



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

MAP 1 1 2015

Ms. Ramona L. Monroe
Stoel Rives LLP
510 I Street, Suite 500
Anchorage, AL 99501

Dear Ms. Monroe:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated October 30, 2014, Stoel Rives LLP (representing Eni US Operating Co, Inc.) requested an interpretation of the applicability of the hazardous liquid pipeline safety regulations to a 2 $\frac{3}{8}$ -inch diameter diesel fuel line that Eni US Operating Co, Inc. (Eni) operates in connection with the Nikaitchuq oil field offshore of the North Slope of Alaska. You noted that 49 CFR 195.1(b)(5) exempts certain offshore pipelines from PHMSA regulation where the pipeline is located in state waters upstream from the farthest downstream facility and where produced hydrocarbons are first processed. You requested PHMSA's interpretation of whether this exemption is applicable to Eni's 2 $\frac{3}{8}$ -inch diesel line.

You stated Eni has constructed a gravel island in the shallow waters of the Beaufort Sea on which it operates a drill site and production equipment. The island is located in state waters near a state-owned island known as Spy Island. Eni also operates an onshore drill site and oil processing facility at Oliktok Point. Viscous crude oil is produced from wells drilled from the offshore gravel island and transported approximately 3.8 miles to a separation and processing facility at Oliktok Point.

You stated that the 2 $\frac{3}{8}$ -inch diameter diesel pipeline is bundled with three other pipelines including the crude oil pipelines inside a 16-inch outer diameter conductor pipe. This pipe-within-a-pipe is encased in concrete. Unlike the crude oil pipeline that transports crude from the production facilities on the gravel island to the Oliktok Point onshore processing facility, the diesel line transports diesel fuel in the opposite direction out to the production facility on the gravel island to power the drill rig and carries base oil used to make drilling mud.

You noted that the regulatory exemption established in § 195.1(b)(5) applies to pipelines that: (i) transport hazardous liquid or carbon dioxide; (ii) are located offshore in state waters; and (iii) are located upstream of the outlet flange of the farthest downstream facility. You pointed out that the diesel pipeline is located upstream of the Oliktok Point facility and expressed the view that because Eni's diesel line meets these criteria it should qualify for the exemption.

Section 195.1(b)(5) states, in relevant part:

§195.1 Which pipelines are covered by this Part?

(a)...

(b) Excepted. This Part does not apply to any of the following:

(1)...

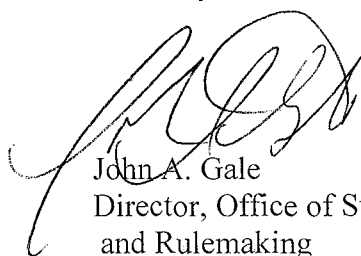
(5) Transportation of hazardous liquid or carbon dioxide in an offshore pipeline in state waters where the pipeline is located upstream from the outlet flange of the following farthest downstream facility: The facility where hydrocarbons or carbon dioxide are produced or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed;

Based on the information you provided, Eni's conclusion that the exemption in § 195.1(b)(5) applies to its 2 $\frac{3}{8}$ -inch diesel line appears to be incorrect. In this case, the diesel pipeline is not transporting produced liquids downstream for processing, but is transporting finished diesel fuel that was already in the stream of regulated transportation out to a production facility to be used as an energy source for production. The gravel island is not the facility where the diesel fuel was produced. Therefore, the 2 $\frac{3}{8}$ -inch diesel pipeline is regulated under § 195.1(a)(2) because it transports processed petroleum products to the gravel island where they will be consumed.

Please note that this response to your October 30, 2014, request reflects PHMSA's preliminary views of the applicability of Part 195 regulations based on the limited information in your description of the facilities in your letter and is subject to further consideration if any additional information about the facility would be relevant to this determination.

If we can be of further assistance, please contact Tewabe Asebe of my staff at 202-366-5523.

