

September 14, 2023

Post Office Box 244027 Anchorage, AK 99524

3800 Centerpoint Dr Suite 1400 Anchorage, AK 99503

Phone: 907/777-8300 Fax: 907/777-8560

DOG Permitting Alaska Department of Natural Resources Division of Oil and Gas 550 W. 7th Ave., Suite 800 Anchorage, Alaska 99501-3577

# Amendment to Unit Plan of Operations 85-008 EWE Pipelines Prudhoe Bay Unit

#### **DOG** Permitting:

Hilcorp North Slope, LLC (Hilcorp) proposes to install two (2) new pipelines between Gathering Center 2 (GC2) and Eileen West End (EWE) Junction located in the Western Operating Area of the Prudhoe Bay Unit. A pad expansion at EWE Junction will also be required to accommodate new EWE pipeline tie-in infrastructure.

A letter of non-objection will be requested for work occurring within the KTC and OPC pipeline ROWs. Additionally, Conoco Phillips Alaska (CPAI) will coordinate with the State Pipeline Coordinator's Section (SPCS) for construction notice to approve project work on shared vertical support members (VSMs) in the project area.

In support of our request, attached are the following:

- Project Description/Plan of Operations
- State of Alaska ADNR/DOG Lease/Unit Plan of Operations Application including project figures and mitigation measures

If you have any questions or need additional information regarding this project, please contact me at (907) 330-7732 or keri.iles@hilcorp.com.

Sincerely,

Keri Iles

Senior Environmental Specialist - Land Use

HILCORP NORTH SLOPE

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Attachments



## **UNIT PLAN OF OPERATIONS AMENDMENT APPLICATION**

State of Alaska

Department of Natural Resources, Division of Oil & Gas 550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563 Phone: 907-269-8800 Fax: 907-269-8943

Permitting Email: <a href="mailto:dog.permitting@alaska.gov">dog.permitting@alaska.gov</a>



SECTION I: APP	PLICANT INFORMATION		
1. Applicant:	2. Applicant Contact:		
Name: Hilcorp North Slope	First Last Name: Keri Name: Illes Title: Environmental Specialist – Land Use		
Mailing Address: See applicant contact	Mailing Address:  3800 Centerpoint Drive #1400		
City: Enter City.	City: Anchorage		
State: Enter State. Zip Code: Enter Zip Code.	State: Alaska Zip Code: 99503		
Phone: See applicant contact Fax: Enter Fax.	Phone: 907-777-8368 Fax: 907-777-8301		
Email: See applicant contact	Email: keri.iles@hilcorp.com		
3. Unit Name Prudhoe Bay Unit			
4. Unit Operator Contact:			
First Name: Keri Last Name: Iles	Title: Environmental Specialist – Land Use		
Mailing Address: 3800 Centerpoint Drive #1400			
City: Anchorage State: Alask	Zip Code: 99503		
Phone: 907-777-8368 Fax: 907-777-8301	Email: keri.iles@hilcorp.com		
Describe the relationship between the Unit Operator and the Applica	nt:		
Hilcorp North Slope, LLC is both unit operator and applicant.			
SECTION II: 3RD PARTY INFORMATION (Fill out this section only if you are applying for the Applicant)	SECTION III: APPLICATION DATE AND NUMBER		
3rd Party Company Name:	Application Date (Office Use Only):		
First Enter First Last Name: Name: Enter Last Name.			
Title: Enter Title.			
Mailing Address: Enter Mailing Address.			
City: Enter City.			
State: Enter State. Zip Code: Enter Zip Code.			
Phone: Enter Phone. Fax: Enter Fax.			
Email: Enter Email.			
Describe the affiliation to the Applicant:  Application Number: LONS 85-008			
Describe your affiliation to the Applicant.			
SECTION IV: PROJECT INFORMATION			
1. Project Name: EWE Pipelines 2024			
2. Proposed Start Date: 1/1/2024			

