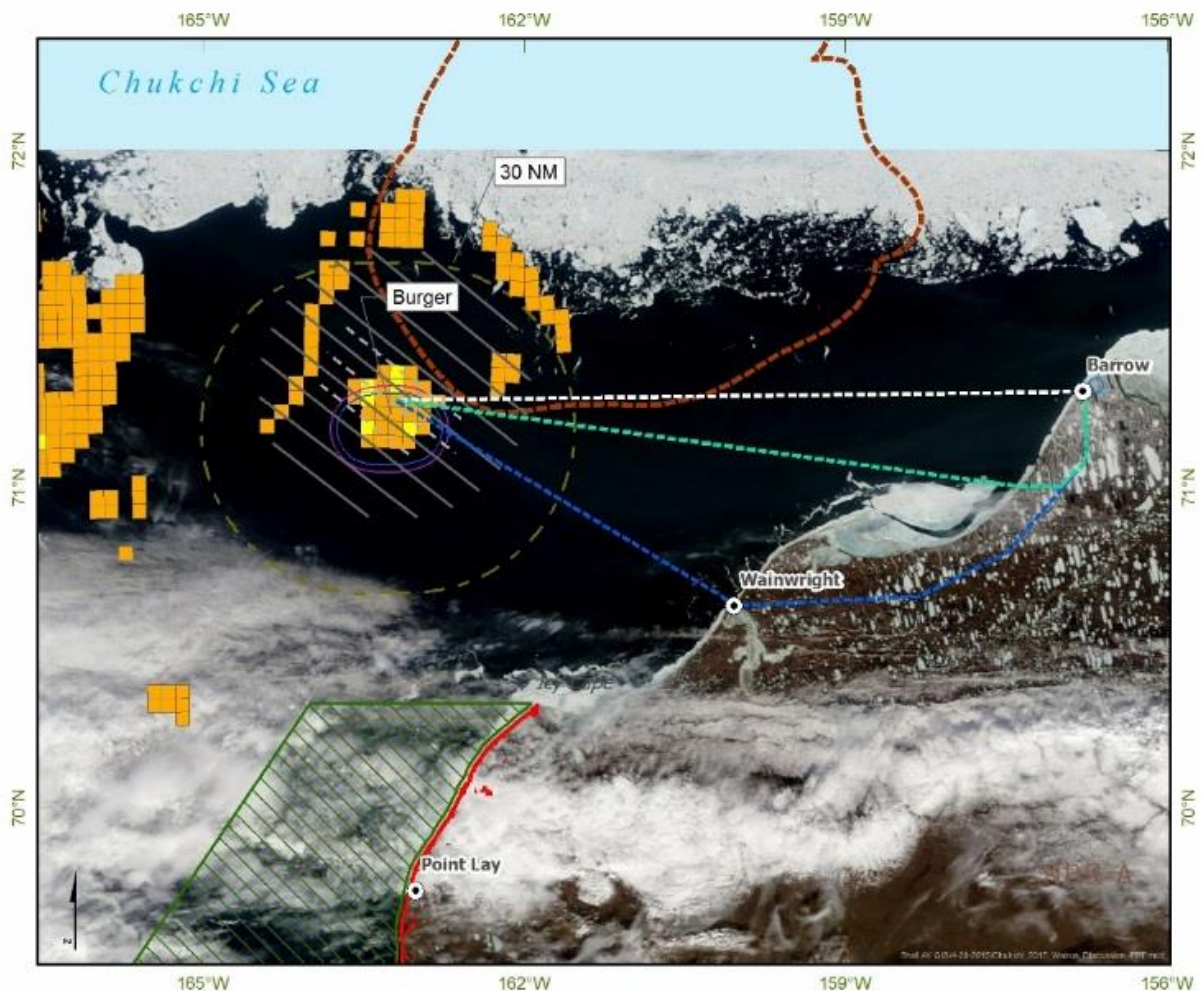


Figure 6.5-2. Support Helicopter Flight Paths (white, green, and blue dashed lines), Aerial Survey Transect Lines (solid and dashed gray lines), Modeled Ensonified Area around Two Drilling Units Spaced 9 miles Apart with a Vessel on DP and Ice Management Activities also Occurring at each Location (thin blue and purple ovals over the Burger area) Shown over a Satellite Image Representing likely Ice Conditions in which Drilling Activities would be Conducted in 2015.

During approach, landing and takeoff, helicopters would contribute to cumulative sounds from operations entering the marine environment. Section **5.7 Impacts of aircraft Traffic** describes in detail the processes that couple helicopter flight sounds into the water. Helicopters would not land on or takeoff

from ice breakers when the ship was involved in ice management activities limiting cumulative increases in sound during that activity. Further, ice breakers will relocate to areas away from the ice before helicopters would land. Drilling rigs could have various activities occurring around them that helicopter sound would contribute to (*see* section **5.2 Activity Scenarios**) though the contribution of the helicopter sound to the cumulative sound would be small given the short timeframe of approach, landing and takeoff from the rigs. In air sound would be most likely to have impacts on groups of walrus hauled out on ice near the rigs. These potential impacts would be mitigated using procedures described earlier in section **5.8 Mitigation Measures**.

6.6 Potential for Interference with Subsistence Hunters

The location of the Burger prospect 64 miles offshore makes any impacts of Shell's operations on subsistence hunting of walrus unlikely. Exploration programs in most years since 2006 have not impacted subsistence hunting except in a few very specific instances and there is no reason to expect that Shell's 2015 exploration plan will result in unmitigable adverse impacts to subsistence users. Shell's Subsistence Advisor program, various conflict avoidance mechanisms such as the Communication Plan (*see* **5.8.1 Plan of Cooperation**), and extensive community engagement provide important ways for Shell to learn about and mitigate any potential impacts of their operations on subsistence harvest of resources including walrus. USFWS (2013) found that the effects of exploration activities in the Chukchi Sea region will not have an unmitigable adverse impact on the availability of walrus for taking for subsistence uses.

7.0 Conservation Benefit will not be Lost by Allowing Shell's Drilling Program to Proceed as Planned

Information provided in this supplement to Shell's LOA application addresses each of the benefits described by USFWS as important in limiting significant cumulative and synergistic effects of the positioning of two drilling rigs near each other for simultaneous operations on the Burger prospect in the Chukchi Sea. Shell has modelled the sound profiles and areas of ensonification from its drilling and support equipment and has used specific scenarios of simultaneous use of this equipment to better understand the potential aggregate and synergistic effects of sound introduced into the marine environment during the drilling program activities. These acoustic activity scenarios, operational scenarios of planned vessel and aircraft movements, coupled with biological information collected during the drilling program in 2012 and various other research and monitoring studies supported since 2006 by industry, government agencies, and academia provides the most realistic assessment possible of the potential cumulative impacts associated with Shell's proposed 2015 drilling program. The evidence from these assessments suggests that alternative spacing of the rigs, including a ~9 mile separation planned in 2015, with use of proven mitigation and monitoring measures that consider the planned rig spacing and equipment usage does not reduce any conservation benefits as would occur with the current ITR regulation stipulating a 15-mile separation of rigs operating in the Chukchi Sea.

The USFWS (2013) stated in their final incidental take rule after detailed analysis of the effects of oil and gas exploration on walrus that "based on our review of the nature, scope, and timing of the oil and gas exploration activities and mitigation measures, and in consideration of the best available scientific information, it is our determination that the activities will have a negligible impact on walrus and on polar bears and will not have unmitigable adverse impact on the availability of marine mammals for taking for subsistence uses by Alaska Natives."

These regulations as promulgated by USFWS apply to the entire Chukchi Sea region and allow properly mitigated exploration to occur in areas throughout the region including areas with much greater walrus concentrations than occur on Shell's Burger prospect. The ITRs were based on exploration scenarios that included up to three drilling operations occurring in the Chukchi Sea simultaneously. Such operations

could be conducted by multiple operators each using full suites of equipment and without the benefit of coordination of activities on the rigs, helicopter flights for crew changes, and multi-tasking of some vessels between rigs achievable by a single operator that could lessen potential impacts of the operations on Pacific walrus.

The area that would potentially be affected by Shell's operation is small and in total is less than 2% of available Pacific walrus habitat. As described above (*see 6.1 The Relative Importance of the Burger Drilling Site to Pacific Walrus in the Chukchi Sea*), the Burger prospect that Shell is interested in exploring is not high use walrus habitat during the time of year when Shell will be actively working. This conclusion is based on multiple lines of evidence including aerial and vessel observations (LGL and JASCO 2014, Brueggeman et al. 1990 and 19991), satellite tagging studies (Jay et al. 2012), acoustic call detection studies (LGL and JASCO 2014, Delarue et al. 2013), and studies that correlated benthic prey concentrations with walrus sightings from aerial survey data (Shonberg et al. 2014).

The timing of Shell's operations will coincide, in most years, with the period when potential interaction with walrus is low as they will typically have moved with the pack ice edge to areas near Hanna Shoal (Jay et al. 2012) well to the north of the Burger prospect. In years with heavier ice that remains on or near the Burger prospect the potential for encounters with animals along the ice edge would be increased. Operations will not begin, however, if ice conditions at the site are not favorable. Current ice data (National Snow and Ice Data Center, 2015) suggests that 2015 may also be a low ice year making it likely that few walrus would be present in and around the Burger prospect during Shell's operations. Fast retreat of the ice into the deep waters of the Arctic Ocean could however, result in a large number of walrus moving toward the Chukchi Sea coast during a brief period of time with potential for some of those animals to move through the Burger prospect.

As determined by the USFWS (2013), Shell's exploration activities since 2006 have affected only small numbers of walrus and have had negligible impacts on the walrus population (*see 5.0 Effects on Pacific Walrus from Shell's Planned Activities*). Individual walrus have shown little reaction in most instances to vessels and activities (*see 6.1 The Relative Importance of the Burger Drilling Site to Pacific Walrus in the Chukchi Sea* and USFWS 2013) with only a small percentage of animals reacting to operations (LGL and JASCO 2014). Exploration during this period included moderate ice years (2006) when ice was present in the Burger area for much of the season as well as very low ice years in 2007 and 2010.

Additionally, Shell modelled activity scenarios, presented in section **5.2 Sound Propagation Estimation of Drilling Program Activity Scenarios**, to better understand the cumulative effects of sounds from multiple operations occurring simultaneously and for the purpose of this LOA supplement conducted an analysis of synergistic effects and the impact of synergy from sounds generated by two drilling activities at various distances of separation from 1 to 20 miles. This latter study, described in detail in section **6.5 Sound Aggregation from Multiple Activities Occuring Simultaneously**, indicates that the distance where peak cumulative sound effects occur varies with rig separation distance and type of activity. The difference between the *Discoverer* and *Polar Pioneer* drilling while accompanied by a vessel on dynamic positioning at a nine mile separation distance is an increase of 56 km² (20%) over the area ensonified at 15 miles of separation. Given the relatively low densities of walrus that occur on the Burger prospect during open water drilling operations (.0731 individuals / km²) this would result in a very small increase in the number of individuals exposed to sound above 120 dB in relation to the total population. Excavating two mudline cellars at the same time resulted in greater cumulative sound effects at separation distances of 14 to 15 miles though it would be unlikely that this would occur in 2015.

Despite the smaller separation distance between the drilling rigs requested by Shell for operations in 2015, Shell's program is still likely to have fewer vessels and fewer helicopter support trips than would three rigs conducting drilling operations as analyzed and determined to have negligible impacts by USFWS (2013). This would also likely mean lower potential for a vessel strike (*see 6.2 Potential for*

Increased Risk of Vessel Strikes) of a walrus and would likely lower the sound associated with helicopter approach, landing and takeoff being additive with rig sounds. Further, the chances of an incident, as occurred in 2012, when a helicopter taking off and then changing direction caused a group of ~30 walrus to leave the ice and enter the water (LGL and JASCO 2014), would likely be less than it would with three permitted rigs in operation. Therefore Shell's operations are within the impact levels deemed acceptable under the USFWS ITRs.

Hearing damage in walrus associated with anthropogenic sounds would not occur in this program regardless of the separation distance between drilling rigs except potentially during ZVSP surveys (*see 6.3 Potential for Hearing Damage Caused by Anthropogenic Sounds*). These surveys would be closely monitored with mitigation distances and procedures in place to prevent potential exposures of walrus to high levels of sound. Masking of walrus communications may occur in close proximity to equipment operated by Shell, but would likely be short term and affect relatively few animals (*see 6.4 Communication Between Walrus and Walrus Groups*).

In general, when combined for all aspects of Shell's proposed operations with drilling rigs separated by ~9 miles, the numbers of animals expected to experience level B behavioral disturbance will be small and will likely be less than the cumulative numbers that might be allowed under LOAs that could theoretically be issued for three independent drilling operations separated by 15 miles.

These assessments suggest that there is no specific prescribable rig spacing that is optimal for completely avoiding cumulative or synergistic effects of operations occurring simultaneously or in sequence within a short period of time unless they are very widely spaced. Various distances may be required between rigs to effectively, efficiently, and economically explore the geological positioning of the oil and gas resources in the subsurface of the prospect. Spacing of the rigs needs to be determined by these characteristics rather than an attempt to further minimize potential behavioral disturbance of walrus. Any rig spacing chosen will likely have potential benefits and potential costs in terms of behavioral disturbance when compared to other rig spacing arrangements but in all cases the numbers will be small and the impacts negligible.

Shell has carefully chosen what it believes is the optimal spacing for its drilling rigs at this stage of the exploration program. Further, Shell has worked to eliminate or to limit behavioral disturbance of walrus to the greatest extent possible through appropriate and proven mitigation procedures and by supporting studies of walrus abundance and distribution in and around the prospect area (*see 5.8 Mitigation Measures*). Shell has characterized the potential cumulative impacts of the planned activities and has considered each of them in their approach to exploratory drilling.

In sum, Shell believes that its 2015 exploration drilling program falls within the scope of activities considered by the USFWS in its 2013 Chukchi Sea ITR. The nature of our activities, combined with the extensive suite of mitigation and monitoring proposed to be implemented is expected to limit any take to short-term and temporary Level B harassment (behavioral disturbance). This taking is expected to be small relative to the population of walrus, will have a negligible impact, and not have an unmitigable adverse impact on the availability of walrus for taking for subsistence uses.

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- USFWS. 2013. Marine mammals; incidental take during specified activities, final rule. *Fed. Regist.* 78(113, 12 June):35364–35427.
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May 22, 2015

David Ott
Alaska Infrastructure Manager, Alaska Infrastructure
Shell Exploration & Production Company
3601 C Street, Suite 1000
Anchorage, Alaska 99503

Dear Mr. Ott,

The Washington State Department of Natural Resources (DNR) is the proprietary manager of 2.6 million acres of state-owned aquatic lands, including the West Waterway adjacent to Terminal 5 in Seattle. As you know, Foss Maritime recently entered into a lease with the Port of Seattle for the use of Terminal 5 to provide support for the Shell arctic drilling fleet. Pursuant to that agreement, the mobile drilling platform Polar Pioneer is currently located adjacent to Terminal 5 in the West Waterway.

As the manager of the lands over which the Polar Pioneer is located, DNR would like additional information regarding Shell's proposed use of the area. In particular, DNR would like to know how long Shell plans to keep the Polar Pioneer in its present location. DNR understands that the Polar Pioneer may depart for Alaska for operations beginning sometime this summer. DNR would like to know how long Shell plans to keep the Polar Pioneer at Terminal 5 before it departs for Alaska. DNR would also like to know whether Shell plans to return the Polar Pioneer to Terminal 5 after it departs this summer and, if so, how long Shell plans to keep the Polar Pioneer at Terminal 5 upon its return. Finally, DNR would like to know if Shell plans to keep other equipment or vessels in the waterway adjacent to Terminal 5 and, if so, for how long.

Generally, activities on state-owned aquatic lands that interfere with the use of those lands by the general public require authorization from DNR. No authorization is required from DNR, however, for navigation over state owned aquatic lands. Accordingly, short-term use of the area adjacent to Terminal 5 incidental to navigation, such as temporary moorage for purposes of loading and unloading a vessel, would not create a need for a use authorization from DNR.

State owned aquatic lands which have been platted as waterways are generally reserved as highways for navigation under state law. Uses that interfere with navigation may not be appropriate in waterways. That conclusion is especially true with respect to the West Waterway. The West Waterway from the Spokane Street Bridge to Elliott Bay is bounded on the west and east by an outer harbor line which designates the outer limit of the harbor area adjacent to the waterway. Under

David Ott
May 22, 2015
Page 2 of 2

Article XV, Section 1 of the State Constitution the state may not “give, sell or lease to any private person, corporation, or association any rights whatever in the waters beyond such harbor lines.”

Because the state constitution prohibits private parties from acquiring rights to the waters beyond an outer harbor line, private parties may not occupy the West Waterway adjacent to Terminal 5 for long-term moorage or other exclusive uses. Consistent with the state constitution and the waterway designation, however, the area adjacent to Terminal 5 waterward of the outer harbor line may be used for temporary moorage incident to navigation.

So that DNR may determine whether Shell’s proposed use of the West Waterway is consistent with its waterway designation and the state constitution, DNR requests that you provide the information identified above regarding Shell’s current and future use of the waterway and its expected duration by close of business on Monday, June 1, 2015.

Sincerely,



Megan Duffy
Deputy Supervisor for Aquatics and Geology

c: Matthew Randazzo, Senior Advisor to the Commissioner of Public Lands
Mr. Paul Stevens, President & CEO, Foss Maritime Company

Shell Engagements with FWS Re Hanna Shoal Walrus Use Area (HSWUA)

Based on the events and engagements with US Fish and Wildlife Service (FWS) catalogued here, Shell was led to believe it would receive authorization to enter the Hanna Shoal Walrus Use Area (HSWUA) to implement its ice management plan, and had no reason to think that entry into the HSWUA would be restricted by FWS in 2015. The first time Shell became aware that access would be restricted was when the 2015 Letter of Authorization (LOA) was received.

Prior to 2013 Shell conducted operations in the area designated in the future as the HSWUA with authorization for take of walrus under an IHA from FWS in 2007. FWS then authorized take of Pacific walrus during the performance of 3D seismic, shallow hazard and ice gouge surveys between 2008 and 2010. **Then, in 2012 FWS approved and incorporated by reference Shell's ice management plan and an Adaptive Approach to Ice Management in the Presence of Pacific Walrus in its LOA for Shell's 2012 exploration drilling program, which allowed Shell to access the Hanna Shoal and authorized take of walrus in what is now the HSWUA. Shell's drilling ice management plan has not materially changed since 2012 and has been repeatedly approved by DOI.**

2013

- 12 June FWS Renews Chukchi Sea ITRs for Incidental Taking for Polar Bear and Pacific Walrus, and concludes that the "total" amount of take of walrus and polar bear from all industry activities over a 5-year period would not result in more than negligible impacts. This is the first time the delineated HSWUA appears in the regulations. The regulations do not prohibit FWS from allowing vessels to enter HSWUA: rather FWS states it "may" require additional mitigation for activities occurring in the HSWUA, and any decision will be made based on "actual walrus distributions" at the time the activity occurs, where it will occur, and its location. **In the case of the HSWUA the regulations are clear regarding FWS discretion.**
- 28 June FWS issues LOA that allows Shell to conduct shallow hazard surveys in Chukchi Sea, but does not allow shallow hazard survey work in HSWUA. *Note: Shallow hazard surveys include sound sources that propagate through the water column, unlike routine visual assessments done pursuant to the ice management plan.*
- FWS informed Shell that we must request a variance to gain access to Hanna Shoal.
- 11 Sept FWS grants a variance that allows Shell to conduct the shallow hazard survey work in HSWUA without restrictions. *Note: Shell conducted this work in 2013, but did not in fact do any of work in HSWUA.*

Note: Shell did not submit an LOA to FWS for a 2014 exploration drilling program in the Chukchi Sea because, due to litigation, Shell cancelled 2014 exploration plans.

2014

3 April Shell met with FWS to discuss LOA request for 2015 exploration program which includes the previously-approved ice management plan and the need to enter the HSWUA.

The FWS Incidental Take Coordinator (ITC) explicitly told Shell to request a variance for entry into HSWUA (similar to the variance received in 2013) so that Shell could conduct its ice management plan. In addition, the ITC told Shell to request intentional harassment in case Shell had to actively manage ice in the presence of walruses. **Based on this advice Shell had no reason to assume that entry into Hanna Shoal in 2015 would be denied/restricted.**

Note: Routine work under the ice management plan involves visually assessing ice.

28 Aug Shell filed Chukchi Sea EP (Revision 2) with BOEM which included the previously-approved and implemented ice management plan requiring access to Hanna Shoal, plus the Adaptive Approach to Ice Management in the Presence of Walruses. This EP document and all attachments are available to all DOI permitting agencies and others.

18 Sept Per the advice of the FWS ITC (see above), Shell requests LOA for 2015 exploration drilling in Chukchi Sea with a request for variance to enter HSWUA for ice management.

14 Nov FWS ITC confirmed that Shell request for a HSWUA variance was the right approach.

2015

22 Jan Shell requests an Incidental Harassment Authorization (IHA) from FWS because of a concern that pending litigation may result in the Chukchi Sea ITRs being invalidated. The IHA is an alternative approach under the Marine Mammal Protection Act (MMPA) under which FWS evaluates the specific details and adaptive management approach of Shell's exploration drilling program.

17 March FWS rejects Shell's request for an IHA, saying they have insufficient resources to process the request in time for 2015 drilling season. *Note: The MMPA requires the FWS to review and render a decision on all IHA applications within 120 days. If FWS had complied with this statutory deadline, the decision on the IHA would have been made well in advance of the start of the exploration program.*

26 March Shell met with FWS to discuss LOA. At this meeting, there was an extensive discussion of Shell's Adaptive Management Plan for Ice Management in the Presence of Pacific Walruses which had been attached to the September 2015 LOA request. Shell reminded FWS that there could be a need to access the HSWUA at the beginning of the season to manage ice, that the HSWUA adaptive mitigation process described in the ITR envisions real-time management based on actual distribution of walrus, and that the FWS should not prohibit access to the HSWUA for ice management as of July 1. Shell

also reminded FWS that our Adaptive Management Plan was incorporated into the 2012 LOA that FWS issued to Shell in 2012 for exploration drilling in the Chukchi Sea. **At no time, did FWS indicate that entering the HSWUA would be restricted in 2015.**

- 11 May Shell's Exploration Plan with the ice management plan and entry to the HSWUA is approved by BOEM. This EP is available to all DOI agencies, DOC, EPA, USACE, the State of Alaska, and the general public.
- April - June FWS and Shell had numerous meetings and emails regarding the request for LOA.
- At no time did FWS raise concerns about Shell's ice management plan or entry into the HSWUA. Nor did FWS indicate that a HSWUA variance would not be issued. Shell had every reason to believe that FWS would rely upon our Adaptive Management Plan again to enter HSWUA and gave no indication of concern regarding the same approach for 2015.
- 30 June With no prior notice or discussion, and in conflict with prior authorizations given to Shell, FWS issues LOA to Shell with a conditional variance that does not authorize take of walrus for activities within certain pre-defined areas within the HSWUA. The restrictions conflict with the ice management plan long-approved by DOI. FWS disregarded Shell's input on adaptive management for operations in HSWUA even though this was included with the initial application, our EP, and discussed at length in meeting with USFWS on 26 March 2015.

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu Jul 30 2015 05:29:49 GMT-0600 (MDT)
To: Jack Haugrud <Jack.Haugrud@sol.doi.gov>, Edward Boling <ted.boling@sol.doi.gov>
Subject: Fwd: Follow up from Monday's Call

FYI

Sent from my iPad

Begin forwarded message:

From: <Ann.Pickard@shell.com>
Date: July 29, 2015 at 7:29:27 PM EDT
To: <tommy_beaudreau@ios.doi.gov>, <janice_schneider@ios.doi.gov>, <abigail.hopper@boem.gov>, <brian.salerno@bsee.gov>
Cc: <Michael.Farber@bsee.gov>, <brandi_colander@ios.doi.gov>, <Mark.Hodor@shell.com>, <Sara.Glenn@shell.com>, <Marc.Stone@shell.com>, <L.Schmidt@shell.com>, <Cam.Toohy@shell.com>, <Jennifer.Thompson@shell.com>, <Azaria.Azene@Shell.Com>, <Ann.Pickard@shell.com>
Subject: Follow up from Monday's Call

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The APM for the Discoverer at Burger J will be provided at a later date.

Ann Pickard

Executive Vice President Arctic

Address: Shell Energy Resources Company

150 North Dairy Ashford, Bldg. A

Room A3030
Houston, TX 77079

Tel: +1 832-337-2031

Internet: www.shell.com

P Please consider the environment before printing this email

"Boling, Edward" <ted.boling@sol.doi.gov>

From: "Boling, Edward" <ted.boling@sol.doi.gov>
Sent: Thu Jul 30 2015 05:54:25 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Re: Follow up from Monday's Call

(b) (5)



Ted Boling
Deputy Solicitor -- Parks & Wildlife
U.S Department of the Interior
1849 C Street NW
Washington, DC 20240
202-208-4423 (main)
202-208-3125 (direct)
202-208-5584 (fax)
Ted.Boling@sol.doi.gov

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Cc: <Michael.Farber@bsee.gov>, <brandi_colander@ios.doi.gov>, <Mark.Hodor@shell.com>, <Sara.Glenn@shell.com>, <Marc.Stone@shell.com>, <L.Schmidt@shell.com>, <Cam.Toohy@shell.com>, <Jennifer.Thompson@shell.com>, <Azaria.Azene@Shell.Com>, <Ann.Pickard@shell.com>
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Ann Pickard

Executive Vice President Arctic

Address: Shell Energy Resources Company

150 North Dairy Ashford, Bldg. A

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Houston, TX 77079

Tel: +1 832-337-2031

Internet: www.shell.com

P Please consider the environment before printing this email

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu Jul 30 2015 06:03:00 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Fwd: Follow up from Monday's Call

Sent from my iPad

Begin forwarded message:

From: "Boling, Edward" <ted.boling@sol.doi.gov>
Date: July 30, 2015 at 7:54:25 AM EDT
To: Janice Schneider <janice_schneider@ios.doi.gov>
Cc: Jack Haugrud <Jack.Haugrud@sol.doi.gov>
Subject: Re: Follow up from Monday's Call

(b) (5)



Ted Boling
Deputy Solicitor -- Parks & Wildlife
U.S Department of the Interior
1849 C Street NW

Washington, DC 20240
202-208-4423 (main)
202-208-3125 (direct)
202-208-5584 (fax)
Ted.Boling@sol.doi.gov

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Cc: <Michael.Farber@bsee.gov>, <brandi_colander@ios.doi.gov>, <Mark.Hodor@shell.com>, <Sara.Glenn@shell.com>, <Marc.Stone@shell.com>, <L.Schmidt@shell.com>, <Cam.Toohey@shell.com>, <Jennifer.Thompson@shell.com>, <Azaria.Azene@Shell.Com>, <Ann.Pickard@shell.com>
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Ann Pickard

Executive Vice President Arctic

Address: Shell Energy Resources Company

150 North Dairy Ashford, Bldg. A

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Internet: www.shell.com

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Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu Jul 30 2015 07:40:24 GMT-0600 (MDT)
To: "Ann.Pickard@shell.com" <Ann.Pickard@shell.com>
Subject: Re: Follow up from Monday's Call

Ann, thank you. What is your anticipated timing for submit tap of an APM?

Sent from my iPhone

On Jul 29, 2015, at 7:30 PM, "Ann.Pickard@shell.com" <Ann.Pickard@shell.com> wrote:

All -

I wanted to highlight some permitting issues. First, I wanted to let you know that Shell will be requesting an Incidental Harassment Authorization (IHA) from the US Fish and Wildlife Service (USFWS) for 2016. I believe FWS/DOI must process this request within the timeframes set forth in the Marine Mammal Protection Act.

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Tel: +1 832-337-2031

Internet: www.shell.com

Please consider the environment before printing this email

Brian Salerno <brian.salerno@bsee.gov>

From: Brian Salerno <brian.salerno@bsee.gov>
Sent: Mon Aug 10 2015 17:49:50 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Fwd: Follow up from Monday's Call

Janice, Tommy,

Mark and I have discussed Ann Picard's e mail below in conjunction with processing the APM received last week. (b) (5)

Unless you direct otherwise, we will proceed accordingly and can provide the APM this week. We will make sure this is coordinated with public affairs.

Also, for general awareness, We anticipate that Shell will not reach a hydrocarbon zone for another two weeks.

Brian

Sent from my iPad

Begin forwarded message:

From: <Ann.Pickard@shell.com>
Date: July 29, 2015, 3:29:27 PM AKDT
To: <tommy_beaudreau@ios.doi.gov>, <janice_schneider@ios.doi.gov>, <abigail.hopper@boem.gov>, <brian.salerno@bsee.gov>
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Ann Pickard

Executive Vice President Arctic

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Internet: www.shell.com

P Please consider the environment before printing this email

"Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>

From: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Sent: Tue Aug 11 2015 06:28:38 GMT-0600 (MDT)
To: Brian Salerno <brian.salerno@bsee.gov>
Subject: Re: Follow up from Monday's Call

Let's discuss briefly this morning if folks are available. Katie will try to pull as many of us together as possible.

Thanks very much,

TPB

On Mon, Aug 10, 2015 at 7:49 PM, Brian Salerno <brian.salerno@bsee.gov> wrote:

Janice, Tommy,

Mark and I have discussed Ann Picard's e mail below in conjunction with processing the APM received last week. (b) (5)

Unless you direct otherwise, we will proceed accordingly and can provide the APM this week. We will make sure this is coordinated with public affairs.

Also, for general awareness, We anticipate that Shell will not reach a hydrocarbon zone for another two weeks.

Brian

Sent from my iPad

Begin forwarded message:

From: <Ann.Pickard@shell.com>

Date: July 29, 2015, 3:29:27 PM AKDT

To: <tommy_beaudreau@ios.doi.gov>, <janice_schneider@ios.doi.gov>, <abigail.hopper@boem.gov>, <brian.salerno@bsee.gov>

Cc: <Michael.Farber@bsee.gov>, <brandi_colander@ios.doi.gov>, <Mark.Hodor@shell.com>, <Sara.Glenn@shell.com>, <Marc.Stone@shell.com>, <L.Schmidt@shell.com>, <Cam.Toohey@shell.com>, <Jennifer.Thompson@shell.com>, <Azaria.Azene@Shell.Com>, <Ann.Pickard@shell.com>

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Ann Pickard

Executive Vice President Arctic

Address: Shell Energy Resources Company

150 North Dairy Ashford, Bldg. A

Room A3030

Houston, TX 77079

Tel: +1 832-337-2031

Internet: www.shell.com

P Please consider the environment before printing this email

"Rupp, Katherine" <katherine_rupp@ios.doi.gov>

From: "Rupp, Katherine" <katherine_rupp@ios.doi.gov>
Sent: Tue Aug 11 2015 06:51:04 GMT-0600 (MDT)
To: Brian Salerno <brian.salerno@bsee.gov>
Subject: Re: Follow up from Monday's Call

I put the call at 12:30 eastern today- I know its early for everyone in Alaska. Please let me know if you are unable to make this work.

Thanks much,
Katie

On Tue, Aug 11, 2015 at 8:28 AM, Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov> wrote:

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Houston, TX 77079

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To: Brian Salerno <brian.salerno@bsee.gov>
Subject: Re: Follow up from Monday's Call

Call in number is below (also on calendar invite)

call in number **Not Responsive**
passcode **Not Responsive**
Leader passcode: **Not Responsive**

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Internet: www.shell.com

P Please consider the environment before printing this email

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Tue Aug 11 2015 08:52:40 GMT-0600 (MDT)
To: "Rupp, Katherine" <katherine_rupp@ios.doi.gov>
Subject: Re: Follow up from Monday's Call

I am not likely going to make this - have a speaking engagement

On Tue, Aug 11, 2015 at 10:51 AM, Rupp, Katherine <katherine_rupp@ios.doi.gov> wrote:
Call in number is below (also on calendar invite)

call in number: 866-753-3998
passcode: 7976328
Leader passcode: 3313545

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P Please consider the environment before printing this email

1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Hopper, Abigail" <abigail.hopper@boem.gov>

From: "Hopper, Abigail" <abigail.hopper@boem.gov>
Sent: Tue Aug 11 2015 18:35:52 GMT-0600 (MDT)
To: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Subject: Re: Follow up from Monday's Call

Good evening,

Two updates:

1. BOEM will issue a letter to Shell tomorrow afternoon (b) (5)
2. FYI-Earthjustice will file its brief tomorrow in the EP litigation.

Abigail Ross Hopper, Esq.
Director, Bureau of Ocean Energy Management
Department of the Interior
(202) 208-6300
abigail.hopper@boem.gov

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Conversation Contents

Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Aug 07 2015 06:59:21 GMT-0600 (MDT)
To: Janice_Schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov
Subject: Shell Alaska

Good morning - We wanted to be sure you knew. The Fennica left Dutch Harbor yesterday and is on track to arrive in theater on Tuesday August 11.

Thank you. Sara

Sent from my iPhone

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Fri Aug 07 2015 08:28:59 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Fwd: Shell Alaska

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Fri, Aug 7, 2015 at 8:59 AM
Subject: Shell Alaska
To: Janice_Schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov
Cc: Ann.Pickard@shell.com

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Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Conversation Contents

Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Thu Jul 23 2015 08:05:49 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov, Janice_Schneider@ios.doi.gov
Subject: Shell Alaska

Tommy, Janice - do you have 20 minutes today or tomorrow. I'd like to talk over a few things that are a bit urgent.
Sara

Sent from my iPhone

"Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>

From: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Sent: Thu Jul 23 2015 08:39:35 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell Alaska

Janice may be traveling, but Katie go ahead and set up a call this afternoon.

TPB

On Thu, Jul 23, 2015 at 10:05 AM, <Sara.Glenn@shell.com> wrote:

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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Thu Jul 23 2015 10:59:26 GMT-0600 (MDT)
To: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Subject: Re: Shell Alaska

Hello from the flight. I get into SFO around 3 EST. Happy to participate then if you don't speak to her before then.

On Thu, Jul 23, 2015 at 10:39 AM, Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov> wrote:

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From: Kevin Pendergast <kevin.pendergast@bsee.gov>
Date: July 9, 2015 at 20:28:41 AKDT
To: "Susan Childs@shell.com" <Susan.Childs@shell.com>
Cc: Mark Fesmire <mark.fesmire@bsee.gov>, David Johnston <david.johnston@boem.gov>
Subject: DIMP Clarification Regarding Ice Management Redundancy

Susan-
During a meeting yesterday with Shell, BSEE requested a written statement from Shell regarding any built in redundancy to the ice management program. Namely, it is important we understand whether the DIMP would be compromised should the Fennica be unavailable for a period of time. The DIMP is not explicit in this regard. As a followup, I wanted to relate that it is important this written statement be addressed also to David Johnston at BOEM, as BOEM will also need to evaluate the response.

Thank you, and feel free to reach out with any questions.

Kevin

Sent from my iPad

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Tue Jul 14 2015 17:47:05 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Fwd: Shell Ice Management Plan

FYI

Sent from my iPad

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: July 14, 2015 at 7:38:14 PM EDT
To: <brian.salerno@bsee.gov>
Cc: <Janice_Schneider@ios.doi.gov>, <abigail.hopper@boem.gov>, <tommy_beaudreau@ios.doi.gov>
Subject: Shell Ice Management Plan

Director - attached here is the information requested on our ice management vessels. I assume this meets your needs. If not please let us know.

Sent from my iPhone

Begin forwarded message:

From: "Childs, Susan A SEPCO-UAA/A/S" <Susan.Childs@shell.com>
Date: July 14, 2015 at 7:28:27 PM EDT
To: "Glenn, Sara B SHLOIL-GRA" <Sara.Glenn@shell.com>
Subject: FW: DIMP Clarification Regarding Ice Management Redundancy

The DIMP was provided to BSEE, Fields Operations, Anchorage on July 10 and acknowledged receipt on July 10.

From: Horner, Greg J SEPCO-UAA/A/SR
Sent: Tuesday, July 14, 2015 2:08 PM
To: Childs, Susan A SEPCO-UAA/A/S; Glenn, Sara B SHLOIL-GRA
Subject: FW: DIMP Clarification Regarding Ice Management Redundancy

Susan - this return message from Kevin confirms that he has received.

From: Pendergast, Kevin [<mailto:kevin.pendergast@bsee.gov>]
Sent: Friday, July 10, 2015 8:07 AM
To: Horner, Greg J SEPCO-UAA/A/SR
Cc: David Johnston; Childs, Susan A SEPCO-UAA/A/S; Mark Fesmire
Subject: Re: DIMP Clarification Regarding Ice Management Redundancy

Thank you Greg-

We will review and get back to you.

Kevin

Kevin J. Pendergast, PE CPG

Bureau of Safety and Environmental Enforcement

Regional Supervisor, Field Operations

Office 907.334.5311

Cell 907.250.0546

On Fri, Jul 10, 2015 at 7:49 AM, <Greg.Horner@shell.com> wrote:

Good morning Kevin,

On behalf of Susan Childs, Shell provides the following excerpted information from the Drilling Ice Management Plan (DIMP), "Drilling Ice Management Plan Chukchi Sea, Alaska, Shell Gulf of Mexico Inc. 13 July, 2014", which is included as Appendix G to Shell's conditionally approved Chukchi Sea Exploration Plan, Revision 2. The DIMP identifies multiple primary and secondary ice management vessels and the built-in redundancy of ice management assets.

III. VESSELS COVERED BY THE DRILLING ICE MANAGEMENT PLAN

- Drilling Unit – "Noble Discoverer"
- Drilling Unit – "Polar Pioneer"
- Primary Ice Management Vessel (IMV) – "M/V Fennica"
- Primary Ice Management Vessel (IMV) – "M/V Nordica"
- Secondary Ice Management Vessel (IMV) and Anchor Handler – "M/V Tor Viking II"
- Secondary Ice Management Vessel (IMV) and Anchor Handler – "M/V Aiviq"

Guidance Note: The term "drilling unit" is used throughout this document and refers to both the "Noble Discoverer" a self propelled drilling vessel and the "Polar Pioneer" a non self-propelled semi-submersible. Both units are defined as MODU's. The final authority with regard to safety onboard a drilling vessel is the Master. The final authority for safety onboard a non self-propelled semi-submersible is the OIM

B. Ice Management Vessels

Ice management support to the drilling units will be provided by the *Fennica*, *Nordica*, *Tor Viking II* and *Aiviq*. The drill units will be supported by these IMVs from the beginning of the campaign until the vessel departs the area. A description of these vessels is provided in Attachment 2.

Ice Management Vessel Principal Dimensions	Fennica & Nordica DNV Icebreaker Polar-10	Tor Viking II DNV Icebreaker Ice-10	Aiviq ABS A-3 Icebreaker
Length Overall	380 ft (116 m)	275 ft (83.7 m)	361 ft (109.9 m)
Draft	27 ft (8.4 m)	20 ft (6.0 m)	Ice Max 25 ft (7.62 m)
Breadth	85 ft (26 m)	59 ft (18.0 m)	80 ft (24.38 m)

Bollard Pull

230 tonnes

200 tonnes

200 tonnes

1. Primary Ice Management Vessels

The *Fennica* and the *Nordica* are designated as the primary IMVs. Both vessels are classed by DNV as +1A1 Tug Supply Vessel Icebreaker Polar-10. Designed for ice management, maintenance and service of offshore oil wells, the 380-ft (116-m) *Fennica* and *Nordica* are multi-purpose vessels specialized in marine construction and icebreaking. The *Fennica* and *Nordica* are equipped with diesel-electric propulsion systems and their innovative combination of capabilities, based on extensive design and engineering work, facilitates use of these systems in arctic conditions.

2. Secondary Ice Management Vessels / Anchor Handlers

The *Aiviq* is designated as a secondary IMV and anchor handler. The *Aiviq* is classed by ABS as A1, A3 (Icebreaker). Designed for ice management, anchor handling, and maintenance and service of offshore oil wells, the 361-ft (109.9-m) *Aiviq* is a multi-purpose vessel specialized in anchor handling and icebreaking.

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Guidance Note: Ice Management Vessels supporting the drilling units may be deployed to assist other vessels or assigned to assist other Shell drilling units as operations and ice conditions dictate. Diverting ice management resources away from the drilling units may require a curtailment of activities. The decision to curtail activities as a result of diverting ice management resources away from the drilling vessel shall be made jointly by the Shell Drilling Supervisor and the Drilling Vessel Master/OIM. The onshore Shell Wells Operations Team Leader (in consultation with the drilling contractor's Rig Manager) will endorse the plan or set priorities if agreement cannot be reached at the field level.

If you further questions, please contact Susan Childs via her contact information.

Regards,

Greg J. Horner
Offshore Regulatory Team Lead
Shell Exploration & Production Company
3601 C Street, Suite 1000, Anchorage, Alaska 99503

Tel: +1 907 646-7131 x131

Cell: + 1 907 227-1065

Cell (2): +1 907 250-0868

Email: greg.horner@shell.com

From: Kevin Pendergast <kevin.pendergast@bsee.gov>

Date: July 9, 2015 at 20:28:41 AKDT

To: "Susan.Childs@shell.com" <Susan.Childs@shell.com>

Cc: Mark Fesmire <mark.fesmire@bsee.gov>, David Johnston <david.johnston@boem.gov>

Subject: DIMP Clarification Regarding Ice Management Redundancy

Susan-

During a meeting yesterday with Shell, BSEE requested a written statement from Shell regarding any built in redundancy to the ice management program. Namely, it is important we understand whether the DIMP would be compromised should the *Fennica* be unavailable for a period of time. The DIMP is not explicit in this regard. As a followup, I wanted to relate that it is important this written statement be addressed also to David Johnston at BOEM, as BOEM will also need to evaluate the response.

Thank you, and feel free to reach out with any questions.

Kevin

Sent from my iPad

Conversation Contents

Shell Alaska

Attachments:

/7. Shell Alaska/1.1 Copy of HSWUA_SatAIS_Track_Analysis.xlsx
/7. Shell Alaska/2.1 Copy of HSWUA_SatAIS_Track_Analysis.xlsx

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jul 14 2015 09:29:14 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov
Subject: Shell Alaska
Attachments: Copy of HSWUA_SatAIS_Track_Analysis.xlsx

Tommy - The attached document collates data from the Marine Exchange.

It shows that over the period 2012-2014, a total of 29 vessels moved around Hanna Shoal Walrus Use Area and those movements totaled nearly 12,000 miles.

Of the 29 vessels, 9 were Shell's; and these traveled for a total of only 1660 miles during which there was no impact on walrus per the data we provided to DOI.

As you know, none of the other 20 vessels moving the remaining 10, 300 miles need a Letter of Authorization (LOA) from FWS.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

"Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>

From: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Sent: Tue Jul 14 2015 11:20:46 GMT-0600 (MDT)
To: Michael Connor <michael_connor@ios.doi.gov>, Janice Schneider <janice_schneider@ios.doi.gov>, Brian Salerno <brian.salerno@bsee.gov>, Abigail Hopper <abigail.hopper@boem.gov>, Walter Cruickshank <walter.cruickshank@boem.gov>, Dan Ashe <d_m_ashe@fws.gov>
Subject: Fwd: Shell Alaska
Attachments: Copy of HSWUA_SatAIS_Track_Analysis.xlsx

This data would seem to reinforce the point that Shell was not under the use area restriction in 12, but was in 13 and 14.

TPB

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Tue, Jul 14, 2015 at 11:29 AM
Subject: Shell Alaska
To: tommy_beaudreau@ios.doi.gov
Cc: janice_schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov

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It shows that over the period 2012-2014, a total of 29 vessels moved around Hanna Shoal Walrus Use Area and those movements totaled nearly 12,000 miles.

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Conversation Contents

Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jul 07 2015 17:15:30 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov, Janice_Schneider@ios.doi.gov
Subject: Shell Alaska

Tommy. Janice - we have identified critical concerns with the LOA. It includes requirements that conflict with requirements of other permits, creating at a minimum compliance questions. Further, there are restrictions in the LOA that undermine the safety of our operations. Example - the LOA says we cannot enter Hanna Shoal area. But our Critical Operations Curtailment Plan (COCP) describes an ice monitoring process that requires entering that area, so that we can identify ice hazards when they are within 30 miles of our facility. Not only is FWS restriction in conflict with the COCP approved by BSEE/BOEM, it puts the safety of people at risk.