Sincerely,



John A. Gale
Director, Office of Standards
and Rulemaking



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October 30, 2014

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VIA FIRST CLASS U.S. MAIL

Jeffrey Wiese, Associate Administrator
c/o Office of Pipeline Safety (PHP-30)
PHMSA, U.S. Dept. of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: Request for Written Regulatory Interpretation under 49 C.F.R. § 190.11

Dear Mr. Wiese:

We are writing on behalf of Eni US Operating Co. Inc. ("Eni") to request a written regulatory interpretation pursuant to 49 C.F.R. § 190.11. Eni seeks an interpretation of the Pipeline and Hazardous Materials Safety Administration ("PHMSA") regulation at 49 C.F.R. § 195.1(b)(5) as it applies to a 2 $\frac{3}{8}$ -inch diesel fuel line Eni operates in connection with the Nikaitchuq oil field offshore of the North Slope of Alaska.

The provisions of 49 C.F.R. § 195.1(b)(5) specify that certain offshore pipelines are exempt from PHMSA jurisdiction where the pipeline is located in state waters "upstream from" the "farthest downstream facility":

Transportation of hazardous liquid or carbon dioxide in an offshore pipeline in state waters where the pipeline is located upstream from the outlet flange of the following farthest downstream facility: The facility where hydrocarbons or carbon dioxide are produced or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed.

Through this request, for the reasons detailed below, Eni seeks PHMSA's concurrence that the above exemption is applicable to Eni's 2 $\frac{3}{8}$ -inch diesel line.



I. FACTUAL CONTEXT

Eni holds both onshore and offshore oil and gas leases from the State of Alaska. Eni has constructed a gravel island in the shallow waters of the Beaufort Sea on which it operates a drill site and production equipment. The island is located in state waters near a State-owned island known as Spy Island. Eni also operates an onshore drill site and oil processing facility at Oliktok Point.

Viscous crude oil is produced from wells drilled from the offshore gravel island. The produced oil is mixed with heated water, and this mixture of approximately 50 percent water is transported via a production pipeline to the separation and processing facility at Oliktok Point. Once delivered, the mixture is processed to separate the oil component and create sales quality crude oil for subsequent transport through the Trans-Alaska Pipeline System.

The oil production pipeline is 12.75 inches in diameter inside of a 16-inch outer diameter conductor pipe. This pipe-within-a-pipe is encased in concrete. Bundled with this produced hydrocarbon pipeline are three other smaller lines: a 12.75-inch diameter water injection line, a 6.625-inch diameter spare line, and the 2.375-inch diameter diesel line that is at issue in this request. The diesel line, like the production line is designed as a pipe-within-a-pipe, such that the diesel line is encased in a larger conductor pipe. All four lines are bundled together in a robust special webstrapping material and secured externally with a series of locking turnbuckles. Internally, the four bundled lines are buffered and protected by high strength polymers to eliminate friction and ensure pipeline integrity.

The bundled lines traverse 3.8 miles between the onshore processing facility at Oliktok Point and the offshore island drill site. *See* attached map marked "Figure 1." The bundle is buried in a trench 6 to 8 feet below the sea floor. The trench was backfilled with protective material to prevent damage to the bundled pipelines.

The oil production line carries the oil/water mix from the offshore production site to the separation and processing facilities at Oliktok Point. The spare line is not currently in use and is preserved. The water line transports produced water which is reinjected for oil production support and mixed with produced oil to aid in transportation. The diesel line delivers fuel to power the drill rig and carries base oil used to make drilling mud. The pipelines were constructed in 2009 and put into service in 2011.



II. PHMSA JURISDICTIONAL EXEMPTION

As addressed in Subsection II.A below, Eni's diesel pipeline qualifies for the PHMSA jurisdictional exemption established in 49 C.F.R. § 195.1(b)(5). In addition, while not controlling of the correct interpretation, as addressed in Subsection II.B below, application of a jurisdictional exemption in this instance nevertheless ensures continued safe pipeline operations in a very low risk environment and is consistent with other public policies underlying PHMSA's regulations.