3. Project Description:				
Is activity discussed in the approved Plan of Development on file with the Division's Units Section? $\Box$ Yes $\boxtimes$ No				
Describe what and where:				
Hilcorp North Slope, LLC (Hilcorp) proposes to install two (2) new pipelines between Gathering Center 2 (GC2) and Eileen West End (EWE) Junction located in the Western Operating Area of the Prudhoe Bay Unit. A pad expansion of 1.1 acres at EWE Junction will also be required to accommodate new EWE pipeline tie-in infrastructure, expand pigging facilities, and create additional space for future pigging receivers at the pad. The proposed footprint of the pad expansion is required to maintain adequate road access around the existing and future infrastructure. The installation of new pipelines and associated pad expansion will result in a cumulative impact of 1.4 acres to palustrine emergent wetlands at the project location. Approximately 600 new VSMs will be installed for the entire project, 550 of which are required for the new pipeline, and the remainder required to complete tie-ins at EWE Junction and GC2. Height for new VSMs will be approximately 7 feet above tundra. The existing piperack will be utilized on the Kuparuk River Crossing portion of the project. All other areas required new piperack due to lack of space, structural capacity, and/or interference with a topographical feature. Between U pad and GC2, the existing piperack does not have enough structural integrity to accommodate the two new lines. Routing that portion of the pipe set across the road avoids problematic topographical features that would otherwise impact pipeline construction. See attached project description for additional information.				
4.01.1.11	SECTION V: LAND STATUS			
1. State Mineral Estate:				
Are supplemental pages for land status in	ncluded in Appendix C?	☐ Yes		
Affected ADL: 028263, 047451, 028283, 028284	Date Effective: 9/1/1965 Da	te Assigned: Enter Date.		
Oil And Gas Lessee(s): Hilcorp Alaska,	LLC			
Surface Ownership: State of Alaska				
Do you have, or anticipate having an Acc	eess Agreement: ⊠ Yes ⊠ No			
Special Use Lands: ADL 50666				
Jointly Managed Lands: N/A				
Other Considerations: N/A				
Project Components	Meridian, Township, Range, And Section(s)	GPS Coordinates		
Install two new pipelines	Umiat, T11N, R13E, Section 15, 16, 17, 18, 19, 22, 23, 24	70.310917, -148.862895		
Install VSMs and HSMs	Umiat, T11N, R13E, Section 15, 16, 17, 18, 19, 22, 23, 24	70.310917, -148.862895		
Expand EWE Junction pad	Umiat, T11N, R13E, Section 15, 16, 17, 18, 19, 22, 23, 24	70.310917, -148.862895		
2. State of Alaska Surface Lands:				
Are supplemental pages for land status included in Appendix C? ☐ Yes ☐ No				
Oil And Gas Mineral Estate Owner: N/A				
Access Authorization(s): Click here to enter text.				
Special Use Lands: Click here to enter text.				
Jointly Managed Lands: Click here to enter text.				
Other Considerations: Click here to				
Project Components	Meridian, Township, Range, And Section(s)	GPS Coordinates		
Click here to enter text.	Click here to enter text.	Click here to enter text.		
Click here to enter text.	Click here to enter text.	Click here to enter text.		
Click here to enter text.	Click here to enter text.	Click here to enter text.		