There are other examples. We would like to discuss at your earliest. Thanks.
Sara

Sent from my iPhone

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Tue Jul 07 2015 17:21:00 GMT-0600 (MDT)
To: Jack Haugrud <jack.haugrud@sol.doi.gov>, Edward Boling <ted.boling@sol.doi.gov>
Subject: Fwd: Shell Alaska

TPB

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: July 7, 2015 at 7:15:30 PM EDT
To: <tommy_beaudreau@ios.doi.gov>, <Janice_Schneider@ios.doi.gov>
Subject: Shell Alaska

Tommy. Janice - we have identified critical concerns with the LOA. It includes requirements that conflict with requirements of other permits, creating at a minimum compliance questions. Further, there are restrictions in the LOA that undermine the safety of our operations. Example - the LOA says we cannot enter Hanna Shoal area. But our Critical Operations Curtailment Plan (COCP) describes an ice monitoring process that requires entering that area, so that we can identify ice hazards when they are within 30 miles of our facility. Not only is FWS restriction in conflict with the COCP approved by BSEE/BOEM, it puts the safety of people at risk.

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Sent from my iPhone

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Tue Jul 07 2015 17:46:35 GMT-0600 (MDT)
To: Michael Connor <michael_connor@ios.doi.gov>, Janice Schneider <janice_schneider@ios.doi.gov>, Jack Haugrud <jack.haugrud@sol.doi.gov>, Elizabeth A Klein <Elizabeth_Klein@ios.doi.gov>, Brian Salerno <brian.salerno@bsee.gov>, Abigail Hopper <abigail.hopper@boem.gov>, Kate P Kelly <Kate_Kelly@ios.doi.gov>
Subject: Fwd: Shell Alaska

Well, they would seem to have bigger problems. I just spoke with fesmire. Shell isn't bothering to send a DNV person to Dutch. USCG expects their repair plan tomorrow, but it likely will say that they're taking Fennica to drydock, perhaps in Portland. That will be a significant delay.

Seems it will be up for discussion with shell whether they want top hole only apd or wait on the apd until the Fennica is repaired and in theater.

I suggested to mark a call in the morning once Brian is in anchorage.

TPB

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: July 7, 2015 at 7:15:30 PM EDT
To: <tommy_beaudreau@ios.doi.gov>, <Janice_Schneider@ios.doi.gov>
Subject: Shell Alaska

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There are other examples. We would like to discuss at your earliest. Thanks.
Sara

Sent from my iPhone

Edward Boling <ted.boling@sol.doi.gov>

From: Edward Boling <ted.boling@sol.doi.gov>
Sent: Tue Jul 07 2015 20:51:03 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Re: Shell Alaska

Jack and I are in an SOL retreat tomorrow but can break away for a call. I'd recommend we include FWS (Dreher).

Sent from my iPad

On Jul 7, 2015, at 7:21 PM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

TPB

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: July 7, 2015 at 7:15:30 PM EDT
To: <tommy_beaudreau@ios.doi.gov>, <Janice_Schneider@ios.doi.gov>
Subject: Shell Alaska

Tommy. Janice - we have identified critical concerns with the LOA. It includes requirements that conflict with requirements of other permits, creating at a minimum compliance questions. Further, there are restrictions in the LOA that undermine the safety of our operations. Example - the LOA says we cannot enter Hanna Shoal area. But our Critical Operations Curtailment Plan (COCP) describes an ice monitoring process that requires entering that area, so that we can identify ice hazards when they are within 30 miles of our facility. Not only is FWS restriction in conflict with the COCP approved by BSEE/BOEM, it puts the safety of people at risk.

There are other examples. We would like to discuss at your earliest. Thanks.
Sara

Sent from my iPhone

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Tue Jul 07 2015 22:09:38 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Re: Shell Alaska

Am available for a call (on this or BLM) in am until about 10 am Est then have 50 cities.

Sent from my iPhone

On Jul 7, 2015, at 6:46 PM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

Well, they would seem to have bigger problems. I just spoke with fesmire. Shell isn't bothering to send a DNV person to Dutch. USCG expects their repair plan tomorrow, but it likely will say that they're taking Fennica to drydock, perhaps in Portland. That will be a significant delay.

Seems it will be up for discussion with shell whether they want top hole only apd or wait on the apd until the Fennica is repaired and in theater.

I suggested to mark a call in the morning once Brian is in anchorage.

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From: <Sara.Glenn@shell.com>
Date: July 7, 2015 at 7:15:30 PM EDT
To: <tommy_beaudreau@ios.doi.gov>, <Janice_Schneider@ios.doi.gov>
Subject: Shell Alaska

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Sara

Sent from my iPhone

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Tue Jul 07 2015 22:12:21 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Re: Shell Alaska

Probably a little early for Brian and the Alaskans.

TPB

On Jul 8, 2015, at 12:09 AM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

Am available for a call (on this or BLM) in am until about 10 am Est then have 50 cities.

Sent from my iPhone

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From: <Sara.Glenn@shell.com>
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To: <tommy_beaudreau@ios.doi.gov>, <Janice_Schneider@ios.doi.gov>
Subject: Shell Alaska

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Sara

Sent from my iPhone

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Wed Jul 08 2015 04:07:44 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Re: Shell Alaska

Can I give you a call at 8?

TPB

On Jul 8, 2015, at 12:09 AM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

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Subject: Shell Alaska

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Sent from my iPhone

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Fri Jul 10 2015 09:36:39 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>, Abigail Hopper <abigail.hopper@boem.gov>, Brian Salerno <brian.salerno@bsee.gov>, James Kendall <james.kendall@boem.gov>, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Elizabeth A Klein <Elizabeth_Klein@ios.doi.gov>
Subject: Fwd: Shell Alaska

FYI

TPB

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: July 10, 2015 at 11:31:46 AM EDT
To: <tommy_beaudreau@ios.doi.gov>
Subject: Shell Alaska

Tommy - I look forward to speaking to you. In the meantime, a couple of things.

First, based on the questions we are getting, it appears the key facts are not in the room when discussions are underway. Although DOI has access to the facts about our ice management plan, our 2012 operation, etc; the people in the room apparently don't have them. It is surprising that Shell is not included in the discussions to ensure that there is a fact-based conversation.

Second, the information at the bottom of this email is from our Ice Management Plan. You will see that we have four ice management vessels – each fully capable of doing the job. Therefore, the Fennica's potential absence in the Chukchi should have no impact on the initial work in the Chukchi; and questions about this are puzzling. (We are all in agreement on the importance of having the capping stack in theater when entering hydrocarbon zones.) At BSEE's request, we are putting this same information in a letter even though DOI has had the Ice Management Plan for years.

Finally, you may have seen the articles. A new NOAA survey revealed the existence of a shoal previously-uncharted by the government in the path that the Fennica took when the incident occurred

<http://www.adn.com/article/20150709/shoal-discovered-area-where-shell-ship-was-gouged> and <http://fuelfix.com/blog/2015/07/09/coast-guard-probing-cause-of-gash-in-shell-contracted-icebreaker/#33766101=0>

Fuel Fix (The Houston Chronicle) . July 9, 2015 Coast Guard probing cause of gash in Shell-contracted icebreaker By Jennifer A. Dlouhy

WASHINGTON — Shell is still assessing options for repairing an icebreaker that plays a pivotal role in its Arctic drilling program, even as new clues emerged Thursday about what might have torn a meter-long gash in the vessel. Government surveyors studying the ocean bottom on Wednesday discovered a previously uncharted shoal along the path taken by the MSV Fennica as it traveled away from the Alaska port of Dutch Harbor on July 3. First reported by Alaska Dispatch News, the shoal may have shaved 11 to 24 feet off the expected 45-foot clearance at the site. The Fennica, a Finnish ship built to be resilient even amid crushing blows from ice, has a draft of 28 feet. A certified Alaska marine harbor pilot was on board the vessel on July 3, when a ballast leak provided the first sign of the problem. After the icebreaker returned to the port, a 39-inch by 2-inch hole was discovered in the Fennica's hull. The Coast Guard is still investigating what caused that breach, spokesman Shawn Eggert said. "We're not saying the shoal was the cause," Eggert said.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Here is what Drilling Ice Management Plan says about the Fennica and our Ice Management Vessels.

III. VESSELS COVERED BY THE DRILLING ICE MANAGEMENT PLAN

- Drilling Unit – “*Noble Discoverer*”
- Drilling Unit – “*Polar Pioneer*”
- Primary Ice Management Vessel (IMV) – “*M/V Fennica*”
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Shell Gulf of Mexico Inc. 13 July, 2014

2. Secondary Ice Management Vessels / Anchor Handlers

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"Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>

From: "Beaudreau, Tommy" <tommy_beaudreau@ios.doi.gov>
Sent: Fri Jul 10 2015 15:26:48 GMT-0600 (MDT)
To: Michael Connor <michael_connor@ios.doi.gov>, Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Fwd: Shell Alaska

FYI.

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Fri, Jul 10, 2015 at 4:47 PM
Subject: Shell Alaska
To: tommy_beaudreau@ios.doi.gov

Hi - Marvin Odum is requesting a meeting next week with Secretary Jewell. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Conversation Contents

Shell Alaska - Houston Chronicle

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jul 07 2015 11:19:50 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov, janice_schneider@ios.doi.gov
Subject: Shell Alaska - Houston Chronicle

We spoke with this reporter around noon. I believe this is the first article on the topic.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Shell's Arctic icebreaker damaged in Alaska

Posted on July 7, 2015 | By Jennifer A. Dlouhy

WASHINGTON — Shell's drive to resume Arctic drilling this summer has hit another speed bump, with the discovery of a hole in the hull of an ice management vessel meant to safeguard the company's operations in the Chukchi Sea.

The MSV Fennica was on its way from Dutch Harbor, Alaska to the Chukchi Sea on Friday when a ballast tank leak was discovered by crew members and a certified Alaska marine harbor pilot on board the vessel.

The 22-year-old icebreaker has since returned to the port in Dutch Harbor and is being examined by marine experts, but it is uncertain how quickly the breach in its hull can be repaired and whether this will delay Shell's hopes to begin drilling an oil well in the Chukchi Sea later this month.

The Fennica is just one of the 29 vessels in Shell's Arctic fleet, which includes another icebreaker, the MSV Nordica, and at least two other anchor handlers tasked with helping to keep ice away from the company's drilling site. But Shell's contracted Fennica is unique in that it is carrying a critical piece of the company's Arctic containment system: a capping stack designed to fit on top of a damaged well in case of a blowout or other emergency.

Shell spokesman Curtis Smith said the company does not believe the Fennica damage will delay the company's planned Chukchi Sea operations. "Any impact to our season will ultimately depend on the extent of the damage," Smith said.

The company also is waiting on at least one drilling permit before it can begin boring a single well into its Burger prospect about 70 miles off the coast. Regulators at the Bureau of Safety and Environmental Enforcement are still scrutinizing Shell's applications to bore two wells, about 8.9 miles apart.

Shell is already being forced to scale back its plans to drill two of its Burger wells at the same time, following a ruling by the Interior Department that wildlife protection regulations do not allow simultaneous drilling operations within 15 miles.

And the government's handling of the issue is under fire from environmentalists who say the 15-mile separation requirement compels the Interior Department to rescind its earlier approval of Shell's broad Chukchi Sea exploration plan and hold off on issuing any drilling permits.

It is not clear what caused the hole in the side of the Fennica's hull, which is about 39 inches long and less than a half an inch wide. At the time the leak was discovered, it was moving through charted Alaska waters, having barely left its mooring in Dutch Harbor.

And while those waters are shallow, the Fennica's planned route kept it in depths of at least 42 feet. The vessel, which is owned by Arctia Offshore and contracted by Shell, drafts at roughly 27 feet.

It is possible the Fennica encountered a shallow-water hazard that has gone undocumented and uncharted.

Marine experts are now examining the Fennica in Dutch Harbor and assessing whether it can be repaired on site or will require more extensive work in a dry dock.

Any significant repair that sidelines the Fennica for the brief Arctic drilling season almost certainly would require Shell to get a new authorization from regulators at the Interior Department because it would represent a departure from the company's government-approved Chukchi Sea exploration plan. That exploration plan outlines the vessels Shell plans to use and their main missions during normal operations and any emergency.

Shell's Smith said authorities were promptly notified of the ballast leak and hull breach. Neither the vessel and its crew were in danger, he said, and the Fennica's ballast pumps continue to perform normally.

Although it is "an unfortunate potential setback," Smith said, "in no way does it characterize the preparations we have made to operate exceptionally well."

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Tue Jul 07 2015 11:32:09 GMT-0600 (MDT)
To: Katherine Kelly <kate_kelly@ios.doi.gov>
Subject: Fwd: Shell Alaska - Houston Chronicle

----- Forwarded message -----

From: <Sara_Glenn@shell.com>
Date: Tue, Jul 7, 2015 at 1:19 PM
Subject: Shell Alaska - Houston Chronicle
To: tommy_beaudreau@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov, janice_schneider@ios.doi.gov
Cc: Michael.Farber@bsee.gov, brandi_colander@ios.doi.gov

We spoke with this reporter around noon. I believe this is the first article on the topic.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Shell's Arctic icebreaker damaged in Alaska

Posted on July 7, 2015 | By Jennifer A. Dlouhy

WASHINGTON — Shell's drive to resume Arctic drilling this summer has hit another speed bump, with the discovery of a hole in the hull of an ice management vessel meant to safeguard the company's operations in the Chukchi Sea.

The MSV Fennica was on its way from Dutch Harbor, Alaska to the Chukchi Sea on Friday when a ballast tank leak was discovered by crew members and a certified Alaska marine harbor pilot on board the vessel.

The 22-year-old icebreaker has since returned to the port in Dutch Harbor and is being examined by marine experts, but it is uncertain how quickly the breach in its hull can be repaired and whether this will delay Shell's hopes to begin drilling an oil well in the Chukchi Sea later this month.

The Fennica is just one of the 29 vessels in Shell's Arctic fleet, which includes another icebreaker, the MSV Nordica, and at least two other anchor handlers tasked with helping to keep ice away from the company's drilling site. But Shell's contracted Fennica is unique in that it is carrying a critical piece of the company's Arctic containment system: a capping stack designed to fit on top of a damaged well in case of a blowout or other emergency.

Shell spokesman Curtis Smith said the company does not believe the Fennica damage will delay the company's planned Chukchi Sea operations. "Any impact to our season will ultimately depend on the extent of the damage," Smith said.

The company also is waiting on at least one drilling permit before it can begin boring a single well into its Burger prospect about 70 miles off the coast. Regulators at the Bureau of Safety and Environmental Enforcement are still scrutinizing Shell's applications to bore two wells, about 8.9 miles apart.

Shell is already being forced to scale back its plans to drill two of its Burger wells at the same time, following a ruling by the Interior Department that wildlife protection regulations do not allow simultaneous drilling operations within 15 miles.

And the government's handling of the issue is under fire from environmentalists who say the 15-mile separation requirement compels the Interior Department to rescind its earlier approval of Shell's broad Chukchi Sea exploration plan and hold off on issuing any drilling permits.

It is not clear what caused the hole in the side of the Fennica's hull, which is about 39 inches long and less than a half an inch wide. At the time the leak was discovered, it was moving through charted Alaska waters, having barely left its mooring in Dutch Harbor.

And while those waters are shallow, the Fennica's planned route kept it in depths of at least 42 feet. The vessel, which is owned by Arctia Offshore and contracted by Shell, drafts at roughly 27 feet.

It is possible the Fennica encountered a shallow-water hazard that has gone undocumented and uncharted.

Marine experts are now examining the Fennica in Dutch Harbor and assessing whether it can be repaired on site or will require more extensive work in a dry dock.

Any significant repair that sidelines the Fennica for the brief Arctic drilling season almost certainly would require Shell to get a new authorization from regulators at the Interior Department because it would represent a departure from the company's government-approved Chukchi Sea exploration plan. That exploration plan outlines the vessels Shell plans to use and their main missions during normal operations and any emergency.

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Although it is "an unfortunate potential setback," Smith said, "in no way does it characterize the preparations we have made to operate exceptionally well."

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 09:27:32 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Fwd: Shell Alaska

fyi

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Sun, Jul 5, 2015 at 11:20 AM
Subject: Shell Alaska
To: Janice_Schneider@ios.doi.gov
Cc: Ann.Pickard@shell.com, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov

Janice - with apologies for interrupting the weekend. Ann Pickard asked me to reach out with this info, which you may already have thru Coast Guard. Ann is available to discuss today if you would like to do so.

The ice management vessel Fennica returned to Dutch Harbor after damaging her hull while en route to the Chukchi Sea. The vessel is seaworthy and at no time was in danger. No personnel were injured during the event.

Specifically, on July 3 just after noon Alaska time, after departing Dutch Harbor for the Chukchi Sea, a one meter breach of the Fennica hull beneath the #4 ballast tank was discovered. The vessel is seaworthy with the ballast pumps having no issues keeping up with the water intrusion at this time. Fennica was transiting in the channel exiting the waters of Dutch Harbor when the event occurred.

The cause of the damage is unknown and an investigation will be conducted. The US Coast Guard was notified and the vessel owner Arctia is working closely with the Shell to determine how and where to make the repairs.

Sara

Sent from my iPhone

--

Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Sun Jul 05 2015 09:30:49 GMT-0600 (MDT)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell Alaska

Obviously, find out as much as you can about the capping stack.

TPB

On Jul 5, 2015, at 11:27 AM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

Sara, thank you. I can be available for a call any time today before 6:30 EST. Is the vessel safely back at Dutch Harbor at this point?

On Sun, Jul 5, 2015 at 11:20 AM, <Sara.Glenn@shell.com> wrote:

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Sara

Sent from my iPhone

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Assistant Secretary
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US Department of the Interior
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(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 09:31:13 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Re: Shell Alaska

yep

On Sun, Jul 5, 2015 at 11:30 AM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:
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Sara

Sent from my iPhone

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--

Janice M. Schneider
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US Department of the Interior
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Washington, DC 20240

(202) 208-6734

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Sun Jul 05 2015 09:35:45 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov
Subject: Re: Shell Alaska

Wd u give Ann your cell phone?

Sent from my iPhone

On Jul 5, 2015, at 11:27 AM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

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Sara

Sent from my iPhone

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 09:36:44 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell Alaska

(b) (6)

On Sun, Jul 5, 2015 at 11:35 AM, <Sara.Glenn@shell.com> wrote:
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Sent from my iPhone

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Sara

Sent from my iPhone

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Janice M. Schneider
Assistant Secretary
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--

Janice M. Schneider
Assistant Secretary
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US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Brian Salerno <brian.salerno@bsee.gov>

From: Brian Salerno <brian.salerno@bsee.gov>
Sent: Sun Jul 05 2015 09:42:58 GMT-0600 (MDT)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell Alaska

Janice,

Mark heard that something occurred with a ballast tank and that they had to turn back. We didn't have any details. Based on what Sara said, they must have hit something. Damage like that doesn't just happen. Not sure what this does to their timeline but Mark was trying to find out. Mark heard that they would need to go to a shipyard for repairs. Based on Sara's info, I would say that is a certainty. Clearly, the capping stack needs to be in the region and on site within 8 hours in order for them to drill into a hydrocarbon zone, so this will be critical for Shell to repair asap
Brian

Sent from my iPhone

On Jul 5, 2015, at 8:27 AM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

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Sara

Sent from my iPhone

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Assistant Secretary
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US Department of the Interior
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Washington, DC 20240
(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 09:45:00 GMT-0600 (MDT)
To: Brian Salerno <brian.salerno@bsee.gov>
Subject: Re: Shell Alaska

Thx; will let you know what I find out.

On Sun, Jul 5, 2015 at 11:42 AM, Brian Salerno <brian.salerno@bsee.gov> wrote:

Janice,

Mark heard that something occurred with a ballast tank and that they had to turn back. We didn't have any details. Based on what Sara said, they must have hit something. Damage like that doesn't just happen. Not sure what this does to their timeline but Mark was trying to find out. Mark heard that they would need to go to a shipyard for repairs. Based on Sara's info, I would say that is a certainty. Clearly, the capping stack needs to be in the region and on site within 8 hours in order for them to drill into a hydrocarbon zone, so this will be critical for Shell to repair asap
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Sent from my iPhone

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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 10:23:16 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>, Abigail Hopper <abigail.hopper@boem.gov>, Brian Salerno <brian.salerno@bsee.gov>, Jack Haugrud <Jack.Haugrud@sol.doi.gov>, Mark Fesmire <mark.fesmire@bsee.gov>, Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Fwd: Shell Alaska

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Date: Sun, Jul 5, 2015 at 11:20 AM
Subject: Shell Alaska
To: Janice_Schneider@ios.doi.gov
Cc: Ann.Pickard@shell.com, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov

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Sara

Sent from my iPhone

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Fesmire, Mark" <mark.fesmire@bsee.gov>

From: "Fesmire, Mark" <mark.fesmire@bsee.gov>
Sent: Sun Jul 05 2015 10:35:33 GMT-0600 (MDT)

To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell Alaska

Janice:

Shell (Anchorage) notified us on the 3rd and updated us yesterday.

Mark Fesmire

Mark E. Fesmire, PE JD

Bureau of Safety and Environmental Enforcement (BSEE)
Alaska Regional Director
Office 907-334-5300 (5303 Direct)
Cell 907-830-4810

On Sun, Jul 5, 2015 at 8:23 AM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

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Subject: Shell Alaska
To: Janice_Schneider@ios.doi.gov
Cc: Ann.Pickard@shell.com, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov

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Sara

Sent from my iPhone

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(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Sun Jul 05 2015 10:37:16 GMT-0600 (MDT)
To: "Fesmire, Mark" <mark.fesmire@bsee.gov>
Subject: Re: Shell Alaska

Great thank you. We are looking to put together a call tomorrow at around 11 am EST to discuss. Invite will come from Katie Rupp.

On Sun, Jul 5, 2015 at 12:35 PM, Fesmire, Mark <mark.fesmire@bsee.gov> wrote:

Janice:

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Mark Fesmire

Mark E. Fesmire, PE JD

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Cell 907-830-4810

On Sun, Jul 5, 2015 at 8:23 AM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

I spoke to Ann Pickard this am. The Fennica was transiting out of Dutch Harbor with a pilot aboard and they believe it hit something, possibly the seabed. The vessel is safely in Dutch Harbor and they are trying to get an inspector up to Dutch today. The breach is apparently over a meter long and a couple of inches wide. According to Ann, there was no loss to the environment or injury to personnel or equipment (including the capping stack). She did not know where the breach was (e.g., port, starboard, bow, stern, etc.) other than reference to the #4 ballast tank. She indicated that Shell has made all required notifications but did not know if the USCG was yet on site to review the situation. They will have a better assessment once their inspector arrives, but currently they have sketched out three plans for repair: (i) fix in Dutch; (ii) dry dock in Ketchikan; and (iii) dry dock in Pac NW. Ketchikan option is expected to take approximately 21 days. Shell is having an operations meeting tomorrow; they believe the sound source verification system can be potentially transferred to another vessel, if needed. Assuming repairs can be timely and safely made, they do not currently believe this will impact their drilling season (e.g., the capping stack will be positioned in theater as required). They are also working through developing a public statement. She will u (b) (6) row on our 4 pm call. She also asked about status of scope of permitted LOA activities. Feel free to call me at (b) (6) if you have any questions today. Janice

----- Forwarded message -----

From: <Sara.Glenn@shell.com>

Date: Sun, Jul 5, 2015 at 11:20 AM

Subject: Shell Alaska

To: Janice_Schneider@ios.doi.gov

Cc: Ann.Pickard@shell.com, brian.salerno@bsee.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov

Janice - with apologies for interrupting the weekend. Ann Pickard asked me to reach out with this info, which you may already have thru Coast Guard. Ann is available to discuss today if you would like to do so.

The ice management vessel Fennica returned to Dutch Harbor after damaging her hull while en route to the Chukchi Sea. The vessel is seaworthy and at no time was in danger. No personnel were injured during the event.

Specifically, on July 3 just after noon Alaska time, after departing Dutch Harbor for the Chukchi Sea, a one meter breach of the Fennica hull beneath the #4 ballast tank was discovered. The vessel is seaworthy with the ballast pumps having no issues keeping up with the water intrusion at this time. Fennica was transiting in the channel exiting the waters of Dutch Harbor when the event occurred.

The cause of the damage is unknown and an investigation will be conducted. The US Coast Guard was notified and the vessel owner Arctia is working closely with the Shell to determine how and where to make the repairs.

Sara

Sent from my iPhone

--

Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior

1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Conversation Contents

TransOcean Polar Pioneer in Dutch Harbor

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Mon Jun 29 2015 14:21:53 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov
Subject: TransOcean Polar Pioneer in Dutch Harbor

Sara Glenn Director, Federal Government Relations & Senior Counsel - Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Photos of Polar Pioneer

[



Conversation Contents

Canceled: Shell Alaska weekly update

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Jun 26 2015 10:59:19 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov, Azaria.Azene@shell.com, janice_schneider@ios.doi.gov, michael_connor@ios.doi.gov, abigail.hopper@boem.gov, brian.salerno@bsee.gov, Ann.Pickard@shell.com
Subject: Canceled: Shell Alaska weekly update

Shell Teleconferencing Information

USA Toll-Free: Non responsive

Participant Code: Non responsive

Host Code (Glenn): Non responsive

Conversation Contents

Shell Alaska - letter from WA Dept of Natural Resources

/14. Shell Alaska - letter from WA Dept of Natural Resources/1.1 05222015 Ltr to Shell 2.pdf

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jun 09 2015 13:59:45 GMT-0600 (MDT)
To: brian.salerno@bsee.gov, abigail.hopper@boem.gov
Subject: Shell Alaska - letter from WA Dept of Natural Resources
Attachments: 05222015 Ltr to Shell 2.pdf

Brian, Abby - In the meeting this morning, Ann Pickard mentioned that Washington State Dept of Natural Resources had written a letter requesting information about Shell activities in Seattle. A copy of the DNR letter is attached.

Thanks,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Tue Jun 09 2015 14:51:16 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell Alaska - letter from WA Dept of Natural Resources

Thx Sara

On Tue, Jun 9, 2015 at 3:59 PM, <Sara.Glenn@shell.com> wrote:

Brian, Abby - In the meeting this morning, Ann Pickard mentioned that Washington State Dept of Natural Resources had written a letter requesting information about Shell activities in Seattle. A copy of the DNR letter is attached.

Thanks,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Conversation Contents

FW: White House on Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jun 09 2015 12:22:34 GMT-0600 (MDT)
To: tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov, abigail.hopper@boem.gov, brian.salerno@bsee.gov
Subject: FW: White House on Shell Alaska

This is going to be hard to explain. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Shell drilling to be 'extraordinarily monitored ... if it happens' -- Holdren

Corbin Hiar, E&E reporter

Published: Tuesday, June 9, 2015

A top White House official today disputed the notion that the administration's effort to promote oil and gas exploration in the Arctic Ocean conflicts with its strategy to curb climate change and cast doubt on the economics of drilling there.

"Promoting oil drilling in the Arctic is perhaps an overstatement," said John Holdren, the assistant to the president for science and technology, at a Capitol Hill Ocean Week event at the Newseum.

He noted that the Obama administration has permanently withdrawn millions of acres of the Arctic Ocean from future oil and gas leasing and went on to downplay the extent of drilling it has permitted so far.

"There is a conditional permit that has been issued to Shell to drill in one small area if they meet 18 different very stringent environmental restrictions," said Holdren, who is also the director of the White House Office of Science and Technology Policy.

But the long-serving adviser defended the need to produce oil and gas in the United States, including the Arctic if it can be done safely.

"We are unquestionably going to be continuing to use oil for some decades to come," Holdren said. "We cannot change this enormous and unwieldy energy system overnight to get rid of our reliance on fossil fuels. And as long as we are going to burn oil, it's better to burn domestic oil and have the jobs and economic activity to go with that come from the United States."

At the same time, however, Holdren also suggested that Shell Oil Co. may not yet drill in the Arctic due to economic and regulatory concerns.

"It remains to be seen if Shell can profitably produce oil in that area," he said. "If Shell does get the permit to go ahead, there will be Bureau of Ocean and Environmental Management watchers on every vessel, on every rig that is up there."

"This will be the most extraordinarily monitored oil production that the world has ever seen, if it happens," he added. "If it happens."

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Tue Jun 09 2015 12:54:03 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Fwd: FW: White House on Shell Alaska

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Tue, Jun 9, 2015 at 2:22 PM
Subject: FW: White House on Shell Alaska
To: tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov, abigail.hopper@boem.gov, brian.salerno@bsee.gov

This is going to be hard to explain. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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"It remains to be seen if Shell can profitably produce oil in that area," he said. "If Shell does get the permit to go ahead, there will be Bureau of Ocean and Environmental Management watchers on every vessel, on every rig that is up there."

"This will be the most extraordinarily monitored oil production that the world has ever seen, if it happens," he added. "If it happens."

--
Janice M. Schneider
Assistant Secretary

Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Conversation Contents

Shell Alaska weekly update

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jun 09 2015 12:16:22 GMT-0600 (MDT)
To: Ann.Pickard@shell.com, Azaria.Azene@shell.com, michael_connor@ios.doi.gov, tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov
Subject: Shell Alaska weekly update

Shell Teleconferencing Information

USA Toll-Free: Non-Responsive

Participant Code: Non-Responsive

Host Code (Glenn): Non-Responsive

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Jun 09 2015 12:17:10 GMT-0600 (MDT)
To: Ann.Pickard@shell.com, Azaria.Azene@shell.com, michael_connor@ios.doi.gov, tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov
Subject: Shell Alaska weekly update

Shell Teleconferencing Information

USA Toll-Free: Non-Responsive

Participant Code: Non-Responsive

Host Code (Glenn): Non-Responsive

Conversation Contents

Capping Stack

"Salerno, Brian" <brian.salerno@bsee.gov>

From: "Salerno, Brian" <brian.salerno@bsee.gov>
Sent: Thu May 21 2015 13:56:34 GMT-0600 (MDT)
To: donald.jacobsen@shell.com
Subject: Capping Stack

Don,

I wanted to get back to you regarding your request to modify the capping stack demonstration by forgoing the wet deployment exercise.

We have given it a lot of thought and discussed internally with senior management, and the bottom line is that we believe that a full deployment will be in the best interests of demonstrating Shell's preparedness for the upcoming season.

Although many Fennica crew members participated in the 2012 exercise, we are concerned with the lack of recency. Three years is ample time for the crew to get a little rusty on this process. You correctly point out that this entails some risk. However, the risk associated with deployment in an actual emergency, without the benefit of recent practice, would arguably be much greater.

Although we are not able to accede to your request to forego the wet deployment, we do take your point that Fennica is on Shell's critical path. Accordingly, we will work to meet your schedule to ensure that the deployment exercise proceeds in the most expeditious manner possible.

I would be happy to put this response in a more formal format if you require it for your records. I am using e-mail to get word back to you as rapidly as possible.

regards,
Brian

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu May 21 2015 14:52:36 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>, Elizabeth Klein <elizabeth_klein@ios.doi.gov>
Subject: Fwd: Capping Stack

FYI

Sent from my iPhone

Begin forwarded message:

From: "Salerno, Brian" <brian.salerno@bsee.gov>
Date: May 21, 2015 at 3:56:34 PM EDT
To: donald.jacobsen@shell.com
Cc: Sara.Glenn@shell.com, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Margaret Schneider <margaret.schneider@bsee.gov>, susan.childs@shell.com, Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Capping Stack

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you as rapidly as possible.

regards,
Brian

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Sent: Thu May 21 2015 14:59:42 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Re: Capping Stack

Agree 100%

TPB

On May 21, 2015, at 4:52 PM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

FYI

Sent from my iPhone

Begin forwarded message:

From: "Salerno, Brian" <brian.salerno@bsee.gov>
Date: May 21, 2015 at 3:56:34 PM EDT
To: donald.jacobsen@shell.com
Cc: Sara.Glenn@shell.com, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Margaret Schneider <margaret.schneider@bsee.gov>, susan.childs@shell.com, Janice Schneider <janice_schneider@ios.doi.gov>
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regards,
Brian

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu May 21 2015 15:01:43 GMT-0600 (MDT)
To: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Subject: Re: Capping Stack

Yep

Sent from my iPhone

On May 21, 2015, at 4:59 PM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

Agree 100%

TPB

On May 21, 2015, at 4:52 PM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

FYI

Sent from my iPhone

Begin forwarded message:

From: "Salerno, Brian" <brian.salerno@bsee.gov>
Date: May 21, 2015 at 3:56:34 PM EDT
To: donald.jacobsen@shell.com
Cc: Sara.Glenn@shell.com, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Margaret Schneider <margaret.schneider@bsee.gov>, susan.childs@shell.com, Janice Schneider <janice_schneider@ios.doi.gov>
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regards,
Brian

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu May 21 2015 17:33:49 GMT-0600 (MDT)
To: Brian Salerno <brian.salerno@bsee.gov>
Subject: Fwd: Capping Stack

FYI

Sent from my iPad

Begin forwarded message:

From: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
Date: May 21, 2015 at 4:59:42 PM EDT
To: Janice Schneider <janice_schneider@ios.doi.gov>
Cc: Elizabeth Klein <elizabeth_klein@ios.doi.gov>
Subject: Re: Capping Stack

Agree 100%

TPB

On May 21, 2015, at 4:52 PM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

FYI

Sent from my iPhone

Begin forwarded message:

From: "Salerno, Brian" <brian.salerno@bsee.gov>
Date: May 21, 2015 at 3:56:34 PM EDT
To: donald.jacobsen@shell.com
Cc: Sara.Glenn@shell.com, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Margaret Schneider <margaret.schneider@bsee.gov>, susan.childs@shell.com, Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Capping Stack

Don,

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regards,
Brian

Donald.Jacobsen@shell.com

From: Donald.Jacobsen@shell.com
Sent: Fri May 22 2015 07:31:09 GMT-0600 (MDT)
To: brian.salerno@bsee.gov
Subject: RE: Capping Stack

Brian,

Thanks for getting back to us. While we still maintain our views, we understand BSEE's position and will develop a wet deployment demonstration protocol. We appreciate BSEE's willingness to work with us to help minimize the impact of this demonstration on the critical path.

Best regards,

Don

Don Jacobsen

Vice President Wells, Arctic & Industry/Regulatory Affairs
Shell International E&P
Office: +1 832 337 0176
Mobile: +1 832 564 7362
E-Mail: donald.jacobsen@shell.com
150 North Dairy Ashford, A-566K

Houston, TX 77079 USA

From: Salerno, Brian [<mailto:brian.salerno@bsee.gov>]
Sent: Thursday, May 21, 2015 2:57 PM
To: Jacobsen, Donald E SIEP-PTW/A
Cc: Glenn, Sara B SHLOIL-GRA; Mark Fesmire; Michael Farber; Margaret Schneider; Childs, Susan A SEPSCO-UAA/A/S; Janice Schneider
Subject: Capping Stack

Don,

I wanted to get back to you regarding your request to modify the capping stack demonstration by forgoing the wet deployment exercise.

We have given it a lot of thought and discussed internally with senior management, and the bottom line is that we believe that a full deployment will be in the best interests of demonstrating Shell's preparedness for the upcoming season.

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regards,

Brian

Conversation Contents

Shell Alaska - information provided to FWS Alaska

Attachments:

/21. Shell Alaska - information provided to FWS Alaska/1.1 Drill Rig Spacing Document_FINAL with cover 042015.pdf

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Tue Apr 21 2015 11:22:30 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov, abigail.hopper@boem.gov
Subject: Shell Alaska - information provided to FWS Alaska
Attachments: Drill Rig Spacing Document_FINAL with cover 042015.pdf

Greetings -

I thought you might be interested in the supplemental analysis we provided to FWS Alaska (Mary Colligan) yesterday. The document "describes, in more precise detail, Shell's 2015 Burger Prospect exploration drilling program; provides the USFWS with additional data and analysis concerning walrus ecology in the Chukchi Sea; describes the potential environmental effects of our program on walruses; identifies our proposed mitigation and monitoring measures; and, substantiates that the use of two active drilling rigs operating approximately nine miles of one another for a limited period of time in 2015 will not result in significant synergistic or cumulative effects on walrus foraging or movement in or through the area."

FWS never provided the data that supports the 15-mile spacing requirement.

We are hopeful FWS will give us a timeline for completion of the LOA. Thanks,

Sara



Conversation Contents

Shell Alaska - oil spill response plan

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Apr 17 2015 11:08:40 GMT-0600 (MDT)
To: brian.salerno@bsee.gov
Subject: Shell Alaska - oil spill response plan

Director - Although our OSRP is currently compliant and not due to be revised until Dec. 2015, we will submit Revision 3 dated April 20, 2015, with the following information: (i) delete reference to Kulluk to replace with Polar Pioneer; (ii) update the pages describing the location of assets; (iii) note that the changed locations will enhance response times; and (iv) note the date of practice drills.

If further changes are needed after the drill, we will submit Revision 4.

I think this will address your concerns. If not, let me know.

Many thanks,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel - Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Conversation Contents

RE: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (brandi_colander@ios.doi.gov)

Attachments:

/24. RE: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (brandi_colander@ios.doi.gov)/1.1 Walrus and drilling v3.1.pptx

louis.brzuzy@shell.com

From: louis.brzuzy@shell.com
Sent: Mon Apr 06 2015 11:47:51 GMT-0600 (MDT)
To: brandi_colander@ios.doi.gov, Susan.Childs@shell.com, Marc.Stone@shell.com, Mark.Hodor@shell.com, a.macrander@shell.com, mary_colligan@fws.gov, gary_frazer@fws.gov, dennis.daugherty@sol.doi.gov, ken.lord@sol.doi.gov, walter.cruickshank@boem.gov, jack.haugrud@sol.doi.gov, geoff_haskett@fws.gov, abigail.hopper@boem.gov, michael_bean@ios.doi.gov, celina.cunningham@boem.gov, melissa.hearne@sol.doi.gov, james.kendall@boem.gov, tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov, Sara.Glenn@shell.com, L.Schmidt@shell.com, M.Mahaffie@shell.com
Subject: RE: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (brandi_colander@ios.doi.gov)
Attachments: Walrus and drilling v3.1.pptx

Slides for today's meeting if you can not access [livemeeting](#)

-----Original Appointment-----

From: Brandi Colander [mailto:brandi_colander@ios.doi.gov]

Sent: Thursday, April 02, 2015 1:49 PM

To: Brandi Colander; Childs, Susan A SEPCO-UAA/A/S; Stone, Marc H SHLOIL-LSUA/A; Hodor, Mark SHLOIL-LSUA/A; Macrander, Alan M SEPCO-UAA/A/SS; Brzuzy, Louis P SEPCO-UAA/A/SS; Mary Colligan; Gary Frazer; Dennis Daugherty; Kenneth Lord; Walter Cruickshank; Kevin Haugrud; Geoff Haskett; Abigail Hopper; Michael Bean; Celina Cunningham; Melissa Hearne; James Kendall; Tommy Beaudreau; Janice Schneider; Glenn, Sara B SHLOIL-GRA; Schmidt, Laurie J SEPCO-UAA/A; Mahaffie, Michael J SEPCO-UAA/A/E

Subject: FW: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (brandi_colander@ios.doi.gov)

When: Monday, April 06, 2015 3:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Not responsive Code Not responsive

Not responsive

Code: Not responsive

-----Original Appointment-----

From: Brandi Colander [mailto:brandi_colander@ios.doi.gov]

Sent: Thursday, April 02, 2015 5:32 PM

To: Brandi Colander; Mary Colligan; Gary Frazer; Dennis Daugherty; Kenneth Lord; Walter Cruickshank; Kevin Haugrud; Geoff Haskett; Abigail Hopper; Michael Bean; Celina Cunningham; Melissa Hearne; James Kendall; Tommy Beaudreau; Janice Schneider; Glenn, Sara B SHLOIL-GRA; Childs, Susan A SEPCO-UAA/A/S; Stone, Marc H SHLOIL-LSUA/A; Hodor, Mark SHLOIL-LSUA/A; Macrander, Alan M SEPCO-UAA/A/SS; Brzuzy, Louis P SEPCO-UAA/A/SS

Subject: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (mailto:brandi_colander@ios.doi.gov)

When: Monday, April 06, 2015 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Not Responsive Code Not responsive

[more details >](#)

DOI/Shell EP Mtg

When Mon Apr 6, 2015 2pm - 3pm Eastern Time

Where Not responsive Code Not responsive ([map](#))

Video call Not responsive

Calendar brandi_colander@ios.doi.gov

- Brandi Colander - organizer
- Mary Colligan
- Gary Frazer
- Dennis Daugherty
- Kenneth Lord
- Walter Cruickshank
- Kevin Haugrud
- Geoff Haskett
- Abigail Hopper
- Michael Bean
- Celina Cunningham
- Melissa Hearne
- James Kendall
- Tommy Beaudreau
- Janice Schneider
- sara.glenn@shell.com

Going? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account sara.glenn@shell.com because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://www.google.com/calendar/> and control your notification settings for your entire calendar.

<< File: invite.ics >>

Conversation Contents

Updated Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)

Attachments:

/25. Updated Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)/1.1 invite.ics

Brandi Colander <brandi_colander@ios.doi.gov>

From: Brandi Colander <brandi_colander@ios.doi.gov>
Sent: Mon Apr 06 2015 11:46:19 GMT-0600 (MDT)
To: "janice_schneider@ios.doi.gov" <janice_schneider@ios.doi.gov>, Michael Bean <michael_bean@ios.doi.gov>, Mary Colligan <mary_colligan@fws.gov>, Melissa Hearne <melissa.hearne@sol.doi.gov>, Dennis Daugherty <dennis.daugherty@sol.doi.gov>, Edward Boling <ted.boling@sol.doi.gov>, Kevin Haugrud <jack.haugrud@sol.doi.gov>, Walter Cruickshank <walter.cruickshank@boem.gov>, Geoff Haskett <geoff_haskett@fws.gov>, Abigail Hopper <abigail.hopper@boem.gov>, "sara.glenn@shell.com" <sara.glenn@shell.com>, Gary Frazer <gary_frazer@fws.gov>, BOEM Director Calendar <boemdirectorcalendar@boem.gov>, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>, Kenneth Lord <ken.lord@sol.doi.gov>, Jeff Newman <jeff_newman@fws.gov>
Subject: Updated Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)
Attachments: invite.ics

This event has been changed.

DOI/Shell EP Mtg

[more details »](#)

When Mon Apr 6, 2015 2pm – 3pm Eastern Time
Where **Change** **Not responsive** Code **Not responsive** Room 6323 for DOI attendees ([map](#))
Video call **Not responsive**
Calendar janice_schneider@ios.doi.gov

Who

- Brandi Colander - organizer
- Michael Bean
- Mary Colligan
- Melissa Hearne
- Dennis Daugherty
- Edward Boling
- Janice Schneider
- Kevin Haugrud
- Walter Cruickshank
- Geoff Haskett
- Abigail Hopper
- sara.glenn@shell.com
- Gary Frazer
- BOEM Director Calendar
- Tommy Beaudreau
- James Kendall
- Kenneth Lord
- Celina Cunningham
- Jeff Newman

Going? **Yes** - **Maybe** - **No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account janice_schneider@ios.doi.gov because you are subscribed for updated invitations on calendar janice_schneider@ios.doi.gov.

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Conversation Contents

Re: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 10am - 11am (james.kendall@boem.gov)

"Kendall, James" <james.kendall@boem.gov>

From: "Kendall, James" <james.kendall@boem.gov>
Sent: Thu Apr 02 2015 16:45:43 GMT-0600 (MDT)
To: Brandi Colander <brandi_colander@ios.doi.gov>
Subject: Re: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 10am - 11am (james.kendall@boem.gov)

Sorr (b) (6)

On Thu, Apr 2, 2015 at 1:31 PM, Brandi Colander <brandi_colander@ios.doi.gov> wrote:

DOI/Shell EP Mtg

[more details »](#)

When Mon Apr 6, 2015 10am – 11am Alaska Time

Where **Not responsive** Code: **Not responsive** (map)

Video call **Not responsive**

Calendar james.kendall@boem.gov

Who

- Brandi Colander - organizer
- Kenneth Lord
- James Kendall
- Melissa Hearne
- Kevin Haugrud
- Celina Cunningham
- Janice Schneider
- Tommy Beaudreau
- Dennis Daugherty
- Mary Colligan
- sara.glenn@shell.com
- Abigail Hopper
- Gary Frazer
- Geoff Haskett
- Michael Bean
- Walter Cruickshank

Going? **Yes** - **Maybe** - **No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account james.kendall@boem.gov because you are subscribed for invitations on calendar james.kendall@boem.gov.