A. Eni's Diesel Pipeline Qualifies for a Jurisdictional Exemption

The regulatory exemption established in 49 C.F.R. § 195.1(b)(5) applies to pipelines that: (i) transport hazardous liquid or carbon dioxide; (ii) offshore in state waters; and (iii) where the pipeline is located upstream of outlet flange of the farthest downstream facility. The subject pipeline transports diesel, which qualifies as a "hazardous liquid." Moreover, the subject pipeline is located offshore entirely within state (State of Alaska) waters.¹ Accordingly, application of the jurisdictional exemption in this instance turns on whether the pipeline is located "upstream" of the farthest downstream facility.

The term "upstream" is not defined in PHMSA's regulations. Generally, in the oil and gas industry, major operations are divided into upstream and downstream components. *See generally* Patrick H. Martin and Bruce M. Kramer, Williams & Meyers, Manual of Oil and Gas Terms, "downstream" and "upstream." "Upstream" refers to operations before a point of reference or closer to the source (a given reservoir), particularly exploration and production operations. Downstream refers to operations after a given point of reference, often used to describe post-production processes such as refining and processing. *Id.* Accordingly, operationally "upstream" means towards the source and away from "downstream" processing. Directionally, in terms of movement of a material rather than a process, "upstream" means to move against the current (i.e., in the opposite direction from the natural flow of a stream of water or other substance). The term "farthest downstream facility" is defined specifically in 49 C.F.R. § 195.1(b)(5) as the "facility where hydrocarbons or carbon dioxide are produced or the facility

¹ The limit of state waters in this area was determined to be three miles from the coastline and three miles from offshore islands by the U.S. Supreme Court in *United States v. Alaska*, No. 84 Original, 521 U.S. 1 (see discussion in Michael W. Reed, *Shore and Sea Boundaries, Volume 3* at pp. 144-151). Because Spy Island is less than 6 miles from the coastline, the entire area between the coastline and Spy Island is state water.



where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed.”

In the present instance, Eni’s 2 $\frac{3}{8}$ -inch diesel pipeline transports diesel and base oil for drilling muds from production facilities at Oliktok Point, where produced hydrocarbons are separated, dehydrated and processed *upstream* to the manmade gravel island drilling platform located in state waters three miles offshore. In this configuration, the “farthest downstream facility” located in proximity to the diesel pipeline is, as a factual matter, the Oliktok Point facility from which the diesel pipeline originates. Accordingly, if viewed operationally, the diesel pipeline is located “upstream” in the production process of the Oliktok Point facility (the “furthest downstream facility”). Similarly, if viewed directionally, the diesel flows “upstream” against the current of the produced oil toward the production source. Accordingly, although the term “upstream” is undefined and the “farthest downstream facility” definition provides alternative choices, under all applications of these terms to the Nikaitchuq facilities, Eni’s diesel line transports a hazardous liquid offshore in state waters, through a pipeline that is located upstream of the farthest downstream facility. As such, Eni’s diesel line meets all of the criteria for the jurisdictional exemption provided in 49 C.F.R. § 195.1(b)(5).

B. The Diesel Pipeline Is Safely Designed and Operated In a Low Risk and Remote Environment

Although the relevant analysis provided in Section II.A is controlling, given PHMSA’s mission to protect people and the environment from the risks of hazardous materials transportation, it bears emphasis that the diesel pipeline at issue here is designed and operated for maximum safety, and is located in a very remote location where the potential for human exposure and the need for public awareness is minimal.

1. Safe pipeline design and operation

Eni’s diesel pipeline was designed and constructed as a pipe-within-a-pipe. The 2 $\frac{3}{8}$ -inch steel line is within a larger conduit pipeline that would contain any fluid in the unlikely event of a leak or spill. The pipeline is buried in an 8-foot deep trench beneath the seafloor which is backfilled with protective material. The pipe-within-a-pipe design provides more than one added layer of protection. In addition to the larger conduit pipe containing any leaked fluids, the vacuum maintained in the space between the pipes is monitored for leak detection. Other safety features include an anode bracelet system that provides cathodic protection and a fiber optic cable installed in the bundle that detects stresses, movement, and temperature changes which would also detect any leaks.



Eni's operating and inspection practices further ensure the safety and integrity of the pipeline. The pipeline operates at 20% of the specified minimum yield strength of the pipe. The cathodic protection system is inspected annually at both ends of the pipeline. In addition, annual side-sonar surveys are completed along the length of the pipeline to check for scour by ocean currents or ice.