3. Private Land	ls:				
		od in Annondiy C2	П	Yes	⊠ No
• • • • • • • • • • • • • • • • • • • •	upplemental pages for land status included in Appendix C?  nd Gas Mineral Estate Owner: N/A			162	NU NU
	eral Estate Owner: N/A nip And Access Agreement(s)	: Click here to enter text.			
Special Use Land					
Jointly Managed					
Other Considerat					
	ct Components	Meridian, Township, Range, And	Saction(s)	G	PS Coordinates
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Click here to ente		Click here to enter text.			o enter text.
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Olick Here to erite		ION VI: SEQUENCE AND SCHEDULE O	NE ODEDATIONS		o criter text.
Duningt	SEC I	ION VI. SEQUENCE AND SCHEDULE O	T OPERATIONS		
Project Milestone#	Pro	oject Milestone	Proposed S	tart Date	Proposed End Date
1.	Expand EWE junction pad		1/1/2024		12/31/2024
2.	Install new pipelines		3/1/2024		12/31/2024
3.	Install new VSMs and HSMs		2/1/20	24	12/31/2024
4.	Enter Milestone.		Enter D	ate.	Enter Date.
5.	<ol> <li>Install new VSMs and HSMs</li> <li>Enter Milestone.</li> </ol>		Enter Date.		Enter Date.
6.	3. Install new VSMs and HSMs 4. Enter Milestone. 5. Enter Milestone. 6. Enter Milestone. 7. Enter Milestone. 8. Enter Milestone. 9. Enter Milestone.		Enter Date.		Enter Date.
7.	7. Enter Milestone.		Enter Date.		Enter Date.
8.	8. Enter Milestone.		Enter Date.		Enter Date.
9.			Enter Date.		Enter Date.
10.	Enter Milestone.		Enter D	ate.	Enter Date.
SECTION VII: PROJECTED USE REQUIREMENTS					
Describe the proposed operations, including the location and design, of Well Sites:					
N/A					
2. Describe the p	proposed operations, including	g the location and design, of Buildings:			
		gg., ,g			
N/A					
3. Describe the p	proposed operations, including	g the location and design, of Fuel and Ha	zardous Substai	nces:	
N/A					
4. Describe the proposed operations, including the location and design, of Solid Waste Sites:					
N/A					
5. Describe the proposed operations, including the location and design, of Water Supplies:					
N/A					
6. Describe the proposed operations, including the location and design, of Utilities:					

N/A

7. Describe the proposed operations, including the location and design, of Material Sites:

N/A

8. Describe the proposed operations, including the location and design, of Roads:

N/A

9. Describe the proposed operations, including the location and design, of Airstrips:

N/A

10. Describe the proposed operations, including the location and design, of All Other Facilities and Equipment:

Install two (2) new pipelines between Gathering Center 2 (GC2) and Eileen West End (EWE) Junction located in the Western Operating Area of the Prudhoe Bay Unit. A pad expansion at EWE Junction will also be required to accommodate new EWE pipeline tie-in Infrastructure.

11. If another permit(s) is required for the above described Projected Use Requirements, provide the following information:

Agency	Permit Type	Permit Number	Application Status	Projected Use Requirement(s)
NSB, USACE	Development Permit , IP	Pending	Pending	All project components

#### SECTION VIII: REHABILITATION PLAN

1. Proposed Level of Infrastructure, Facilities and Equipment Removal:

Not applicable.

2. Description of Restoration and Rehabilitation Activities for Vegetation, Habitat, Impacted Wildlife, and Other Applicable Resources:

See the Site Restoration Statement in Appendix B.

#### SECTION IX: OPERATING PROCEDURES DESIGNED TO MINIMIZE ADVERSE EFFECTS

Describe operating procedures designed to prevent or minimize adverse effects on other natural resources and other uses of the Unit area and adjacent areas including:

Fish and Wildlife Habitats: Hilcorp will operate according to USFWS Incidental Take LOA 16-14.

N/A

Historic and Archeological Sites:

Public Use Areas: N/A

Other Uses: Click here to enter text.

#### SECTION X: GLOSSARY OF TERMS

Term #	Term	Term Definition
1.	Hilcorp	Hilcorp North Slope
2.	USFWS LOA	United States Fish and Willdife Service Letter of Authorization
3.	NSB	North Slope Borough
4.	PBU	Prudhoe Bay Unit
5.	Enter Term.	Enter Term Definition.

#### SECTION XI: CONFIDENTIALITY

The undersigned hereby requests that each page/section of this application <u>marked</u> confidential be held confidential under AS 38.05.035(a)(8).

APPLICANT CONTACT:				
Sign here.	Keri Iles	Environmental Specialist – Land Use	9/14/2023	
Signature	Name	Title	Date	

40000	D 11 /		
APPFN	I)IX	Α.	MAPS

See attached maps.