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

--

Dr. James (Jim) Kendall
Regional Director
Alaska OCS Region
Bureau of Ocean Energy Management
3801 Centerpoint Drive, Suite 500
Anchorage, AK 99503-5823
Office: 907-334-5200
Cell: 907-250-3852
james.kendall@boem.gov

Visit BOEM Alaska Region Community Outreach at:

<http://www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Community-Liaison/Index.aspx>

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Thu Apr 02 2015 19:56:25 GMT-0600 (MDT)
To: "Kendall, James" <james.kendall@boem.gov>

Subject: Re: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 10am - 11am (james.kendall@boem.gov)

Jim, is Sharon available to listen in on Monday? Thx

Sent from my iPad

On Apr 2, 2015, at 6:45 PM, Kendall, James <james.kendall@boem.gov> wrote:

Sorry, (b) (6)

On Thu, Apr 2, 2015 at 1:31 PM, Brandi Colander <brandi_colander@ios.doi.gov> wrote:

DOI/Shell EP Mtg

[more details »](#)

When Mon Apr 6, 2015 10am – 11am Alaska Time

Where Not responsive ode: Not responsive ap)

Video call Not responsive

Calendar james.kendall@boem.gov

- Who
- Brandi Colander - organizer
 - Kenneth Lord
 - James Kendall
 - Melissa Hearne
 - Kevin Haugrud
 - Celina Cunningham
 - Janice Schneider
 - Tommy Beaudreau
 - Dennis Daugherty
 - Mary Colligan
 - sara.glenn@shell.com
 - Abigail Hopper
 - Gary Frazer
 - Geoff Haskett
 - Michael Bean
 - Walter Cruickshank

Going? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account james.kendall@boem.gov because you are subscribed for invitations on calendar james.kendall@boem.gov.

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--

Dr. James (Jim) Kendall
Regional Director
Alaska OCS Region
Bureau of Ocean Energy Management
3801 Centerpoint Drive, Suite 500
Anchorage, AK 99503-5823
Office: 907-334-5200
Cell: 907-250-3852
james.kendall@boem.gov

Visit BOEM Alaska Region Community Outreach at:
<http://www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Community-Liaison/Index.aspx>

James Kendall <james.kendall@boem.gov>

From: James Kendall <james.kendall@boem.gov>
Sent: Thu Apr 02 2015 20:34:08 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Re: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 10am - 11am (james.kendall@boem.gov)

Yep! She'll be acting and she's already plugged in to attend.

jjk

Sent from my iPad

On Apr 2, 2015, at 5:56 PM, Janice Schneider <janice_schneider@ios.doi.gov> wrote:

Jim, is Sharon available to listen in on Monday? Thx

Sent from my iPad

On Apr 2, 2015, at 6:45 PM, Kendall, James <james.kendall@boem.gov> wrote:

Sorry (b) (6)

On Thu, Apr 2, 2015 at 1:31 PM, Brandi Colander <brandi_colander@ios.doi.gov> wrote:

DOI/Shell EP Mtg

[more details »](#)

When Mon Apr 6, 2015 10am – 11am Alaska Time

Where **Not responsive** ode: **Not responsive** (map)

Video call **Not responsive**

Calendar james.kendall@boem.gov

- Who
- Brandi Colander - organizer
 - Kenneth Lord
 - James Kendall
 - Melissa Hearne
 - Kevin Haugrud
 - Celina Cunningham
 - Janice Schneider

 - Tommy Beaudreau
 - Dennis Daugherty
 - Mary Colligan
 - sara.glenn@shell.com
 - Abigail Hopper
 - Gary Frazer
 - Geoff Haskett
 - Michael Bean
 - Walter Cruickshank

Going? **Yes** - **Maybe** - **No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account james.kendall@boem.gov because you are subscribed for invitations on calendar james.kendall@boem.gov.

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

--

Dr. James (Jim) Kendall
Regional Director
Alaska OCS Region
Bureau of Ocean Energy Management
3801 Centerpoint Drive, Suite 500
Anchorage, AK 99503-5823
Office: 907-334-5200
Cell: 907-250-3852
james.kendall@boem.gov

Visit BOEM Alaska Region Community Outreach at:

<http://www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Community-Liaison/Index.aspx>

Conversation Contents

Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)

Attachments:

/27. Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)/1.1 invite.ics

Brandi Colander <brandi_colander@ios.doi.gov>

From: Brandi Colander <brandi_colander@ios.doi.gov>
Sent: Thu Apr 02 2015 15:31:46 GMT-0600 (MDT)
To: "janice_schneider@ios.doi.gov" <janice_schneider@ios.doi.gov>, Celina Cunningham <celina.cunningham@boem.gov>, Melissa Hearne <melissa.hearne@sol.doi.gov>, James Kendall <james.kendall@boem.gov>, Gary Frazer <gary_frazer@fws.gov>, Kenneth Lord <ken.lord@sol.doi.gov>, Mary Colligan <mary_colligan@fws.gov>, Michael Bean <michael_bean@ios.doi.gov>, Abigail Hopper <abigail.hopper@boem.gov>, "sara.glenn@shell.com" <sara.glenn@shell.com>, Kevin Haugrud <jack.haugrud@sol.doi.gov>, Walter Cruickshank <walter.cruickshank@boem.gov>, Dennis Daugherty <dennis.daugherty@sol.doi.gov>, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>, Geoff Haskett <geoff_haskett@fws.gov>
Subject: Invitation: DOI/Shell EP Mtg @ Mon Apr 6, 2015 2pm - 3pm (janice_schneider@ios.doi.gov)
Attachments: invite.ics

DOI/Shell EP Mtg

[more details »](#)

When Mon Apr 6, 2015 2pm – 3pm Eastern Time

Where **Not responsive** Code **Not responsive** ([map](#))

Video call **Not responsive**

Calendar janice_schneider@ios.doi.gov

Who

- Brandi Colander - organizer
- Celina Cunningham
- Melissa Hearne
- James Kendall
- Gary Frazer
- Kenneth Lord
- Mary Colligan
- Michael Bean
- Abigail Hopper
- sara.glenn@shell.com
- Kevin Haugrud
- Walter Cruickshank
- Dennis Daugherty
- Tommy Beaudreau
- Janice Schneider
- Geoff Haskett

Going? **Yes** - **Maybe** - **No** [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account janice_schneider@ios.doi.gov because you are subscribed for invitations on calendar janice_schneider@ios.doi.gov.

To stop receiving these emails, please log in to <https://www.google.com/calendar/> and change your notification settings for this calendar.

Conversation Contents

Running late can we push call to 5:45?

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Mon Mar 30 2015 15:25:35 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Running late can we push call to 5:45?

Sent from my iPad

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Mon Mar 30 2015 15:39:35 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov
Subject: Re: Running late can we push call to 5:45?

Ok

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Janice Schneider [mailto:janice_schneider@ios.doi.gov]
Sent: Monday, March 30, 2015 05:25 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Running late can we push call to 5:45?

Sent from my iPad

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Mon Mar 30 2015 15:44:10 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Running late can we push call to 5:45?

Back at desk. You call me? (b) (6)

Sent from my iPad

> On Mar 30, 2015, at 5:40 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> Ok

> -----

> Sent from my BlackBerry Wireless Handheld

>

>

> ----- Original Message -----

> **From:** Janice Schneider [mailto:janice_schneider@ios.doi.gov]

> **Sent:** Monday, March 30, 2015 05:25 PM

> **To:** Glenn, Sara B SHLOIL-GRA

> **Subject:** Running late can we push call to 5:45?

>

> Sent from my iPad

Conversation Contents

Shell Alaska - can one or both of you do a 5 minute call?

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Mon Mar 30 2015 12:56:51 GMT-0600 (MDT)
To: abigail.hopper@boem.gov, janice_schneider@ios.doi.gov
Subject: Shell Alaska - can one or both of you do a 5 minute call?

My cell 202 299-6472

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Abigail Hopper <abigail.hopper@boem.gov>

From: Abigail Hopper <abigail.hopper@boem.gov>
Sent: Mon Mar 30 2015 13:18:17 GMT-0600 (MDT)
To: Janice Schneider <janice_schneider@ios.doi.gov>
Subject: Fwd: Shell Alaska - can one or both of you do a 5 minute call?

I can come up at 4. That work?

Sent from my iPhone

Begin forwarded message:

From: <Sara.Glenn@shell.com>
Date: March 30, 2015 at 2:56:51 PM EDT
To: <abigail.hopper@boem.gov>, <janice_schneider@ios.doi.gov>
Subject: Shell Alaska - can one or both of you do a 5 minute call?

My cell 202 299-6472

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Conversation Contents

Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Mon Mar 30 2015 10:40:57 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov, abigail.hopper@boem.gov
Subject: Shell Alaska

I confirmed. The Burger prospect is a circular prospect, 15 miles across. No two sites within the prospect are more than 15 miles apart.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Abigail Hopper <abigail.hopper@boem.gov>

From: Abigail Hopper <abigail.hopper@boem.gov>
Sent: Mon Mar 30 2015 10:50:30 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell Alaska

Thanks Sara.

Let us know the attorney's name when you have it.

Abby

Sent from my iPhone

On Mar 30, 2015, at 12:41 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

I confirmed. The Burger prospect is a circular prospect, 15 miles across. No two sites within the prospect are more than 15 miles apart.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Conversation Contents

Shell Alaska

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Mar 27 2015 11:10:45 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov
Subject: Shell Alaska

Janice - can we talk today? My cell 202-299-6472

Sara

Sent from my BlackBerry Wireless Handheld

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Mar 27 2015 15:08:19 GMT-0600 (MDT)
To: janice_schneider@ios.doi.gov
Subject: Re: Shell Alaska

Janice - Even better, I would like to set a time before Monday when you and Ann Pickard can talk. Let us know what works for you.

Sara

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Glenn, Sara B SHLOIL-GRA
Sent: Friday, March 27, 2015 01:10 PM
To: 'janice_schneider@ios.doi.gov' <janice_schneider@ios.doi.gov>
Subject: Shell Alaska

Janice - can we talk today? My cell 202-299-6472

Sara

Sent from my BlackBerry Wireless Handheld

Conversation Contents

No call today Shell

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Mar 06 2015 14:42:01 GMT-0700 (MST)
To: janice_schneider@ios.doi.gov
Subject: No call today Shell

Janice - my folks have had several conversations today with Solicitors and BOEM. So, I don't think we need a call. Maybe Monday.

Thanks for being available. Sara

Sent from my BlackBerry Wireless Handheld

From: Janice Schneider [mailto:janice_schneider@ios.doi.gov]
Sent: Friday, March 06, 2015 03:52 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

5:30 should work
Can you send call in number?

Sent from my iPhone

On Mar 6, 2015, at 11:43 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

Any luck with setting a call today. All my mtgs got cancelled...anytime works. Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 08:26 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Conflicts then, but I can talk after 5 tomorrow. Will check with SOL re availability. J.

On Thu, Mar 5, 2015 at 7:58 PM, <Sara.Glenn@shell.com> wrote:

Janice - Maybe it would be good to get Shell folks on a call tomorrow with you and Solicitors. For me, 2:15-3 or after 3:45.

Let me know what you think.
Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 07:23 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Thanks Sara. Yes, let's talk again tomorrow. RE # 3, I do think there is real value in the other approach I identified for you as well, and that it is worth having your attorneys look closely at it. Thx, J.

On Thu, Mar 5, 2015 at 7:17 PM, <Sara.Glenn@shell.com> wrote:

Hi - thanks for the call. Following up.

1. We would prefer that DOI not file a motion to expedite.

2. Shell Alaska (Susan Childs) plans to discuss with Jim Kendall the approach we discussed.

3. Re the IHA, Shell Legal plans to reach to Solicitors office directly primarily to discuss path forward that will ensure we can operate if there is no use-able LOA or IHA. Also, we don't understand the basis on which a 'no' decision wd be issued on Monday.

We may want to speak again tomorrow.

Regards, Sara

Sent from my BlackBerry Wireless Handheld

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Fri Mar 06 2015 15:12:12 GMT-0700 (MST)
To: Edward Boling <ted.boling@sol.doi.gov>
Subject: Fwd: No call today Shell

call off. thx

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Fri, Mar 6, 2015 at 4:42 PM
Subject: No call today Shell
To: janice_schneider@ios.doi.gov

Janice - my folks have had several conversations today with Solicitors and BOEM. So, I don't think we need a call. Maybe Monday.

Thanks for being available. Sara

Sent from my BlackBerry Wireless Handheld

From: Janice Schneider [mailto:janice_schneider@ios.doi.gov]
Sent: Friday, March 06, 2015 03:52 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

5:30 should work
Can you send call in number?

Sent from my iPhone

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Any luck with setting a call today. All my mtgs got cancelled...anytime works. Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 08:26 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Conflicts then, but I can talk after 5 tomorrow. Will check with SOL re availability. J.

On Thu, Mar 5, 2015 at 7:58 PM, <Sara.Glenn@shell.com> wrote:

Janice - Maybe it would be good to get Shell folks on a call tomorrow with you and Solicitors. For me, 2:15-3 or after 3:45.

Let me know what you think.
Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 07:23 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Thanks Sara. Yes, let's talk again tomorrow. RE # 3, I do think there is real value in the other approach I identified for you as well, and that it is worth having your attorneys look closely at it. Thx, J.

On Thu, Mar 5, 2015 at 7:17 PM, <Sara.Glenn@shell.com> wrote:

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1. We would prefer that DOI not file a motion to expedite.

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We may want to speak again tomorrow.

Regards, Sara

Sent from my BlackBerry Wireless Handheld

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

--
Janice M. Schneider
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(202) 208-6734

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Boling, Edward" <ted.boling@sol.doi.gov>

From: "Boling, Edward" <ted.boling@sol.doi.gov>
Sent: Fri Mar 06 2015 15:14:14 GMT-0700 (MST)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: No call today Shell

OK - You saw my note to Dan. If you can reach out to him, we may be able to get it resolved.

Ted Boling
Deputy Solicitor -- Parks & Wildlife
U.S Department of the Interior
1849 C Street NW

Washington, DC 20240
202-208-4423 (main)
202-208-3125 (direct)
202-208-5584 (fax)
Ted.Boling@sol.doi.gov

On Fri, Mar 6, 2015 at 5:12 PM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

call off. thx

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Fri, Mar 6, 2015 at 4:42 PM
Subject: No call today Shell
To: janice_schneider@ios.doi.gov

Janice - my folks have had several conversations today with Solicitors and BOEM. So, I don't think we need a call. Maybe Monday.

Thanks for being available. Sara

Sent from my BlackBerry Wireless Handheld

From: Janice Schneider [mailto:janice_schneider@ios.doi.gov]
Sent: Friday, March 06, 2015 03:52 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

5:30 should work
Can you send call in number?

Sent from my iPhone

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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Mon Mar 09 2015 09:45:17 GMT-0600 (MDT)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: No call today Shell

Ted Boling will reach out to Mark H. today. J.

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Conversation Contents

Shell

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Thu Mar 05 2015 17:17:30 GMT-0700 (MST)
To: janice_schneider@ios.doi.gov
Subject: Shell

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Sent from my BlackBerry Wireless Handheld

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Thu Mar 05 2015 17:23:06 GMT-0700 (MST)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell

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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Thu Mar 05 2015 17:27:15 GMT-0700 (MST)
To: James Kendall <james.kendall@boem.gov>, Edward Boling <ted.boling@sol.doi.gov>, Abigail Hopper <abigail.hopper@boem.gov>

Subject: Fwd: Shell

Privileged communication/Attorney-client privilege

(b) (5)

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To: janice_schneider@ios.doi.gov
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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Thu Mar 05 2015 18:26:43 GMT-0700 (MST)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
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Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Thu Mar 05 2015 18:34:28 GMT-0700 (MST)
To: janice_schneider@ios.doi.gov
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Ok

Sent from my BlackBerry Wireless Handheld

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Washington, DC 20240
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Abigail Hopper <abigail.hopper@boem.gov>

From: Abigail Hopper <abigail.hopper@boem.gov>
Sent: Thu Mar 05 2015 19:59:55 GMT-0700 (MST)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Non responsive Shell

(b) (5)

Sent from my iPad

On Mar 5, 2015, at 7:27 PM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:

Privileged communication/Attorney-client privilege

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James Kendall <james.kendall@boem.gov>

From: James Kendall <james.kendall@boem.gov>
Sent: Thu Mar 05 2015 20:05:43 GMT-0700 (MST)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell

Just received it.....in Barrow, email spotty, will get in tonight ~9:30, will be in early tomorrow; will be on the call at 9:00 AM

Sent from my iPhone

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Edward Boling <ted.boling@sol.doi.gov>

From: Edward Boling <ted.boling@sol.doi.gov>
Sent: Thu Mar 05 2015 20:33:38 GMT-0700 (MST)
To: James Kendall <james.kendall@boem.gov>
Subject: Re: Shell

I'll be on too.

Sent from my iPhone

On Mar 5, 2015, at 10:05 PM, James Kendall <james.kendall@boem.gov> wrote:

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Sent: Thu Mar 05 2015 21:11:37 GMT-0700 (MST)
To: Abigail Hopper <abigail.hopper@boem.gov>
Subject: Re: Shell

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Sent from my iPad

On Mar 5, 2015, at 9:59 PM, Abigail Hopper <abigail.hopper@boem.gov> wrote:

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"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Fri Mar 06 2015 10:40:55 GMT-0700 (MST)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell

Still working on schedules. Thx

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"Boling, Edward" <ted.boling@sol.doi.gov>

From: "Boling, Edward" <ted.boling@sol.doi.gov>
Sent: Fri Mar 06 2015 11:46:30 GMT-0700 (MST)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell

I'm available between 3:30 and 4:30, in the DRECP update at 4:45, and could talk with Shell after (though if it's much later I'll have to do it in transit, without my undivided attention).

Ted Boling
Deputy Solicitor -- Parks & Wildlife
U.S Department of the Interior
1849 C Street NW
Washington, DC 20240
202-208-4423 (main)
202-208-3125 (direct)
202-208-5584 (fax)
Ted.Boling@sol.doi.gov

On Thu, Mar 5, 2015 at 7:27 PM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:
Privileged communication/Attorney-client privilege

(b) (5)

tried to set up a 1 pm EST tomorrow, and hopefully you got an invite.

Thx all.

----- Forwarded message -----

From: <Sara.Glenn@shell.com>
Date: Thu, Mar 5, 2015 at 7:17 PM
Subject: Shell
To: janice_schneider@ios.doi.gov

Hi - thanks for the call. Following up.

1. We would prefer that DOI not file a motion to expedite.
2. Shell Alaska (Susan Childs) plans to discuss with Jim Kendall the approach we discussed.
3. Re the IHA, Shell Legal plans to reach to Solicitors office directly primarily to discuss path forward that will ensure we can operate if there is no use-able LOA or IHA. Also, we don't understand the basis on which a 'no' decision wd be issued on Monday.

We may want to speak again tomorrow.

Regards, Sara

Sent from my BlackBerry Wireless Handheld

--
Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Schneider, Janice" <janice_schneider@ios.doi.gov>

From: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Sent: Fri Mar 06 2015 12:22:01 GMT-0700 (MST)
To: "Boling, Edward" <ted.boling@sol.doi.gov>
Subject: Re: Shell

does 5:30 pm today work for you?

On Fri, Mar 6, 2015 at 1:46 PM, Boling, Edward <ted.boling@sol.doi.gov> wrote:

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Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

"Boling, Edward" <ted.boling@sol.doi.gov>

From: "Boling, Edward" <ted.boling@sol.doi.gov>
Sent: Fri Mar 06 2015 13:08:50 GMT-0700 (MST)
To: "Schneider, Janice" <janice_schneider@ios.doi.gov>
Subject: Re: Shell

I can make it work.

Ted Boling
Deputy Solicitor -- Parks & Wildlife
U.S Department of the Interior
1849 C Street NW
Washington, DC 20240
202-208-4423 (main)
202-208-3125 (direct)
202-208-5584 (fax)
Ted.Boling@sol.doi.gov

On Fri, Mar 6, 2015 at 2:22 PM, Schneider, Janice <janice_schneider@ios.doi.gov> wrote:
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Privileged communication/Attorney-client privilege

(b) (5)

[REDACTED]. I tried to set up a 1 pm EST tomorrow, and hopefully you
got an invite.
Thx all.

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Sent from my BlackBerry Wireless Handheld

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(202) 208-6734

--

Janice M. Schneider
Assistant Secretary
Land and Minerals Management
US Department of the Interior
1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Janice Schneider <janice_schneider@ios.doi.gov>

From: Janice Schneider <janice_schneider@ios.doi.gov>
Sent: Fri Mar 06 2015 13:52:01 GMT-0700 (MST)
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Subject: Re: Shell

5:30 should work
Can you send call in number?

Sent from my iPhone

On Mar 6, 2015, at 11:43 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

Any luck with setting a call today. All my mtgs got cancelled...anytime works. Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 08:26 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Conflicts then, but I can talk after 5 tomorrow. Will check with SOL re availability. J.

On Thu, Mar 5, 2015 at 7:58 PM, <Sara.Glenn@shell.com> wrote:

Janice - Maybe it would be good to get Shell folks on a call tomorrow with you and Solicitors. For me, 2:15-3 or after 3:45.

Let me know what you think.
Sara

Sent from my BlackBerry Wireless Handheld

From: Schneider, Janice [mailto:janice_schneider@ios.doi.gov]
Sent: Thursday, March 05, 2015 07:23 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

Thanks Sara. Yes, let's talk again tomorrow. RE # 3, I do think there is real value in the other approach I identified for you as well, and that it is worth having your attorneys look closely at it. Thx, J.

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Sent from my BlackBerry Wireless Handheld

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Janice M. Schneider
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US Department of the Interior
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--

Janice M. Schneider
Assistant Secretary
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1849 C Street, NW
Washington, DC 20240
(202) 208-6734

Sara.Glenn@shell.com

From: Sara.Glenn@shell.com
Sent: Fri Mar 06 2015 14:08:47 GMT-0700 (MST)
To: janice_schneider@ios.doi.gov
Subject: RE: Shell

Ok, should I have my lawyers on as well?

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Janice Schneider [mailto:janice_schneider@ios.doi.gov]
Sent: Friday, March 06, 2015 3:52 PM
To: Glenn, Sara B SHLOIL-GRA
Subject: Re: Shell

5:30 should work

Can you send call in number?

Sent from my iPhone

On Mar 6, 2015, at 11:43 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

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Regards, Sara

Sent from my BlackBerry Wireless Handheld

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--

Janice M. Schneider

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US Department of the Interior
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Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Cc: Katherine Kelly <kate_kelly@ios.doi.gov>

Mon, Jul 6, 2015 at 1:52 PM

Sara,

Can you put Curtis Smith in touch with Kate Kelly, whom I've copied?

Thanks very much,

TPB

On Mon, Jul 6, 2015 at 12:50 PM, <Sara.Glenn@shell.com> wrote:

Do you have 5 minutes for a quick call before 4 pm?

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Mon, Jul 6, 2015 at 12:50 PM

Do you have 5 minutes for a quick call before 4 pm?

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alasks

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Fri, Jul 3, 2015 at 2:38 PM

I pinged Ted. He and Marc Stone just spoke.

TPB

> On Jul 3, 2015, at 2:32 PM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>

> Ted called Marc Stone yesterday and apprised him of where we are. I
> think we have certain issues resolved, but folks are working through
> the issues. I doubt I'll have more beyond what Ted communicated before
> Monday.

>

> TPB

>

>> On Jul 3, 2015, at 2:18 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>

>> Hi - we were expecting to hear from DOI today? Sara

>>

>> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alasks

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Fri, Jul 3, 2015 at 2:32 PM

Ted called Marc Stone yesterday and apprised him of where we are. I think we have certain issues resolved, but folks are working through the issues. I doubt I'll have more beyond what Ted communicated before Monday.

TPB

> On Jul 3, 2015, at 2:18 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:
>
> Hi - we were expecting to hear from DOI today? Sara
>
> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Jul 2, 2015 at 1:13 PM

To: tommy_beaudreau@ios.doi.gov

Ok. Thanks

Sent from my iPhone

On Jul 2, 2015, at 12:44 PM, Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov> wrote:

We've made substantial progress, but there's still some work to do. I'll suggest that Ted Boling (SOL) connect with Mark Stone. I don't think we need the whole group.

On Thu, Jul 2, 2015 at 10:32 AM, <Sara.Glenn@shell.com> wrote:

Hi. Wt time do you want to connect? Do you want the same Shell group as yesterday? Sara

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thu, Jul 2, 2015 at 10:56 AM

A little preoccupied with one of your competitors this morning, but will follow up with our folks.

On Thu, Jul 2, 2015 at 10:32 AM, <Sara.Glenn@shell.com> wrote:

Hi. Wt time do you want to connect? Do you want the same Shell group as yesterday? Sara

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Jul 2, 2015 at 10:35 AM

To: tommy_beaudreau@ios.doi.gov

Hi. Ann Pickard will do the week update on Monday at 4. Wd be really good to have couple of things from your end including plan/timeline for resolving the long-pending suspension request and same for updating the 15 mi regulation.

Thx. Sara

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Jul 2, 2015 at 10:32 AM

To: tommy_beaudreau@ios.doi.gov

Hi. Wt time do you want to connect? Do you want the same Shell group as yesterday? Sara

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Contact info

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Wed, Jul 1, 2015 at 4:58 PM

To: Donald.Jacobsen@shell.com

Cc: Brian Salerno <brian.salerno@bsee.gov>, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>, Mark Fesmire <mark.fesmire@bsee.gov>, Michael Farber <michael.farber@bsee.gov>, Margaret Schneider <margaret.schneider@bsee.gov>, Susan.Childs@shell.com, Janice Schneider <janice_schneider@ios.doi.gov>

Thanks very much, Don.

Best,

TPB

On Wed, Jul 1, 2015 at 2:50 PM, <Donald.Jacobsen@shell.com> wrote:

Tommy, Brian,

My contact info is listed below. Please forward as necessary. Thanks for your time today.

Best regards,

Don

Don Jacobsen

Vice President Wells, Arctic & Industry/Regulatory Affairs

Shell International E&P

Office: +1 832 337 0176

Mobile: +1 832 564 7362

E-Mail: donald.jacobsen@shell.com

150 North Dairy Ashford, A-566K

Houston, TX 77079 USA



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska LOA call tomorrow

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, Jun 30, 2015 at 6:56 PM

To: Donald.Jacobsen@shell.com, Dale.Snyder@shell.com, Marc.Stone@shell.com, molly_click@ios.doi.gov, tommy_beaudreau@ios.doi.gov

2:15 DC time

Shell Alaska LOA

Scheduled: Wednesday, Jul 1, 2015 from 2:15 PM to 3:15 PM

Location: Conf call

Invitees: Donald E Jacobsen, Dale Snyder, Marc Stone, Molly Click, Tommy Beaudreau

Sent from my iPad



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Call tomorrow afternoon

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, Jun 30, 2015 at 4:36 PM

To: tommy_beaudreau@ios.doi.gov

Cc: molly_click@ios.doi.gov

Thanks. Molly use my cell 202-299-6472

Sent from my iPhone

- > On Jun 30, 2015, at 4:19 PM, Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov> wrote:
- >
- > Sarah - Katie Rupp is traveling, and so Molly Click is working me this week. Molly will coordinate with you to get a call set up for tomorrow afternoon.
- >
- > Molly, Sarah's office number is 202-466-1400
- >
- > Thanks,
- >
- > TPB



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Tue, Jun 30, 2015 at 3:58 PM

<http://fuelfix.com/blog/2015/06/30/obama-administration-delivers-big-blow-to-shells-arctic-drilling-plans/#33766101=0>

On Tue, Jun 30, 2015 at 3:31 PM, <Sara.Glenn@shell.com> wrote:

I have a call with the big cheese (the really big one) this evening. I'd like to be to report that we have plans to meet tomorrow on the issue. Don Jacobsen will be involved

Sara

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Ann Pickard's cell # (281) 352-8241

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Mon, Jun 29, 2015 at 5:07 PM

Just tried her and left a vm.

On Mon, Jun 29, 2015 at 4:49 PM, <Sara.Glenn@shell.com> wrote:

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Mon, Jun 29, 2015 at 3:25 PM

That's fine - I need to talk with her. Around 5 or so should work.

On Mon, Jun 29, 2015 at 3:21 PM, <Sara.Glenn@shell.com> wrote:

Ann is going to call you on your cell in an hour and a half or so. Guess what the topic is.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Mon, Jun 29, 2015 at 6:54 AM

I'm meeting with our folks this morning about it.

TPB

> On Jun 29, 2015, at 6:46 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> Hi. It wd be good to understand timing on loa. No vessels can

> go thru Bering Strait without it. It takes 48 hrs to ready the departure from Dutch and secure pilots. Wt can I
> do to get clarity around this? Thanks. Sara

>

>

> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Canceled: Shell Alaska weekly update

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Fri, Jun 26, 2015 at 12:59 PM

To: tommy_beaudreau@ios.doi.gov, Azaria.Azene@shell.com, janice_schneider@ios.doi.gov, michael_connor@ios.doi.gov, abigail.hopper@boem.gov, brian.salerno@bsee.gov, Ann.Pickard@shell.com

Shell Teleconferencing Information

USA Toll-Free: **Non responsive**

Participant Code: **Non responsive**

Host Code (Glenn): **Non responsive**



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska - Call with Ann Pickard on Monday

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Jun 25, 2015 at 4:47 PM

To: katherine_rupp@ios.doi.gov

Cc: tommy_beaudreau@ios.doi.gov

Katie – Shell's Ann Pickard is supposed to do a call every Monday at 4:00 pm with Tommy, Janice, Abby and Brian. There was a screw up and she can't do 4 pm next Monday.

Is it possible to get the core DOI group for 15 minutes on **Monday between 2:00-3:30 DC time**

Thanks, Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell - left you a voicemail on your cell

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Thu, Jun 25, 2015 at 9:11 AM

re the important timing issue we discussed.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Jun 17, 2015 at 11:11 AM

To: tommy_beaudreau@ios.doi.gov

Hi – I left you a voice mail.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, Jun 16, 2015 at 5:17 PM

To: tommy_beaudreau@ios.doi.gov

Tommy - thanks for joining the meeting today. We thought it was a good discussion. I would be interested in your thoughts. We agreed to reconvene on Thursday (although that is not set yet).

Also I just heard that the capping stack deployment test went well and BSEE says we can cross this off of our list.

Finally, Polar Pioneer moving north. Apparently the distance between it and the Greenpeace vessel Esperanza is closing. Security watching closing.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Mon, Jun 15, 2015 at 11:32 AM

Do you have 3 minutes, or 2

Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Cc: "Michael.Farber@bsee.gov" <Michael.Farber@bsee.gov>

Sun, Jun 14, 2015 at 1:05 PM

Thanks, Sara.

TPB

On Jun 14, 2015, at 12:58 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

Hi. - story on our Arctic efforts in today's Houston Chronicle. Pls share as appropriate. Thx. S

Story and photos on front page and above the fold in home edition.

Shell undertaking critical Arctic mission Shell set on risky mission in one of the most remote places on Earth

**By Jennifer A. Dlouhy |
June 12, 2015 | Updated: June 13, 2015 11:37pm**

SEATTLE - The Polar Pioneer drilling rig squats on eight massive legs in the waters of Puget Sound, piercing the sky with a derrick that reaches nearly 400 feet. Roughly half the height of the Space Needle, the Pioneer dwarfs everything in sight - a football-field-sized machine capable of burrowing pipes thousands of feet under the sea floor.

The rig, a critical piece of Shell Oil Co.'s ambitions to find oil in the Arctic, is expected to leave Seattle within days, heading north toward the frigid, choppy waters of the remote Chukchi Sea. Shell is returning to the Arctic Ocean for a last-chance mission, one that could reveal whether the company has squandered billions of dollars or netted the kind of giant discovery that only comes around every 10 to 20 years.

"The Arctic is the new oil frontier, and Shell does not want to lose this race," said Fadel Gheit, managing director of oil and gas research at Oppenheimer. For Shell, the U.S. subsidiary of Royal Dutch Shell, success or failure will likely come down to one well - and the secrets held in 130-million-year-old rock 8,000 feet below the surface of the sea.

But the company with more than 10,000 Houston-area employees must get everything above ground right, too, especially after an embarrassing first attempt in 2012 that saw one of its rigs careen into an Alaska island.

A serious misstep could irrevocably damage the fragile Arctic ecosystem, jeopardizing walrus and whales that migrate through the area.

This time, Shell executives say they are much better prepared to manage the complicated operation. Maritime experts were brought into the program. Key responsibilities have been more evenly distributed. Oversight of contractors has been intensified.

And Shell brought in the Transocean Polar Pioneer, built for tough Arctic weather, to replace the rig damaged during the 2012 expedition.

"We know we can do it," said Ann Pickard, Shell's executive vice president for the Arctic. "The burden is on us to prove to the rest of the world that it can be done safely."

Fewer frontiers

Shell is pushing into the Arctic as it faces intense economic pressure to replace its diminishing oil reserves.

The easy-to-extract, cheap oil is long gone or already claimed, and the vast majority of the proven reserves in the world have been nationalized, forcing oil and gas firms to push into more remote and difficult places.

The Arctic holds special allure because it could be teeming with oil - and so much of it is still up for grabs.

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Shell aggressively targeted Chukchi leases in a 2008 government auction, plunking down a record-setting \$2.1 billion for 275 leases. Its Arctic investment has reached \$7 billion, but the payoff could be far greater.

Even at today's lower oil prices, a 3 billion- to 5-billion barrel discovery would have the potential value at \$180 billion to \$300 billion.

"They like the opportunity here - the big structures, the potential for basin-opening discoveries.

Those are hard to find," said David Pursell, head of securities at Houston-based energy investment bank Tudor, Pickering, Holt & Co. "The structures are huge. The prize is big."

Any potential production would be a decade or two away, possibly coming online amid higher crude prices to replace declining harvests onshore and in the Gulf of Mexico.

Shell executives acknowledge that they need something big to justify the cost and the billions of dollars it would take to begin commercially extracting oil from the formation.

"It must be a multi-billion barrel discovery," said Simon Henry, Royal Dutch Shell's chief financial officer, earlier this year. "That will justify going ahead."

Chief executive Ben van Beurden was even more blunt: "The economics will work if the structures are full of oil, as simple as that."

Harsh territory

The Arctic is a treacherous place for drilling, with 20-foot seas, freezing temperatures, ice and storms that can produce hurricane-force winds. Daylight hours begin diminishing in August and the area plunges into day-round darkness by mid-November.

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Arctic waters support threatened and endangered animals, such as the Pacific Walrus and the bowhead whale, which serve as a source of food and clothing to the Alaska Natives who live on the North Slope. Hunting and fishing is so embedded in the Inupiat's culture that they refer to the Arctic Ocean as their "garden."

In case of an oil spill, Shell has assembled response vessels and workers trained to deploy the equipment. Its Arctic containment system, designed to capture crude from a blown-out well, would be stationed in nearby Kotzebue Sound.

But the company's plans, laid out in a 429-page blueprint endorsed by federal regulators, are little comfort to environmentalists who insist spill cleanup equipment doesn't work well enough in the Gulf of Mexico's calm, warm waters, much less the choppy and potentially slushy Chukchi sea.

"There is no proven way to clean up an oil spill in these extreme conditions," said Cindy Shogan, executive director of the Alaska Wilderness League. "Any drilling is risky business, but the risks in the Arctic Ocean are particularly great."

Tricky timing

Regulators are requiring Shell to wait until at least July 1 to begin work and halt drilling by Sept. 28. That narrow window means Shell might not complete either of its two planned wells this year, even with the Polar Pioneer and a separate drillship, the Noble Discoverer, working simultaneously.

Shell executives have insisted the company will return in 2016 to complete the job - at least as long as they are seeing promising results.

Company geologists are confident that they will find oil underneath the seabed whenever they reach it.

Their bullishness stems from previous drilling into this same prospect in the 1980s and early 1990s. Wells targeting the crest of the formation found natural gas, but Shell later abandoned the area to pursue Gulf of Mexico opportunities amid low oil prices and high development costs.

Geologists have examined readings from those abandoned wells and studied computer models

that give a hint of where oil might be trapped.

Based on that data, Shell is planning to drill two new wells: Burger J, which aims to prove there's oil at the site, and Burger V, which could help reveal just how much.

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"If we get a dry hole in J, we're done," Pickard said. "I'll recommend we say goodbye."

Even if everything else goes right for Shell in the Arctic, the company's success depends on how much oil it finds - and the industry has been fooled before.

Just a few hundred miles from Shell's Burger prospect lies the Mukluk well in the Beaufort Sea, a testament to the gamble that is offshore exploration. Convinced it was brimming with crude, a consortium of companies invested nearly \$1 billion in the well. But their only discovery, in December 1983, was salt water and traces of oil that were no longer there.

Oil exploration comes with big risks, no matter where you drill, said John Snedden, a petroleum geologist at the University of Austin. Even the Gulf of Mexico has had a less-than-stellar track record for hits and misses.

In the popular deep-water Miocene play and the Eastern Gulf Norphlet, for example, just two out of 11 wells drilled in the past two years have been a success.

"That's the thing about frontier exploration: Odds are, it's going to be a dry hole," TPH's Pursell said. "You start talking about a 10, 15 and 20 percent chance of success, and that's actually an 80 or 90 percent chance of failure."

Shell probably has more knowledge of the area and its potential than anyone else, Pursell said. Still, he wonders whether the company would have benefited from taking on partners who would ask tough questions that can force companies to reassess their own optimism.

"Why are they moving forward? Because they love this play," Pursell said. "Why did they spend so much on the leases? Because they love this play. Having partners is a pain sometimes, because it slows things down, but sometimes it slows things down for a reason."

Failed attempt

Shell's fortunes may ride on what it finds below its Burger prospect, but its reputation could depend on what happens above the water line.

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Three investigations concluded that Shell failed to heed the risks of towing the rig across predictably stormy seas.

The company struggled to launch its drilling operations on time to take advantage of the narrow open-water exploration season.

When an emergency containment system was damaged during a deployment test in September 2012, regulators barred Shell from penetrating potential oil- and gas-bearing zones at its wells, forcing the company to stop working after drilling two 1,500-foot "top holes."

"We have to rewrite the story of 2012," said Pickard, who was put atop Shell's Arctic portfolio in 2013 to help decide whether the venture was worth continuing and, if so, dramatically improve its execution. "If we don't operate exceptionally well every single day, we have no right to come back."

Environmental groups are examining Shell's efforts and federal oversight, and challenging any perceived mistakes. They have filed legal challenges to the government's approvals of Shell's oil spill response plan and its broad drilling blueprint, among other agency actions.

Activists say the stakes are too high not to intervene because of the risks of a spill as well as the climate change consequences of the greenhouse gas emissions that would be unleashed if Arctic oil is extracted.

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"This has everybody's attention," he said. "The eyes of the world are on this. We know that. Shell knows that. There is really no tolerance for errors."

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"The number one priority is the safety of the people and the environment," he says. "But next is: We want to find oil."

Within days, the Polar Pioneer will be lassoed by tugboats and slowly head north, on its way to an uncertain future at the top of the world.

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Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Sun, Jun 14, 2015 at 12:58 PM

To: Michael.Farber@bsee.gov

Cc: tommy_beaudreau@ios.doi.gov

Hi. - story on our Arctic efforts in today's Houston Chronicle. Pls share as appropriate. Thx. S

Story and photos on front page and above the fold in home edition.

Shell undertaking critical Arctic mission Shell set on risky mission in one of the most remote places on Earth

By Jennifer A. Dlouhy |
June 12, 2015 | Updated: June 13, 2015 11:37pm

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Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

Sun, Jun 14, 2015 at 9:54 AM

To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Noon start works. I checked, and Jack and Ted really do have a hard stop at 2 but could reconvene at 3:30 or so if necessary.

TPB

> On Jun 13, 2015, at 5:28 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> Hi - looks like my guys are aiming for 12 noon start. Any chance Jack and co could be available til 2:30, just to give se breathing room.

>

> Sent from my iPhone

>

>> On Jun 13, 2015, at 10:52 AM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>>

>> Jack says he and Ted can't be available between 2 and 3:30 Tuesday

>> afternoon, but otherwise will move stuff around to be available. I

>> assume your folks will want a couple hours - either before 2 or after

>> 3:30. Let me know.

>>

>> TPB

>>

>>> On Jun 13, 2015, at 10:12 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>>

>>> Ok thx

>>>

>>> Sent from my iPhone

>>>

>>>> On Jun 13, 2015, at 9:27 AM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>>>>

>>>> Go ahead. We'll make Tuesday afternoon work.

>>>>

>>>> TPB

>>>>

>>>>> On Jun 13, 2015, at 8:44 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>>>>

>>>>> Thx shall I wait a few hours for you to confirm or give green light

>>>>>

>>>>> Sent from my iPhone

>>>>>

>>>>>> On Jun 13, 2015, at 7:43 AM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>>>>>>

>>>>>> Checking with jack and Ted, but I'm sure Tuesday afternoon in DC will work.

>>>>>>

>>>>>> TPB

>>>>>>

>>>>>>> On Jun 13, 2015, at 7:31 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>>>>>>

>>>>>>> Sorry Lance would not come. Marc Stone instead

>>>>>>>

>>>>>> Sent from my iPhone

>>>>>>

>>>>>> On Jun 13, 2015, at 7:29 AM, Glenn, Sara B SHLOIL-GRA <Sara.Glenn@shell.com> wrote:

>>>>>>

>>>>>> Tommy - sorry about weekend emails. Shell legal folks would like to set a face to face meeting with DOI lawyers on Tuesday afternoon of Thursday. For travel planning, we need to know as soon as possible. Our group will include Jeff Leppo from the Seattle firm Stole Reeves (I think he is well known to Solicitors office), Linda Symanski who heads Shell Legal for the Americas, Lance Tolson who is copied here, and Mark Hodor.

>>>>>>

>>>>>> Wd you reach to Jack Haugrud and Ted Boling to get this set

>>>>>>

>>>>>> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

lease suspension resolution

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Fri, Jun 12, 2015 at 11:53 AM

To: tommy_beaudreau@ios.doi.gov

It would help if doi would commit to workable resolution of the long-pending suspension request. Along the lines we have discussed with Farber. Which includes some lease give-backs

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska - 12:30 call is on right?

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>
Cc: Katherine Rupp <katherine_rupp@ios.doi.gov>

Fri, Jun 12, 2015 at 11:52 AM

Yes, although Mike Connor may not be able to join

On Fri, Jun 12, 2015 at 11:50 AM, <Sara.Glenn@shell.com> wrote:

Ok same group as yesterday plus Janice and Brian Right?

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]
Sent: Friday, June 12, 2015 11:49 AM
To: Glenn, Sara B SHLOIL-GRA
Cc: Katherine Rupp
Subject: Re: Shell Alaska - 12:30 call is on right?

Yes. I'll have Janice Schneider and Brian Salerno on as well for any discussion about drilling ops.

On Fri, Jun 12, 2015 at 11:47 AM, <Sara.Glenn@shell.com> wrote:

my call in information

Shell Teleconferencing Information

USA Toll-Free: **Non responsive**

Participant Code: **Non responsive**

Host Code (Glenn): **Non responsive**

2/10/2016

DEPARTMENT OF THE INTERIOR Mail - Re: Shell Alaska - 12:30 call is on right?

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



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Re: Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov
Cc: Ann.Pickard@shell.com, katherine_rupp@ios.doi.gov

Fri, Jun 12, 2015 at 8:41 AM

Ok Ann I will call u and then tommy

Sent from my iPhone

> On Jun 12, 2015, at 8:32 AM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>

> Yes. I could do 9. Call (b) (6).

>

> TPB

>

>> On Jun 12, 2015, at 8:23 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>

>> Before 9:30 DC time

>>

>> Sent from my iPhone

>>

>>> On Jun 12, 2015, at 8:22 AM, Glenn, Sara B SHLOIL-GRA <Sara.Glenn@shell.com> wrote:

>>>

>>> Tommy can you do a call this am before 11 DC time with Ann and me?

>>>

>>> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Phone died.

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thu, Jun 11, 2015 at 10:14 PM

I know the feeling of watching the battery dwindle. Let's talk in the morning. I have stuff scheduled but will move it around as necessary. Let me know a time.

TPB

- > On Jun 11, 2015, at 10:11 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:
- >
- > I got the message
- >
- > Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

(no subject)

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: Sara Glenn <Sara.Glenn@shell.com>

Thu, Jun 11, 2015 at 10:05 PM

We cut off, but at any rate let's have that call with ann in the morning.

TPB



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell alaska

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thu, Jun 11, 2015 at 9:40 PM

Yes, I think it would be good for the lawyers to have a legal discussion. I can help arrange that. My ask would be that you have senior lawyers who are concerned with advising the company about legal and capital risks, not the regional lawyers who have been focused on facilitating permitting.