The pipeline has a track record of safe operations. It has been in service since 2011 with no reported incidents of any kind. It is used approximately two to four hours per day to deliver diesel to the offshore gravel island drill site.

2. Remote and low risk environment

The pipeline is also located in a very low risk environment. There are no nearby communities, residents, or inhabitants other than the small isolated oil field camps for oil field employees at either end of the line. At its closest point, the nearest Alaska Native village (Nuiqsut) is approximately 33 miles inland and southwest from the nearest portion of the pipeline. Accordingly, although in the broadest possible sense, the pipeline resides within an expansive subsistence use area of the Beaufort Sea offshore, the location of the pipeline is remote, very small in scale and at all times entirely inaccessible to the public. Indeed, there is virtually no "public" in the area to educate—no affected municipalities, school districts, businesses, or residents.

The location of the pipeline in a buried offshore trench in shallow water is an additional very significant source of separation between the pipeline and human or animal activities, and associated reduced risk. The depth of the buried bundle protects the pipelines from contact with vessels, anchors, and grounded sea ice which could damage the pipelines.² Moreover, the shallow water depths of 8 to 10 feet prevent large vessels from navigating the area during the open water season, and the presence of ice prevents all navigation for approximately nine months of the year. Eni estimates that 99% of the vessel traffic in the area during the brief open water season are Eni vessels related to its oilfield operations.

Finally, offshore excavation activities in the vicinity of the pipeline could occur only after extended federal and state public notice and permitting processes (*i.e.*, at a minimum, pursuant to a state right-of-way grant, a federal Clean Water Act § 404 permit from the U.S. Army Corps of

² The small sections of the pipeline at either end that are aboveground to connect with other facilities are marked and protected with barriers to prevent accidental vehicle collisions.



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Engineers, and a federal ocean dumping permit from the U.S. EPA, along with NEPA environmental impact analysis). These processes ensure beyond any question that no unanticipated activities that may be incompatible with the pipeline presence and use could occur, and that no excavation that might damage or compromise the existing pipeline could be proposed, approved or initiated without establishing all appropriate mitigation and protection. Because the pipeline is part of oilfield operations, it is further subject to other state and federal safety regulations. These existing regulations include reporting requirements, emergency response, integrity protection, and leak detection requirements (*see generally* AS 46.04.030; 11 AAC 75.005 – 11 AAC 75).

In sum, Eni's diesel pipeline has been constructed in an extremely remote location, in a configuration that presents an exceptionally low risk to a very small number of humans or to the environment. Moreover, the design of the pipeline, corrosion prevention system, and leak detection measures provide additional specific and important protections for humans and the environment.