TPB

> On Jun 11, 2015, at 9:32 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> I meant did you want a separate call with shell legal To bridge the views

>

> Sent from my iPhone

>

>> On Jun 11, 2015, at 9:27 PM, Tommy Beaudreau <tommy_beaudreau@ios.doi.gov> wrote:

>>

>> Yes, I believe we on for the call. Yes, you should have your lawyers on.

>>

>> TPB

>>

>>> On Jun 11, 2015, at 9:25 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>>>

>>> Hi. Are we set to have a conf call at 12:30 tomorrow? Shd I ask Katie? Wd it be helpful to you to have a call with shell lawyers. We see several workable theories

>>>

>>> Sent from my iPhone



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Connecting you -

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>

Thu, Jun 11, 2015 at 7:01 PM

To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Cc: "Maurydevine@aol.com" <Maurydevine@aol.com>

Thanks, Sara.

Maury, pleased to be introduced to you. Give me a call at your convenience and let me know what you have in mind. (b) (6).

Best,

TPB

On Jun 11, 2015, at 5:18 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

Tommy - By this email I am connecting you to my dear friend and former colleague Maury Devine. She ran some of Mobil's businesses in Europe when I first met her. In her post-Mobil career, she has been serving on various corporate boards and remains well-connected with oil and gas community. (I have not done justice to her resume....)

I suggested that she connect with you about the possibility of a senior DOI official participating in a major conference in Norway that she moderates.

Thanks much,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company ·
1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299
6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska - follow up call tomorrow Friday at 12:30 DC time

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Thu, Jun 11, 2015 at 3:40 PM

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

(no subject)

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thu, Jun 11, 2015 at 3:21 PM

Give me a call when you have a minute. (b) (6).

TPB



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov, Michael.Farber@bsee.gov

Tue, Jun 2, 2015 at 12:46 PM

Tommy, Mike - I thought you might be interested in these two documents. The first is a list of pertinent op-eds (with the op-eds attached); and the second is a list (with links) of pertinent articles.

Let me know if you have questions. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

2 attachments



Notable Media June 1 Update - Op-Eds.docx
152K



Notable Media June 1 Update.docx
28K

Arctic Exploration Op-Eds: October 1, 2014-June 1, 2015

- "A message to Gov. Inslee and Mayor Murray: Don't mess with Alaska," Seattle Times, 5/29/15
- "Proposed US Arctic Drilling Regs Threaten Economic and Energy Future," Alaska Dispatch News, 5/29/2015
- "Arctic drilling could benefit Ohio," Cleveland Business, 5/29/2015
- "If Seattle Doesn't Want Shell, Head North To The Future," Juneau Empire, 5/27/2015
- "America On The Cusp Of An Arctic Breakthrough," Real Clear Energy, 5/29/2015
- "Allow Shell Drilling In The Arctic: Our View," USA Today, 5/14/2015
- "The Coming Struggle For The Arctic," The Washington Times, 5/6/2015
- "Could the U.S. Lose Its Arctic Energy War To Rivals?," American Thinker, 5/2/2015
- "What Happens In Alaska Affects Texas' Economy," Austin Business Journal, 5/1/2015
- "An energy independence opportunity," The Louisville Courier Journal, 4/29/2015
- "Access To Oil, Gas Still A Concern," Casper Star Tribune, 4/19/2015
- "A Promising Step Forward For Arctic Drilling," The Daily Caller, 4/17/2015
- "Alaskan Energy Matters," Roll Call, 4/9/2015
- "Administration Must Hear From Alaskans About Energy Future," Alaska Journal of Commerce, 4/8/2015
- "It's About Our Future," The Northern Light, 3/29/2015
- "Education Comes First, Which is Why Energy Comes First, Too," Anchorage Press, 3/26/2015
- "Offshore Arctic Energy Means Security for Future Alaskans. Jobs and Energy for the US," Alaska Dispatch News, 3/5/15
- "Open Dialogue Crucial in Deciding Arctic Policy," The Bristol Bay Times, 3/13/2015
- "President Obama Should Understand US Needs to Produce More Energy," New Orleans Times-Picayune, 3/12/2015
- "Offshore Energy Means Savings and Stability," The Hill, 3/12/2015
- "Exploring Gulf could help U.S. achieve energy independence," Orlando Sentinel, 3/11/2015
- "Arctic frozen territory for United States energy exploration," The Gas & Oil Magazine 3/9/2015
- "President Obama, Please Butt Out of Alaska," Washington Examiner, 3/6/2015
- "Why Alaska Holds the Key to Continuing America's Energy Revolution," Alaska Business Monthly, 3/2/2015
- "Arctic oil, gas development would drive economy," Billings Gazette, 2/21/2015
- "Why Washington's Anti-Alaska Policies Hurt More Than Just Alaskans," Townhall.com, 2/20/2015
- "Obama's War on Arctic Energy," Roll Call, 2/19/2015
- "Why the Arctic in the Gateway to U.S. Energy Security," Real Clear Energy, 2/18/2015
- "To Stay A Global Energy Leader, U.S. Must Capitalize on Arctic Development," Forbes, 2/17/2015
- "U.S. Must Capitalize On Arctic Development," Forbes, 2/17/2015
- "Alaskans Have Right To Be Angry With Obama Energy Policy," Investor's Business Daily, 2/13/2015
- "Even Amidst Low Oil Prices, Staying the Course Will Ultimately Benefit Consumers, Producers," Townhall.com, 2/11/15
- "Developing Domestic Energy Essential To Economy, Security," The Advocate, 2/7/2015
- "Obama's Arctic Folly," The Hill, 2/2/2015
- "Domestic Oil Production Bolsters Trucking, Economy," Las Vegas Review-Journal, 1/27/2015
- "Arctic Energy is Critical in Lone Star Country," Fuel Fix, 1/26/2015
- "Rex Rock, Sr.: Restino Fails to Note Noble Drilling's Progress," Alaska Dispatch News, 1/15/2015
- "National Security Begins At Home," Townhall.com, 12/30/2014
- "Louisianans to Elected Leaders: Keep Energy in Mind," American Press, 12/14/2014
- "Global Tug-of-War Over Arctic Resources," Washington Examiner, 12/14/2014
- "Walker, Sullivan Need to Take Alaska's Energy Message South," Alaska Dispatch News, 12/12/2014
- "Why Energy Should Top New Congress's Priority List," Athens Banner-Herald, 12/8/2014
- "Russia Uses Extortion in the Arctic as Red Tape Prevents America from Drilling in Alaska," Breitbart, 12/7/2014
- "Putin's Arctic Plans Spring Ahead While America Lags Behind," Roll Call, 11/12/2014
- "Encourage Arctic energy exploration," Montana Standard, 11/6/2014
- "U.S. must streamline Arctic oil and gas production," Bozeman Daily Chronicle, 11/5/2014
- "U.S. must win the oil ad gas war," Reno Gazette-Journal, 11/1/2014
- "New Congress Provides Opportunity to Answer Voters' Top Concerns," The Hill, 12/3/2014
- "Arctic Frozen Territory for U.S. Energy Exploration," Cleveland Plain Dealer, 12/2/2014
- "America Can't Afford to Lose the Great Race to Secure Arctic Energy," The Bend Bulletin, 11/26/2014
- "Letter: America can't afford to lose the great race to secure arctic energy," The Bulletin, 11/26/2014
- "Now is the time to move forward," Alaska Business Monthly, 11/13/2014
- "Putin's Arctic Plans Spring Ahead While America Lags Behind," Roll Call, 11/12/2014
- "Energy: A Nonpartisan Priority Obama and the New Congress Should Agree On," The Daily Caller, 11/6/14
- "Encourage Arctic Energy Exploration," The Montana Standard, 11/6/2014
- "When Oil In Our Ground Trumps Boots on Foreign Ground," Investor's Business Daily, 11/4/2014
- "Oil Exploration in Arctic Would Keep U.S. Competitive," The Billings Gazette, 11/2/2014
- "U.S. Needs Oil Development in the Arctic," The Billings Gazette, 11/2/2014
- "U.S. Must Win the Oil and Gas War," Reno Gazette-Journal, 11/1/2014
- "Official Offers Insight Into Shell's AIO Plan," The Bristol Bay Times, 10/3/2014

A message to Gov. Inslee and Mayor Murray: Don't mess with Alaska

May 29, 2015

Seattle Times

By Sen. Dan Sullivan

AS an American, a U.S. senator and an Alaskan, I'm deeply concerned with the security of our nation and the economic well-being of my state, much of which depends on continuing the historic and mutually beneficial relationship between Alaska and Washington state.

That relationship is strained and put at risk when officials in Washington use Alaska's economy as a platform to engage in political opportunism.

I'm referring specifically to Seattle Mayor Ed Murray's recent actions to attempt to block Shell's Alaska drilling program by questioning the permit that allows Shell to use the Port of Seattle. Murray said he was doing so "to make a bold statement" about global warming.

Washington's Gov. Jay Inslee, also lobbying to halt Alaska oil exploration, has asked the U.S. Department of the Interior to refrain from issuing any further lease sales for drilling off Alaska's coast.

While genuine concerns and actions to protect the environment are laudable, it is not laudable to use bold statements about the environment as a means for political grandstanding that could undermine economic opportunities for Alaska, Washington and the country.

The mayor's actions are being noticed, but it's probably not the kind of notice that he and other state officials want. Recently, the Alaska state Legislature passed a resolution condemning Murray's and Inslee's actions, while highlighting the hypocrisy underlying them. Alaskan legislators — both Democrats and Republicans — suggested that if Washington's politicians were really interested in reducing greenhouse-gas emissions, they should start in their own backyard by protesting Boeing's operations.

The Alaska Legislature's resolution noted "the closure of the Boeing production facilities would represent a reduction of 650 aircraft a year that otherwise would discharge more than 500,000 tons of carbon dioxide during the lifetimes of those aircraft and would provide a significant reduction in the release of pollutants into the atmosphere."

Closing Boeing — a great American company that employs almost 80,000 Washington residents — is certainly not something I advocate. To the contrary, our country needs more world-class companies like Boeing. But there is truth in the underlying message from Alaska's Legislature, namely that it's always easier to go after jobs in someone else's state.

But perhaps the worst part of all of this is how shortsighted the mayor and the governor are acting. In trying to hurt Alaska, they will end up hurting their own constituents.

Alaska and Washington have had a very close relationship since our gold-rush days. My predecessor, U.S. Sen. Ted Stevens, worked closely with former Washington Sens. Henry "Scoop" Jackson and Warren Magnuson to help pass legislation to preserve, protect and enhance the commercial fishing industry in our states. Stevens, as chair of the U.S. Senate Appropriations Committee, also steered significant federal funds to Sea-Tac International Airport and helped facilitate the expansion of the Port of Tacoma.

Businesses and workers in Washington, including tens of thousands of Seattle's residents, depend on a strong Alaska economy. A recent report conducted by the McDowell Group, named "Ties that Bind," found that Alaskan industries accounted for 113,000 jobs in 2013 and generated \$6.2 billion in wages in the Puget Sound region. According to a report conducted by the University of Alaska, offshore oil production in Alaska, all told, could produce 35,000 jobs and add billions of dollars to state and national tax bases. Washington would realize a good portion of that economic impact. Given recent actions, Alaskans are beginning to focus on building up our own port capacity so that we don't need to rely on the whims of increasingly unreliable Washington politicians.

Bottom line: Not only are the actions of Washington's politicians potentially harmful to Alaskans, they threaten the well-being of Washington's businesses, families, the fishing community and union members.

Alaska has some of the highest environmental standards in the world. And as long as we need hydrocarbons to generate power for our cities, our cars and to fly Boeing airplanes, it is wise policy to ensure that we get our energy from America, employing American workers, while also maintaining the highest standards of environmental protection.

We are all proud residents of two great states. And we are also proud citizens of the United States. Our great strength as a nation lies in our ability to eschew ideological and political extremes and work together for the common good.

That's what our states have done in the past. And that's what we, Alaskans, are proposing for the future.

U.S. Sen. Dan Sullivan, R-Alaska, sits on the Environment and Public Works Committee, and the Commerce, Science and Transportation Committee. He also serves as a lieutenant colonel in the U.S. Marine Corps Reserve.

Proposed US Arctic Drilling Rigs Threaten Economic and Energy Future

May 29, 2015

Alaska Dispatch News

By Sen. Cathy Giessel

<http://www.adn.com/article/20150529/sen-giessel-proposed-us-arctic-drilling-rigs-threaten-economic-and-energy-future>

In recent weeks and months, a number of positive developments have taken place at the federal level that have provided glimmers of hope to the overwhelming number of citizens in Alaska and the country at large that support development of offshore energy resources in the U.S. Arctic.

First, the Interior Department decided in early April to affirm a 2008 Chukchi Sea oil and gas lease sale that originally took place in 2008, but which was subsequently held up by the litigation efforts of anti-development groups. In May, the department took another important step forward when it approved Shell's plan to explore its Chukchi Sea leases this summer.

Then, in defending his administration's decision to approve the exploration plan, President Barack Obama noted that "I would rather us -- with all the safeguards and standards that we have -- be producing our oil and gas, rather than importing it, which is bad for our people, but is also potentially purchased from places that have much lower environmental standards than we do."

Taken together, and assuming that the remaining federal approvals and permits are granted in time for exploration activity to recommence in the Chukchi this summer, these actions represent tangible and critical milestones that could help reinvigorate the Alaska and U.S. economies while strengthening our energy and national security.

To illustrate, in addition to the U.S. Arctic offshore holding an estimated undiscovered technically recoverable 23.6 billion barrels of oil and more than 104 trillion cubic feet of natural gas, as highlighted by a Northern Economics, Inc. and University of Alaska Anchorage Institute of Social and Economic Research report, over a 50-year period development, the Alaska Arctic's Beaufort and Chukchi Seas could contribute an annual average of 54,700 jobs nationwide with \$145 billion in cumulative payroll and \$193 billion in public revenue.

Recognizing the energy security and economic benefits associated with the development of these crucial resources, the National Petroleum Council -- an advisory body to the U.S. Energy secretary comprising individuals representing academia, government, industry, and NGOs -- recently issued a report to the secretary concluding that the United States should facilitate Arctic offshore exploration now to "remain globally competitive and to be positioned to provide global leadership and influence in the Arctic."

As the NPC also made clear in its report, an efficient regulatory framework is a key component in determining the feasibility of U.S. Arctic offshore development. To that end, while the resumption of Arctic exploration in the Chukchi this summer would be a significant advancement, the Interior department's proposed regulations applicable to Arctic offshore exploration drilling could deal a serious setback to long-term efforts to responsibly explore and produce energy in this vital region.

Unfortunately, the regulations proposed to apply to Arctic offshore exploration drilling are redundant, overly prescriptive and excessive, and may in fact *increase* safety and environmental risks.

While DOI's proposed rule would impose a same season relief well requirement, for example, the recent report prepared at the request of the U.S. Energy secretary highlighted two alternate technologies that could double the drilling season length and offer "superior protection with shorter implementation time."

In addition, the prescriptive rules being proposed by DOI would add unnecessary redundancy and deviate from requirements for offshore drilling in other U.S. regions. For example, the DOI proposal would necessitate blowout preventer pressure testing every seven days for drilling operations, rather than every 14 days under current regulations. As DOI notes in the proposed regulation, concerns have previously been raised that requiring such frequent pressure testing could harm equipment reliability and raise the likelihood of an incident.

Rather than specify the particular parameters and operational details under which companies must comply, DOI and the public interest would be far better served by heeding the advice of the NPC and encouraging innovation through performance-based measures. Unlike prescriptive regulations, outcome-based rules would not conspire to hinder the development of newer and safer technologies. In addition, legally questionable and redundant and impractical requirements related to discharge and the submittal of an integrated operations plan should be removed or, at a minimum, clarified.

Lastly, the analysis underlying DOI's estimate of the costs and benefits of the proposed rules is grounded in faulty reasoning that understates the true compliance costs involved. Just as importantly, in calculating the benefits of the proposed rule, the analysis overstates the size and probability of a spill and presumes that older technology required under the proposed regulations would successfully prevent or reduce the duration of the spill.

The necessary path forward is clear: rather than finalize the proposed Arctic exploration drilling regulations, DOI must go back to the drawing board to lay out a revised and thoughtful proposal. Our Arctic clock is ticking away fast, and if we proceed otherwise, this incredible and long-term opportunity just might pass us by.

Sen. Cathy Giessel represents District N in the Alaska Senate. She is chair of the Senate Resources Committee.

Empire Editorial: If Seattle Doesn't Want Shell, Head North To The Future

May 27, 2015

Juneau Empire Editorial

<http://juneauempire.com/opinion/2015-05-27/empire-editorial-if-seattle-doesnt-want-shell-head-north-future>

On Monday morning, a woman hanging on the anchor chain of an oil-drilling support ship finally left her post of protest with the assistance of the U.S. Coast Guard.

The fact is, if Alaskans thought standing on an anchor chain was enough to convince Shell to leave Seattle, flights south would be booked solid. We suspect they'd have a different goal than student activist Chiara D'Angelo.

Alaska's economy is tied to oil. Directly (through oilfield jobs) and indirectly (through government jobs paid for with oil taxes), Alaskans benefit from oil. Oil is a means to an end. We need to drill for it and produce it to maintain our standard of living.

It isn't risk-free — anyone who lived through the Exxon Valdez oil spill or saw the Kulluk aground on Kodiak Island knows this. But this state long ago decided that oil was worth the risk. The drilling takes place in our back yards (in the case of North Slope residents, their front yards), and we've come to accept that.

When we see Outside protesters blockading Shell drill ships in Seattle, we're put on edge. They're protesting drilling, but if those protests are successful, the effects will be felt on Alaska's tables. It's difficult to be alarmed by abstract concerns when your job, your pay, your family's livelihood is threatened.

If Shell is having a hard time in Seattle, we see no reason why it shouldn't simply pack up and head north. Alaskans understand the pros and cons of drilling, and we've come to accept it.

Set up shop in Dutch Harbor if you need a deepwater port. Don't have enough facilities shoreside? Ketchikan or Seward have marine terminals that might work.

Alaska wants the business. If Seattle balks, the doors should stay open here.

America On The Cusp Of An Arctic Breakthrough

May 29, 2015

Real Clear Energy

By Brent Greenfield

http://www.realclearenergy.org/articles/2015/05/29/america_on_the_cusp_of_an_arctic_breakthrough_108500.html

In the midst of our busy daily lives, many Americans may not yet fully comprehend what it means for our country to be an Arctic nation. Thanks to recent developments, however, that dynamic may soon become a relic of the past.

In addition to benefiting from a geopolitically strategic location and the new trade opportunities associated with the opening of new shipping routes, the U.S. Arctic is home to abundant energy resources, including an estimated 23.6 billion barrels of oil and 104 trillion cubic feet of natural gas. To put that into perspective, 23.6 billion barrels of oil would provide over 448 billion gallons of motor gasoline, which would provide the average new car or light truck with enough fuel to make over 22 million trips to the moon and back. In terms of pocketbook impacts, due largely to American production, the average U.S. household will save ~\$700 on gasoline in 2015, according to a new analysis by the Energy Information Administration. This type of consumer benefit demonstrates the many ways in which opening up the Arctic would benefit the average American.

The ability to access offshore natural resources in Alaska's Chukchi and Beaufort Seas will thus clearly play a crucial role in determining the extent of our nation's long-term energy security -- including by providing a lifeline for the continued operation of the Trans-Alaska Pipeline System -- a critical piece of national infrastructure that may be forced to shut down absent a new source of crude oil.

Recognizing that critical relationship, and in response to a request from U.S. Energy Secretary Ernest Moniz, a long-standing federal advisory committee with representatives from industry, government, environmental groups, and academia in late March released a report finding that the United States must ramp up new offshore exploration drilling activity in this region now in order to ensure an energy-secure future and ward off a long-term domestic production decline.

Even more recently, after years of delays brought about by regulatory inertia and legal maneuvering by anti-development groups, the U.S. Bureau of Ocean Energy Management earlier this month gave a green light to plans for exploratory drilling in Alaska's Chukchi Sea this summer. In doing so, the federal government took a pivotal step forward in our quest to become a more energy self-sufficient and secure nation.

To finish the job, however, the federal government must grant the remaining permits and approvals that are necessary for drilling activity to take place this summer. Over the longer term, it must also ensure that rules under consideration that would apply specifically to exploration activities in the U.S. Arctic are sensible, adaptable to emerging practices and technologies, and promote performance-based standards.

In addition, in chairing the Arctic Council over the next two years, the United States must pursue a balanced agenda that seeks to maximize the opportunities associated with economic development in this region.

If we move forward accordingly, in addition to the energy security benefits, the economies of Alaska and the nation at large will be well-positioned to receive a significant boost. To illustrate, the University of Alaska's Institute of Social and Economic Research and Northern Economics study has found that over a 50-year period, development of the Chukchi and Beaufort Seas could create an annual average of 54,700 jobs nationwide and \$193 billion in government revenue -- with 24,600 jobs and \$96 billion in revenue generated from development of the Chukchi alone.

The opportunity before us is nothing short of a game-changer for our country's energy and economic future. Let's not allow it to pass us by.

Brent Greenfield is Director of Offshore Policy with Consumer Energy Alliance

Allow Shell Drilling In The Arctic: Our View

May 14, 2015

USA Today Editorial

<http://www.usatoday.com/story/opinion/2015/05/14/shell-oil-drilling-arctic-chukchi-sea-editorials-debates/27334111/>

There are good reasons to doubt that the Obama administration should let Royal Dutch Shell have another try at drilling for oil this summer in the Chukchi Sea, 70 miles off Alaska's northern coast.

At the top of the list is the sea itself, which is covered with ice much of the year, subject to fearsome storms, and home to sensitive marine animal populations that sustain native Alaskans.

The second reason is Shell's surprisingly inept performance the last time the company tried this, in 2012.

The company sloppily let its contractors make mistake after mistake, ultimately losing control of Shell's expensive, specially built drilling rig while towing it through a ferocious storm. The rig ran aground and was eventually dismantled for scrap. Shell's reputation took an even worse beating than its bottom line.

After an investigation, then-Interior Secretary Ken Salazar correctly said, "Shell screwed up."

The company regrouped for two years before asking to try again, and federal regulators have given a conditional go-ahead. Shell plans to be back in the Chukchi two months from now to drill two exploratory wells.

Arctic drilling was a close call back in 2012, and Shell's misadventures make it an even closer one now.

But on balance, Shell should get another shot.

Here's why:

What got lost in the avalanche of justly deserved bad publicity three years ago was that the actual drilling Shell managed to do went smoothly. This shouldn't be a surprise. It's largely forgotten now, but in the 1980s and early 1990s, Shell and other companies drilled about 100 exploratory wells in the Chukchi and the neighboring Beaufort Sea before abandoning the area for reasons that included low oil prices. Drilling there can be done safely.

Actually, in some ways, drilling in the Chukchi Sea is less risky than in the Gulf of Mexico, where BP notoriously lost control of its Macondo well five years ago in one of the worst spills in history. The BP well was in 5,000 feet of water, which made capping the blowout fiendishly difficult; in Alaska, Shell will be drilling in just 140 feet of water.

Well pressures will also be as much as five times less in Alaska, which lowers the risk of a blowout. Given the weather, the allowable drilling season is very short, running from July through part of October.

The BP debacle actually provides some reassurance. The blowout humiliated the industry and regulators and led to useful changes in blowout preventer design, emergency response and regulations.

Presumably, Shell has learned important lessons from its own failures.

Finally, the U.S. needs the kind of oil that could be found off Alaska. Alternative energy provided 7% of the country's energy needs in 1990. A quarter century later, that has grown to barely 10%. Estimates of recoverable oil in the Arctic offshore run as high as 30 billion barrels, equal to some of the biggest oil fields in the world.

Producing that oil will take a decade or more, which means decisions made today will affect consumers in 2025 or later. That's prudent planning. Shell should go ahead.

The Coming Struggle For The Arctic

The U.S. should counter Russia's efforts to usurp rich regional energy resources

May 6, 2015

The Washington Times

By Thomas McInerney

<http://www.washingtontimes.com/news/2015/may/6/thomas-mcinery-the-coming-struggle-for-the-arctic/>

President Reagan's strategy for defeating Communism during the Cold War — "We win, they lose" — is the approach we should be using to regain our economic advantage and neutralize Russian expansion in a part of the world rich with yet-to-be-tapped oil and gas reserves and major geopolitical consequences — the Arctic.

In fact, a recent analysis by the National Petroleum Council, an advisory council to the U.S. Department of Energy, found that the United States should provide access to Arctic exploration right away if the nation is to keep domestic production

high and imports low. The report added that it takes between 10 and 30 years of preparation and drilling to bring oil to market — a startling length of time given how the demand for oil is projected to rise in the coming decades, even with further advancements in alternative energy.

Making better use of our resources in the Arctic and enacting policies that expand production would ensure that the United States, not OPEC, continues setting the price of global crude oil.

Thanks to state-of-the-art technology and innovative, safe fracking methods, the United States has catapulted to No. 1 in global oil production, saturating the world market with so much oil that it has shaken Russia's economic stability. The potential of Canada and Mexico joining with us to form a North American Energy Alliance only expedites this advantage.

Unfortunately, President Obama continues to do everything in his power to stifle American energy security, even as American motorists continue to enjoy the luxury of low gas prices. Indeed, he recently vetoed Keystone XL pipeline legislation, closed areas of the Arctic National Wildlife Refuge to energy development and restricted access to resources off Alaska's coasts.

These actions demonstrate to OPEC and Russia that the United States is not serious about its energy future. It suggests that if oil oligarchs wait a bit, our energy independence will wane, allowing them to reassume control of global oil prices and America's pocketbook.

As former commander of the Alaskan Command, I am shocked to see that the president would risk our national security with these actions.

As an Arctic nation, the United States — via Alaska — sits in the middle of an increasingly precarious, and important, region. The Arctic is emerging as the next epicenter of geopolitical power struggles, not only for nations that sit within the Arctic Circle, but also for other global powers such as China. New, efficient shipping routes and unparalleled reserves of untapped oil and natural gas have nations across the region — especially our former Cold War adversary — clamoring to establish a stronger footprint in the Arctic.

That is, everyone except the United States.

Because of America's lackluster response, Russia has reopened many of its former military bases in the Arctic, including one base that is 300 miles from Alaskan territory and 420 miles from Alaska's mainland.

Moreover, Russia, whose economy is on the brink because of low global oil prices, is now involved in territorial disputes with Canada. Russia's resolution has not been to go to the United Nations — as Canada has done — but to beef up its forces via a military budget that is up 33 percent from last year.

The proximity and assertiveness of Russia's military presence harkens back to the Cold War, and the chilliness of this latest round of U.S.-Russian aggression should be taken just as seriously.

Rather than use America's new leadership of the Arctic Council to limit energy development and counter climate change, Mr. Obama should strive to bolster his country's long-term energy security by supporting policies to expand U.S. access to resources off the Atlantic and Alaska coasts, and on public lands in the West.

While the Arctic is a world away for most Americans, its importance reaches all the way to our front doors in various, under-the-radar ways. That is why we must take bold action to utilize our resources in this region to counter Russia and maximize our energy potential. If we do so, we will ensure that "We win, they lose" in this global energy contest.

Thomas McInerney is a retired U.S. Air Force lieutenant general.

Could The U.S. Lose Its Arctic Energy War To Rivals?

May 2, 2015

American Thinker

By Colonel David Hunt

http://www.americanthinker.com/articles/2015/04/could_the_us_lose_its_arctic_energy_war_to_rivals.html

The Arctic holds nearly one-quarter of the world's undiscovered oil and gas resources, with U.S. waters in the region home to an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas. Experts say that's enough to create millions of jobs, billions in revenue, and heat every home in America for more than 30 years.

That's very promising news for the United States as the demand for oil is expected to rise in the coming decades.

What's not promising is that several of our greatest economic rivals like Russia and China are already in position to intercept these much-needed resources by exploiting new shipping lanes that have opened up – and will continue to open up – because of melting sea ice.

And we, to date, are not.

That needs to change – and in a hurry, according to a recent report by the National Petroleum Council (NPC).

In adopting the report co-authored by a diverse group of government regulators, non-governmental organizations, environmentalists, industry leaders, and Alaska Native representatives, the long-standing advisory committee to the Energy Department strongly urges the federal government to facilitate exploration in the offshore Alaskan Arctic now, for the sake of our long-term energy security.

Failure to act immediately would risk a renewed reliance on imported oil and jeopardize America's global competitiveness and leadership, and influence in the Arctic, the NPC says.

As such, it would be wise for the Obama Administration – which recently closed off access to the Arctic National Wildlife Refuge (ANWR) and millions of offshore acres in the Arctic Outer Continental Shelf (OCS) – to adhere to the NPC's advice, reverse course, and promote regulations that strengthen, not weaken, Arctic energy development.

Such a course would not only stabilize fuel and energy costs for consumers, but it would also provide an important check and counterbalance to the activities and ambitions of faraway rivals in what has quickly become a geopolitical hotbed.

For example, the report notes that Russia is drilling new exploration wells and expanding its naval and transportation fleet, with the country set to "continue to be a dominant player" in Arctic energy development. In addition, despite its lack of Arctic territory, NPC also observes that China is making significant investments in Arctic research, infrastructure, and natural resource development.

China should certainly not be taken lightly. That goes double – maybe triple – for Russia.

In recent years, the Russians have added a 6,000-soldier permanent military force in the Arctic's northwest Murmansk region, new radar and guidance system capabilities, new nuclear-powered submarines and icebreakers to patrol the Arctic waters nearest to America. Russia has also upped its military spending by 33 percent even though it's in the middle of an economic downturn. All of these moves underscore that Russia is clearly seeking to be a dominant, if not the dominant, player in the Arctic.

But the administration has the power to thwart Russia's advance in this increasingly important, next-door part of the world. Our president knows that oil finances more than half of Russia's budget. He knows that the Russians urgently need to find and sell more oil in order to get out of its recession. And he knows that a critical opportunity to help neutralize Russia's military power in the Arctic and win this unprecedented game of tug-of-war over the resources in the region lies ahead with America's new chairmanship of the international Arctic Council.

There is hope, as evidenced by the administration's recent decision to affirm a 2008 lease sale under which Shell is seeking to explore in Alaska's Chukchi Sea this summer. However, additional approvals are still needed, and 87 percent of America's offshore territory remains off limits to development.

The U.S. has the technology to win this Arctic energy war. Now, it is time for the administration to show the kind of leadership that is necessary for that happen.

Viewpoint: What Happens In Alaska Affects Texas' Economy

May 1, 2015

Austin Business Journal

By David Holt, Contributing writer

More than 3,000 miles separate Texas from Alaska, a faraway region that most Texans – and Americans, for that matter – forget is a part of the U.S., and a large part at that.

That's because Alaska and Texas are both of great value when it comes to their importance in strengthening and sustaining the American economy. Energy is vital to both, and considering they're the two largest states geographically, they have a substantial amount of natural resources that have yet to be tapped.

Texans are mindful of the vast economic benefits energy production provides nationally and throughout The Lone Star State. An equal amount of devotion is needed by policymakers in Washington and by advocates across the country, to ensure that the same story is allowed to unfold in Alaska. In Texas, officials and voters alike must work to build the case for broad support of Alaskan energy production if America is to become truly energy self-sufficient.

Like Texas, Alaska is a goliath in domestic energy production, which continues to be the backbone of the nation's strengthening economy and security. But our energy resurgence has also triggered a series of noteworthy geopolitical events. In response to a lack of leadership in the region, and abundant energy resources and other commercial opportunities, Russia and China are bulking up their operations in the Arctic.

The region holds as much as 30 percent of the world's undiscovered natural gas and Russia is going after it. Russia is working to swiftly militarize the region, building new airbases and bulking up their fleet of nuclear-powered icebreaking ships. And state-owned Rosneft is expanding its Arctic energy production, leaving the U.S. behind. China is building an Arctic satellite relay station and has observer-status as a "near-Arctic" nation at the Arctic Council.

At the same time, oil-rich and politically unstable regions, through the Organization of the Petroleum Exporting Countries (OPEC) have seen their political might over us and others dramatically weaken. The U.S., for the first time in decades, is no longer subject to the whims of this once powerful cartel. We now import about 40 percent of the petroleum that we consume, down from a one-time high of 60 percent. We are now more energy self-sufficient than ever before.

Texas played a major role in this swing, but it had help. A variety of shale plays across the U.S., coupled with improved hydraulic fracturing techniques, contributed to the momentum swing, as did developments in renewable energy. However, few regions regularly delivered the amounts of much-needed oil like Alaska and its vast array of onshore and offshore resources did. Alaska can help close the gap on our energy imports – and reduce the 40 percent we currently import – even further.

These are all reasons why, even in the midst of a temporary lull in oil prices, Texas and Alaska must continue working together to increase domestic energy production. While Texans commonly brag about being the energy capital of the U.S. – with good reason – we would not be the largest energy-producing state without the aid of other energy-rich regions like Alaska, whose offshore waters have about 27 billion barrels of oil and 132 trillion cubic feet of natural gas of undeveloped resources.

To put these figures into perspective, consider this: According to Consumer Energy Alliance, 30 billion barrels of Alaskan oil could fuel every domestic flight for over 120 years, and 141 trillion cubic feet of natural gas could heat every American house for 34 years. That's on top of the significant number of jobs it would create and billions in revenue it would add to the economy.

Texans have already taken notice. Shell for instance, has invested more than \$760 million in 116 local Texas companies that provide services and products in support of its drilling activities in Alaska. That is three-quarters of a billion dollars, from one business alone. This doesn't include the investments other oil companies in Texas are making in Alaska, and the thousands of jobs, income growth, and new businesses more investment in Alaska could bring to Texas.

This means that investing in Alaskan energy production not only powers Alaska, but it powers Texas, too. And the entire nation. What happens up north is definitely of great importance down south. This is why Texans have been investing, and will continue to invest, in the development of Arctic energy. In the end, Alaska's future is also Texas' future.

David Holt is President of Consumer Energy Alliance.

Considine: Access To Oil, Gas Still A Concern

April 19, 2015

Casper Star Tribune

By Timothy Considine, SER Professor of Economics and Finance, University of Wyoming, and Member, Consumer Energy Education Foundation

http://trib.com/opinion/columns/considine-access-to-oil-gas-still-a-concern/article_63c2afd2-37d9-5afe-8525-995c012642a9.html

Low oil prices are a boon for the U.S. economy. Contrary to what many experts thought possible, a surge of oil production from the United States has forced oil prices down by more than 50 percent. American oil and gas engineers and scientists have created this renaissance with technology unlocking fossil fuel reserves that were thought uneconomic just a few years ago.

Lackluster demand for petroleum also has contributed to lower oil prices. Together with new supplies from America and more fuel-efficient vehicles, the average American now pays considerably less at the pump. These gains, however, can quickly disappear with stronger demand growth, falling investment in new oil and gas development, or supply disruptions across our chaotic world.

Maintaining stable prices, therefore, requires continued conservation and the development of new energy supplies. America is no longer a captive to events shaping world oil markets. Instead, we can pursue policies that will shape our energy future.

Besides energy conservation, ensuring safe and environmentally responsible development of fossil fuel reserves remains an important challenge. While oil and gas development on private lands has soared in recent years, production from federal lands has languished.

The Obama Administration's decision to open up areas off the Atlantic coast is a step in the right direction. Decisions remain to be made concerning oil-rich portions of the Beaufort and Chukchi seas off the coast of Alaska. Moreover, improvements can be made to reduce the years of delay in developing energy reserves on federal lands in Wyoming, Utah and other Western states.

As recent events so vividly illustrate, US production of energy affects world market prices. Hence, decisions affecting energy access directly affect what we pay at the pump and the myriad of ways that energy affects how much we pay for goods and services, from shipping charges to our electric bills.

And it's not just American consumers who are affected by access decisions. Millions of people around the world who live in abject poverty are even more directly affected by high-energy costs resulting from delayed or restricted access to energy. Kerosene for lighting and diesel fuel for running water pumps are big-ticket items for millions of subsistence farmers. Lower energy costs are a big deal for these folks.

Over time, energy costs matter. When people enjoy greater disposable income, they become healthier, no longer worrying about the next meal and more inclined to desire a cleaner environment. Indeed, the economic connection with energy access and cost is a key driver for social movements to improve environmental quality.

So we need to think about energy access holistically, via resources like the Consumer Energy Education Foundation. For those of us who believe in these principles, we need to express our views to local, state, and federal policymakers to maintain and expand access for energy development. Like energy conservation, maintaining access to energy reserves is good for the economy and will lead to a more environmentally sustainable future.

A Promising Step Forward For Arctic Drilling

April 17, 2015

The Daily Caller

By David Holt, President, Consumer Energy Alliance

<http://dailycaller.com/2015/04/17/a-promising-step-forward-for-arctic-drilling/>

If the U.S., the new global leader in oil and natural gas production, stands a chance of keeping domestic energy production high and consumer costs and imports low, a recent report says it had better start utilizing its massive amount of yet-to-be-tapped oil in Arctic waters off the coast of Alaska.

The analysis, compiled by the National Petroleum Council (NPC), an advisory council to the U.S. Department of Energy comprised of individuals representing government, academia, ENGOs/NGOs, and industry, says that efforts to tap new sources of oil in the U.S. Arctic must begin now in order to ensure our long-term energy security and associated economic and national security benefits.

Considering it takes 10 to 30 years of preparation and drilling to bring oil to market, failure to explore the Arctic's array of natural resources risks a renewed and forecasted reliance on imported oil, which would adversely affect the nation's global competitiveness and geopolitical influence.

Thankfully, in a move that likely heartened the NPC and the authors of the new report, the Bureau of Ocean Energy Management (BOEM) recently lifted suspensions on Chukchi Sea Outer Continental Shelf (OCS) oil and gas lease sale 193. The 2008 lease sale had been hindered for years by ongoing litigation pursued by anti-development groups.

The decision, which will allow BOEM to review exploration plans for the Chukchi Sea, marks an important milestone for consumers in Alaska and across the nation and a necessary step forward in the effort to explore for and develop domestic energy resources in the Arctic's resources-rich waters.

However, in order for consumers in Alaska and the rest of the country to realize these resources' economic and societal benefits, the federal government must move forward in a timely manner to grant the remaining approvals and permits necessary to access these resources. BOEM must also ensure that proposed Arctic oil and gas regulations currently under consideration are developed in a way that does not inhibit the long-term feasibility of offshore energy development in the region – as restrictions imposed by the Obama Administration earlier this year in nearby parts of the Arctic have done.

The administration recently cut off access to the Arctic National Wildlife Refuge (ANWR) and millions of acres offshore in the Alaska Outer Continental Shelf (OCS), the latter of which has an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas. That's enough to create nearly 55,000 jobs and \$50 billion in government revenue over the next 50 years.

These ill-advised decisions are surprising given that most Americans support more access, more production, more jobs, more economic growth, and more energy security. Significantly, as an October 2014 poll demonstrated, those who would be in closest proximity to U.S. Arctic offshore energy development – Alaskans themselves – overwhelmingly support allowing such activity to take place.

Last December, my organization, the Consumer Energy Alliance (CEA), submitted more than 100,000 U.S. consumer comments in support of Alaskan offshore energy development. In addition, over the last eight months we have submitted more than 340,000 comments from Americans who have made it crystal-clear that they want the U.S. to unlock a path toward responsible offshore energy development. The Arctic, with its overflowing collection of yet-to-be-tapped oil and gas resources, is a good and necessary place to start.

Fortunately, the majority of American consumers and businesses leaders, much to the dissatisfaction of anti-energy activists, understand that energy production is not an either-or choice between economic and environmental prosperity. They know the potential risks – and sky-high rewards – associated with offshore energy production. They know we can mitigate the risks and solve the challenges linked to environmental protection and responsible energy development.

With the U.S. chairmanship of the Arctic Council, we now have the opportunity to determine our own destiny when it comes to energy production and energy security. Let's hope Washington gets the message – from us, the NPC, and all Americans – and provides the policy and regulatory environment necessary to support development of our offshore energy resources, including those in the Arctic.

David Holt is the President of Consumer Energy Alliance.

Alaskan Energy Matters | Commentary

April 9, 2015

Roll Call

By Former U.S. Rep. and House Natural Resources Committee Chairman Richard Pombo

<http://blogs.rollcall.com/beltway-insiders/alaskan-energy-matters-commentary/?dcz=>

Americans understand energy is a building block of our nation and economy. It heats our homes and businesses, fuels transportation and employs hundreds of thousands — touching every facet of our lives.

As a cattle rancher, I saw how energy costs affected my day-to-day life. As a former chairman of the House Resources Committee, I explored the math and science behind these impacts. The conclusion was clear: Energy is a critical resource we must support. It dictates our budgets, provides billions in government revenue and creates jobs.

President Barack Obama's administration appears to be ignoring these facts. Last month, the president announced he was designating 12 million acres in Alaska's Arctic National Wildlife Refuge as wilderness, preventing development of its rich resources despite a decades-old congressional agreement intending the opposite. Afterward, it denied drilling in the Chukchi and Beaufort seas. These decisions, combined, ensure that millions of barrels of oil and gas are made off-limits to consumers — and the nation's concerns are mounting, as evidenced by remarks made a recent Senate Energy and Natural Resources Committee hearing on Arctic opportunities.

I've visited the North Slope of Alaska, including ANWR, many times. It is a vast, beautiful, and unique landscape that should be protected and preserved. But it is also about the size of South Carolina. And if energy production occurred in the 1002 area of ANWR, it would take place on a fraction of the land, comparable to the size of Dulles International Airport in Washington, D.C.

I visited the area in the winter when it was 40 below zero and there was no sunlight, as well as in the summer when it was 32 degrees and sunlit for 24 hours. I also held an official congressional hearing in Kaktovik, where the locals traveled as much as 100 miles on snow machines to voice their support for limited, responsible energy development.

Sadly, Obama seems to have fallen prey to the false choice presented by anti-development activists focused on locking up access to Alaskan resources — to either protect the environment or progress and development. Americans do not have to choose between energy independence and protecting our environment. We can do both.

Indeed, technology and American workers have enabled us to produce energy in the Arctic with environmental safety. As the world's leader in environmental protection, it is irresponsible for us to import oil from unstable, foreign countries that produce it recklessly. We can and must do our national security, environment and economy a great service by supporting Arctic energy production.

Regrettably, these decisions may spell doom for the vital Trans-Alaska Pipeline System, an 800-mile engineering wonder has carried an average of 9 percent of our daily consumption since its start. At its peak, it transported 2 million barrels of oil per day — 3 percent of the world's crude — over its length in just three days. Thanks to bad energy policy decisions, TAPS now carries just a quarter of this amount, and takes five times as long. This puts the pipeline at risk for corrosion and clogs — and of being shut down.

By law, TAPS will be permanently closed if production drops below a certain minimum. Considering the pipeline still transports slightly more than 5 percent of our domestic crude production and provides 90 percent of Alaska's general fund revenue despite being down to 500,000 barrels per day, shutting down TAPS would be devastating to Alaska and America alike.

It would be especially devastating to the West Coast — in areas such as my home state of California — where net imports from foreign nations, including Russia, have more than tripled since the late 1980s to 42.1 percent. With the West Coast spending more than \$267 million per day on oil despite the U.S. shale energy revolution occurring in other parts of the country, it's ridiculous we are still so dependent on foreign, unstable countries when we have such energy resource potential here. The amount of imports required would go up exponentially if TAPS were closed.

On an issue as important as energy, keep the bull on the ranch, not in the midst of a political discussion. The administration's policies need to change. We need to increase exploration, development and production, all of which can be done safely, sustainably and environmentally consciously. Isn't it better if we control every aspect instead of an unstable foreign nation?

The survival of TAPS is critical to our survival and success. Production matters, and it is high time for the administration to understand this.

Richard Pombo is the former congressman from California's 11th congressional district. He served as the chairman of the House Committee on Resources. He is now a partner with Gavel Resources.

Administration must hear from Alaskans about energy future

April 8, 2015

Alaska Journal of Commerce

By David Holt, President, Consumer Energy Alliance, and Aves Thompson, Executive Director, Alaska Trucking Association

<http://www.alaskajournal.com/Alaska-Journal-of-Commerce/April-Issue-2-2015/GUEST-COMMENTARY-Administration-must-hear-from-Alaskans-about-energy-future/>

Much to our misfortune, the administration has once again shown how a faraway federal bureaucracy can do and will do what it wants, when it wants — with zero input from those who will be affected most.

Earlier this year, the federal government made a series of controversial proclamations regarding Alaska and its surrounding Arctic region that sent political shockwaves throughout the state and the country.

First, President Obama announced that he would continue to block energy production in millions of acres of the Arctic National Wildlife Refuge, Alaska's best onshore energy prospect, then made significant areas of the U.S. Arctic Ocean off limits to energy exploration as well.

Together, the decisions snatched away tens of thousands of would-be jobs and billions in expected revenue, all without first conferring with those who would be most affected by these decisions — Alaskan consumers themselves.

Fortunately, Alaskans finally got a chance to speak out earlier this month at a pep-rally-like press conference hosted by Consumer Energy Alliance-Alaska which was attended by several representatives from an assortment of industry and consumer advocate groups, like the Alaska Trucking Association

The turnout was extraordinary. Dozens of consumers, as well as labor and business leaders, packed the event to express their support for more offshore Alaskan energy production, some holding up signs that read "OCS YES!"

We hope the administration will see, feel, and hear what we saw, heard, and felt that day, the fears and uncertainties Alaskans have about their future, their children's future, and their grandchildren's future thanks to an administration that continues to hurt Alaska's bread-and-butter industry — energy.

"I got two little grandsons and I'm looking at them, hoping that when they're old enough to get into the workforce that OCS is going to be cranking along and that we're going to be having jobs to put them to work, to earn money, to raise their families," Alaska AFL-CIO President Vince Beltrami said at the press conference.

The gathering was held moments before the Bureau of Ocean Energy Management held an open house about its proposed 2017-2022 Outer Continental Shelf (OCS) Oil & Gas Leasing Program — a plan that is "woefully inadequate" as currently drafted, said former Lt. Gov. Mead Treadwell.

Here's why: The Alaska Outer Continental Shelf (OCS) has about 27 billion barrels of oil and 132 trillion cubic feet of natural gas. Development of these resources would create 54,000 jobs and \$193 billion in federal revenue. These resources could help get Alaska out of its multibillion-dollar budget shortfall, help power millions of American homes, and

help extend the longevity of the Trans-Alaska Pipeline System (TAPS), an energy artery for the lower 48 states that continues to face a declining throughput.

"TAPS, which is operating at one-fourth capacity, is the economic lifeblood of Alaska's economy and a critical link to the nation's long-term energy security," Rick Rogers, executive director of the Resource Development Council of Alaska, said.

As such, Alaskans of all political affiliations continue to urge the feds to allow the safe and responsible exploration and production of the massive amounts of natural resources that pepper the Alaskan and Arctic regions, but impediments to development persist.

The DOI's leasing plan is the latest hurdle. While the proposal includes three sales off Alaska — one in the Beaufort Sea, Chukchi Sea, and Cook Inlet, it also restricts leasing in certain areas. Moreover, it remains uncertain if even those three lease sales would proceed in the future.

This is not the plan we need to guarantee that Alaska remains a significant component of the expanding American energy equation, which has made worldwide, geopolitical headlines in recent years for its top-ranked oil and natural gas production. Instead, we need a strategy that utilizes every resource we have available to us, regardless of where it is, to guarantee greater energy self-sufficiency. Alaska, ANWR, and its encircling Arctic regions are included.

There is a lot riding on sustaining and expanding Alaskan energy production — the pocketbooks of consumers, the balance sheets of businesses and governments, and the job security of millions.

Now it's up to us to preserve that economic lifeline by letting the administration know how we feel about their defective strategy.

David Holt is the president of Consumer Energy Alliance and Aves Thompson is the executive director of the Alaska Trucking Association.

It's About Our Future

March 29, 2015

The Northern Light

By Nick Black, Student, University of Alaska Anchorage

<http://www.thenorthernlight.org/2015/03/29/its-about-our-future/>

Being a college student is exciting and challenging — it also can be a bit nerve-racking as graduation gets closer. Considering how depressed our economy has been, is it any wonder? Even as reports have started to highlight slightly rosier circumstances, college graduates are still struggling to find their footing in these new conditions. This is why college is now a time for trepidation, as well as intrepidity.

Being a student in Alaska — a proud Seawolf — makes these feelings even more intense. Our futures are intricately linked with the future of our state overall, and so also with the future of energy. This is because our state is one of the greatest resources for domestic energy in the country, and encouraging its responsible exploration and development is key to the future of energy, and also of our state. Energy means jobs, opportunities, and revenue, especially in Alaska.

Consider that between the Arctic National Wildlife Refuge (ANWR) and U.S. Arctic waters, there is an estimated nearly 40 billion barrels of recoverable oil and 132 trillion cubic feet of natural gas, which could heat America's homes for decades to come. For Alaskans, these resources could increase revenues for the state and help fund our state universities and colleges — programs that have been cut in recent years due to lower oil production and lower state revenues.

Exploring these supplies would increase our stability and security, lower costs for consumers, provide billions in new revenues, and create tens of thousands of jobs. And jobs are critical to students like me. In fact, my friends who are pursuing petroleum engineering degrees are truly dependent upon whether the energy industry is encouraged or discouraged. We all are. If the energy industry is not encouraged, the entire Alaskan economy would be doomed — and my friends and I could be forced to leave our home state in search of opportunities elsewhere.

Frustratingly, the administration's recent decisions are not encouraging. Proposing a leasing plan that bans development in large swaths of U.S. Arctic waters, as well as a drilling ban in resource-rich areas of ANWR, strangles our domestic

energy production, and chokes our futures. The President should have spent time consulting with those directly impacted, those of us who live and work — and hope to work! — in Alaska.

In fact, he should have consulted with his Departments of Labor and Commerce too. Both have highlighted the amount of Americans still out of work, despite the rising number of new job openings, pointing out that much of this can be explained by a gap in skills. This is especially true in the STEM fields (science, technology, engineering and mathematics) that my friends and I love. It's difficult to encourage students to choose these fields though, when the future of an important industry related to these fields is in doubt thanks to Administration policies.

The truth is, it is about all of our futures. The energy industry is critical to not just students like me who hope to pursue careers at home, not just to the great state of Alaska, but also to all Americans. Our futures are linked via this vital resource. It is time for energy exploration and development to be encouraged — for all of us.

Nick Black is a student at the University of Alaska Anchorage.

Education Comes First, Which is Why Energy Comes First, Too

March 26, 2015

Anchorage Press

By Tammy Duff, Anchorage school teacher

<http://www.anchoragepress.com/opinion/education-comes-first>

The ongoing low cost of oil continues to be a blessing for millions of Americans who are still filling up their tanks and heating their homes at a fraction of the usual cost. But all actions have a reaction, and in this case, the consequences for oil-dependent regions like my home state of Alaska could become dire if the Obama administration is not careful.

That's because as oil goes, so does Alaska. According to the Alaska Resource Development Council, oil production, on average, funds approximately 90 percent of the state's General Fund unrestricted revenue, which in turn helps fund schools statewide. In fact, the state provides two-thirds of the funding for the Anchorage School District where I work.

But with oil prices still exceedingly low, the state's budget holes are expanding, and various public services are in jeopardy of being eliminated or reduced, including education and possibly many of its much-needed services and programs at my school and others.

While the Obama administration is not solely responsible for the state's budget turmoil — Alaskan production, after all, has been steadily declining since peaking in 1988, when it produced 25 percent of all U.S. oil — it has always had the tools to help ease the situation. With Alaska now producing just 7 percent of the nation's oil supply, and no state income or sales taxes to help fill the void, the President could have lent a hand by opening more federal territories for exploration and development.

Instead, the president made a series of controversial decisions — without thoughtful consideration from Alaskan officials or residents — that closed off access to an assortment of urgently needed natural resources. After denying access to areas of the Arctic National Wildlife Refuge (ANWR) by proposing it for wilderness designation, the Interior Department blocked off access to various oil-rich portions of the Beaufort and Chukchi Seas, which holds an anticipated 27 billion barrels of oil and 132 trillion cubic feet of natural gas just waiting to be tapped.

These resources, in addition to helping my students and their parents heat their homes for years to come, would help keep energy costs stable even after oil prices bounce back and help Alaska replenish its revenue stream and balance its budget. This, as a result, would also help preserve many of the academic services and programs that could soon be under consideration for elimination or reduction in schools across the state. Developing these resources would also give ConocoPhillips, BP, Exxon, and other energy companies that regularly give grants to school across Alaska new opportunities to invest in Alaska and in our future generations.

Unfortunately, President Obama's Administration, which prides itself on its dedication to education and the nation's newfound global dominance in oil and gas production, has endangered the future of both by proposing a string of hotly contested decisions based on hyperbole and not science. By cutting off entry to large swaths of offshore resources in Alaska, especially those in U.S. Arctic waters, the administration is sending a somber message to our students blessed with aptitudes in science, technology, engineering, and mathematics — commonly referred to as STEM fields — that, yes, your skills are welcomed and needed, but not in Alaska.

What's not clear to the administration – but is to teachers, administrators, students, and parents – is that by not allowing Alaska to grow its energy sector via every avenue available to us, you are risking our financial stability, our national security, our global competitiveness, and most importantly, our children's education and their futures.

And nothing is more important to we Alaskans – and we Americans – than our children.

Tammy Duff is a school teacher in Anchorage.

Offshore Arctic energy means security for future Alaskans, jobs and energy for the US

March 25, 2015

Alaska Dispatch News

By Randall Luthi, President, National Ocean Industries Association

<http://www.adn.com/article/20150325/offshore-arctic-energy-means-security-future-alaskans-jobs-and-energy-us>

If there is one thing I have learned, it is that American voters are incredibly smart and savvy. I know this after having spent decades in public service, both in our nation's capital and in my beautiful home state of Wyoming. I also know this because poll after poll show voters comprehend how critical energy is to our economy.

Alaskans understand the importance of energy better than most. The oil and natural gas industry supports one-third of the state's workers and provides a vast majority of the state's budget. For those of us in the Lower 48, the Trans-Alaska Pipeline System remains a vital part of our nation's energy security, supplying about 500,000 barrels of oil each day to consumers on the West Coast.

But, Alaska is unable to meet its full energy potential. The federal government has restricted access to some of the world's most abundant oil resources in Alaska, including onshore areas of the Arctic National Wildlife Refuge and offshore areas of the Chukchi and Beaufort seas.

Experts estimate that U.S. Arctic waters hold 27 billion barrels of oil and 132 trillion cubic feet of natural gas. This could heat every home in America for more than 30 years. Moreover, studies show that opening these resources to exploration could generate nearly 55,000 jobs nationally and \$193 billion in government revenues over the next 50 years.

Development of U.S. Arctic offshore resources will not only bolster our nation's energy security. By permitting safe, scientifically sound Arctic offshore energy programs, the United States can advance its leadership and set a positive example in the Arctic, an area of increasing geopolitical importance.

The Obama administration has the ability to move us forward in the Arctic. While it's positive news that the Department of the Interior has taken action to resolve legal challenges with an existing lease sale in the Chukchi Sea, not all of the agency's actions have been supportive of Alaska offshore energy.

Notably, the federal government's recently proposed offshore leasing program falls short of realizing our tremendous opportunities in the Arctic. Off Alaska, the administration chose to further reduce areas for analysis, potentially stymieing the development of these prodigious resources.

Needless to say, the administration's Arctic policy has been a mixed bag offering little guidance or encouragement to companies looking to explore and develop offshore resources. Forthcoming decisions about existing drilling programs and new Arctic-specific regulations will affect the trajectory of Arctic development. The administration would be wise to promote performance-based regulations that will best allow new technologies and practices to adapt to the unique Arctic environment.

While a near-term price drop may have shifted producers away from higher-cost Arctic plays, a number of countries have made long-term efforts to maintain a presence in the Arctic due to the size of the resource base and its strategic importance. Indeed, as other Arctic nations like Norway and Russia enthusiastically advance Arctic offshore energy programs, the United States remains on the sidelines. To remedy this, the federal government must provide a clear path forward to allow companies to realize our energy and economic potential.

Minimizing our reliance on other, often unstable, countries increases our security, ensures the stability of our energy supply, and reduces expenses for households, businesses and governments alike. Even more important, bringing more of our energy supply "in house" allows us to control every facet of production from initial exploration to final delivery to the consumer. That's a win-win for all Americans.

It's why I've said many times before that we need to support an all-of-the-above energy strategy. This is the epitome of smart and savvy, and something the American voter clearly understands. The question is whether our politicians and policymakers do. We need to take our country to the next level vis-à-vis our economic and energy security. The only way to do this is to safely and responsibly explore our own offshore energy resources, particularly off Alaska.

Open dialogue crucial in deciding Arctic policy

March 13, 2015

The Bristol Bay Times

By Rex Rock, Sr., President, Arctic Inupiat Offshore, LLC and President and CEO, Arctic Slope Regional Corporation

http://www.thebristolbaytimes.com/article/1511open_dialogue_crucial_in_deciding_arctic

True democracy isn't easy. It requires lots and lots of work to ensure that every voice is heard. Through numerous elections, debates and even compromises, we strive for an outcome that best represents the interests of everyone — even if the process isn't the most efficient. It's messy but undoubtedly necessary.

Recent unilateral moves by the Obama administration illustrate that it prefers to avoid the messiness of constituent engagements, of leaving some voices out of the conversation. After all, it's easier for politicians to stay in Washington and talk and act amongst themselves.

The administration's decision to manage the Arctic National Wildlife Refuge as Wilderness, with a capital "W", caught many Alaskans flat-footed. As North Slope Borough Mayor Charlotte Brower reacted, "These types of paternalistic, executive fiat seem to be more appropriate for Andrew Jackson's administration than Barack Obama's," further noting that the administration ought to first travel to Alaska and speak with the people who live there before making sweeping decisions.

This wasn't an anomaly but clearly a pattern of how the administration prefers to treat Alaska. Just prior to his announcement on ANWR, the president issued an executive order to enhance coordination in the Arctic in advance of the United States' forthcoming chairmanship of the Arctic Council.

While I can appreciate a renewed focus on the Arctic and its issues, the White House's approach to the region is too narrow and single-minded. For example, the order forms an executive committee that does not include one single Alaska Native or Alaska official.

Through our experience with Arctic Inupiat Offshore, LLC (AIO) and the many dialogues with Shell Oil prior to the company's formation, I've seen firsthand the value of a policy that includes open dialogue between parties. AIO is a privately held corporation comprised of Arctic Slope Regional Corporation, Tikigaq Corporation, Olgoonik Corporation, Atqasuk Corporation, Ukpeagvik Inupiat Corporation, Nunamiut Corporation and Kaktovik Inupiat Corporation - established to promote sustainable economic development within the Arctic Slope region. AIO's investment in Shell and its offshore drilling programs ensures that Alaska Natives have a say in decisions and an opportunity to voice concerns. I would like to see the administration adopt a similarly open approach when it comes to critical Arctic issues.

The Obama administration will soon make many critical decisions regarding the future of Shell's program and Arctic drilling in general. I strongly hope that federal regulators will value the improvements that Shell has made to its program over the past few years and allow the company to proceed with operations this summer.

I further hope that the president and his Interior Secretary Jewell will weigh the desires and concerns of Alaska Natives properly, recognizing that we are the people most directly and significantly affected by decisions made thousands of miles away. It is the right approach, especially as the U.S. prepares to take a global leadership role in chairing the Arctic Council.

While the AIO model may not be the appropriate tool for encouraging better communication between federal officials and Alaskans, it does demonstrate that its mission — better dialogue and shared responsibility — is achievable, sustainable and mutually beneficial.

As history has shown, the livelihood of the Inupiat and our way of life can unfortunately be impacted by uninformed, yet seemingly well-intended policy makers. That's why I'm adding my voice to the chorus of others in my region in pushing for a seat at the table when critical decisions are made regarding the Arctic. It's not too late — if the administration wants to listen.

Rex A. Rock Sr. is the president of Arctic Inupiat Offshore, LLC. He is also the president and CEO of Arctic Slope Regional Corporation (ASRC), the largest locally-owned and operated company in Alaska.

President Obama should understand US needs to produce more energy

March 12, 2015

New Orleans Times-Picayune

By Charlotte Randolph, President, Lafourche Parish

http://www.nola.com/politics/index.ssf/2015/03/president_obama_should_underst.html

Lafourche Parish has a simple but essential motto: "Feeding and fueling America." It is, after all, something our state does well. Not only do Louisiana farmers annually produce first-rate cane sugar, but our anglers also haul in some of the best wild-caught seafood in the world. Most importantly, our ports handle approximately one-quarter of our nation's oil and gas.

As parish president, I know how significant all of these activities are to Louisianians' - and Americans' - livelihoods and prosperity. That is particularly true of the oil and gas industry, whose revenues, according to analysts, account for 14 percent of the state's budget.

Unfortunately, President Barack Obama, regardless of facts, statistics and endless amounts of economic data, does not comprehend just how vital domestic oil and gas development is to heating his constituents' homes, fueling their vehicles and strengthening the nation's security. We currently import nearly 40 percent of our oil, a baffling number considering that we have plentiful resources to produce all the petroleum we need and assure that our security is not dependent upon the stability of other countries.

If the Obama administration wishes to grow the economy, create jobs, and enhance national security in an environmentally friendly way, all it has to do is make decisions based on facts, not hyperbole.

The president has not done this yet, evidenced by a recent executive order creating a steering committee on U.S. arctic policy that suspiciously excludes state officials and natives of Alaska -- those who are most involved and, therefore, will be most impacted.

Greater evidence of this disregard was the Department of Interior's recent announcement to restrict access to domestic exploration in many areas of Alaska, such as in the resource-rich Beaufort and Chukchi Seas, and in the Arctic National Wildlife Refuge (ANWR). Again, this was done without engagement from Alaskans themselves. I understand their outrage. In 2010, the Obama administration instituted a deepwater drilling moratorium in the Gulf of Mexico with little to no consideration as to how this would hurt Gulf Coast economies already suffering from the Macondo oil spill.

Consider that the U.S. Arctic waters are thought to have 132 trillion cubic feet of natural gas and 27 billion barrels of oil, an amount that could heat all the homes in America for a third of a century. This does not include other offshore resources, such as the waters in the Gulf or in the Atlantic, or the considerable amounts of yet-to-be-tapped resources onshore. For instance, the amount of recoverable oil in ANWR is 10.4 billion barrels. That is more than enough to up our national security exponentially and put a considerable dent in our reliance upon volatile, unstable faraway nations. Nevertheless, various offshore regions remain hands-off to production.

One of the best ways to boost our economy is to explore and develop our vast array of natural resources, not by shielding access to them. Case in point: Alaskan offshore development could alone create more than an estimated 55,000 jobs nationally and generate \$193 billion in revenue. Imagine how many more jobs we could produce if we increased exploration and production throughout the Arctic and other resource-rich geographical pockets in the U.S.

Producing energy domestically also allows the United States to ensure the right safeguards are in place -- and the proper environmental care is being taken -- during the entire process. No such assurances are granted through foreign imports, as most countries do not have the same high-level, eco-friendly protections that we do. In fact, the only way we can make sure we are protecting the environment -- everywhere -- is by producing our own energy right here at home, watching over it from the first step to the final step.

Wisely caring for our economy and the environment should be important priorities, which is why President Obama's recent decisions are simply not prudent. I have seen firsthand what a difference American energy production makes and understand how critical it is to support this vital industry.

It's time for the president to make a positive impact on the nation by authorizing policies that support domestic energy exploration and production. It is the only way to feed and fuel America, wisely and safely. And, you want to know another reason why we should care about Alaska here in Louisiana? Because if he can limit energy exploration there, he can do it here -- again.

Charlotte Randolph is the president of Lafourche Parish.

Offshore energy means savings and stability

March 12, 2015

The Hill

By Randall Luthi, President, National Ocean Industries Association

<http://thehill.com/blogs/congress-blog/energy-environment/235385-offshore-energy-means-savings-and-stability>

If there is one thing I have learned, it is that American voters are incredibly smart and savvy. I know this after having spent decades in public service, both in our nation's capital and in my beautiful home state of Wyoming. I also know this because poll after poll show voters comprehend how critical energy is to our economy.

Energy is a complicated issue, but one that is vitally important – whether it's concerning finances or security. It directly impacts our pocketbooks, from an individual household on up to a national level, such as our military. After all, we use energy in some form or another every single day, from gas for transportation to oil for heating buildings. When energy costs rise, expenses for families and governments go up significantly.

It also directly impacts our national security, thanks to the fact that approximately **40 percent of the crude oil we consume** is imported, including from chaotic areas of the world such as the Middle East, Russia and Venezuela. When a key resource is sourced from unstable regions, our supply is simply not stable.

The most efficient way to ensure stability with regards to this critical resource? Tap into our own supplies. Offshore energy reserves are abundant around the United States, and safely exploring and developing these assets would not just ensure the continued growth of our economy, it also would increase our security.

Just one example are U.S. Arctic waters, which are thought to contain an **estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas**. This could heat every home in America for more than 30 years. It would also generate billions in additional revenue, create jobs nationwide, and reduce costs for households across the country.

There are resources elsewhere though too: the Eastern Gulf of Mexico, the Atlantic Outer Continental Shelf (OCS), and the Pacific OCS. Had robust access to all of these areas been included in the Bureau of Ocean Management's **next Five Year OCS Oil and Gas Leasing Program**, the benefits to all Americans would be profound.

Studies show that opening these three areas to exploration would generate more than \$200 billion in cumulative government revenue, create almost 1 million new jobs nationwide, and produce more than 3 million barrels of oil equivalent per day. Considering that we currently import approximately **9.9 million** barrels per day, this would cut our dependence on other countries in third.

Unfortunately, the federal government's proposed offshore leasing program falls short of realizing these tremendous opportunities. For instance, off Alaska the administration chose to further reduce areas for analysis, potentially stymieing the development of these prodigious resources. As other Arctic nations enthusiastically advance Arctic offshore energy programs, the U.S. government dithers.

Minimizing our reliance on other, often unstable, countries increases our security, ensures the stability of our energy supply, and reduces expenses for households, businesses and governments alike. Even more important, bringing more of our energy supply "in house" allows us to control every facet of production from initial exploration to final delivery to the consumer. That's a win-win for all Americans.

It's why I've said many times before that we need to support an all-of-the-above energy strategy. This is the epitome of smart and savvy, and something the American voter clearly understands. The question is whether our politicians and

policymakers do. We need to take our country to the next level vis-à-vis our economic and energy security. The only way to do this is to safely and responsibly explore our own offshore energy resources.

Luthi is the president of the National Ocean Industries Association (NOIA), America's Offshore Energy Industry.

President Obama, please butt out of Alaska

March 6, 2015

Washington Examiner

By Alaska State Sen. Cathy Giessel

<http://www.washingtonexaminer.com/president-obama-please-butt-out-of-alaska/article/2561056c>

Alaskans are constantly being reminded of what a distant federal bureaucracy will do on a whim.

On a Sunday morning last month, President Obama showed once again his determination to stunt our state's development when he designated as a wilderness area the coastal plain of the Arctic National Wildlife Refuge.

This comes after his executive actions to close energy leasing in Bristol Bay and the Chukchi and Beaufort Seas. These decisions were all made without the support of Congress or Alaskan officials.

The decision doesn't just affect Alaskans. Alaska is an energy artery to the United States. For more than twenty years, one-fifth of the nation's oil production traveled through our Trans Alaska Pipeline System (TAPS). This despite the fact that 60 percent of our land is in federal hands, and seven of the ten largest National Parks are in our state, along with the largest state park in the country. Americans drive cars running on Alaskan crude, and then fly oil-fueled planes to enjoy our scenic lands and wildlife.

Every dollar that goes to Alaska is a dollar that doesn't go to hostile, volatile regimes that undermine democracy in the world. And development has helped Alaska's Native peoples thrive, raising their living standards by several orders of magnitude. Alaskan Native Corporations are now some of the state's largest employers.

This should be a success story. Instead, our efforts to explore and harvest our own resources have been met by Washington's hostility time and again.

To give one egregious example, King Cove, an isolated village in western Alaska, cannot even get a one-lane, twelve mile dirt road to an all-weather airport for the purposes of medical evacuation. That's because the Department of Interior says the road would potentially harm a bird habitat in the Izembek National Wildlife Refuge, which the road would traverse. Alaska has offered to exchange 56,000 acres for the paltry 206 acres needed to obtain the right of way. But birds are more important than people to federal officials.

By the way, the federal land in Izembek is literally crisscrossed with existing roads used by bird watchers ... and bird hunters.

The Arctic National Wildlife Refuge coastal plain contains immense resource potential — ten billion barrels of recoverable oil — and the footprint necessary to develop it is no larger than Reagan National Airport. It is the equivalent to a postage stamp being placed on a football field, and it would significantly increase production levels, which have fallen off precipitously in recent years.

Congress recognized this value in 1980, when the coastal plain was specifically set aside for eventual oil and gas development in the same law that established a plethora of national parks, refuges, and wilderness larger than the size of California. This was the agreed-upon exchange: in return for all this land being conveyed and locked up, no more land would be taken off the table without Congressional approval.

Since that time, Congress has time and again voted to allow the development in the coastal plain. Time and again, executive actions through vetoes and orders demanded by the environmental lobby have prevented us from moving forward.

This is not just an overreach, it is a slap in the face. Alaska supports this country, has a record of responsible management, and yet is treated as a bad actor. Anyone who considers Obama's actions appropriate should consider the hypocrisy of driving cars with oil imported from dictators while lecturing Alaskans on the ethical use of their own state's land.

Cathy Giessel, a lifelong Alaskan, serves as a Republican in the Alaska State Senate, representing District N in Anchorage.

Why Alaska Holds the Key to Continuing America's Energy Revolution

March 2, 2015

Alaska Business Monthly

By Anne Seneca, Executive Director, Consumer Energy Alliance-Alaska

<http://www.akbizmag.com/Alaska-Business-Monthly/March-2015/Why-Alaska-Holds-the-Key-to-Continuing-Americas-Energy-Revolution/>

About a decade ago, the United States faced what seemed to be a dismal, almost frighteningly bleak energy future. We were on the verge of a large—and seemingly unsurmountable—energy shortage. Our country's lack of domestic production, coupled with rising imports of petroleum, was adding to our nation's mounting deficit, not reducing it.

Long-lasting, detrimental impacts were expected to unfold as the direct or indirect result of this shortage. American consumers, in addition to seeing their job security deteriorate, would see their energy costs skyrocket. Our competitiveness globally would nosedive, as would our country's economic stability. Even our national security could be compromised, experts advised.

Most important, the United States would have to rely more heavily on faraway rival nations to provide us with the energy we need to power our communities and fuel our vehicles.

There was no way around this, we were told. It was, in essence, inescapable. However, thanks to Alaska and several other energy-plentiful states and regions, none of that ever materialized.

A New Era in Energy

Consumer Energy Alliance always said the pendulum would swing back the other way if the United States, in an economically and environmentally friendly way, continued to explore and harness its abundant resources.

Fortunately, our nation's perseverance paid off. New technologies combined with advancements in old hydraulic fracturing techniques have accelerated domestic energy production to heights not seen since the 1970s. Imports have decreased; in turn, so has the US trade deficit. Instead of importing about 60 percent of the petroleum we consume, as we did not too long ago, the United States now imports about 40 percent.

The turnaround has had a domino effect throughout the national economy. Job growth accelerated. We are more energy self-efficient. National security has strengthened. Manufacturing is up, as is consumer spending. Filling up a car has never been lighter on the wallet, and American consumers are keeping more of their hard-earned dollars in their pockets—just as we expected.

Instead of having an energy shortage, our country now has an energy surplus—and it's changed everything.

Geopolitical Consequences

The avalanche of geopolitical consequences that have resulted from our newfound dominance in energy exploration and extraction is not lost on Consumer Energy Alliance.

The steep drop in fuel costs is not an American-only occurrence; the effects have been felt worldwide. US shale production has unquestionably played a key role in this phenomenon. Reduced demand and increased supply, thanks largely to the abundance of production from the United States, top the list of causes as to why oil prices are mind-bogglingly low for the United States and nations across the globe.

For Americans, the whims of the Organization of the Petroleum Exporting Countries (OPEC) are now of little consequence for the first time in decades. As American production has increased, OPEC's influence on the global oil marketplace has decreased.

They have a plan for that—and a gutsy and expensive one at that. Rather than cut current production levels, which would have propped up oil prices, OPEC, led by Saudi Arabia, did the opposite. They left production levels unchanged. Why?

Well, since shale production, which now produces 4 million barrels daily, is more expensive than conventional extraction, keeping oil prices bottom-of-the-barrel low will in due time drive out US shale producers, allowing OPEC and the Saudis to reclaim the market share lost to the United States. The Saudis said the kingdom will rely heavily on the billions they have in reserve to help ease the short-term burden of their artificially inflated prices. That's the theory anyway. In fact most estimates show that American energy companies can weather the low price environment much better than previously thought, making the Saudi's gambit an expensive and futile one.

Now's Not the Time to Slow Down

It's quite evident by now that much has changed over the course of the last several years. We are now leaders, not followers, in the global energy marketplace. Thanks to our abundance of energy, oil prices are low, much to the delight of consumers and motorists countrywide. Instead of overspending on high fuel or electricity costs, Americans are shopping and dining out more and going on those long-awaited vacations that had been on hold for years. This, of course, includes Alaskans.

There's more: The United States is now the largest oil-and-gas producer in the world, and its record-breaking rate of development has helped spearhead the nation's economic recovery from the lingering effects of the Great Recession.

Nevertheless, our energy ascendency has also jumpstarted a "geopolitical game of chicken" between Americans and the Saudis-led OPEC. Who will blink first? As long as the United States maintains its supremacy in the global energy sector by continuously diversifying its energy resources, continuing its strong rate of production, and exploring all available natural resources, it will not be us.

Alaska's Key Role

This is where Alaska and its encircling Arctic region, cluttered with vast amounts of yet-to-be-tapped resources, are critical. According to the Alaska Resource Development Council, there are an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas in the Arctic waters off Alaska. These resources, we calculate, could heat every home in the United States for more than thirty years. Similarly, they could dramatically reduce energy costs for millions of households, generate billions in additional revenue, and manufacture countless jobs for all Americans, especially Alaskans.

As such, it's imperative that we make better use of the Arctic's vast array of resources. Unfortunately, to date, we haven't. While energy production in the Lower 48 states has gone up 77 percent in the last five years, Alaska has seen its production drop from a high of 2 million barrels per day in the late 1980s to under 400,000 per day today. On top of government delays and foot-dragging, years-long environmental reviews, excessive and unnecessary litigation, new management plans, and regulatory uncertainty are also to blame.

Make no mistake, roughly 62 percent of Alaska's mainland and all waterways more than three nautical miles offshore are owned and managed by the federal government, which has been unwilling to lease and permit expanded development on its territory. Consequently, Alaska's competitiveness has plummeted. According to the Alaska Oil and Gas Association, Alaska oil production accounts for less than 10 percent of US domestic production today. In contrast, it accounted for more than 20 percent before 2000.

It is also important to maintain production even as the state faces a sizeable deficit due to the recent dip in oil prices. Oil has long been the economic backbone of Alaska, with production revenue accounting for more than half of its annual budget and nearly all of the state's discretionary spending. This, too, shall pass, and when it does it will be important for Alaskans to work together to ensure the long-term budget stability of the state moving forward.

Now more than ever is the time for Alaska to lead the way and demonstrate to the Lower 48 the immeasurable economic and environmental benefits that energy exploration and production, onshore and offshore, can bring to Alaskans and all Americans. The road to American energy security has always run through Alaska. Let's make sure that continues to be the case. Consumer Energy Alliance will do its part to ensure Washington understands the importance of Alaska energy production and the role it will play in the future. Join us.

Anne Seneca is the Executive Director of Consumer Energy Alliance-Alaska. An Alaskan for almost twenty-five years, Seneca has a passion for safe and economical energy development both within Alaska and nationally. With experience in marketing and public relations, Seneca serves as the key liaison in reaching out to large groups of Alaskans with a strong, succinct message of the benefits of responsible resource development and consumer advocacy.

Why Washington's Anti-Alaska Policies Hurt More Than Just Alaskans

February 20, 2015

Townhall.com

By Alaska State Sen. Cathy Giessel

<http://townhall.com/columnists/cathygiessel/2015/02/20/why-washingtons-antialaska-policies-hurt-more-than-just-alaskans-n1959651>

Federal overreach isn't just a catchy talking point. It has real consequences that I see and experience every day in Alaska.

Alaska has been the victim of countless actions by the Obama Administration to unilaterally close off areas in Alaska to energy development. In the past two months, President Obama has used his executive authority to close areas in Bristol Bay, the Chukchi Sea and the Beaufort Sea from energy leasing – all without congressional oversight or thorough consultation with Alaskan officials. Then, on a Sunday morning last month we awoke to the news the president would attempt to permanently close the Arctic National Wildlife Refuge (ANWR) to energy development. While Congress thankfully has pledged not to follow this misguided directive, the administration will continue to manage ANWR as wilderness, moving the possibility of development of the area's 10 billion barrels of oil even further into the future.

Alaskans have a right to be angry. Yes, Alaska is predominately comprised of federal lands, managed by the federal government, but this in no way limits how significantly decisions about management of these resources affect Alaskans. Our livelihoods, our state budgets and our future generations depend on energy development, and access to new energy resources on federal lands in our state is paramount to Alaska's continued success. One-third of Alaskan jobs are in the oil and natural gas industry and 90 percent of our state's discretionary spending is tied to revenues from energy development.

Those who criticize our state's reliance on oil should realize the hypocrisy of their statements. Alaska doesn't only produce oil for our exclusive use. The United States – mostly those on the West Coast – depend on Alaska oil to fuel their economies, and we have played a central role in boosting our nation's energy security for decades.

The Trans-Alaska Pipeline System (TAPS), for example, was built with our country's energy security in mind. Today, it carries nearly half a million barrels of crude oil daily through an 800-mile pipeline from Prudhoe Bay to Valdez, Alaska, where it is shipped to refineries and consumers on the West Coast. However, the pipeline could carry much more - it once carried 2 million barrels a day - and Alaska has enough oil reserves to produce more energy for our Lower 48 neighbors.

It's disappointing that the U.S. continues to import over 40 percent of its oil. Indeed, the reliance upon imported oil is even more drastic along the West Coast: net crude imports there have jumped to a whopping 42.1 percent in 2012 from a paltry 11.2 percent in 1988 when Alaska was producing 2 million barrels of oil a day. Even worse, some of this oil is imported from unstable regions, such as Russia and the Middle East. Imports aren't increasing because the West Coast is consuming more; in fact, despite a growing population, demand has been relatively steady thanks to efficient use of our resources. Rather, California and Alaska are producing far less oil than they used to, mostly as the result of poor policies that restrict development. Prohibiting energy extraction in more areas offshore and onshore will ensure that this trend continues.

The United States is on the brink of energy independence – a goal that every president since Jimmy Carter has extolled but never achieved. The president may be celebrating lower gasoline prices, but he fails to recognize how his decisions will ensure that U.S. energy independence is nothing but a brief historical aberration. Affordable, domestic energy doesn't happen overnight. It requires smart policies laid long before you can realize the gains. In 10 to 20 years down the road, energy consumers may join Alaskans in criticizing the president's shortsighted actions to block Alaska energy and limit America's energy potential.

The president should listen to Alaskans and follow our leadership. We saved America from dependency on OPEC oligarchs in the 1980s, and we stand ready to prevent future generations from facing the same threats.

Obama's War on Arctic Energy | Commentary

February 19, 2015

Roll Call

By Col. David Hunt (Ret.)

<http://blogs.rollcall.com/beltway-insiders/obamas-war-on-arctic-energy-commentary/?dcz>

After long delays, the Obama administration has finally made a decision on its Arctic policy and focus on the development of the vast amounts of natural resources that encircle Alaska. Several decisions actually.

Unfortunately, they took a step in the wrong direction for the nation's goals for self-sufficiency, economic growth and national security.

Rather than solidify our national security by expanding our country's diverse energy portfolio and opening up several areas of the energy-rich Arctic region to exploration and production, the administration, with leadership of the Arctic Council just a few months away, chose to set a bad example by closing off much of this territory via a recent series of puzzling announcements that will be at the center of debate at next month's Senate Energy and Natural Resources Committee hearing, according to Chairwoman Lisa Murkowski, R-Alaska.

First, the president issued an executive order creating a steering committee on U.S. Arctic policy that excluded Alaskan natives and officials — you got that right, there were not any Alaskans on the Arctic policy steering committee. Then, the administration asked Congress to designate several parts of the Arctic National Wildlife Refuge as a wilderness area, putting the land off-limits for drilling and violating multiple agreements and promises that Washington had previously made to Alaska. Days later, the Interior Department unveiled a draft of its proposed leasing program for offshore waters between 2017 and 2022 — and did not include several portions of the Arctic's resources-rich Beaufort and Chukchi Seas, restricting access to some of the world's most prolific reserves of oil and natural gas. Not to be lost is the multiple-year delay in permitting and approving energy development in existing leases held in both seas.

This chain of proclamations shows just how out-of-touch the president continues to be on the significance of this influential part of the world. Newer, more efficient shipping routes, combined with potential world class untapped oil and natural gas resources, has made the Arctic an emerging hotbed for control of international affairs. But while many countries have moved quickly to leave their mark in the region, America, to date, has not.

Even though Alaskan oil was instrumental in helping the U.S. undo the Soviet Union back in the 1980s, the administration remains oddly in the dark about the geopolitical importance of the Arctic. This region's significance, however, is not lost on the Russians, who have launched a large-scale militarization that includes a 6,000-soldier permanent military force in the northwest Murmansk region, new radar and guidance system capabilities, and nuclear-powered submarines and icebreakers. Russia is also engaged in Arctic territorial disputes with Canada, sidestepping the United Nations in the process while drawing up somber memories of the Cold War.

With Russia shaken by tumbling crude oil prices — a global market trend led by America's new role as an oil and gas leader with an abundance of energy and a decreasing need for imports — now is the time for the president to open more exploration and production in yet to-be-tapped regions. Such a maneuver would have helped to hamper Russia's military advancement in the Arctic, while creating jobs here at home and further improving our national security. After all, it grows increasingly harder — and costly — to maintain a colossal military presence when oil prices, the Russian economy's bread and butter, stays low.

Instead, the president has acted to restrict access to some of the most resources-rich sectors of the world. The damaging impact of his decisions are far reaching. They impede our ability to learn significant maritime information. They reduce our navigation and border security capabilities. And they obstruct our ability to grow our energy infrastructure, which would keep us moderately reliant on foreign rivals such as OPEC for oil. The results will be to lead us deeper into debt and help fund our greatest adversaries.

As both the U.S. Senate and House of Representatives will highlight in upcoming hearings, there is still time for the administration to right this wrong and jettison overly prescriptive regulations that stifle innovation and are counter to our geopolitical interest in regions such as the Arctic. This would help us utilize all available resources to counter rivals such as Russia and boost our ongoing energy boom in the lower 48 states, which has made the U.S. more self-sufficient and secure than ever before.

It can be done. All it takes is advancing policy aimed at improving our infrastructure and safeguarding our borders rather than progressing misguided agendas that benefit our rivals.

David Hunt is a retired U.S. Army colonel and a former security adviser to the FBI. He served as counterterrorism coordinator for the 1988 Summer Olympic Games in Seoul.

Why the Arctic is the Gateway to U.S. Energy Security

February 18, 2015

Real Clear Energy

By Col. David Hunt (Ret.)

http://www.realclearenergy.org/articles/2015/02/18/why_the_arctic_is_the_gateway_to_us_energy_security_108292.html

About a decade ago, we were sounding the alarms over what appeared to be an impending energy shortage. Our inability to generate an adequate amount of domestic energy, we thought, would lead to an increase of petroleum imports, which would multiply our trade deficit, up electricity costs, and weaken our national competitiveness.

Instead, new technologies and advancements in hydraulic fracturing triggered an energy revolution that has helped the economy regain its footing and put hundreds of thousands of Americans back to work. It's also a big reason why crude oil prices have dropped and why fuel costs are so budget friendly. American consumers are expected to save an average of \$750 in 2015 thanks to low fuel prices.

This turn of events illustrates why energy production is so critical to the nation's economic health and long-term security. It also demonstrates why we must continue to search for new, innovative ways to produce energy, diversify our resources, and explore oil-rich regions, onshore and offshore, which have yet to be tapped.

One of the areas with an abundant supply of natural resources waiting to be tapped is the Arctic. The Alaska Resource Development Council estimated that there are about 27 billion barrels of oil and 132 trillion cubic feet of natural gas in the federal-managed Arctic waters off Alaska. These resources alone could heat every home in the U.S. for more than 30 years. There are also countless rare earth minerals and massive renewable wind, tidal, and geothermal energy resources yet to be maximized.

These resources also hold massive geopolitical implications. Countries like Russia, Norway, and Canada have already moved forward with hard-hitting strategies to tap these bountiful resources. In a geopolitical move, Russia recently initiated a large-scale militarization of the region that includes a 6,000-soldier permanent military force in the northwest Murmansk region, new radar and guidance system capabilities, and new nuclear-powered submarines and icebreakers.

The U.S. has responded gradually, jumpstarting Arctic exploration and infrastructural expansion programs at a sluggish pace. Producers also continue to be hindered by regulatory and legal challenges from the Obama Administration, which has made little effort to work with drillers to reach a compromise that includes streamlining permitting and implementing flexible regulations that promote environmentally safe energy development. Because of a lack of offshore leasing programs, our access to much-needed natural resources hasn't transpired.

Recent moves by President Obama to block energy development in the oil-rich Arctic National Wildlife Refuge clearly demonstrate that this administration does not yet see the Arctic as a region of significant geopolitical and energy development importance like others do, even though free flowing Alaskan oil was crucial in aiding the U.S. unravel the Soviet Union in the 1980s. In fact, their undisciplined approach to Arctic exploration has only stalled our ability to advance our energy infrastructure, learn valuable maritime information, and elevate our navigation and border security.

If the U.S. is to continue its newfound energy dominance in a way that bolsters our economy, increases job creation, and continues providing consumers with budget-friendly fuel and electricity prices even after oil prices climb back up, it must continue to diversify its energy portfolio in an environmentally friendly way. Contrary to what the administration thinks, achieving this includes pursuing the expansion of all forms of energy, in all areas available to our nation, the Arctic included.

If we expand our energy security and portfolio with resources in and around Alaska and other yet-to-be-tapped federal lands, it will send a hard-hitting message to Russia, Saudi Arabia, OPEC, and other rival nations and organizations that today's American energy dominance across the globe is a permanent, not temporary, era.

Now that is a legacy the President and his Administration can – and should – strive to achieve.

David Hunt is a retired U.S. Army colonel and a former security adviser to the FBI. He served as counterterrorism coordinator for the 1988 Summer Olympic Games in Seoul.

To Stay A Global Energy Leader, U.S. Must Capitalize On Arctic Development

February 17, 2015

Forbes

By Former U.S. Sen. Conrad Burns (MT)

<http://www.forbes.com/sites/realspin/2015/02/17/to-stay-a-global-energy-leader-u-s-must-capitalize-on-arctic-development/>

The recent fall in oil prices has prompted questions about America's continued dominance as a global energy leader. However, those in doubt must remember two things: America still possesses rich energy resources and companies possess the technological advances that will enable us to prevail. We can continue this trajectory by putting policies in place which encourage corporations to invest in U.S. energy development, rather than elsewhere.

One case in point is the Arctic, which contains some of the world's largest undiscovered reserves of oil and natural gas. Companies should be able to make exploration and development decisions in this region, unencumbered by government red tape. The price of oil may be a factor in their decision of when to conduct operations, but government roadblocks or slow approvals should not be the factors which deter their operational or investment decisions.

At a time of unrest in both the Middle East and Eastern Europe, our government should be sending signals that we are serious about long-term energy development both on and off our shores. It is critical to our national and economic security that we demonstrate our strength in this area. I firmly believe in the following:

- The federal government will soon determine whether operators can resume exploring for oil and natural gas in the Chukchi Sea. Companies have made considerable investments in plans, personnel and technologies to operate safely in offshore Alaska, working in cooperation with federal and state agencies. The science shows that we can drill in the Arctic safely, and we hope that operators will be given the opportunity to expeditiously move forward.
- The Trans-Alaskan-Pipeline System (TAPS) is one of our nation's most critical national security assets. If the throughput in the pipeline continues to decline as it has in recent decades, and no new supplies are found, it could eventually be shut down. Per the Alaska Department of Natural Resources (DNR): "A premature shutdown of TAPS would eliminate one of the nation's top domestic energy assets and increase the nation's reliance on foreign oil." We can protect TAPS and the flow of oil by expeditiously developing Arctic resources.
- America's increased oil and natural gas development has spurred a manufacturing renaissance with lower energy costs to run factories and lower input costs. Further, Arctic resources could bring even more manufacturing jobs back to all of the lower 48 states.
- More oil and natural gas not only supplies domestic energy to fuel homes, businesses and factories, but it also provides products that can potentially be made available on the global marketplace to further increase U.S. competitiveness.