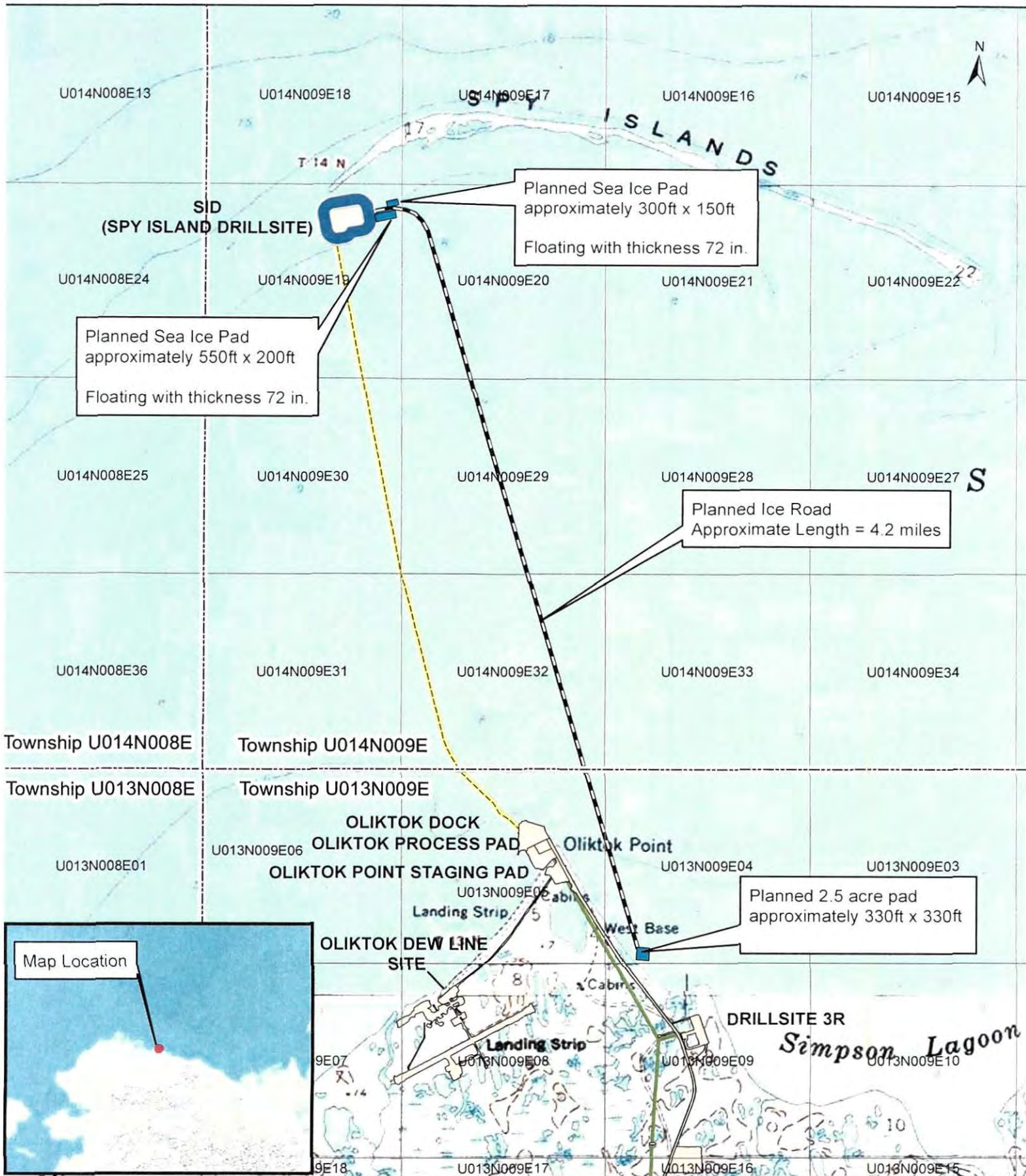
III. REQUEST FOR FORMAL INTERPRETATION

For the reasons stated above, pursuant to 49 C.F.R. § 190.11, Eni requests a formal written interpretation from PHMSA confirming that based upon the facts presented above, Eni's 2 $\frac{3}{4}$ -inch diesel line operated in connection with the Nikaitchuq oil field offshore of the North Slope of Alaska qualifies for the jurisdictional exemption provided in 49 C.F.R. § 195.1(b)(5). Please contact me at (907) 263-8445 with any questions regarding this request for written interpretation and direct your response to Stoel Rives LLP, Attn: Ramona Monroe, 510 "L" Street, Suite 500, Anchorage, AK 99501. Your attention to and response regarding this request is appreciated.

Sincerely,

Ramona L. Monroe

cc: Anthony Neiser, Eni Petroleum
Susan Lindberg, Eni Petroleum
Whitney Grande, Eni Petroleum
Scot Childress, Eni Petroleum



Map Location

Legend

- | | | |
|------------------|------------------|---------------------|
| Ice Pads | Gravel Footprint | Pipelines |
| Planned Ice Road | PLS Township | Onshore Pipeline |
| | PLS Sections | SID subsea flowline |

Eni Petroleum

FIGURE: 1

DATE:
October 2014

Nikaitchuq Project Offshore Ice Roads and Pad Locations - Vicinity Map



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY
LOCATION AND SIZE OF PROPOSED FEATURES ARE
APPROXIMATE AND NOT ALL STRUCTURES ARE SHOWN