The U.S., under Secretary of State John Kerry's chairmanship, will soon lead the Arctic Council, a coalition of Arctic nations which collaborates to address sustainable development and environmental protection in the Arctic. We can build on the foundational work of the council by continuing to promote safe and responsible Arctic economic development, including safe energy development.

- The federal government is evaluating new regulations that could impact the future of Arctic oil and natural gas development. As federal regulators consider new rules, it would behoove them to allow companies, seeking to operate in the Arctic, the freedom to select, adapt and create the safest technologies possible for Arctic development. As we have

experienced in just the past few years, technological advances, such as horizontal drilling and hydraulic fracturing, have revolutionized energy development and forged the path for America's role as an energy superpower. Companies have continued to innovate to maximize the safety and efficiency of these technologies as they meet and anticipate new requirements. The ability to utilize the latest technologies to address the anticipated—and unanticipated—challenges in the Arctic will be the key to safe and responsible Arctic energy development.

The Obama administration must capitalize on all opportunities to promote responsible Arctic economic development. We can maintain our global energy leadership with the right decisions without further delay.

Alaskans Have Right To Be Angry With Obama Energy Policy

February 13, 2015

Investor's Business Daily

By Alaska State Sen. Cathy Giessel

<http://news.investors.com/ibd-editorials-perspective/021315-739402-america-on-brink-of-energy-independence.htm>

Federal overreach isn't just a catchy talking point. It has real consequences that I see and experience every day in Alaska.

Alaska has been the victim of countless actions by the Obama administration to unilaterally close off areas to energy development.

In the past two months, President Obama has used his executive authority to close areas in Bristol Bay, the Chukchi Sea and the Beaufort Sea from energy leasing — all without congressional oversight or thorough consultation with Alaskan officials.

Then, on a Sunday morning last month, we awoke to the news the president would attempt to close permanently the Arctic National Wildlife Refuge (ANWR) to energy development.

While Congress thankfully has pledged not to follow this misguided directive, the administration will continue to manage ANWR as wilderness, moving the possibility of development of the area's 10 billion barrels of oil even further into the future.

Alaskans have a right to be angry. Yes, Alaska is predominately comprised of federal lands, managed by the federal government. But this in no way limits how significantly decisions about management of these resources affect Alaskans.

Our livelihoods, our state budgets and our future generations depend on energy development, and access to new energy resources on federal lands in our state is paramount to Alaska's continued success. One-third of Alaskan jobs are in the oil and natural gas industry, and 90% of our state's discretionary spending is tied to revenues from energy development.

Those who criticize our state's reliance on oil should realize the hypocrisy of their statements. Alaska doesn't only produce oil for our exclusive use. The United States — mostly those on the West Coast — depend on Alaska oil to fuel their economies, and we have played a central role in boosting our nation's energy security for decades.

The Trans-Alaska Pipeline System, for example, was built with our country's energy security in mind. Today, it carries nearly half a million barrels of crude oil daily through an 800-mile pipeline from Prudhoe Bay to Valdez, Alaska, where it is shipped to refineries and consumers on the West Coast.

However, the pipeline could carry much more — it once carried 2 million barrels a day — and Alaska has enough oil reserves to produce more energy for our Lower 48 neighbors.

It's disappointing that the U.S. continues to import over 40% of its oil. Indeed, the reliance upon imported oil is even more drastic along the West Coast: Net crude imports there have jumped to a whopping 42.1% in 2012 from a paltry 11.2% in 1988 when Alaska was producing 2 million barrels of oil a day.

Even Amidst Low Oil Prices, Staying the Course Will Ultimately Benefit Consumers, Producers

February 11, 2015

Townhall.com

By David Holt, President, Consumer Energy Alliance

<http://townhall.com/columnists/davidholt/2015/02/11/even-amidst-low-oil-prices-staying-the-course-will-ultimately-benefit-consumers-producers-n1955630>

In less than a decade, the one-time feeble U.S. energy sector has accomplished a record-breaking 180-degree turnaround thanks to advancements in new technologies. In fact, at the current rate, the nation is likely to hit production marks not seen since the 1970s.

As such, we now live in a more energy self-sufficient nation, one that is inching closer every day to energy independence. While we utilize roughly 25 percent of the world's oil on a daily basis, about 40 percent of the petroleum we consume is imported, down from 60 percent not too long ago.

Consumer Energy Alliance (CEA) has advocated for years that if the U.S. continues to develop and explore new energy opportunities in economically and environmentally friendly ways, production would not only escalate, but the economy would also strengthen, as would job growth. Most important, consumers would keep more of their hard-earned money in their pockets – and much of that has indeed unfolded.

With oil prices hovering around the \$50 mark recently, gas prices have plunged, much to the delight of motorists. Lower oil prices have also been a welcome sigh of relief for other parts of the economy, because when American consumers spend less filling their tanks, they spend more elsewhere, like dining out, shopping, and going on vacations that were once on hold.

But we also know that our emergence in the shale industry has had massive geopolitical consequences. The reduction in the cost of oil is not just an American phenomenon – it's a worldwide event. Prices are down around the globe for an assortment of reasons – reduced demand and increased supply top the list – and the U.S. fracking as played a large role in this pendulum swing, upping supply and lowering prices.

It has certainly rocked the boat at the Organization of the Petroleum Exporting Countries (OPEC), which has seen its influence on the global oil marketplace weaken dramatically. For the first time in decades, the whims of the OPEC oil cartel are of little consequence to Americans. In response, OPEC, led by Saudi Arabia, decided late last year not to cut production, keeping prices low. Their thinking is this: Since shale production – which has grown to 4 million barrels a day – is more costly than regular extraction, keeping oil prices low will eventually drive out U.S. shale producers.

It's a strategic – and expensive – attempt by the Saudis and OPEC to reclaim its market share from the U.S. Saudi Arabia is willing will have its first budget deficit since 2011 and the largest in its history. The billions the kingdom has in reserve are expected to help ease the burden of this short-term pain.

This means that the U.S., even in the face of low crude prices, must continue its years-long winning streak in the global energy sector by diversifying their energy resources and increasing, not decreasing, access to natural resources. While we also start expanding market opportunities for those resources.

Make no mistake: Numerous onshore and offshore resources remain untapped, like an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas in the Arctic waters off Alaska. These resources, and countless more, could heat every home in America for more than 30 years. It would also generate billions in additional revenue, create jobs nationwide, and reduce costs for households across the country.

What goes down must come back up, oil prices included. While crude prices have fallen more than 50 percent since June, causing many American producers to second guess their plans to drill and explore additional resources onshore and off, the drop is temporarily, as prices are still expected to rise later this year.

When they do, we need to make sure that our energy policies and markets are still at the head of the line worldwide, just as they are today. By staying the course and continuing to promote an all of the above energy approach in the U.S., we can help to support the nation's future economic growth, job creation, self-sufficiency, and national security.

Developing domestic energy essential to economy, security

February 7, 2015

The Advocate

By Henri Boulet, Executive Director, LA 1 Coalition

<http://theadvocate.com/news/opinion/11496023-123/letter-developing-domestic-energy-essential>

Energy was a critical issue in our recent election, both on a national scale and right here in Louisiana. As someone who has dedicated his life's work to supporting investments in infrastructure critical to this important resource, I was not surprised to see that a recent poll once again showed voters clearly understand that energy provides a huge boost to the economy and that the economy was at the top of voters' priorities.

In multiple polls leading up to the election, respondents made clear that the economy, job creation and economic conditions were the most important issues on their minds. It would be wise for our politicians to remember this to ensure that we continue our progress in righting our economy and creating more jobs to replace all those that we lost.

It is why Louisianans repeatedly express their support for energy production. Our state already has a close relationship with energy, and so we have seen firsthand the many opportunities created thanks to the exploration of the Gulf of Mexico's Outer Continental Shelf. It is plain that many more opportunities would be available if further development were pursued.

Which is what makes us care about Arctic energy opportunities, as well. Alaska is more than 3,000 miles away, but it plays a huge role in our nation's economy and security. This is because the Alaskan OCS, with an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas, is one of the country's most prolific energy reserves.

Increasing domestic energy production would increase our national security, while also improving our economy by lowering costs for key household expenses. Bonuses? It would create more jobs and revenue, with an estimated 55,000 jobs and \$193 billion in revenue.

The potential jobs, revenue, and increased national security all would provide huge boosts to our economy. For Alaska, like Louisiana, it will provide local communities with tremendous benefits that help all of society as was conveyed as a critical need in an Energy Experiences Dialogue I participated in in Anchorage in 2008.

As an energy-producing state, we understand that it is not just possible but also critical to develop energy options in a safe and responsible manner, as well as maintaining control and oversight from the very first step until it is delivered to the consumer.

This is a simple message that our politicians should heed. Voters have spoken clearly and loudly about their desire to improve our economy and our security, and how important energy is to this equation. Our policymakers must take this to heart and support domestic energy production throughout our country — today and in the future.

Obama's Arctic Folly

February 2, 2015

The Hill

By Former Alaska Lt. Gov. Mead Treadwell

<http://thehill.com/opinion/op-ed/231539-obamas-arctic-folly>

Just months away from assuming leadership of the Arctic Council, the Obama administration is in a tizzy to solidify its Arctic strategy. January in particular has been quite busy for the administration: an executive order to better coordinate U.S. Arctic policy, a proposed drilling ban in the Arctic National Wildlife Refuge (ANWR) and now a proposed leasing plan that excludes significant areas of the Arctic Ocean for development.

These actions all have two things in common.

First, these efforts either directly or indirectly seek to prevent, limit and stall energy development. By attempting to take ANWR off the table entirely and curtail offshore development, President Obama is restricting access to some of the world's most prolific reserves of oil and natural gas. The area within ANWR set aside by Congress for oil and natural gas production holds an estimated 10.4 billion barrels of recoverable oil. Experts believe offshore Alaska holds 27 billion barrels of oil and 132 trillion cubic feet of natural gas.

Second, it appears none of these efforts resulted from an honest, transparent and thorough engagement with Alaskan officials and Alaska Natives. These key voices have been left off Obama's new executive steering committee to coordinate U.S. Arctic policy. Reacting to the president's moves on ANWR, the North Slope Borough — the largest municipality in the Alaska North Slope — remarked: "We would like to invite President Obama and Secretary [Sally] Jewell to travel to ANWR and meet with the people who actually live there before proposing these type of sweeping land designations." Ouch.

To cap it off, the government's new offshore leasing plan also irked Alaskan officials who saw the move as "the same unilateral approach this administration is taking in placing restrictions on the vast energy resources," as Sen. Lisa Murkowski (R-Alaska) remarked.

As the United States seeks to guide global Arctic policy, it's safe to say that recent moves by the White House signal that energy development will not play a significant role in its strategy. This should worry Alaskans and all Americans.

For starters, shutting off access to Alaskan resources now limits our energy potential in the future. When then-President Clinton vetoed legislation in 1995 that would have allowed drilling in ANWR, opponents argued that oil production wouldn't occur for a decade — a time in the future too far off to value. Well, 10 years later, in 2005, the United States reached its highest level of oil imports ever, at 13.7 million barrels a day.

We could have avoided this scenario had we put in place forward-looking policies. The energy abundance the lower 48 is experiencing today isn't guaranteed to last. Policymakers need to take steps now to open new areas like ANWR and the Chukchi Sea to development to ensure a pipeline of supplies well into the future.

More concerning, however, are the decisions on the horizon the administration will make on Arctic energy. Principally, decisions to allow exploration in the Chukchi Sea this summer could affect all future decisions about Arctic offshore energy. Shell recently announced it will proceed with operations in the Chukchi this summer should the proper conditions allow, including securing permits from federal regulators. Leaseholders have spent billions of dollars and waited several years to be able to explore for resources. Further, unnecessary delays by regulators would only signal that we're not serious about developing U.S. resources. In addition, forthcoming regulations on Arctic offshore energy development need to be adaptable to the new technologies and practices that companies and regulators will advance. Overly prescriptive regulations could stifle innovations and improvements that could further enhance our ability to safely and efficiently extract Arctic oil.

Alaskans have long supported environmentally safe energy development. We value our state's role in promoting U.S. energy independence and anchoring the United States as an Arctic nation. That's why Alaskan leaders need to be a primary voice when it comes to determining U.S. policy in the Arctic, a policy defined by increased economic opportunity for Alaskans and a stronger role for the United States in this region of increasing geopolitical importance.

Treadwell was Alaska's lieutenant governor from 2010 to 2014 and is currently president of PT Capital, a firm which advises and invests in companies engaged in Arctic business.

Domestic oil production bolsters trucking, economy

Las Vegas Review-Journal

January 27, 2015

By Paul Enos, Chief Executive Officer, Nevada Trucking Association

<http://www.reviewjournal.com/opinion/domestic-oil-production-bolsters-trucking-economy>

Every day, we pass by at least one truck delivering goods across our country. It probably barely registers, as this is a common sight — and no wonder. Nearly three-quarters of all the goods delivered in America are transported by truck. In Nevada, we are even more reliant on trucking, with 94 percent of our goods delivered by truck.

Our economy simply would not survive without the trucking industry.

Unfortunately, this industry — one that our nation and economy relies urgently upon — remains heavily dependent on the price of oil. According to the American Trucking Associations, fuel remains one of the greatest costs for the trucking industry as it works to deliver life's essentials. This has proved to be problematic in recent years, as price and long-term volatility have prevented truck drivers and companies from predicting their expenses.

Even worse, when fuel prices rise, so do the prices of virtually all consumer goods. This means that the price of oil has a two-fold impact on the average American: higher prices for the consumer products we need, as well as higher prices for the energy that fuels our vehicles and heats our homes.

The impact on the economy is staggering: increased costs for businesses and households mean tighter budgets, decreased productivity, fewer jobs and smaller revenues. The result is a negative bottom line for everyone — from governments to businesses to individuals.

On the other hand, low fuel prices — like the ones that we have seen lately — will achieve the exact opposite, with lowered costs for businesses and households alike, allowing for more disposable spending, greater productivity, higher employment and increased revenues, all of which is a clear boon to everyone's bottom line.

Indeed, the ATA calculates that each 1-cent drop spurs industrywide annual fuel savings of \$350 million. Diesel recently averaged \$2.15 a gallon, down from \$2.85 12 months ago.

This is why it is critical for Congress and President Barack Obama to work to support responsible energy policies that will ensure that reasonable fuel costs are maintained for the long term, ultimately translating to lower consumer costs for all.

Predictability in fuel prices will support not just the average American and businesses such as the trucking industry, but also the entire U.S. economy. And the best way to lower fuel prices and offer future predictability is to increase domestic production of oil. In fact, current low oil prices are a direct result of increased U.S. oil production.

The Energy Information Administration recently reported that the U.S. imported roughly 370 million barrels of crude oil in 2014. While that is a sizable and commendable 19 percent drop over the past four years, it is still far more than we should be importing from foreign sources that are chaotic at best and volatile at worst. In other words, one of our most important resources is dependent upon stability in some of the most unstable places in the world.

Yet we continue to have incredible untapped reserves right here at home. Take for example offshore Alaska. Experts estimate that U.S. Arctic waters contain 27 billion barrels of oil and 132 trillion cubic feet of natural gas. Unnecessarily restricting access to these resources limits the ability to advance a long-term energy plan. By taking steps now to grow even further our domestic energy production, resources such as Arctic energy could stabilize our fuel prices and ensure budget predictability for businesses and households nationwide for decades to come.

As the holiday season reminded us with the millions of packages shipped across our nation, trucking is critical to our lives and our economy. Trucking, though, just like the rest of our economy, relies upon dependably low fuel prices to keep expenses in line. Our policymakers must do everything in their power to ensure fuel prices are contained. With the vast potential that exists in the waters off Alaska, it's clear that domestic energy production can fuel not just the trucking industry, but also the entire American economy.

Arctic Energy is Critical in Lone Star Country

January 26, 2015

Fuel Fix

By David Holt, President, Consumer Energy Alliance

<http://fuelfix.com/blog/2015/01/26/arctic-energy-is-critical-in-lone-star-county/>

As Texans like to point out, we could be considered a country unto ourselves. Fiercely independent and always willing to celebrate our distinctive status, we have lots of reasons to brag. That said, Texas also has a unique relationship with Alaska, which may not be obvious to all of us who live in this great state.

Alaska, in fact, is key to a lot of critical factors for the entire country. This is because Alaska is such an important state for domestic energy production, and energy plays such a huge role in our nation's economy and security. As an Arctic nation,

it's time Americans better understand the opportunities for energy development, shipping and other industries in the Arctic.

That's why Consumer Energy Alliance and the Consumer Energy Education Foundation launched today "Arctic for All," a campaign to educate Texans and other Americans about how U.S. action in the Arctic affects our nation's energy security.

Energy directly impacts our daily budgets, whether as individuals, businesses, or governments. As oil prices rise, budgets get pinched; falling prices can bring vital relief, especially as we recover from lingering effects of the recession. Meanwhile, as oil-producing regions such as the Middle East and Russia become only increasingly unstable – regions that provide us with roughly 40% of our petroleum imports – our own security becomes less and less certain.

It is time we increase our security, and the predictability of our budgets, which means it is time we embrace increased energy production here at home. Texas has a role to play in this, and Alaska has a critical role to play. This is because it is projected that U.S. Arctic waters contain an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas.

These reserves could reduce energy costs for consumers across the country, create jobs nationwide and generate billions in additional revenue. In fact, Arctic offshore development could generate more than 54,000 jobs annually and nearly \$200 billion in new government revenue.

Consider a recent statistic discovered by Consumer Energy Alliance 30 billion barrels of Alaskan oil could fuel every domestic flight for over 120 years, and 141 trillion cubic feet of natural gas could heat every American house for 34 years.

For example, here in Texas, the Shell Oil Company alone has invested more than \$760 million in 116 local companies who provide services and products in support of drilling activities in Alaska. That's nearly three quarters of a billion dollars from just one business – it does not include the investments of all the other oil companies that are also exploring in Alaska. That's a huge amount of income, businesses, and jobs from just one company, and all thanks to another state's energy potential.

Increasing domestic energy production is a simple solution that would boost the economy of our state and the nation overall, as well as addressing our national security worries. Even more important though is that domestic energy production allows us to have total oversight and control over the entire process.

We also know, as an energy producing state, that it is critical that we are at the vanguard of energy exploration. Developing the untapped reserves in the U.S. Arctic waters guarantees this. It also ensures our nation's independence from the volatility of other countries, something that Texans understand well, and that our economy continues to recover.

Needless to say, ensuring the ongoing investment in our state and our economic wellbeing is vital to our future. All of which is why our future is linked to Alaska and to Arctic energy exploration: what happens up north is definitely important down yonder. This is why we must support and encourage Arctic energy, despite being so far away. Alaska's future is Texas' future.

Rex Rock Sr.: Restino fails to note Noble Drilling's progress

January 15, 2015

Alaska Dispatch News

By Rex Rock Sr., President, Arctic Iñupiat Offshore, LLC and President and CEO, Arctic Slope Regional Corporation

<http://www.adn.com/article/20150115/rex-rock-sr-restino-fails-note-noble-drillings-progress>

For the second time in three months, I find myself responding to the opinion expressed by the editor of a weekly paper widely distributed throughout my region.

While I agree with Ms. Restino's view (Dec. 14, "[Alaska must tell yahoo cowboys like Noble Drilling to hit the trail](#)") that there needed to be changes made to Noble Drilling's operations, I am disappointed that she is dredging up information that is more than two years old and repackaging it like it's something new. This is misleading to the people who live in my region.

Arctic Iñupiat Offshore LLC (AIO) is a privately held corporation established to promote sustainable economic development within the Arctic Slope region. AIO is comprised of Arctic Slope Regional Corp., Tikigaq Corp., Olgoonik Corp., Ukpeaġvik Iñupiat Corp., Atqasuk Corp., Nunamiut Corp. and Kaktovik Iñupiat Corp.

AIO's investment ensures that we have a seat at the table with Shell when decisions are made regarding their program, and it also provides an avenue where we can address our concerns before they become larger issues within our region. That's why we worked so diligently with Shell to make the agreement happen.

As I mentioned in [my October commentary](#) responding to a [previous commentary by Ms. Restino](#), even before AIO finalized its agreement with Shell in July 2014, AIO leadership was aware there most likely would be criminal charges against Noble Drilling. In fact, after the U.S. Coast Guard passed the violations along to the Department of Justice (DOJ), we knew it was only a matter of time.

AIO is disappointed by the actions taken by Noble two years ago and by the findings of the investigations. However, while their actions are not aligned with our business practices and values, we understand that since the violations were reported by the USCG after its inspection and by Noble after a self-audit, more than \$126 million in upgrades were made on the Noble Discoverer to address those issues. We also know that Noble cooperated with the USCG and DOJ during the course of the investigation. Noble made significant changes to its management personnel and has enhanced its entire safety and environmental management program significantly; it also instituted new compliance training and enhanced existing training. These facts were left out of Ms. Restino's Dec. 14 commentary.

Let's be clear. Noble Drilling has admitted to breaking the law in 2012, and the company is now paying the price. Under the terms of the settlement agreement, Noble Drilling is on four years' probation and is required to pay more than \$8 million in fines. The company was also directed by the DOJ to pay an additional \$4 million in community service contributions. The Arctic Research Consortium of the United States will receive \$500,000, the International Arctic Research Center of the University of Alaska Fairbanks will receive \$2.5 million and the National Fish and Wildlife Foundation will receive \$1 million.

Noble is also required put in place a comprehensive Environmental Compliance Plan as well as set up an environmental management system for all of its U.S. mobile offshore drilling units. On top of that, Noble is required to have both a court-appointed third-party auditor as well as a court-appointed independent auditor who will monitor Noble's compliance and implementation of the Environmental Compliance Plan. These auditors will report the results directly to the DOJ and USCG.

In my opinion, the level of the consequences for Noble and oversight going forward has met the seriousness of the violations. This is how our legal system is supposed to work.

As a group, AIO had been engaged in not only understanding Noble's transportation, maintenance and safety violations that occurred in 2012 -- but also what they have done to fix those problems since. It is also why AIO leadership will soon meet with Noble executives as well as inspect the Discoverer to view improvements before it returns to the Arctic.

I firmly believe our continued involvement in the new program will be critical to the success and the safety of Chukchi development as well as to the benefits it can provide to our current as well as future shareholders.

Because the people of our region expect nothing less, AIO will continue to perform its due diligence regarding offshore development and will critically monitor the risks. And, when necessary, stand up and defend itself against those with a single-minded purpose of curbing opportunity.

Rex A. Rock Sr. is the president of Arctic Inupiat Offshore LLC, and the president and CEO of Arctic Slope Regional Corp.

National Security Begins at Home

December 30, 2014

Townhall.com

By Francy Bennett, Communications Director, ProsperityAlaska

<http://townhall.com/columnists/francybennett/2014/12/30/national-security-begins-at-home-n1936737>

Though we were promised a brand new day regarding America's reputation in the world, the reality has been the opposite. Americans doubt the resolve of our President, as seen by the election results last month. Our nation's image has suffered, and it is time we reverse this trend.

This will not only secure our international standing, it will also secure our nation's safety. Considering the drumbeat of violence around the world at any given moment – from violence across the Middle East to the devastation caused by Ebola in West Africa – conflict and instability seem to be a repetitive refrain in our news cycle. And each beat chips away at the reputation of our President and our nation.

The only way to ensure our stature at home and abroad is to establish our global leadership and interests. The first step is to establish leadership at home – and as the economy was a deciding factor for voters in this past election, improving it is vital. Considering that energy is a critical component of our economy, and thus of our budgets and national security, addressing our energy issues must be a top priority.

When we still import at least 40 percent of the petroleum we consume, and those imports come from unstable regions, it is clear that it is time to remove the roadblocks to domestic energy production. Congress and the Administration must strengthen and expand energy infrastructure nationwide, and they must address the permitting and regulatory issues that have stalled additional domestic energy exploration.

Relying upon unstable nations for a critical resource is the height of risky behavior – especially when it is estimated that U.S. Arctic waters contain enough oil and natural gas to power America's households for years, create numerous jobs nationwide, and generate billions in additional revenue. Indeed, Arctic offshore development could generate \$193 billion in new revenue and 55,000 jobs nationwide.

Developing this opportunity would create jobs and billions in new revenue, plus it would lessen our dependence upon nations such as Russia, Venezuela, and those in the Middle East. Reducing these nations' effect over global energy markets correspondingly reduces their international power and influence, forcing them to engage and cooperate with the rest of the world. In return, it helps to increase our safety, as well as our reputation.

Alaska was key to a similar strategy in the 1980's that helped bring about the Soviet Union's demise. During that period, Alaska provided higher domestic oil production, pushing down oil prices, which oil-dependent nations require to maintain their strangleholds. With the 27 billion barrels of oil and 132 trillion cubic feet of natural gas that are estimated to exist offshore, and the additional 16 billion barrels of oil and 98 trillion cubic feet of natural gas estimated to exist onshore, Alaska can once again play a central role in increasing our national security.

Alaska is the nation's only Arctic state, amidst new aggression from Russia and continued turmoil in the Middle East, enabling it to assume a unique role in America's national security posture. And now this role is even more important as the U.S. begins its leadership of the Arctic Council, the leading international organization for cooperation in the region established by the eight Arctic nations in 1996.

It is time to harness this opportunity to create a safer America, and a safer world. Limiting the impact of these evil nations on our lives and budgets is the first step. Creating a far-reaching strategy to ramp up domestic energy production in a responsible and sustainable manner will not only reduce their power, but it will also create long-term energy independence, stability, and security for us. The simple truth is, national security begins at home, and our President must seize this opportunity now.

Louisianans to Elected Leaders: Keep Energy in Mind

December 14, 2014

American Press

By Hal McMillan, District 14 Police Juror, Calcasieu Parish

As the new Congress convenes in January, our newly elected leaders should remember what the majority of Louisianans were concerned about when they voted – the economy.

Prior to November's election, one poll after another showed that the economy was the No. 1 factor on voters' minds when they cast their vote – and, as another poll revealed, few industries boost the economy quite like energy production does.

This second poll, conducted on behalf of Consumer Energy Alliance (CEA), found that there was remarkably strong support in Louisiana for expanding offshore oil and natural gas production in U.S. waters as far away as the Arctic Circle.

When asked, 76 percent of Louisianans – attentively aware of how energy production greatly affects the economy – said they support offshore oil and natural gas energy drilling in all U.S. waters. Moreover, 66 percent support drilling in waters north of Alaska, in the Arctic Circle, and 55 percent believe that the U.S. should allow oil and natural gas drilling in the Arctic in order to increase domestic oil production and reduce our dependence on Russian oil.

It is certainly no surprise that Louisianans support drilling and, in particular, offshore energy. After all, the state is renowned for being a leader in energy production both onshore and in the Gulf of Mexico.

However, why do Louisianans care about offshore energy in and around Alaska, a region nearly 3,500 miles away? It's because they understand Alaska's strategic value to our energy diversity, which empowers our national and economic security. They know that the short-term and long-term future of offshore drilling in coastal areas like the Arctic, the Gulf of Mexico OCS, and elsewhere rest firmly in the hands of our policy makers.

Consider this: slowing or even stopping production in Alaska could prematurely close the Trans-Alaska Pipeline System (TAPS), an energy infrastructure that transports nearly 10 percent of all U.S. oil and gas production. If this worst-case scenario unfolded, Alaskan oil that consumers across the United States have depended on for decades would be stranded.

In addition, the Alaskan Outer Continental Shelf (OCS) remains one of the country's most prolific energy reserves, thanks to its estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas. As such, it holds significant influence on the U.S. economy, our energy security, and various global geopolitical relations.

Here in Louisiana, vast resources, tremendous employment, and economic opportunities remain in the Gulf of Mexico's OCS. They can be realized if the region is opened to more energy development.

It would be wise for our policy makers to use these findings as a reminder that rash decisions to end energy exploration in the Arctic, Gulf, and elsewhere will result in unnecessary blows to consumers and to the economy.

Above all else, safe and responsible offshore energy production can be done – it has been done before. And Louisianans know that with the right support from our policy makers, it will continue.

Hal McMillin is the District 14 Police Juror for Calcasieu Parish. He lives in Westlake, Louisiana.

Global tug-of-war over Arctic resources

December 14, 2014

Washington Examiner

By Col. David Hunt (Ret.)

<http://www.washingtonexaminer.com/global-tug-of-war-over-arctic-resources/article/2557223>

On the 25th anniversary of the fall of the Berlin Wall, former Soviet leader Mikhail Gorbachev warned that Russia and the West are headed toward another Cold War.

He has a strong case. Russian provocations are on the rise both in the West, where Russia threatens the sovereignty of several Eastern European nations, and in the East, where Russian President Vladimir Putin is using his energy resources to shore up relations with China.

But Putin is not merely looking east or west, but north as well. The Arctic is equally critical in his geopolitical calculus.

The war between the United States and Russia over the Arctic and its abundant resources is definitely a cold one, but it's as real and harmful of a threat as any facing U.S. security today. Whereas Russia is acutely aware of its opportunities in the north, U.S. leaders and officials refuse to acknowledge the critical importance of the Arctic, which could help the United States lower costs and become more independent of Middle Eastern oil.

Over the past several months, Russia has announced plans for a large-scale militarization of the Arctic. Plans include a 6,000-soldier permanent military force in the northwest Murmansk region, new radar and guidance system capabilities and new nuclear-powered submarines and icebreakers. Increased militarization of the region comes as state-owned oil companies advance Arctic oil and natural gas development programs. Their discoveries — which suggest that the Russian Kara Sea could hold some of the world's largest oil reserves — have only accelerated Russia's expansion north. This has frustrated U.S. efforts to cooperate in the Arctic.

According to National Journal, fraying U.S.-Russian relations forced the United States this year to suspend joint naval exercises in the Arctic, cancel a bilateral meeting on Coast Guard operations and suspend a submarine rescue partnership.

In October, Defense Secretary Chuck Hagel acknowledged at the Washington Ideas Forum that opening waterways in the Arctic and increased commercial activity by Russia presents a challenge to U.S. interests. The Department of Defense and other U.S. agencies have outlined strategies to respond to the changing landscape of the Arctic, but actions to date have been muted.

The U.S. government must demonstrate that it sees the Arctic as a region of significant geopolitical importance and increase U.S. investments in Arctic infrastructure, including developing a fleet of icebreakers. The United States has only one functioning icebreaker, while Russia has five nuclear-powered icebreakers and more in the queue. Efforts to appropriate greater funds for icebreaker development have fallen drastically short: For fiscal 2015, Congress appropriated \$8 million to fund a new ocean icebreaker, but each ship typically costs about \$1 billion.

The United States must also take steps to better facilitate development of Arctic energy resources. The federal government issued leases to develop prolific oil and natural gas resources in the Beaufort and Chukchi seas in 2005, 2007 and 2008. Since then, companies have been unable to drill to hydrocarbon depth due to a series of legal and regulatory hurdles that the administration has been unable or unwilling to resolve. Companies have invested billions of dollars in lease payments, technology development and scientific research to be able to move forward with exploration programs. As the administration dithers, Russia has accelerated its commercial activity in the Arctic.

Western leaders shouldn't expect another rapprochement to occur anytime soon. Putin is no Gorbachev, and U.S. leadership on this issue is nonexistent. For the United States, the most effective response to Russia's increasing influence would be to exert its own. A beefing up of infrastructure and energy development in the Arctic can serve as a one-two punch to Russia. The United States can better defend its territory and resources while diluting the influence of Russian energy. The United States must win this new cold war, but it must first admit that it's in one.

David Hunt, a retired U.S. Army colonel, is a former security adviser to the FBI. He served as counterterrorism coordinator for the 1988 Summer Olympic Games in Seoul, South Korea.

Walker, Sullivan need to take Alaska's energy message south

December 12, 2014

Alaska Dispatch News

By Carl Portman, Deputy Director, Resource Development Council, and David Holt, President, Consumer Energy Alliance

<http://www.adn.com/article/20141212/walker-sullivan-need-take-alaskas-energy-message-south>

With elections behind us, it's time to get to the business of growing Alaska's economy. A principal part of any strategy must include proactive policies that will reverse the decline in Alaska energy production.

Alaska has suffered a dramatic decline in recent decades in part due to federal regulatory uncertainty and litigation in our critical energy industry. Whereas the Lower 48 has seen energy production shoot up 77 percent in the last five years, due largely to state and private ownership of mineral rights, Alaska's average oil production has plunged from more than 2 million barrels per day in the late 1980s to approximately 540,000 today -- dropping the state to fourth nationwide in production.

Years of governmental reviews, litigation and regulatory uncertainty have turned a top domestic source of oil into one being outdone by California, a state that has considered banning fracking and said no to offshore drilling. It now produces more oil than Alaska.

Considering that at least 34 percent of Alaska's jobs and more than 80 percent of the state's discretionary spending are dependent upon the petroleum industry, it's clear that reviving and encouraging the energy industry here is a key to our future.

Our new leaders -- including Gov. Bill Walker and Sen.-elect Dan Sullivan -- will soon learn that efforts to grow Alaska energy must also take place outside Juneau. Much of their job must include advocating to their Lower 48 peers, given so much of Alaska's resource base is under federal ownership.

Alaskan voters overwhelmingly want an "all of the above" approach to energy -- supporting everything from wind energy to allowing oil and natural gas production in U.S. waters inside the Arctic Circle and in the Arctic National Wildlife Refuge. Without greater access to abundant federal resources onshore and offshore, the future of Alaska energy -- and the revenues and jobs it supports -- is in jeopardy.

While most Alaskans have been up in arms about the Alaska energy shutout on federal lands and waters, the rest of the United States has remained either silent or unaware. It's not a stretch to think that Lower 48 disinterest could be the reason, or even a catalyst, for these restrictive federal policies. If no one's talking, no one's listening.

Sen.-elect Sullivan and Gov. Walker need to invest some sweat equity educating other members of Congress and governors about how critical Alaska energy is to Lower 48 consumers.

For starters, they should inform Lower 48 consumers on the benefits of Alaska energy. According to the American Petroleum Institute, by permitting onshore and offshore oil and natural gas exploration now, by 2030 new Alaska production could reach 1.6 million barrels of energy equivalent a day. West Coast residents -- who consume a vast majority of Alaska's oil -- should support Alaska development. If further declines in production occur, West Coast refineries' reliance on imported oil will only grow, leaving consumers more vulnerable to supply disruptions that are the norm in unstable oil-exporting countries.

Our leaders should also expound on the national security benefits of Alaska energy. Nearly every member of Congress was not in office during the oil embargoes of the 1970s and the building of the trans-Alaska pipeline. In fact, most members of Congress came to Washington within the past decade and have legislated during an era of U.S. energy abundance and increasing self-sufficiency. However, we must not take our present reality for granted. Taking actions now to encourage federal offshore and onshore production in Alaska will help preserve our gains in energy security for decades to come.

An estimated annual average of 54,700 new jobs that would be created by outer-continental-shelf-related development (OCS) are sustained for 50 years. The total ramps up to 68,600 during production and 91,500 at peak employment. These direct and indirect jobs would be created both in Alaska and the rest of the United States.

Alaska's energy generates revenue and jobs for Lower 48 residents, too. A Northern Economics report estimates an annual average of 54,700 new jobs that would be created by OCS-related development would be sustained for 50 years. An estimated \$63 billion in payroll would be paid to employees in Alaska as a result of OCS oil and gas development and another \$82 billion in payroll would be paid to employees in the rest of the United States.

The sustained job creation increases income and further stimulates domestic economic activity production on federal land and waters and will also send billions of dollars to federal coffers, some of which will be redistributed to state governments and to the Federal Land and Water Conservation Fund, which benefits every state. With regard to Alaska, our congressional delegation will need to secure the state's fair share through revenue-sharing provisions which already apply to Gulf states that have energy production off their shores.

By galvanizing support for Alaska energy among other governors and members of Congress, Alaska's leaders can bring attention to the need for policies that support responsible energy development. The louder our voice, the harder it will be for Washington to ignore us.

Carl Portman is the deputy director of the Resource Development Council, based in Anchorage. David Holt is the president of the Consumer Energy Alliance.

Why Energy Should Top New Congress's Priority List

December 8, 2014

Athens Banner-Herald

By Brydon Ross, Vice President for State Affairs, Consumer Energy Alliance

Now that the votes are in and we know the makeup of the new Congress, our newly elected leaders should remember what the majority of voters were concerned about when they elected them -- the economy.

According to a recent poll by Consumer Energy Alliance, Georgians of all affiliations see energy production as a must-have ingredient for a stronger economy. In fact, the poll revealed that there is strong support in Georgia for expanding offshore oil and natural gas production in U.S. waters as far away as the Arctic Circle.

Why exactly do voters in Georgia and the other lower 48 states care so much about offshore energy in distant regions like Alaska?

For starters, Georgians fully grasp energy production's strategic value to our national and economic health and security, even from areas as far-off as Alaska. For instance, slowing or stopping Alaskan oil production would result in the

premature closure of the Trans-Alaska Pipeline System (TAPS) – a significant energy infrastructure that transports nearly 10 percent of all U.S. production. If the pipeline were to cease operating, much-needed oil that consumers in the lower 48 states have depended on for decades would be stranded. It would also deliver unnecessary blows to Americans consumers and the economy.

In addition, the Alaskan Outer Continental Shelf (OCS) continues to hold significant influence on the future of U.S. economic and energy security as well as global geopolitical relations. In fact, U.S. Arctic waters – with an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas – remain one of the country's most prolific energy reserves.

Here in Georgia, tremendous resources, employment, and economic opportunities in the Atlantic OCS have yet to be realized but could be with the expansion of offshore production. It has been projected that spending in Georgia due to offshore oil and natural gas exploration and production activity in the Atlantic could reach over \$250 million by 2035.

But Georgia voters also understand that in order to maximize our country's utmost energy potential, the right leaders need to be elected. Elections have sweeping, generational impacts, as do the decisions made by the policymakers we elect. The short-term and long-term future of offshore drilling in coastal areas like the Arctic, the Gulf of Mexico, the Atlantic, and elsewhere rests firmly in their hands.

The fact that polls in other states that had pivotal U.S. Senate races also found strong support for allowing oil and natural gas production in U.S. waters should serve as an indicator to the newly-elected Congress and the Administration that safe energy production has been – and will always be – a bipartisan issue. As such, the new Congress must reverse course and stray away from the gridlock that the previous Congress repeatedly found itself in in regards to essential energy and economic issues of strong bipartisan support, including energy efficiency and Keystone XL.

As new the Congress and the Obama Administration start to build their respective agendas for the president's final two years in office, these findings should serve as a convincing reminder that increasing energy exploration – particularly in U.S. waters – must remain a vital component in the country's economic equation. In the event they forget, it's up to American consumers to remind them. Taken together, their future policy agendas and subsequent votes in the next two years will decide whether the state and national economy will be strengthened via federal policies that encourage offshore energy or hampered by overly reactionary, hyperbolic, exaggerated fears over offshore exploration.

The U.S. can – and must – remain a leader in regularly counteracting environmental challenges with science, technology, and intelligent policies that expand domestic energy production.

Democrats, Republicans and all Americans should agree on that.

Russia Uses Extortion in the Arctic as Red Tape Prevents America From Drilling in Alaska

December 7, 2014

Breitbart

By Mary Chastain

<http://www.breitbart.com/national-security/2014/12/07/russia-uses-extortion-in-the-arctic-as-red-tape-prevents-america-from-drilling-in-alaska/>

Russian President Vladimir Putin is launching an aggressive campaign to control more of the Arctic's oil-rich territories in response to plummeting oil prices. With a nation for whom oil represents 20% of its GDP, control of the Arctic would allow for pivotal economic advantages that would come at the detriment of the American oil market.

In November, Russian outlets reported the Kremlin was seeking to establish a ministry for Arctic development. The Kremlin denied the reports, but Putin nonetheless discussed a need for a "flexible, fast-working structure" for Arctic policy. With the Russian ruble dropping, Russia needs to respond to its economic woes swiftly. To that end, the Russian government is now arguing the "underwater Lomonosov and Mendeleev ridges demonstrate that Russia's continental shelf extends far beyond its current 320-kilometer waters [199 miles]." This adds 1.2 million square kilometers (463,322 miles) to Russia and access to 5 billion oil and gas reserves.

The startling declaration is in line with past Putin administration disregard for international conventions. The Russian government does not follow environmental regulations or allow green groups to delay a potential process to feed the economy. This allows it to act faster than the United States regarding oil development.

This week, Putin told the world "Russia was ready to pounce on Arctic oil and gas development and shipping." Russia did exactly that, unplugging an oil reserve richer than the Gulf of Mexico.

Legal and government delays prevented the American government to respond with any urgency to this development. Environmental groups brought the issue to court, while Congress will not touch the Law of the Sea Treaty. As America delays, Russia continues to build its military presence in the Arctic, which will only cause more problems for America.

In 2013, Russia sent the missile cruiser Peter the Great with "10 warships and four nuclear-powered ice breakers to the New Siberian Islands." These icebreakers are the largest in the world, which includes the 50 Years to Victory, the most powerful nuclear icebreaker. Quark Expeditions claims the ship can "go where other ships cannot." In addition to its current inventory, Russia is currently developing another nuclear-powered icebreaker ship.

America, meanwhile, owns only one icebreaker with the capability to cut through the thick Arctic ice.

Russia also built ten search and rescue stations and sixteen deepwater ports. The country plans to build thirteen airfields and bases along with ten air-defense radar stations, which "permit the use of larger and more modern bombers." New York University Professor Mark Galeotti points out that by 2025, Russia will patrol the Arctic waters "by a squadron of next-generation stealthy PAK DA bombers, but even now cruise missile-armed Tu-95MS and Tu-160 bombers can cover the polar region." Galeotti said the use of bombers allows Russia to cut off access to the Arctic:

This is all very impressive, but it begs the question of just what these forces are meant to do. Bombers cannot dig for oil, infantry cannot collect taxes from passing Chinese container ships.

But they can board and occupy oil rigs, seize cargo ships and threaten any forces that seek to challenge Moscow's right to do this. After all, it may be impossible to "occupy" the Arctic, but Russia is developing assets that could deny it to anyone else.

Why place military assets-- which have no ability to harvest natural resources-- in an area humans do not live? Galeotti says it is a form of extortion:

This is, after all, simply an extension of its policies elsewhere, from Ukraine to Syria or Iraq: Cause the West problems, then offer to resolve those problems, in return for an appropriate "consideration." This may look like an ingenious approach for a country without the political authority, economic muscle or allies to be able to get what it wants. But there is also another word for it: extortion.

The United States' oil reserves on its own soil-- namely, Alaska-- can prevent the Russian ploy to monopolize the Arctic from harming the American economy, were anyone to tap them.

The Trans-Alaska Pipeline System (TAPS) keeps the West coast safe from Russia by providing the West with 14% of domestic oil. However, it needs more oil to stay active. If it shuts down, the West coast refineries will turn to Russia for oil, since no oil pipelines in America and Canada reach the coast. TAPS shut down in 2011, which forced the refineries to purchase oil from Russia and Oman. The area imported 105,000 barrels a day from Russia and 96,000 barrels of Oman crude during October 2010 when the pipeline was functioning.

TAPS needs a constant flow of oil to stay in operation because low amounts to no oil in the pipeline produce hazards. The main hazard is water, which can collect in low-lying spots of a pipeline without a constant flow.

"The primary factor that affects internal corrosion in transmission pipelines is flow rate," said Trevor Place with Enbridge Pipelines. "Transmission/refinery-ready crude oils (including dilbit) contain very little corrosion-causing water or sediment, but internal corrosion can occur if the flow conditions in the pipeline allow these materials to accumulate and persist on the pipe floor for extended periods of time. No crude oil grades have yet been proven to be more corrosive than others, but there are measurable variations in certain corrosion-related properties of crude oil."

In an article for Roll Call on November 12, Mead Treadwell, lieutenant governor of Alaska, said people in Alaska are ready to tackle the oil and gas reserves. The reserves amount to 27 billion barrels of oil and 132 trillion cubic feet of natural gas. Currently, lawsuits and red tape have delayed all drilling in northern Alaska. Treadwell offered three easy steps to get the job started:

First, for economic security and national security, Obama and the new Congress should make sure the U.S. goes forward with Arctic offshore exploration in the summer of 2015. This is an opportunity for Republicans and Democrats to push aside partisan differences and focus on an issue that provides an economic opportunity for the United States as well as ensures that the United States remains a global leader in energy exploration.

Second, the U.S. seeks to implement new Arctic regulations that will determine how we develop energy resources for years to come. Regulators would be wise to resist being prescriptive, and instead incent companies operating in the Arctic to innovate and incorporate the safest technologies possible. The Chukchi Sea is the prize, believed to hold the world's largest untapped oil and gas resources. Companies have invested hundreds of millions of dollars in emergency planning and technologies. The science shows that we can drill in the Arctic safely.

Third, a major U.S. Arctic oil discovery will enable two other decisions to catch up with Russia. Safety measures necessary for oil production will demand new icebreakers, and infrastructure including a new Arctic port in Northwest Alaska. The value of offshore real estate should force a Senate discussion of what we want, and don't want, in law of the sea. Believe me, we do want our share of Arctic offshore territory.

The Subcommittee on Europe, Eurasia, and Emerging Threats scheduled a hearing on Thursday about America's opportunities in the Arctic. Admiral Robert Papp, Jr., the US Special Representative for the Arctic, will be the witness for the committee.

New Congress provides opportunity to answer voters' top concerns

December 3, 2014

The Hill

By David Holt, President, Consumer Energy Alliance

<http://thehill.com/blogs/congress-blog/energy-environment/225749-new-congress-provides-opportunity-to-answer-voters-top>

In the new political world created by the recent election results, we must ensure energy issues are not lost amid the excitement of future change. Indeed, now is a critical time to embrace this vital topic – especially as voters in key races expressed in a recent Consumer Energy Alliance (CEA) poll that energy was an important issue regarding their choice in candidates.

Energy has never been more important to our nation. Whether it is the impact on our economy through the ripple effect of prices and costs or the impact on our national security thanks to the continued volatility in the Middle East, energy may be one of the least thought about issues that has one of the greatest effects on the average American.

The simple truth to the election results is that despite the rebounding economy, Americans still remain worried about the economy. In poll after poll, the economy was listed as the most important factor in deciding their vote. Americans want to know more jobs will be created, and that they can stop worrying about unemployment or ensuring they have a roof over their head. They want to know that prices for key household expenses, such as gas for their cars and oil for warming their homes, will go down – making it easier to stretch their dollars.

Americans' confidence is shaken because of both the still-struggling economy and the images of war and terror in the Middle East. It is even harder to be secure when our own national security, thanks to the origins of roughly 40 percent of the petroleum we consume, depends upon the very same region from where the turmoil is originating.

So while Americans may not spend every night around their dining room table discussing energy, it is an issue that can answer many of the questions they have about their financial security and our country's security.

Encouraging greater domestic energy production is the key to both of these concerns. Expanding our energy infrastructure to ensure cheaper, more efficient, and safer transport of our own resources is one component. Finally approving the popular-across-party-lines Keystone XL is an important first step that the new Congress and President Obama could take to show bipartisan progress.

More energy production domestically, such as just offshore of Alaska in the Arctic Circle, would be another important effort. After all, the Alaskan Outer Continental Shelf (OCS) holds substantial influence on the future of U.S. economic and energy security as well as global geopolitical relations. U.S. Arctic waters – with an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas, much of which is in the Chukchi and Beaufort Seas – remain one of the country's most prolific energy reserves.

This can create jobs (an estimated 55,000 nationwide), generate additional revenue (a potential \$193 billion), and lower prices of important household expenses - not to mention a smaller reliance upon places like the Middle East and Russia for our energy needs.

What if, rather than depending upon foreign nations for a large percentage of our needs, we chose to control our energy from source to end use? The opportunities for employment, increased consumer savings, environmental care, and better national security would multiply.

Now that Election Day has passed and voters have determined the new makeup of the Congress, American consumers need to remind their new representatives of the role that they will now need to play to support American energy self-sufficiency. Their future policy agendas and votes in the next two years will determine whether the national economy will be strengthened via federal policies that encourage offshore energy or hampered by overly reactionary, hyperbolic, exaggerated fears over offshore exploration.

The U.S. can and must be a leader in counteracting environmental challenges with science, technology, and smart, thoughtful policies that expand domestic energy production. We can and must protect our environment AND develop our energy resources. This should be something in which Democrats and Republicans should agree.

As we look towards the start of the Congress, CEA hopes that our policymakers remember energy is a bipartisan issue with overwhelming support. Congress needs to seize this moment to achieve something that will benefit all Americans: a comprehensive energy plan embracing the "all of the above" approach that voters desire. This will ensure our country's – and our citizen's – economic and national security.

Arctic Frozen Territory for U.S. Energy Exploration

December 2, 2014

Cleveland Plain Dealer

By Patrick Sink, Business Manager, International Union of Operating Engineers, Local 18

http://www.cleveland.com/opinion/index.ssf/2014/12/arctic_frozen_territory_for_us.html

The September 2014 [announcement](#) that significant pools of oil and natural gas were found in the Arctic by the Russian company Rosneft should give pause to anyone concerned about what this portends for the United States, whose inactivity in this part of the world is as disturbing as the find is exhilarating.

Drilling under the Kara Sea, Rosneft and its handful of partners, including Irving, Texas-based Exxon Mobil Corp., America's largest energy company, found what could amount to nearly a billion barrels of crude oil and 330 billion cubic meters of gas.

If the amounts turn out to be accurate, the discovery could provide an economic boon to Russia, Rosneft and Exxon Mobil. But what about the United States? Has our country been as persistent as the Russians in exploring what might truly be the last frontier on Earth? The answer is no, and every day that passes puts the United States one more day behind catching up to the Russian investment.

In the Arctic waters off Alaska's coast, [experts estimate](#) there are 27 billion barrels of oil plus 132 trillion — that's trillion with a 'T' — cubic feet of natural gas, enough to produce 700,000 barrels of oil per day for 40 years.

Here at home, we are witnessing a great rebound in domestic oil and natural gas production across the country and an accompanying resurgence in manufacturing that is creating jobs, investing in communities and making us less dependent on unfriendly nations for energy resources. In Ohio alone, announced investment by companies exploring the Utica shale formation increased by \$9 billion from October, 2013 to October, 2014, [bringing the total investment since 2010 to more than \\$22 billion](#).

This growth has had tremendous impact on the 15,000 members of the organization I am proud to help lead, the [International Union of Operating Engineers Local 18](#) in Ohio. Our members are building platforms and pads, producing pipe, laying roadways and bridges, and working on countless other projects to create a safe, productive domestic energy infrastructure.

We are doing this in Ohio and across the nation, and if there was a serious commitment to Arctic energy production, it would mean jobs for us far into the future.

Unfortunately, our nation's Arctic energy exploration is stymied because of federal inaction and delay. Energy companies working in the American Arctic regularly encounter federal bureaucratic red tape, lawsuits and delays. This hurts our

ability to strengthen American energy independence, bolster national security and enhance economic development. Energy companies can begin extraction efforts today using the latest technology and processes, and do so in ways that protect the environment and safeguard human life.

A healthy and sensible Arctic policy will benefit Ohio's economy in several ways.

Ohio is the second largest U.S. producer of raw steel, and the domestic energy industry relies upon state-based manufacturers for items like steel pipes and drilling platform equipment. Ohio's steel industry employs nearly 18,000 people and has a payroll of \$1.2 billion. Furthermore, it has a long history of making compressors for the Trans-Alaska Pipeline System that has pumped essential oil resources to domestic refineries for 37 years.

The state's largest manufacturing industry — 130,000 jobs and 2,400 companies — is built around polymers that are made from oil derivatives and used as components in a multitude of products including medical equipment, food packaging, toys, modified road asphalt and fuel cells. Eight Ohio universities attract students to their world-class polymer research programs, with the University of Akron's Institute of Polymer Science and Polymer Engineering the nation's largest.

Similar research efforts at Battelle Memorial Institute in Columbus (advanced materials research with polymers) and EWI at The Ohio State University (technology advances for oil and gas exploration processes) coupled with the state's experience in shale exploration and a vigorous manufacturing presence place Ohio at the forefront of a resurrected domestic oil industry.

A commitment to Arctic exploration means much for Ohio consumers as well. Stronger oil autonomy means stability in availability and more jobs. A report from Northern Economics determined oil production from Alaska's Outer Continental Shelf could create 55,000 new jobs nationwide per year for 50 years.

But until the federal government sheds its cloak of obstinacy, Russia will remain king of the Arctic oil throne and hopes for a closer connection linking Ohio's know-how to Alaska's Arctic resources will remain buried beneath the ocean floor.

Patrick L. Sink is business manager of the International Union of Operating Engineers, Local 18.

America can't afford to lose the great race to secure arctic energy

November 26, 2014

The Bend Bulletin

By Oregon State Rep. and Douglas County Commissioner-elect Tim Freeman

<http://www.bendbulletin.com/opinion/lettertotheeditor/2611273-151/letter-america-cant-afford-to-lose-the-great>

Oregonians may not be closely following new energy exploration in the Arctic Ocean, but they should be, as it has a direct impact on our national security and energy independence.

It is vital that our president work with the new Congress to put in place sensible development policies that allow this exploration to go forward.

New technologies and changing conditions are opening opportunities to tap energy supplies that were previously inaccessible. The nations on the Arctic Ocean recognize the value of these resources and are taking proactive steps to secure them — except for the United States.

Our biggest competitor in the Arctic is likely to be Russia. In September, a partnership between Russia's Rosneft and Exxon Mobil uncovered a deposit estimated to contain more than 730 million barrels of crude oil in the Kara Sea of the Russian Arctic.

And as the Moscow Times reported last month, President Vladimir Putin is claiming Russia's position as the "biggest Arctic power." Other nations, including the U.K., Norway and Canada, are actively moving to tap these energy assets.

Yet here in the United States, energy development in the Arctic Ocean has been hamstrung by federal red tape and delays. Companies have held Arctic leases since 2008, and today, more than six years later, they still have not been able to extract a drop of oil due to bureaucratic rules and environmental obstructionist tactics.

In contrast, Rosneft's agreement with Exxon was signed three years ago.

Slowed U.S. Arctic development threatens our position as a global energy leader and our ability to secure energy independence. Using our own energy resources creates jobs and protects us from instability in the global market — an issue of particular relevance given recent tensions in the Middle East, Africa and the former Soviet Union.

As our energy needs continue to grow, we must either expand domestic production or increase our reliance on foreign supplies. With economies in China, India, Brazil and elsewhere continuing to expand, more and more demand will be placed on the global market. Domestic production is critical to protect American jobs and consumers from supply shocks and price spikes.

The truth is that we are no longer in an "arms race," but rather an "energy race" to ensure a stable, affordable supply of energy to keep our economy running. With the recent increase in domestic energy production, we are winning this race — but our position is far from secure. Closing off access to resources and tying the arms of industry with needless regulation is a recipe for losing that advantage.

Of particular concern to us here on the West Coast is the potential impact of continued delay on the operation of the Trans-Alaska Pipeline System. If the throughput in the pipeline continues to decline, as it has in recent decades, and no new supplies are found, it could eventually be shut down. That would have a direct impact on our national security and the economy across our region.

The federal government will have an opportunity to set things right as we approach another offshore production season in the summer of 2015.

It is time for our leaders to get the policy right, let us develop these critical resources, and protect our geostrategic interest in the energy future of the Arctic Ocean.

The president and the new Congress must work together to make sure the U.S. goes forward with Arctic offshore exploration in the summer of 2015.

Putin's Arctic Plans Spring Ahead While America Lags Behind | Commentary

November 12, 2014

Roll Call

By Alaska Lt. Gov. Mead Treadwell

http://www.rollcall.com/news/putins_arctic_plans_spring_ahead_while_america_lags_behind_commentary-237845-1.html

While Vladimir Putin's Russia makes huge moves in the Arctic, America — an Arctic nation itself — is way behind in its own Arctic ambitions for new energy, territory and shipping routes.

Arctic oil: To find more of the oil which drives his economy, Putin's projects in Northwest Siberia and the Russian Far East have soaked up international investment like a sponge. Exploration is moving full-speed ahead. Huge prospects off Alaska would enrich our country and fill the Alaska pipeline — but lie waiting while federal regulators make new rules and green groups do battle in the courts.

Arctic shipping: With a bevy of icebreakers and no challenge to Russia's dubious claims that the Northern Sea Route lies within internal waters of Russia, it has captured the initial market for Arctic shipping between Asia and Europe and is charging hundreds of thousands of dollars per voyage for icebreaker escorts. Despite the prodding of Congress, the U.S. has made no plans to promote commercial shipping in the Arctic, and even new icebreakers necessary to protect the environment are far from the drawing board.

Arctic claims: Russia's claims for new territory beneath the Arctic Ocean cover 45 percent of the Arctic Ocean floor, and reach to the North Pole. The U.S. has prepared claims, but can't make them while the Senate delays consideration of the

Law of the Sea treaty and looks at no other legal route for U.S. claims. All that new Russian sea floor could soon be off limits to international scientists studying everything from the history of our planet to climate change to biological diversity.

America should be very wary of Putin's Arctic moves, but certainly not surprised. In 2011, I attended an Arctic conference in Arkhangelsk, Russia, with Putin who told us Russia was ready to pounce on Arctic oil and gas development and shipping.

His country went ahead, and, despite sanctions, a recent oil discovery in Russia's Kara Sea region of the Arctic Ocean suggests that Russia may have tapped one of the largest oil reserves in the world, potentially larger than the Gulf of Mexico.

Here at home, America's efforts to explore in our Arctic are being bogged down by red tape, delays and legal snafus. Producers in Alaska have been left on the sideline in spite of purchasing offshore leases for billions nearly a decade ago. It is estimated offshore Alaska holds 27 billion barrels of oil and 132 trillion cubic feet of natural gas. Over 90 percent of these resources are located in the Chukchi and Beaufort Seas, north of Alaska, where drilling is on hold.

Luckily, there are relatively easy fixes to this situation.

First, for economic security and national security, Obama and the new Congress should make sure the U.S. goes forward with Arctic offshore exploration in the summer of 2015. This is an opportunity for Republicans and Democrats to push aside partisan differences and focus on an issue that provides an economic opportunity for the United States as well as ensures that the United States remains a global leader in energy exploration.

Energy: A Nonpartisan Priority Obama And The New Congress Should Agree On

November 6, 2014

The Daily Caller

By David Holt, President, Consumer Energy Alliance

<http://dailycaller.com/2014/11/06/energy-a-nonpartisan-priority-obama-and-the-new-congress-should-agree-on/>

After the results are tallied across the nation and new members are sworn in, the Congress and administration will begin to forge their policy agendas for President Obama's final two years in office. And on the top of that priority list should be energy. For far too many years, Congress has been at an impasse on issues of strong bipartisan support, including recent measures on energy efficiency and Keystone XL.

While our policymakers in Washington, D.C., may think that energy has become an overly partisan issue, voters across the nation broadly support many energy-related measures.

That's why in a number of recent competitive races across the nation, energy issues mattered to voters. Indeed, opinion polling conducted for Consumer Energy Alliance (CEA) showed that the Keystone XL Pipeline and Arctic energy were at the forefront of voters' minds.

Interestingly, voter polls conducted in three states with pivotal U.S. Senate races found strong support for allowing oil and natural gas production in U.S. waters inside the Arctic Circle. Why would voters in the lower 48 care about offshore energy in Alaska when it is so many miles away?

For starters, elections have consequences. Decisions about the future of offshore drilling in the Arctic and elsewhere will be made in coming months and years by the federal government, with strong input by Congress and coastal governors. And these voters clearly understand Alaska's strategic value to our nation's energy diversity, which empowers our national security and economic security.

Americans know that the short-term and long-term future of offshore drilling in coastal areas like the Arctic, the Gulf of Mexico, the Atlantic and elsewhere rests firmly in the hands of our newly elected leaders.

Consequently, the federal government's decisions on offshore energy production have sweeping impacts. After all, the Alaskan Outer Continental Shelf (OCS) holds substantial influence on the future of U.S. economic and energy security as well as global geopolitical relations. U.S. Arctic waters – with an estimated 27 billion barrels of oil and 132 trillion cubic feet of natural gas, much of which is in the Chukchi and Beaufort Seas – remain one of the country's most prolific energy reserves.

In fact, more onshore and offshore production, accompanied by the right balance of policies and regulations, could mean that new Alaskan production might reach 1.6 million barrels of energy per day by 2030. Offshore development could also generate \$193 billion in new revenue and 55,000 jobs nationwide.

To illustrate the magnitude of these resources, consider this: Thirty billion barrels of Alaskan oil could fuel every domestic flight for over 120 years. And 141 trillion cubic feet of natural gas could heat every American house for 34 years. Simply put, American consumers need Alaska.

In order to further the nation's energy and national security objectives, exploration of Alaska and its Arctic waters must remain a dominant figure in the nation's energy equation. The state's vast deposits of natural resources enable economic growth, bolster trade, reduce the nation's debt, lower consumer energy costs, and ensure safe, affordable energy for all Americans, even those in the lower 48 states.

Now that Election Day has passed and voters have determined the new makeup of the Congress, American consumers need to remind their new representatives of the role that they will now need to play to support American energy self-sufficiency. Their future policy agendas and votes in the next two years will determine whether the national economy will be strengthened via federal policies that encourage offshore energy or hampered by overly reactionary, hyperbolic, exaggerated fears over offshore exploration.

The U.S. can and must be a leader in counteracting environmental challenges with science, technology, and smart, thoughtful policies that expand domestic energy production.

As we look towards the start of the Congress, CEA hopes that our policymakers remember that party affiliation should not matter when it comes to meeting our nation's energy needs, growing our economy and ensuring a diverse and sustainable energy future. For too long, some have attempted to create a false choice pitting the environment against energy production of all types. Congress should be above this fray. We can and must protect our environment and develop our energy resources. This should be something on which Democrats and Republicans should agree.

Encourage Arctic energy exploration

November 6, 2014

The Montana Standard

Letter to the Editor

http://mtstandard.com/news/opinion/letters/encourage-arctic-energy-exploration/article_ec795a5c-f9af-5590-af09-752df8c200d4.html

As living standards improve for many across the world and more people buy their first refrigerators, computers or cars, energy use will rise. Total global energy demand could rise by up to 80 percent by mid-century from its level in 2000.

A range of sources will be needed to supply this vital energy over the coming decades. Up to 30 percent of the world's energy mix could come from renewables in 2050, with fossil fuels and nuclear providing the rest. The U.S. is developing cleaner energy sources, such as natural gas, the cleanest burning fossil fuel. Natural gas complements wind and solar power, which need a highly flexible backup supply when the wind stops or the sun goes down.

America's increased oil and natural gas development has spurred a manufacturing renaissance, and Arctic oil and gas could bring even more manufacturing jobs back to all of the lower 48 states.

The United States is putting ourselves in a weak position if we slow Arctic oil and natural gas development through delayed approvals, lawsuits and red tape. With instability in Middle Eastern and Eastern European fossil fuel-producing countries, we need to make decisions which protect the future of Americans. We can do this by expeditiously moving forward to allow companies to further explore and take advantage of our oil and natural gas potential in U.S. Arctic waters.

Thomas J. O'Neill

2915 St. Ann St., Butte

When Oil In Our Ground Trumps Boots on Foreign Ground

Investor's Business Daily

November 4, 2014

By Col. David Hunt (Ret.)

<http://news.investors.com/ibd-editorials-perspective/110414-724895-obama-needs-to-open-us-energy-resources.htm?ven=rss&p=2>

Recent increases in U.S. oil production have mostly been driven by tight oil and shale energy development on private and state lands, outside the purview of federal policy.

While it's unclear how long this shale revolution will last, we do know that we have additional massive energy resources that remain untapped.

For example, Alaskan oil played a central role in boosting oil production in the 1980s strategy that helped undo the Soviet Union. The state has pumped more than 17 billion barrels of oil and still has significant resources available.

The federal government estimates that offshore Alaska holds 27 billion barrels of oil and 132 trillion cubic feet of natural gas, nearly all of this in federally managed waters.

Onshore, the Alaskan Arctic, including the federal National Petroleum Reserve-Alaska and the Arctic National Wildlife Refuge, holds about 16 billion barrels of oil and 98 trillion cubic feet of natural gas.

Russia, Norway and Canada are moving forward with aggressive programs to tap these prolific Arctic resources. Vladimir Putin has initiated a large-scale militarization of the Arctic with a goal of dominating it geopolitically and in terms of energy development.

The U.S., meanwhile, has slow-rolled offshore Arctic exploration programs and our development of important regional infrastructure.

Offshore, producers have been mired in a maze of regulatory and legal challenges that the Obama administration has been unwilling to resolve. Onshore, slow — or non-existent — leasing programs have put resources off-limits to development.

The U.S. has the ability to reverse the Alaska shutout. The administration can easily resolve legal and regulatory challenges by streamlining permitting and putting forth flexible regulations that promote responsible energy development.

By doing so, we will send a signal to Russia, OPEC and others that America's energy resurgence isn't a passing phase. We will lower our dependence on these oil suppliers and their ability to threaten us and Europe with higher prices.

By opening Alaska and other resource-rich federal lands, Obama can demonstrate that the U.S. has a long-term plan to keep oil production high and oil imports low. These actions can be taken without committing troops to battle over oil.

The U.S. has the resources and the wherewithal to lay the framework now for energy independence that will last well into the future. Obama can — and should — define his legacy as the president that secured America's energy security and by extension our security.

Hunt is a Fox News military analyst with more than 29 years of military experience.

Oil Exploration in Arctic Would Keep U.S. Competitive

November 2, 2014

The Billings Gazette

Letter to the Editor

http://billingsgazette.com/news/opinion/mailbag/oil-exploration-in-arctic-would-keep-u-s-competitive/article_c504d979-037a-52e8-90eb-c68703c7f049.html

Across our planet the number of people is rising. More than nine billion people are expected to live on Earth by 2050, up from seven billion today. Over the next 50 years these combined factors could drive up energy demand by as much as three-quarters. All forms of energy will be needed to meet this demand.

The transition to a low-carbon, renewable energy system will take time. Meanwhile, oil and natural gas will continue to power our lives. The challenge is to find and produce additional resources in a safe, economic and sustainable way.

The United States has become a true competitor in the world oil market and is the world's largest producer of natural gas, bringing our nation greater prosperity and security. In order for us to maintain this position, however, we need to continually seek opportunities to develop new sources of oil and natural gas. This opportunity lies in the Arctic.

We are at a competitive and geo-political disadvantage, however, when companies are able to freely explore in Russia's Arctic, but are being held back in the U.S. Arctic by administrative red tape and delays. These delays threaten America's position as a global energy leader and super-power by, reducing our ability to create jobs and spur economic growth

The United States should not allow any delays and send a signal to the world that we are going to remain an energy and economic leader by allowing companies to explore for and develop U.S. Arctic oil and natural gas.

Bill Canon

Roundup

U.S. Needs Oil Development in the Arctic

November 2, 2014

The Billings Gazette

Letter to the Editor

http://billingsgazette.com/news/opinion/mailbag/u-s-needs-oil-development-in-the-arctic/article_5b85aba7-42ad-50f0-88f5-b433d033ad8a.html

Montana is helping to meet the world's rising demand for energy. Advanced technology is helping us to release new sources of energy and make the most of existing oil and gas resources. Human ingenuity and new technology hold the key to unlocking the energy consumers need to power our lives in the years ahead.

We can apply this same human ingenuity and technology to unlock energy in the Arctic so we can maintain our leadership as a global energy producer. We are going to lose this lead, however, if we don't give our companies every advantage to expeditiously develop U.S. Arctic resources. At this juncture Russia is flexing its muscles to take the Arctic lead with the recent announcement that they struck oil in the Kara Sea.

Russia is demonstrating that they are serious about being the world's energy leader by helping to facilitate exploration in the Russian Arctic. While we and our allies have the resources, technology, expertise and regulations to develop Arctic oil and natural gas responsibly, we should be doing everything to make it easier to allow companies to develop U.S. Arctic resources.

More costly regulations do not equate to better protection of people and the environment. I hope our administration will take this opportunity to cut through red tape to allow expeditious U.S. Arctic oil and natural gas development.

Jennifer Higgins

Billings

U.S. Must Win the Oil and Gas War

November 1, 2014

Reno Gazette-Journal

By Ray Bacon, Executive Director, Nevada Manufacturing Association

<http://www.rgj.com/story/opinion/columnists/2014/11/02/bacon-us-must-win-oil-gas-war/18197447/>

The Nevada Manufacturers Association helps our members manufacture critical products used in Nevada and around the world. Manufacturing tends to be energy intense, but it routinely creates many of the best jobs.

We, at the Nevada Manufacturing Association, believe that Arctic oil exploration will help the U.S. move closer to energy independence, no longer having to rely on less than friendly nations to supply our oil. Energy independence helps Nevada and our entire country to be globally competitive. Oil operations, wherever they are in our country, provide great direct and indirect jobs in our state and nation. Several data sources show that energy sector accounts for about 40 percent of the industrial job growth since the recession started with oil and Gas most of those jobs.

Our country's increased oil and natural gas development has not only spurred a renaissance in manufacturing by lowering energy costs to run our factories, but also has resulted in savings to all Nevadans at the pump and in our homes. As we develop better and environmentally sound procedures for exploration and extraction of oil and natural gas, the abundance of petroleum-based products will create more jobs and further reduce costs to consumers.

The Arctic region has been open to oil exploration for years but because of bureaucratic inertia in Washington, the development of the oil- and gas-rich resources of the Beaufort and Chukchi seas has been needlessly delayed — all while Russia has been exploiting its resources in the Arctic, unmindful of the environmental safeguards that we have in place to allow safe production of oil and gas in the U.S.-controlled areas of the Arctic.

We are no longer in an "arms race" with Russia, but rather in an "energy race." The U.S. is currently winning the "energy race" in oil and natural gas production, but we could lose that lead if we don't give our companies every advantage to expeditiously develop U.S. Arctic resources as the Russians are doing.

The real race is the marathon we are in to protect our nation from those who seek to harm us. We don't want to lose any ground. While we have the resources, technology, expertise and regulations to develop Arctic oil and natural gas, we should be doing everything to make it easier too allow companies to develop U.S. Arctic resources.

Ray Bacon is executive director of the Nevada Manufacturers Association.

Official Offers Insight Into Shell's AIO Plan

October 3, 2014

The Bristol Bay Times

By Rex Rock, Sr., President, Arctic Iñupiat Offshore, LLC

http://www.thebristolbaytimes.com/article/1440official_offers_insight_into_shells_aio_plan

After reading Carey Restino's piece in the Sept. 5 edition of *The Arctic Sounder* I felt an obligation to respond. While I agree Restino is entitled to her own opinion, I do not believe she is entitled to omit answers to her own questions that would have required only a basic level of research. These are questions left in a vacuum but nonetheless are deserving of answers. It's my hope that I can provide the necessary insight.

AIO was officially formed in 2013, and is comprised of Arctic Slope Regional Corporation, Tikigaq Corporation, Kaktovik Iñupiat Corporation, Atkasuk Corporation, Olgoonik Corporation, Ukpeagvik Iñupiat Corporation, Iñupiat Corporation and Nunamiut Corporation to provide the communities of the North Slope with a powerful tool that can be used to engage with Shell as the oil company plans for exploration and development in the offshore waters of the Chukchi Sea, the very garden that has provided us sustenance for generations.

Make no mistake, I am a whaling captain first and had to ask myself the same difficult questions that our member corporations were asking themselves during the formation of AIO and its subsequent partnership with Shell — have we

done our due diligence? Is this a company that we, in all good conscience, could invest in? After many years of discussions and negotiations we were able to build our confidence in Shell, as an operator in our waters and reach a final agreement that I believe is fair to both sides.

Ms. Restino points out that in the Exploration Plan that Shell recently submitted to the BOEM the company will have two drill rigs operating simultaneously and asks how quickly could one of the drill rigs assist the other should there be a disaster. In Shell's Oil Spill Response Plan, they state if a rig is unable to drill its own relief well, Shell can suspend drilling at the other rig and mobilize it to the area of response.

Shell estimates that suspension of drilling activities, mobilization, mooring, drilling a relief well and killing the flow using the second rig will take 34 days. During those days, Shell has multiple other tools in place that would likely stop any spill continuing before a relief well was drilled and tools that are used to capture and clean up any spill that has occurred. Shell's plans have been approved by federal agencies, upheld by the Alaska Federal Court and tested with the U.S. Coast Guard as well as relevant state and federal agencies.

There could be other contingencies, but the plans developed by Shell and tested by the agencies are world class. The response plan with its associated vessels is the most robust that has ever been deployed. By having the two drilling rigs on site, drilling simultaneously, they can save time by not having to transit a relief rig between Dutch Harbor and the drill site.

Another issue raised in her opinion piece is that Shell will be bringing the Noble Discover back to the Arctic. AIO had its own concerns about the Discoverer and those concerns were the theme of several of our discussions and meetings with Shell after the problems it had in 2012. After learning about the extensive repairs and upgrades that Noble was making to the Discoverer we were able to respect the decision to have this vessel back. Many of the upgrades are listed in Shell's 2014 Integrated Operating Plan and so are available to the public, but a few that we were focused on were related to its emissions control systems.

For example, each of the six main generator engines and the crane engines on the Discoverer were replaced with more modern and better performing equipment. The main propulsion engine was replaced as well. The U.S. Coast Guard will be the ultimate decider about whether the investment Shell has made in the Discoverer through its inspections and approval will be sufficient; however, AIO is confident that processes in place will ensure that no harm will come to the people of our region or our environment.

As Restino points out, the Kulluk is no longer available to Shell and has been replaced by the Polar Pioneer. Again, AIO confirmed that the Polar Pioneer has been certified with an Acknowledgement of Compliance from the Petroleum Safety Authority of Norway. This is a very tough certification to obtain, and for AIO, provides us with some comfort. While this drill ship has decades of experience in the Arctic and sub-Arctic, it too has undergone significant upgrades over the past year to be prepared for the 2015 drilling season.

For AIO and our communities, it is important that Shell fulfill its commitments and meet all regulatory performance standards. Through our ability to meet with Shell regularly we are able to learn about their programs and compare them to the requirements they have to operate under. The massive amount of work, investment and upgrades that Shell has committed to on this two drill ship program demonstrate they are committed to using the best available technology for the 2015 season.

While Restino may be right in saying, "(W)e don't know what the federal regulators are going to do now that they have to rework their entire Environmental Impact Statement for Chukchi leases...", we do know that BOEM has addressed the schedule of the SEIS finalization. We need to make sure they keep to their schedule for the timely execution and finalization of the document. Even as I prepare this response we are already seeing some erosion of the federal schedule to complete the SEIS. This is discouraging because certainty is important for all of us.

We need to remember that Shell safely drilled top holes for two wells in 2012. The problems that year were with marine transportation. AIO has paid very close attention to the issues surrounding the Kulluk, because while this didn't happen in the Arctic we want to make sure it won't.

Much has changed since 2012 and we need to look at the new information, regulations and facts. We can't ignore the changes that have been made to the vessels, the oversight, the regulations and within Shell itself. Shell, its contractors and federal regulators have invested significant time and effort to ensure that operations moving forward integrate lessons learned from 2012 and from Shell's decades-long experience in the region.

As recommended by the Department of the Interior's 60-day review, Shell has completed an Integrated Operating Plan and is conducting a third-party audit to ensure proper oversight of contractors.

Restino states "The Arctic says it desperately needs jobs, industry, expansion and infrastructure to survive rising costs of living." The members of AIO live in the Arctic and we know and acknowledge that we do need these things for our continued economic sustainability. AIO understands the risks of exploring in the Arctic as it's happening all around us — to the east in the Canadian Beaufort and to the west of us in the Russian Chukchi — we don't have our heads in the sand.

Beyond just the risks created by exploration in Canada and Russia, consider too the risks that are created by the increased shipping traffic through the Arctic. Unlike Shell, these shipping vessels do not travel accompanied by oil spill response equipment and assets. With Shell in the Arctic, North Slope communities have additional protection in the event of an oil spill by a transiting vessel.

I represent AIO and believe development in Alaska's offshore can and will be done right. We know that exploration will happen with or without us; therefore, it is very important that we have a 'seat at the table' to ensure that our waters, marine mammals and traditional lifestyles are protected. We are confident we can reach the right balance and alignment with any operator in the Arctic OCS; after all, we are the ones who depend on this area more than anyone else.

Simply put Restino, we entered into this agreement with our eyes wide open. Unlike you, we did our research and answered our questions. We do understand the risks, and it's my belief that our future generations will be able to enjoy the benefits.

Rex Allen Rock Sr., is president of Arctic Iñupiat Offshore, LLC.



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov, Michael.Farber@bsee.gov

Tue, May 26, 2015 at 10:13 AM

Tommy, Mike - per our recent conversations, you will be interested in three recent articles – 2 appears in Financial Times and one in Seattle Times – that tell the story. These are just a few of the articles we prompted in recent weeks.

Please share as appropriate. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

May 25, 2015

Shell ready to seize its Arctic drilling chance

Ed Crooks in Seattleo Shell for Arctic drilling this summer, has previously been used off the coast of Norway, and is designed for harsh conditions

In the spring sunshine, the Polar Pioneer mobile offshore drilling unit is easy to spot at its mooring in the port of Seattle. It is an appropriately public location for a rig that is being made ready for the world's most-watched oil exploration campaign this year: Royal Dutch Shell's drilling programme in the Arctic Chukchi Sea off the northwest coast of Alaska.

Ten years after it first started acquiring new leases in the Arctic, and having spent almost \$7bn, Shell has still not yet drilled a single well into oil-bearing rocks. A series of lawsuits, regulatory objections and its own mistakes have held it up.

But after securing a key approval from US regulators earlier this month, the company now has a chance to change that. If all goes to plan, by late July it will have started drilling two wells in the Burger prospect in the Chukchi Sea. Its success or failure will be critical to the future of oil development off the coast of Alaska.

The Alaskan Arctic has enormous potential. US government projections have suggested in the long term it could produce 1m barrels per day, putting it on a similar scale to the Gulf of Mexico as an oil-producing region.

To make that possible, however, Shell and other companies will first have to make the oil discoveries to confirm that the area's supposed potential can be turned into a reality.

Ann Pickard, who was put in charge of the project in 2013 as Shell's executive vice-president for the Arctic, was heading for retirement after a successful stint running the company's Australian operations, but was persuaded to take on one last challenge.

"Shell has been great to me, and when I was asked about this I felt I could pay back Shell some," she says.

Exploring in the Arctic is technically challenging: drilling is possible only for two or three months in the summer when the ice clears sufficiently, and the seas can be harsher than in the Gulf of Mexico, the offshore region the US

industry knows best. But Ms Pickard says it is entirely possible to do it safely.

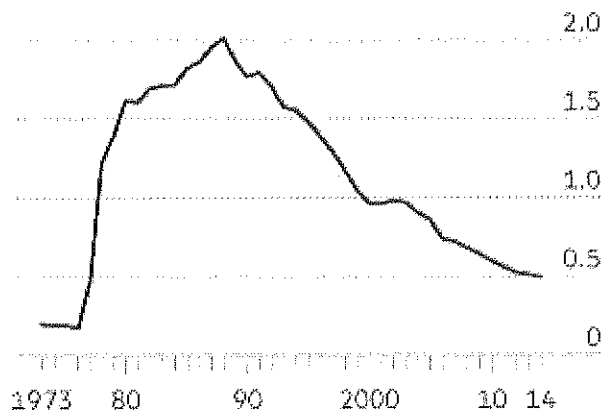
“This is not rocket science; we can do this,” she says. “But it does require that we operate exceptionally well.”

The Polar Pioneer has been the focus of protests from environmental campaigners. It was boarded by Greenpeace activists in the Pacific Ocean in April while being towed to Seattle, and after arriving in the port earlier this month it was surrounded by 500 “kayaktivists” in canoes.

The protesters object both to the risk of a spill, which would be particularly difficult to clear up in the icy waters of the Arctic, and to the implications for climate change of a long-term future for oil.

Alaskan crude oil production

Million barrels per day



Source: EIA

“The last place we should be drilling for oil is in the Arctic Ocean,” says Dan Ritzman of the Sierra Club, one of the groups involved in the protests. “This is a place we should start leaving fossil fuels in the ground.”

The argument in favour of Arctic drilling has not been helped by the problems that have dogged Shell and its contractors.

In the summer of 2012 it managed to drill two “top holes”, stopping well short of the suspected oil reserves, but faced persistent difficulties. The Noble Discoverer, a drill-ship that was used in that programme and will be operating again this summer, suffered engine failure. The Kulluk, the other rig used that year, broke free of its cables when it was being towed in heavy seas off the south coast of Alaska, and ended up running aground. It has now been scrapped.



Ann Pickard

Noble, the drilling contractor that operated the rigs, last December pleaded guilty to eight counts of improper record-keeping and failing to notify the US Coast Guard of hazardous conditions, and was fined \$12.2m.

“What happened in 2012 did not show Shell the way I know Shell,” says Ms Pickard. “We’re trying to rebuild trust.”

In part, that is about improved equipment. The Polar Pioneer, which is owned and operated by Transocean, has a successful record of operations in the harsh conditions off the coast of Norway, and has been modified for Shell with features such as new stronger towing gear and an incinerator for waste.

More than the equipment, though, it is the “man-machine interface” that is critical, says Ms Pickard. Her approach to that is exhaustive detail, in managing both Shell’s own employees and the dozens of contractors working on the project.

“I want to know what the deckhand had for breakfast. And I’m only half-joking,” she says. Failing to plan far enough ahead was one of the reasons for the problems Shell faced in 2012, adds Ms Pickard. Another was insufficiently close communication with contractors.

Both of those weaknesses she believes she has addressed.

“I don’t want to sound overconfident, because that’s not my style at all. But as I look at every little piece of what we’re planning to do . . . there’s no weaknesses in our programme.”

The question, she adds, is “what is going to happen that’s going to surprise us?”

Shell has some permits left to secure before it can start to drill, and still faces legal challenges. The rigs could be on their way through the Bering Strait in early July, with the company still not knowing for certain whether it will be allowed to drill.

Nevertheless, the project team will be ready, Ms Pickard says, and almost all of the \$1bn the programme will cost this year has been spent.

“I’ve put a lot of effort into getting this stuff right,” she adds. “Now it’s pretty much up to the people who I have in place to execute.”

May 25, 2015

Shell’s Arctic extraction to take more than a decade

Ed Crooks in Seattle



©Scott

Eklund/Red Box Pictures

Oil reserves that Royal Dutch Shell hopes to find in the Arctic are unlikely to be brought into production before the 2030s due to the difficulty in securing environmental approvals, executives leading the exploration said.

Marvin Odum, Shell's head of oil and gas production in the Americas, told the Financial Times that the company's success or failure this year and next in making a significant discovery was critical for the future of Arctic oil development.

Only a discovery of large reserves in the Chukchi Sea off the northwest coast of Alaska would justify the investment in infrastructure that would be needed to start production, he said.

It would take a decade or two to come on stream, in part because of the close regulatory scrutiny and legal challenges the development would face.

"The potential is here for this to be a world-class, absolutely key resource, with tremendous volumes," Mr Odum said. "The size of the prize here is worth the effort. We just have to demonstrate whether or not it's there."

The Arctic is one of the most significant frontiers for oil and gas exploration, and is becoming more accessible because of diminishing ice cover.

The area off the north coast of Alaska is seen as particularly promising, holding an estimated 30bn of the 90bn barrels of oil that the US Geological Survey has suggested lie in the Arctic waiting to be discovered.

However, several companies including Statoil of Norway and Chevron of the US have been delaying or cancelling Arctic exploration plans to save money following the plunge in crude prices since last summer.

Analysts have said Arctic oil production appears to be relatively high-cost, and might struggle to compete against cheaper oil from the Middle East, or even from US shales, where costs have been falling rapidly.

Plans for Arctic drilling have also come under sustained attack from environmental campaigners, who have assailed Shell with a series of protests and law suits.

In the latest incident, two protesters attached themselves to an Arctic oil-drilling support ship parked north of

Seattle at the weekend.

Unlike many of its peers, Shell is pressing on regardless, arguing that Arctic production can be competitive if the reserves it finds are large enough. "This is still a very viable source of oil," Mr Odum said.

He added that Arctic oil would be needed in decades to come even if the world shifted further towards renewable energy and put tighter controls on greenhouse gas emissions.

US President Barack Obama earlier this month spoke out in favour of Shell's plans, saying the company had provided "the kinds of assurances that we have not seen before, taking account of the extraordinary challenges [of cleaning up an oil spill in the Arctic]".

US government estimates suggest the seas off Alaska could become a producing region similar in scale to the Gulf of Mexico.

However, Shell executives argue that if the US wants full-scale development of its Arctic oil, the government will have to streamline regulatory and legal constraints to limit the hold-ups that have plagued the company.

Ann Pickard, who is leading the campaign as Shell's executive vice-president for the Arctic, said: "If the US government wants things developed, there needs to be a dialogue about how it can be done in a way that is more constructive than it is now."

However, she added that she accepted "we've got to earn that right to have that dialogue" by demonstrating that it was possible to drill safely in the Arctic.

###

SEATTLE TIMES

Chief of Shell's Arctic drilling program searches for 'the prize'

Originally published May 23, 2015

Shell's Ann Pickard says an offshore oil find in the remote Chukchi Sea could eventually yield 1 million barrels of oil daily, and she insists the company has learned from its messy Arctic exploration effort in 2012.

By Hal Bernton, Coral Garnick

Seattle Times staff reporters

In a brief summer drilling season off Alaska's Arctic shore, Shell's Ann Pickard is on the hunt for a giant oil field, and she thinks she knows where to find it.

All of the vessels in the Arctic exploration fleet now gathering in Puget Sound will be headed to a spot in the Chukchi Sea where Shell first drilled in 1989 and 1990. At that site, called the Burger Prospect, the company found natural gas that Pickard hopes is sitting on top of the oil Shell seeks.

We are going to focus on what I call the prize, and the prize to me is Burger," said Pickard, Shell's executive vice president for the Arctic. "If Burger works, then it opens up the whole area."

Pickard, in an interview with The Seattle Times, said she hopes to find a reserve that could eventually yield 1 million barrels of oil a day — roughly equal to 5 percent of U.S. current consumption, and nearly double the current

flows through the trans-Alaska pipeline.

Shell's investment in this search now totals nearly \$7 billion. The company is expected to take several years of exploration to drill six holes and decide whether such a field exists.

Pickard acknowledges the Burger could be a bust, an outcome that could end Shell's push to find oil off Alaska's North Slope

"If it is a dry hole — there is nothing there — we're done. If it is gas, I'm not excited," she said.

Pickard — formally the executive vice president, Arctic, for global parent company Royal Dutch Shell — was in Seattle to oversee final preparations for a drilling season that environmentalists have sought for years to block due, in part, to the risks of an oil spill in the remote, biologically rich waters of the Arctic.

The drilling effort, and the decision to moor some of the drilling fleet at Seattle's Terminal 5, have stirred up strong emotions here.

While the maritime community has embraced Shell's exploration as a major new opportunity for family-wage jobs, environmental activists here organized a "Shell No" protest movement. Mayor Ed Murray, citing concerns about climate change, has given the activists a boost by saying he does not want the oil company to base its fleet here, and city officials have asserted that the Shell fleet's activities at Terminal 5 violate the current land-use permit.

In her interview, Pickard made clear that Seattle — from a logistical standpoint — remains Shell's first choice as an offseason home port for the Polar Pioneer. It is the massive oil rig that along with the Noble Discoverer drill ship will be used to sink holes in the Chukchi Sea.

"This is the ideal place for the Polar Pioneer," she said. "The Noble Discoverer, it is not as big, and we can take it other places. But ... it's like Terminal 5 was made for the Polar Pioneer."

Pickard indicated she had no plans to meet with Murray, but had met with Port of Seattle Executive Director Ted Fick.

"They (port officials) saw it as a real opportunity to bring jobs and money, obviously, into Terminal 5 and into Seattle," she said.

Pickard said she doesn't expect Shell to be done with its loading and supplying work at Terminal 5 by June 4, the deadline set by the city of Seattle for avoiding fines of up to \$500 a day.

Though the Polar Pioneer is too big to fit into Everett, Pickard said she wishes it could.

"I don't particularly like getting notices of violation," she said. "If Seattle doesn't want us ... I think we need to think about where the business goes."

She has less-favorable backup sites where the rig could be loaded, and those options are "very alive." One is Port Angeles, although ships would have to ferry supplies to the rig. Another option is Dutch Harbor, Alaska, a less-sheltered harbor that poses a greater risk of storms.

Troubled 2012 season

Pickard is a 15-year Shell veteran whose previous work with the company included assignments in Nigeria and Australia. She took over Shell's Arctic operations in June 2013, less than a year after the end of a troubled drilling season that prompted critics to question Shell's ability to manage a complex Arctic exploration.

In 2012, one rig, the Kulluk, ended up aground off Kodiak Island. Shell contractor Noble Drilling U.S., which operated the Noble Discoverer, became the subject of a federal criminal investigation that resulted in a guilty plea

to eight felony counts for environmental and maritime crimes and an agreement to pay \$12.2 million in fines.

When she took on her new post, Pickard said, she did a lot of listening to contractors who are key to carrying out the exploration effort. Their complaints ranged from not having enough fresh food supplied to the Arctic vessels to concerns they were not sufficiently involved in the planning efforts.

"That one really resonated with me," Pickard said. The result was what she described as a "radically different" relationship with contractors in what has become an "incredibly close partnership."

She said the 2012 season suffered from a lack of planning for how the fleet would leave the Arctic when the drilling season ended, which is why the overwintering plan in Seattle is so important to her.

"I'm planning my next two years out; we're not going to make the mistakes of the past," she declared.

Coast Guard scrutiny

In the run-up to this year's exploration, regulators continue to inspect Shell's vessel and have found there is still more work to do.

When the Noble Discover was in Hawaii last month, the Coast Guard found fault with an oil separator that removes oil from water in the bilges. That equipment also did not work properly back in 2012.

That issue was addressed and the ship was allowed to continue to Everett, said Lt. Dana Warr, spokesman for Coast Guard sector Puget Sound.

The Coast Guard also boarded the Noble Discoverer and Polar Pioneer this week for a routine exam to ensure compliance with safety and security requirements.

Warr said the exam is unrelated to the problem found during the inspection in Hawaii.

Neither vessel received its Coast Guard certificate from this week's exam, but Warr said it's not uncommon to need multiple visits.

Pickard said the Coast Guard came up with a list of items "that have to be addressed" on the Polar Pioneer.

"This is great. I welcome all of these inspections," Pickard said. "I can go on and kick the tires ... but the more people who are looking at these things and testing things, the more robust the program will be."

The future

However, environmentalists who have been watching Shell since the company got its lease to drill in the Arctic are not convinced the vessels, or Shell, are up to the job.

"The track record of the Noble Discoverer is indicative of the track record of Shell and their contractors," said Susan Murray, deputy vice president of the Pacific for the environmental group Oceana. "The Discoverer itself is just one bad actor in a play that the company had in its 2012 season, and it doesn't inspire confidence in a 2015 season."

Shell's drill fleet is expected to arrive in the Chukchi in the second or third week of July. Once there, Pickard said, one uncertainty is how fast the rigs can excavate below the surface of the sea bottom to install special blowout preventers.

"Will it take a week or will it, like in 2012, take nearly 30 days -- I don't know," she said.

Although scientists warn of the escalating risks of climate change from the carbon emissions generated by fossil-fuel consumption, Pickard is convinced that in 2025 to 2030, when Shell could potentially be producing crude

from the Chukchi Sea, the world will still need oil.

She reaffirmed Shell's support for putting a price on carbon, a step intended to help reflect the costs of climate change and spur development of alternative energy sources that do not generate those emissions.

"The world is going to need Arctic oil; otherwise we don't supply energy," she said. "To demonize us — to demonize the oil companies — I'm not sure that adds a lot of value."

Murray of Oceana agrees there will be a transition period to stop using fossil fuels, but she doesn't think the Arctic should be explored in the interim because its remoteness and harsh conditions increase the risks of environmental damage.

"So far there is no technology on the planet that can clean up spilled oil in the ice," she said. "We are not going to stop using fossil fuels overnight, but we can be safer about the fossil fuel we are using."



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

FW: Shell Alaska - Seattle

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Thu, May 14, 2015 at 6:14 PM

You might be interested. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Glenn, Sara B SHLOIL-GRA
Sent: Thursday, May 14, 2015 6:12 PM
To: brandi_colander@ios.doi.gov; Celina Cunningham; Michael Farber
Subject: Shell Alaska - Seattle

Brandi, Mike, Celina - Brief update on Seattle. Please share as appropriate.

Attached are photos of the Transocean Polar Pioneer rig just now getting close to Terminal 5 at the Port of Seattle, where final preparations for mobilization to Alaska will begin.

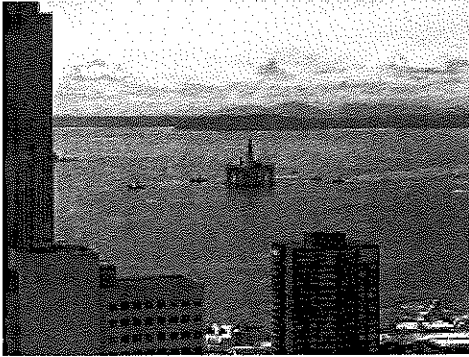
A Festival of Resistance planned for this weekend in Seattle, and a "day of mass nonviolent direct action + rally" is planned for Monday.

Articles from today:

- Arctic oil fuels jobs in Puget Sound – includes footage shot today at T5 and highlights the economic benefits to PNW. <http://www.king5.com/story/news/local/seattle/2015/05/13/arctic-oil-jobs-economic-impact-puget-sound/27278779>
- Editorial from the Seattle Times: <http://www.seattletimes.com/opinion/editorials/wishy-washy-rhetoric-on-port-lease>
- A Seattle Times story: <http://www.seattletimes.com/seattle-news/shell-oil-rig-arriving-today-just-the-start-of-arctic-drilling-fleet>

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

2 attachments



IMG_1958.jpg
984K

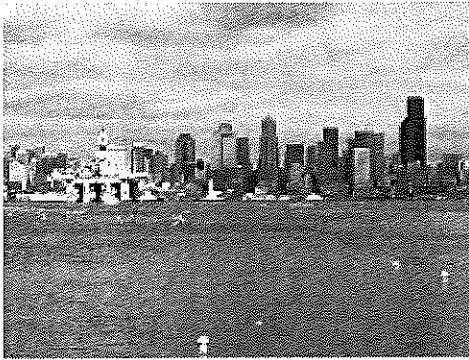


image1.jpg
987K



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska - update on rigs in Washington state

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, May 13, 2015 at 9:08 AM

To: janice_schneider@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov,

tommy_beaudreau@ios.doi.gov

Cc: brandi_colander@ios.doi.gov, Michael.Farber@bsee.gov, celina.cunningham@boem.gov

All - An update regarding the movements of Shell's drill rigs in Washington state.

The Polar Pioneer will begin moving to Terminal 5 today as planned. Arrival tomorrow May 14. Law enforcement agencies and the Coast Guard in Seattle are fully aware. Yesterday, the Seattle Port Commissioners held a public meeting and heard statements from a number of individuals, including many who support Shell's plans to utilize Terminal 5. The Commissioners approved two motions, neither of which affects the planned activity. One motion supported the Port CEO telling Foss about the City's determination that the proposed use of T5 is not permitted (this is old news); and the second, supported the Port CEO appealing the City's determination. (Foss will likely also appeal.) The link below is to a New York Times article

http://www.nytimes.com/2015/05/13/us/seattle-port-votes-to-delay-drilling-rigs-on-the-way-to-alaska.html?_r=0

The Noble Discoverer drill ship arrived safely at the Port of Everett yesterday. No incidents, although a small group of kayakers observed.

This weekend, May 16-17, a protest in Seattle is planned.

I hope this is helpful. Let me know if you have questions.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov

Tue, May 12, 2015 at 5:49 PM

Hi – Perhaps you are aware. FWS Alaska Office has not yet sent a written request for information nor have we received any oral requests. FWS did request a call with Shell and it is set for tomorrow 1:00 pm Anchorage time.

I am advised that participants from DOI include:

Geoff Haskett, USFWS Regional Director, Alaska

Ted Boling, Deputy Solicitor - Parks & Wildlife, DOI

Mike Young, Assistant Solicitor for Fish and Wildlife, DOI

Ken Lord, DOI, Office of Regional Solicitor

Mary Colligan, USFWS, Marine Mammals Management, Alaska Region

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

FW: Bloomberg: Safe Arctic Drilling Won't Betray Obama's Climate Policy: View

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Tue, May 12, 2015 at 1:10 PM

FYI

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

Safe Arctic Drilling Won't Betray Obama's Climate Policy: View**2015-05-12 12:00:17.915 GMT**

By The Editors

(Bloomberg View) -- Two of President Barack Obama's top priorities clashed on Monday in the Arctic Ocean, and the outcome has some environmentalists feeling betrayed. They shouldn't be.

The administration's conditional approval of Royal Dutch Shell's plan to drill in the Arctic Ocean is not necessarily evidence of slackening effort in the fight against climate change. Instead, it shows that the administration is continuing the fight for energy security.

In recent years the U.S. has greatly increased domestic production of oil through fracking, horizontal drilling and other new technologies. But the country is still not close to producing as much oil as it consumes. The U.S. imports 7 million barrels of oil a day.

Reducing imports to zero is both impossible and unwise. Yet the more oil the U.S., Canada and other stable democracies can produce, the less volatility there will be in the global price of oil. A sensible energy-security policy would help prevent fighting in places like Libya and Yemen from leading to unpredictable price spikes. That's why it makes sense to maximize production.

There is an important caveat, though: Production should be maximized while also increasing efforts to curb greenhouse gases. These two goals are not mutually exclusive, and it's why the administration is right to continue to support efforts to help the whole world use less oil and burn it more cleanly.

Consider that some 24 billion barrels of oil are thought to lie below the North American continental shelf to the north and west of Alaska -- about a third of all the oil in the Arctic Circle.

The Arctic is a special environment, uniquely vulnerable to oil spills. The water is relatively shallow, about 150

feet deep. And the plant and animal life are already under stress from climate change. A spill of any great size in the Chukchi and Beaufort seas would also be difficult to clean up, given that the closest Coast Guard station is more than 1,000 miles away.

But that is reason to be careful, not justification for an outright ban. Two years ago, the Interior Department was right to temporarily stop Shell's attempt to drill in the waters north and west of Alaska, after one of the company's rigs ran ashore and mechanical problems crippled its oil containment barge. But Shell has had time to solve these problems and ensure that its ships and drilling equipment can withstand the harsh conditions of the Arctic.

The company is now working to pass its final permit reviews. It has already invested billions of dollars in an effort to explore U.S. Arctic oil deposits and begin drilling.

If it has used this time to improve its equipment and procedures to operate safely in the Arctic -- and it can demonstrate that -- then it should be allowed to move carefully ahead.

--Editors: Mary Duenwald, Michael Newman.

To contact the senior editor responsible for Bloomberg View's editorials: David Shipley at davidshipley@bloomberg.net.



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

FW: US Chamber of Commerce Energy Institute Blog post: A Step Forward for Arctic Production

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, May 12, 2015 at 1:09 PM

To: tommy_beaudreau@ios.doi.gov

FYI

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

A STEP FORWARD ON ARCTIC PRODUCTION

Matt Koch

From CNN: *The Obama administration, citing "rigorous safety standards" and a long review process, has granted conditional approval to energy giant Shell to begin oil drilling in the Arctic waters off the coast of Alaska.*

This decision by the Department of Interior is a positive step toward further development the vast resources in the Arctic region. The announcement is a clear nod of recognition that Shell is meeting safety requirements and is an acknowledgement that the abundant Arctic resources can be developed safely.

As we noted last week, the United States took over leadership of the Arctic Council, an intergovernmental forum created in 1996 to promote cooperation and coordination and address issues facing the eight Arctic-nation governments and the region. Given the Obama Administration's lackluster record of supporting energy development, all eyes are now on us.

The National Petroleum Council's recent study on Arctic Potential noted that *"the oil and gas industry has a long history of successful operations in arctic conditions enabled by continuing technology and operational advances"* and that *"most of the U.S. Arctic offshore conventional oil and gas potential can be developed using existing field-proven technology."*

Since the global Arctic contains 25% of the world's remaining oil and gas resources that can be developed with existing technology, it is no wonder that so much attention is now on the region. Approving Shell's application is a good first step, but there's a lot more potential out there which would bring long term economic and security benefits to the United States and the rest of the world.

See more at: <http://www.energyxxi.org/step-forward-arctic-production>



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov
Cc: celina.cunningham@boem.gov

Wed, May 6, 2015 at 5:35 PM

Abby, Tommy - This is the last communication we had from FWS. Very disappointing to hear from you where the issue stands today. In the old days, Heather Zichal would have moderated to bring matters to a resolution. I am hopeful that with your participation we can move this forward.

From: Colligan, Mary [mailto:mary_colligan@fws.gov]

Sent: Friday, April 24, 2015 3:20 PM

To: Horner, Greg J SEPCO-UAA/A/SR

Subject: update

Greg - Thanks for the call yesterday. Our team was able to meet today and discuss our review of your document. We did not identify any immediate questions for you at this time. We will be compiling our review over the coming days and I am sure will be in touch next week.

Thank you

--

Mary Colligan

U.S. Fish and Wildlife Service

Marine Mammals Management, Polar Bears

1011 E. Tudor Road, MS-341

Anchorage, AK 99503

907-786-3668

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Can you talk?

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, May 5, 2015 at 8:24 PM

To: tommy_beaudreau@ios.doi.gov

Perfect

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Tommy Beaudreau [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Tuesday, May 05, 2015 08:05 PM

To: Glenn, Sara B SHLOIL-GRA

Subject: Re: Can you talk?

Hey - just seeing this. I'll call you in the morning, if that works.

TPB

> On May 5, 2015, at 5:54 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

>

> My cell 202-299-6472

>

> Sara

> -----

> Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Fri, Apr 24, 2015 at 9:00 PM

To: brian.salerno@bsee.gov, tommy_beaudreau@ios.doi.gov, janice_schneider@ios.doi.gov,
abigail.hopper@boem.gov

Hi folks - thought you would want to know that the Greenpeace vessel Esperanza has just pulled up next to the Arctic containment system in Bellingham. If there are developments, I will keep Director Salerno informed as my point of contact.

Thanks, Sara

Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Tue, Apr 21, 2015 at 12:10 PM

Going into a meeting but will call you this afternoon.

TPB

> On Apr 21, 2015, at 12:06 PM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:
>
> Tommy - do u have time for a call? Less than 2 mins
>
> Sara
> _____
> Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Fri, Apr 17, 2015 at 4:12 PM

To: tommy_beaudreau@ios.doi.gov

Cc: Ann.Pickard@shell.com

Hi Tommy - As Ann Pickard said, now that we have some confidence about getting permits for 2015, Shell will be stepping out to talk about our 2015 Alaska program.

Please note, too, that Shell has been doing intensive engagement with key stakeholders for some time. And our consultants around the country have been working to educate key business leaders, community leaders, elected officials, etc. about the benefits of developing Alaska's offshore resources. I will send a comprehensive summary of recent work. But here are a few data points.

- In March, as confirmed by one of our consulting firms, 100 letters were sent to US Senators expressing support for Arctic offshore oil and gas development. These letters were generated in 10 lower-48 states by various community and business leaders, elected officials, etc.

- Attached is the letter to Senator Wyden from the Columbia Pacific Building Trades Council (CPBTC), which is comprised of some 20 unions representing about 25,000 members in Oregon.

- OpEd in Gas & Oil Magazine by Patrick Sink, is a Business Manager with the International Union of Operating Engineers Local 18 and a long-time supporter of Arctic development. <http://www.gasandoilmag.com/opinion/2015/03/09/arctic-frozen-territory-for-united-states-energy-exploration>

Would you share with the Secretary and others as appropriate?

Regards, Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington, DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

CBTCLETTERWydenOregon.pdf
903K



Columbia Pacific Building and Construction Trades Council

April 10, 2015

Senator Ron Wyden
911 NE 11th Ave., Suite 630
Portland, OR, 97232

Dear Senator Wyden,

My name is William Myers and on behalf of the men and women of the Columbia Pacific Building and Construction Trades Council and I am writing you to ask for your strong support for the oil and gas industry both here in Oregon and across the Northwest and Alaska.

Here in Oregon we have experienced in the past few years how greater energy production strengthens our economy. There are many exciting projects that deserve your support from the Port of Portland to Coos Bay. Jordan Cove LNG terminal, Pembina propane export facility, Global Partners Ethanol and Crude transfer station, NW Innovation Works Methanol are just a few of the projects proposed for our great state. These are projects that will generate thousands of high paying jobs for both our members and workers across the state and the Northwest.

A key way we can continue this trend is by increasing production of domestic energy to generate these opportunities for long-term, sustainable economic growth.

One area that Oregon is especially dependent on is the Arctic. The development of environmentally and social responsible Arctic energy has a direct impact on jobs here in Oregon. From manufacturing jobs in the energy sector to the ship repair industry at the Port to the Trans-Alaskan-Pipeline which brings vital oil to the West Coast; Oregon is economically linked to the Arctic. As oil and gas is moved through or refined into products here in this state, jobs and revenue will continue to grow across all industries dependent on stable and reliable energy, such as chemicals, manufacturing, agriculture, transportation, tourism, and others.

Our organization is committed to the development of all forms of energy, to secure America's energy future. However, even with increased renewables, we will still be reliant on oil and natural gas to meet 60 percent of U.S. energy demand for decades.

Fortunately, we have domestic onshore and offshore resources to help meet this demand and the men of women of the Columbia Pacific Building and Construction Trades Council to turn these raw materials into useable commodities for Oregon businesses and consumers.

We ask for your support as we continue to build an exciting and thriving sector of Oregon's economy.

Sincerely,

Willy Myers
Columbia Pacific Building and Construction Trades Council
Executive Secretary-Treasurer



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska - oil spill response plan

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Fri, Apr 17, 2015 at 1:08 PM

To: brian.salemo@bsee.gov

Cc: janice_schneider@ios.doi.gov, abigail.hopper@boem.gov, tommy_beaudreau@ios.doi.gov,

Ann.Pickard@shell.com, Susan.Childs@shell.com

Director - Although our OSRP is currently compliant and not due to be revised until Dec. 2015, we will submit Revision 3 dated April 20, 2015, with the following information: (i) delete reference to Kulluk to replace with Polar Pioneer; (ii) update the pages describing the location of assets; (iii) note that the changed locations will enhance response times; and (iv) note the date of practice drills.

If further changes are needed after the drill, we will submit Revision 4.

I think this will address your concerns. If not, let me know.

Many thanks,

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Fw: Shell Alaska - Greenpeace

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Fri, Apr 17, 2015 at 10:02 AM

Fyi --

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Glenn, Sara B SHLOIL-GRA

Sent: Friday, April 17, 2015 10:01 AM

To: 'Michael.Farber@bsee.gov' <Michael.Farber@bsee.gov>; 'celina.cunningham@boem.gov' <celina.cunningham@boem.gov>

Subject: Shell Alaska - Greenpeace

Hi - keeping you updated. Yesterday 12 greenpeace folks and 3 Gpeace vessels arrived in Port Angeles. Local law enforcement engaged and they said they wd comply with the court order. In the last hour, I understand that a Gpeace RHIB was intercepted by 3 security boats. I am unclear if there was an arrest. The Blue Marlin with the Polar Pioneer is abt 45 minutes away

Pls pass on as appropriate.

Thx. Sara

Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE:

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Thu, Apr 16, 2015 at 3:54 PM

We thought it was good also. I do want to follow up by phone when I gather a few more data points.
Cheers, Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]
Sent: Thursday, April 16, 2015 12:49 PM
To: Glenn, Sara B SHLOIL-GRA
Subject:

I appreciate very much Marvin and Ann meeting with the Secretary this morning, and think the meeting went well. Thanks again.

Best,

TPB



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Apr 15, 2015 at 12:52 PM

To: brian.salerno@bsee.gov

Cc: tommy_beaudreau@ios.doi.gov, abigail.hopper@boem.gov, Michael.Farber@bsee.gov, celina.cunningham@boem.gov, margaret.schneider@bsee.gov

Sure, my cell 202-299-6472. I am out of pocket from about 4-5:15.

Sara

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Salerno, Brian [mailto:brian.salerno@bsee.gov]

Sent: Wednesday, April 15, 2015 12:50 PM

To: Glenn, Sara B SHLOIL-GRA

Cc: Tommy Beaudreau <tommy_beaudreau@ios.doi.gov>; Abigail Hopper <abigail.hopper@boem.gov>; Michael Farber <michael.farber@bsee.gov>; Celina Cunningham <celina.cunningham@boem.gov>; Margaret Schneider <margaret.schneider@bsee.gov>

Subject: Re: Shell Alaska

Sara,

One item we may want to discuss is the Oil Spill Response Plan. No show stoppers here, but might be worth a call in advance. Could I give you a quick call on this later today?

Brian

On Wed, Apr 15, 2015 at 10:15 AM, <Sara.Glenn@shell.com> wrote:

> Greetings - As you know, Marvin Odum and Ann Pickard have a meeting with
> the Secretary tomorrow. Brian Malnak and I will also be there.

>

>

>

> Marvin/Ann plan to describe the status of our preparations for 2015 drilling
> and they will likely acknowledge that DOI met the timelines in completing
> the ROD. I expect they will identify a few issues, such as the need for a
> timeline to complete the FWS LOA and the importance of advancing the
> conversation that DOI opened last week on the Suspension request.

>

>

>

> If there are other points I should flag for my folks, just let me know. I
> look forward to seeing you tomorrow.

>

>

>

> Sara

>

> Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell

2/10/2016

DEPARTMENT OF THE INTERIOR Mail - Re: Shell Alaska

> Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 ·

> ph 202 466 1400 · cell 202 299 6472

>

>



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Apr 15, 2015 at 9:07 AM

To: tommy_beaudreau@ios.doi.gov

Cc: katherine_rupp@ios.doi.gov

Hi Tommy - for the meeting tomorrow with the Secretary, our group is: Marvin Odum, Ann Pickard, Brian Malnak and me

Thanks! Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Recommended Offer for BG Group by Royal Dutch Shell plc

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Wed, Apr 8, 2015 at 10:49 AM

I saw! Wow - congratulations.

TPB

On Wed, Apr 8, 2015 at 10:42 AM, <Sara.Glenn@shell.com> wrote:

Tommy - You may have seen. This morning the Boards of Royal Dutch Shell and BG Group announced an agreement on an offer to be made by Shell for BG. Information about the announcement can be found on Shell's website www.Shell.com

If you have any questions do not hesitate to contact me.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska seeks an injunction against Greenpeace

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Apr 8, 2015 at 9:39 AM

To: janice_schneider@ios.doi.gov, abigail.hopper@boem.gov, brian.salerno@bsee.gov,
tommy_beaudreau@ios.doi.gov

Cc: brandi_colander@ios.doi.gov, michael.farber@bsee.gov, celina.cunningham@boem.gov

Janice, Abby, Brian, Tommy -

As you know, six individuals with Greenpeace have illegally boarded the Blue Marlin tow vessel which is dry-towing the Polar Pioneer drill rig. The group is set up on a catwalk under main deck at the Polar Pioneer. The crew of the Blue Marlin is unable to see all activities the group may be taking; and cannot access the area where the protestors have chosen to camp. The captain of the Blue Marlin regularly puts out a safety message to the protestors and states they are committing criminal activity. The Greenpeace vessel Esperanza continues to trail the Blue Marlin, which is due to arrive in the Pacific Northwest in about 10 days. The US Coast Guard is aware of the situation.

Boarding a moving vessel on the high seas is dangerous and jeopardizes the safety of both the people working aboard and the protestors themselves. Shell cannot condone such unlawful and unsafe actions.

Yesterday, Shell filed a complaint against Greenpeace in the U.S. District Court in Alaska seeking an injunction to bring an end to the current boarding and to prevent such actions in the future. If granted, the injunction would prevent Greenpeace – or anyone associated with Greenpeace – from taking illegal action against all vessels associated with the Shell Alaska exploration program, including the drilling units. We've also asked the court to order Greenpeace to disembark from the Polar Pioneer immediately. If Greenpeace violates the terms of this injunction, the court could find them in contempt and enforce penalties as it deems appropriate.

Let me know if you have any questions.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE:

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Mon, Apr 6, 2015 at 4:47 PM

I thought he did a good job. let us know if there are any points that we missed. Thanks Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]
Sent: Monday, April 06, 2015 4:46 PM
To: Glenn, Sara B SHLOIL-GRA
Subject:

Productive call today - thanks to Michael and your other folks who pulled it together.

TPB



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Apr 2, 2015 at 6:31 PM

To: tommy_beaudreau@ios.doi.gov

Ok, I will pass that on to Marc Stone

Sent from my BlackBerry Wireless Handheld

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Thursday, April 02, 2015 06:28 PM

To: Glenn, Sara B SHLOIL-GRA

Subject: Re: Shell Alaska

I think it is a good idea - Jack and I had a similar thought.

On Thu, Apr 2, 2015 at 5:53 PM, <Sara.Glenn@shell.com> wrote:

Thank you for the conversation. My lawyers would like to talk with Jack Haugrud and/or with the FWS lawyers in Anchorage before the call on Monday. Unless you think that is a bad idea.

What do you think? Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE: Can you talk for 5 minutes?

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Thu, Apr 2, 2015 at 1:57 PM

To: tommy_beaudreau@ios.doi.gov

So sorry... I missed it. I tried your cell, but you must be tied up. Jumping on a call from 2-2:30

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Thursday, April 02, 2015 1:36 PM

To: Glenn, Sara B SHLOIL-GRA

Subject: Re: Can you talk for 5 minutes?

Just left you a vm. Call me back when you have a minute

On Thu, Apr 2, 2015 at 8:37 AM, <Sara.Glenn@shell.com> wrote:

Cell 202-299-6472

Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Can you talk for 5 minutes?

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Thu, Apr 2, 2015 at 11:55 AM

I'll give you a call later this afternoon.

On Thu, Apr 2, 2015 at 8:37 AM, <Sara.Glenn@shell.com> wrote:
Cell 202-299-6472

Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska-Request to meet with Secretary Jewell

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Apr 1, 2015 at 8:31 AM

To: tommy_beaudreau@ios.doi.gov

Cc: Katherine_rupp@ios.doi.gov

Or 16th

Sent from my BlackBerry Wireless Handheld

From: Tommy Beaudreau [mailto:tommy_beaudreau@ios.doi.gov]**Sent:** Wednesday, April 01, 2015 07:07 AM**To:** Glenn, Sara B SHLOIL-GRA**Cc:** Katherine_rupp@ios.doi.gov <Katherine_rupp@ios.doi.gov>**Subject:** Re: Shell Alaska-Request to meet with Secretary Jewell

Helpful, thank you. Will confirm today.

TPB

On Apr 1, 2015, at 7:05 AM, "Sara.Glenn@shell.com" <Sara.Glenn@shell.com> wrote:

Fyi. Marvin is meeting with Secretary Kerry on 4/17 2:00. So if we can make morning of 17th work that wd be great

Sent from my BlackBerry Wireless Handheld

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]**Sent:** Tuesday, March 31, 2015 04:21 PM**To:** Glenn, Sara B SHLOIL-GRA**Cc:** Katherine Rupp <katherine_rupp@ios.doi.gov>**Subject:** Re: Shell Alaska-Request to meet with Secretary Jewell

Understand - we'll get back to you promptly.

On Tue, Mar 31, 2015 at 4:20 PM, <Sara.Glenn@shell.com> wrote:

If you are able to get an answer, that would be helpful. Both Marvin and Ann will have to change international travel plans to do April 15 or 16..... S

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Tuesday, March 31, 2015 4:09 PM
To: Glenn, Sara B SHLOIL-GRA
Cc: Katherine Rupp
Subject: Re: Shell Alaska-Request to meet with Secretary Jewell

They might - in DC, right?

Thanks very much.

TPB

On Tue, Mar 31, 2015 at 4:02 PM, <Sara.Glenn@shell.com> wrote:

Tommy – following up on Secretary Jewell's request to meet with Marvin Odum and Ann Pickard. Schedules are tough.

But it looks like April 15 or 16 will work for us. Does that work for Sec. Jewell?

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company ·
1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299
6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: Shell Alaska-Request to meet with Secretary Jewell

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Apr 1, 2015 at 7:04 AM

To: tommy_beaudreau@ios.doi.gov

Cc: Katherine_rupp@ios.doi.gov

Fyi. Marvin is meeting with Secretary Kerry on 4/17 2:00. So if we can make morning of 17th work that wd be great

Sent from my BlackBerry Wireless Handheld

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Tuesday, March 31, 2015 04:21 PM

To: Glenn, Sara B SHLOIL-GRA

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Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

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Sent: Tuesday, March 31, 2015 4:09 PM

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Cc: Katherine Rupp

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Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE: Shell Alaska-Request to meet with Secretary Jewell

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Tue, Mar 31, 2015 at 4:14 PM

To: tommy_beaudreau@ios.doi.gov

Cc: katherine_rupp@ios.doi.gov

Yes DC

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Tuesday, March 31, 2015 4:09 PM

To: Glenn, Sara B SHLOIL-GRA

Cc: Katherine Rupp

Subject: Re: Shell Alaska-Request to meet with Secretary Jewell

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Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street
NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

2/10/2016

DEPARTMENT OF THE INTERIOR Mail - RE: Shell Alaska-Request to meet with Secretary Jewell



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Can you talk?

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Fri, Mar 27, 2015 at 1:39 PM

Important issue

Sara

Sent from my BlackBerry Wireless Handheld



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska - Greenpeace activity

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Wed, Mar 25, 2015 at 10:56 AM

To: michael.farber@bsee.gov, celina_cunningham@ios.doi.gov

Cc: tommy_beaudreau@ios.doi.gov, brian.salerno@bsee.gov, abigail.hopper@boem.gov


Mike, Celina - Greenpeace's vessel Esperanza continues a cat and mouse game with the Blue Marlin, which is towing the Polar Pioneer drill rig. Over the weekend, Esperanza conducted reconnaissance of Blue Marlin. We are closely monitoring.

Greenpeace (GP) has published a log describing its activity (see below) and <https://www.savethearctic.org/en-GB/live/>

Copying others in case they are interested.

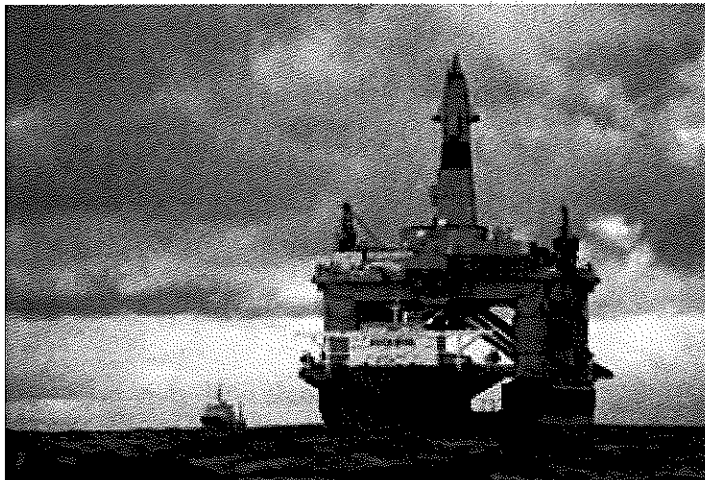
Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

 GP Arctic Watch retweeted

 **Climate Revolution** @climate_rev · 53m

BOOM! @savethearctic are following @Shell over the Pacific #thecrossing to #savethearctic grnpc.org/lge8y



  7  5

[View more photos and videos](#)

LIVE, Shell's Arctic Oil Rig Dead Ahead LOGBOOK

Right now, I'm looking at Shell's giant Arctic oil rig, the *Polar Pioneer*. Everyone standing onboard the Greenpeace ship, the *Esperanza*, is blown away by its size.

We're just a few miles away from Shell's monster. Now we can expose it to world.

Towering atop its transport ship, the monstrous rig looks like a castle floating along at sea. The legs of the *Polar Pioneer*, topped with the sky-high pointed derrick, take on the form of castle walls and turrets in the distance - an Arctic seige tower.

It's en route to the Alaskan Arctic, via Seattle. It's set to arrive in 100 days. **And we're here to raise the alarm.**

Finding this enormous rig in the Pacific Ocean was no mean feat. Two weeks ago, we set sail from Thailand, heading East, on a course to converge with Shell's infamous drill ship the *Noble Discoverer*. We had indications that it was likely to pass through the Balabac Strait, in the South China Sea, in a matter of days. But when we were nearly 24 hours away from reaching that potential rendezvous point, the *Noble Discoverer*, pulled anchor and disappeared. We didn't know where it was, its course, or its speed. Would it even go for the Balabac straight, as we thought was most likely? Or had its original course just been a distraction, and now it would take a totally different route?

With a radar range of only 15-20 miles, inside the 3.5 million square kilometres of water that makes up the South China Sea, the *Esperanza* could very easily lose the *Noble Discoverer* completely. And then our journey would be over, almost before it began. The next few hours were tense. Finding and tracking a vessel is no easy task, even in the age of the internet. It's possible they knew we were coming already and took steps to cover themselves and their course. With no clear route to track, the journey became a good old-fashioned game of cat and mouse. The night the *Noble Discoverer* drill ship disappeared from sight it felt like we were off to a bad start.

It's hot and humid near the equator, even with a strong breeze off the sea. Onboard the *Esperanza*, crew decided to take it in shifts to stand out on the bridge in the blazing sun with binoculars and physically keep an eye out for the *Noble Discoverer*. Her funny shape, with the tall pointed derrick, could just be visible to a good set of eyes even at a great distance. So we lathered on sunscreen and squint into the horizon. Some cargo vessels are spotted easily, but no tall pointy ships.

After several hours, we suddenly had some good luck. A vessel appeared on our radar, a large one - an oil rig, but not one of the rigs destined for the Arctic. When it was close enough to be visible with binoculars it was easy to see that it was too tall to be the *Noble Discoverer*. But another, smaller, unidentified vessel was traveling beside it. On the bridge someone recognized the call sign of the unknown vessel, which automatically appears via localized AIS, necessary for vessels to be identified by local coast guard authorities. Traveling alongside this massive oil platform was none other than the *Noble Discoverer*.

Just like that we were back on track, the Arctic drill ship soon came into view with the telltale white and blue derrick jutting up into the sky. It may sound strange that a drill ship can be a welcome site on a Greenpeace ship, but in this case it was. The trip we are taking was about giving a platform to the millions of voices across the world who oppose offshore Arctic oil drilling

And our good luck didn't run out either. The next morning another vessel came into view. Shell's drilling rig the *Polar Pioneer* joined her partner vessel, sitting wide across the top of its transport ship, the *Blue Marlin*. We followed them both through the Balabac straight and into the Pacific.

Now we have the *Blue Marlin* in sight, carrying the *Polar Pioneer* on its submersible deck. The *Noble Discoverer*, the slower of the two, has fallen behind.

We plan to bring as many people along with us as possible. Because the end of this journey is important, not just to Greenpeace, or to those of us sailing onboard the *Esperanza* right now, but to all of us who want the chance to avoid the consequences of disastrous climate change. If Shell moves ahead with drilling in the Arctic

we are losing that chance. If Shell causes an oil spill in the Arctic we will lose important wildlife habitat and local traditional lifestyles dependent on a healthy eco-system. These are not risks that we can take, especially while renewable energy technology is already rolling out across the world.

We have no indication that the *Blue Marlin* has taken any notice of us at all. We do not contact them by radio and they do not contact us. But the radio crackles to life one evening, as a local coast guard vessel calls the *Blue Marlin* and asking it to identify itself and list crew numbers and nationalities. These are standard questions for a coast guard to enquire of a ship. The *Blue Marlin* pauses, then radio's back "*Who's asking?*" The coast guard vessel identifies itself again and repeats the question. On the bridge of the *Esperanza* glances are exchanged. Is the *Blue Marlin* wondering if some other nearby vessel is really the caller? Like the *Esperanza*?

We don't know if Shell's drilling rig *Polar Pioneer* knows why we're on their tail, but Shell is certainly aware that many people all over the world are against its Arctic drilling plans. Shell lost the ability to drill there in 2014 because of a court case brought by local Alaskan Indigenous and environmental groups. Its plan to house its drilling fleet in Seattle is under fire from local people there. In the face of this opposition, Shell's CEO Ben van Beurden recently called people opposed to fossil fuels "naïve". What really seems naïve is to think that you can jeopardize our chance to avoid the worst consequences of climate change without having to answer for that. Our journey is about calling Shell out on its reckless plans and we will need courageous people willing to call them out alongside us.

Every day, the drilling rig on our horizon is sailing closer to the Arctic.

And every day, the movement to stop Shell grows stronger.



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Shell Alaska

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: tommy_beaudreau@ios.doi.gov

Thu, Mar 12, 2015 at 4:53 PM

Hi - As you know, we have a contract with Foss to use the Port of Seattle as a staging point for our rigs/vessels before they go to Chukchi. There's a bit of noise around this in the Seattle area. Would you like to have a briefing? So you can share with the Secretary?

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

Re: CERA Week

1 message

Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>
To: "Sara.Glenn@shell.com" <Sara.Glenn@shell.com>

Fri, Feb 27, 2015 at 1:56 PM

Sara - your timing is good. We'll be in touch on this soon.

TPB

On Fri, Feb 27, 2015 at 1:53 PM, <Sara.Glenn@shell.com> wrote:

Hi - do you know who from DOI will attend the CERA week event in Houston beginning April 20 ? I am just trying to gauge whether there is value in setting a 1:1 meeting with Shell folks.

Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE: Shell Alaska - Concerns about FWS permit

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>
To: janice_schneider@ios.doi.gov, tommy_beaudreau@ios.doi.gov

Tue, Feb 24, 2015 at 12:27 PM

Janice - Do you have an update on this?

We are hopeful that FWS will process both our IHA and LOA requests (as explained in my original email, below). Just as important, FWS needs to initiate the IHA process. Given that we are approaching March 1 and the process has not started, there is growing concern about whether FWS can deliver in time for start of our season .

Many thanks, Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Glenn, Sara B SHLOIL-GRA
Sent: Monday, February 16, 2015 3:38 PM
To: Janice Schneider; 'tommy_beaudreau@ios.doi.gov'
Subject: Shell Alaska - Concerns about FWS permit

Janice, Tommy - I want to bring to your attention a **Fish and Wildlife Service (FWS) matter that has the potential to put our 2015 program at risk.** I am hopeful that the matter can be resolved within days.

Many thanks in advance, Sara

Because of the presence of walrus and polar bear, Shell Alaska must have a MMPA permit to afford us "take" coverage during our 2015 drilling operations. Shell Alaska applied for (and would prefer) a Letter of Authorization (LOA), but as explained below there is some risk to getting a use-able LOA. Therefore, we also applied for an Incidental Harassment Authorization (IHA). As we read it, nothing in the MMPA blocks FWS from considering/processing the two requests. Indeed, the relevant provision of the MMPA for which we've requested an IHA (Section 101(a)(5)(D)) requires FWS to process the IHA.

Nevertheless, **FWS has indicated that it will only process our LOA; and that it will not process our IHA. Such a decision puts our 2015 program at risk.**

LOA. There is a risk to getting an LOA, because the FWS Incidental Take Regulations (ITRs) are being challenged in court. If the court vacates the ITRs, our LOA could be denied by FWS or, if granted, it could be

deemed invalid.

IHA. The individual IHA, unlike the LOA, is NOT tied to the ITR regs that are being challenged in court. MMPA is clear -- applicants may request an IHA and the Secretary is required to issue the IHA if two findings are made. In other words, MMPA requires FWS to evaluate the merits of our request.

Last week, FWS Alaska indicated [last week] that it will only process the LOA request; and will not process our IHA because it is identical, which is the whole point as explained above. This is very concerning.

1. As noted above, there is no reason that the two applications cannot be processed. MMPA is clear -- FWS must process the IHA.
2. FWS Alaska suggested that a court ruling against the regs would not immediately affect an ITR that we received. This is wishful thinking. We cannot base our 2015 program on the hope that a permit issued under invalid regs would be use-able. There is ample evidence that such a permit would be challenged/blocked.
3. FWS staff suggested that if the court ruled against the regs, we could modify our program so there would be no "take." This is not only wishful thinking, but also completely unrealistic.
4. We cannot wait to apply for the IHA until after an adverse court ruling. The timing just does not work. Such an approach puts our 2015 exploration program at risk.

As always, happy to discuss. Sara

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700 · Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472



Beaudreau, Tommy <tommy_beaudreau@ios.doi.gov>

RE: Shell Alaska - Supplier Conference Wed., Feb. 18

1 message

Sara.Glenn@shell.com <Sara.Glenn@shell.com>

Mon, Feb 16, 2015 at 8:27 AM

To: tommy_beaudreau@ios.doi.gov

Perfect.

Sara Glenn Director, Federal Government Relations & Senior Counsel · Shell Oil Company · 1050 K Street NW Suite 700
· Washington DC 20001-4449 · ph 202 466 1400 · cell 202 299 6472

From: Beaudreau, Tommy [mailto:tommy_beaudreau@ios.doi.gov]

Sent: Saturday, February 14, 2015 8:41 PM

To: Glenn, Sara B SHLOIL-GRA

Cc: Katherine Rupp

Subject: Re: Shell Alaska - Supplier Conference Wed., Feb. 18

Thanks, Sara - sorry you won't be there. I plan to give the same speech I'd intended last year before the 9th Circuit decision - that the theater is unforgiving, that there is no margin for error and we have no tolerance for unforced mistakes, every phase of operations needs to be very tight, buttoned down and synched up with the operator, and that the regulators (DOI and USCG) will have everyone under a microscope.

TPB

On Thu, Feb 12, 2015 at 3:20 PM, <Sara.Glenn@shell.com> wrote:

Hi Tommy - Ann had a good meeting yesterday with Janice S., Salerno, Abby Hopper et al. She was sorry to miss you, but looks forward to seeing next week in Anchorage. I will not be there; I am hoping Ann does not notice J

Some information about next week. I took the liberty of providing a suggested outline which you may or may not find helpful. Call if you would like to discuss.

Sara

SHELL ARCTIC SUPPLIER PARTNER SUMMIT

Logistics. Shell Arctic Supplier Partner Summit, Anchorage Marriott, 11:00 – 11:30. Suggest you talk for 15 mins and leave 10-15 minutes for questions.

If you plan to have slides, please let me know.

Title of Conference "Operating Exceptionally Well"**Suggested Talking Points.**

- Intro, thank you, pleasure to be here.
- I first heard Ann Pickard use the phrase "operating exceptionally well" about 8 months ago.
 - I think this can't be over-stated.
 - All eyes will be on the program... etc
- I'd like to talk about 3 things and then open for any questions you may have.
- First, I want to acknowledge the work that has been done since Shell drilled in 2012
 - First wells drilled in 2 decades. Many operational learnings
 - And the Kulluk tow incident highlighted some gaps and areas for improvement.
 - As the regulator, we took this very seriously.
 - But I know that Shell and many of you in this room did as well. And much has changed.
 - Assets have been upgraded; process have changed; people have been added
 - All in the spirit of incorporating learnings, filling gaps and hopefully "operating exceptionally well."
 - [*perhaps highlight some changes/improvements – see attached White Paper*]
- Second, contractors on the front line in many offshore operations.
 - But nowhere more so than in this Alaska program, just look around the room.
 - Challenges to ensure that those working on the rigs, on the vessels, on the helicopters get the message
 - Operate exceptionally well. Or – to use another phrase from Ann Pickard – "Find Small, Fix Small"
 - This is a mindset, one that will hopefully lead to
- Third, over the next months, the Federal government will xyz.
 - [*perhaps give overview of permitting approvals, inspections, etc*]

ANN PICKARD's INVITATION TO SUPPLIERS

Ladies and Gentlemen:

I am pleased to invite you to attend our second annual Shell Arctic Supplier Partner Summit (Summit) in Anchorage on Wednesday, February 18, 2015. As we did in our February 2014 Summit,

we will provide the current status of the Alaska Venture plans and, based on your feedback, spend a good amount of time in breakout sessions listening to your inputs and ideas, with respect

to ensuring our upcoming operations are well planned and executed.

The Summit will be held at the Anchorage Downtown Marriott from 7:00 a.m. until 5:30 p.m., and will include breakfast, lunch, and light refreshments throughout the day. There will be a

reception from 5:30 p.m. through 7:30 p.m. to close out the Summit. We have a block of rooms reserved in the Marriott for your convenience.

We are looking forward to your participation and continuing the teamwork we have been building since last February and also ensuring we are aligned on the preparations and actions required

to operate exceptionally well during our next drilling season.

You will receive a separate email with an invitation to register for the Summit. To confirm your attendance at the 2015 Shell Arctic Supplier Partner Summit, please open the email and click on

the link labeled "Click here to register" and complete the registration information.

For any questions regarding the Summit, please contact Ken Stoll at ken.stoll@shell.com or +1 907 771 7204.

Happy New Year and Best regards,

Ann

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