#### APPENDIX B: MITIGATION MEASURES

Hilcorp taken measures to avoid and minimize impacts from the project to the greatest extent practicable. All available practicable alternatives will be used for mitigating sedimentation and increased total suspended solids (TSS), but there will be a reliance on winter/spring construction, construction Best Management Practices (BMPs), and conventional storm water BMPs during the frost-free season. The Hilcorp document, *Storm Water Pollution Prevention Plan (SWPPP) for North Slope Facilities*, defines the BMPs for the Prudhoe Bay Unit as required by the APDES General Permit for Facilities Related to Oil and Gas Exploration, Production, and Development in the North Slope. The primary constituents of concern are sediments (turbidity), and this will be minimized through implementation of the SWPPP for storm water. There is potential for water quality impacts stemming from the introduction of turbidity and suspended sediments in stormwater running off the site. BMP's include but are not limited to straw waddles, silt fences and velocity dissipaters. The intent of the BMP's is to allow water to still and solids to settle out before that water can enter an outfall. Dewatering at the construction site is not expected. Additionally, Hilcorp will follow the 2018 North Slope Mitigation Measures.

N/A



## Project Description/Plan of Operations EWE Pipelines Project Prudhoe Bay Unit

Hilcorp North Slope, LLC (Hilcorp) proposes to install two (2) new pipelines between Gathering Center 2 (GC2) and Eileen West End (EWE) Junction located in the Western Operating Area of the Prudhoe Bay Unit. A pad expansion at EWE Junction will also be required to accommodate new EWE pipeline tie-in infrastructure. The installation of new pipelines and associated pad expansion will result in a cumulative impact of 1.4 acres to palustrine emergent wetlands at the project location.

### I. Purpose

The Schrader, Kuparuk, and Ivishak reservoirs on the west side of Prudhoe Bay offer substantial opportunity for development. However, the current pipeline and header system limit the capacity to produce economic wells at L, V, W, and Z pads. The purpose of this project is to improve flow from EWE Junction to GC2 through the installation of a new production and new gas lift line. The new EWE pipelines will reduce existing constraints and improve capacity for the pursuit of economic wells at these pads.

#### II. Scope of Proposed Activities

#### A. GC2 to EWE Junction Pipelines

- Install approximately 35,000 feet of new 30-inch large diameter flowline (LDF) from GC2 to EWE Junction
- Install approximately 35,000 feet of new 14-inch gas lift line from GC2 to EWE Junction
- New lines will be placed on a combination of existing and newly installed vertical support members (VSMs) and horizontal support members (HSMs)
  - Supports will be secured in place using a sand-water slurry mixture, resulting in a cumulative impact of 0.25 acres of wetlands for all VSM placement activities, or 2,000 cubic yards of fill
- Construct ice road and equipment turnarounds to support the installation of the new EWE lines during winter off-road travel season
  - o Ice road will be approximately 100 feet wide and 35,000 feet long
  - o Approximately 30,700,000 gallons of water from permitted sources will be required to construct and maintain the ice roads and turnarounds



Figure 1. EWE Pipelines Route, GC2 to EWE Junction

#### i. <u>EWE Junction Expansion</u>

- Expand EWE Junction by 1.1 acres to accommodate new 30-inch pig launcher (EWE 2),
   14-inch gas lift receiver, and associated infrastructure
  - o Gravel will be sourced from Kuparuk Mine Site C and supplemented with reclaimed clean gravel from the Kuparuk River
- Install new 60-foot by 60-foot access platform and associated supports for new pig launcher and receiver
- Relocate existing pig launcher (EWE 1) adjacent to new pig launcher and receiver on access platform
- Install 500 feet of new 30-inch piping, 500 feet of 14-inch piping and associated supports to tie in to new and existing infrastructure on pad

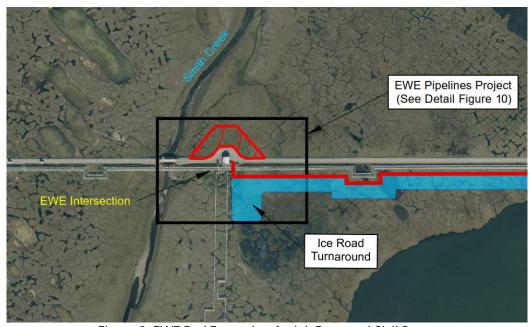


Figure 2. EWE Pad Expansion Aerial, Proposed Civil Scope

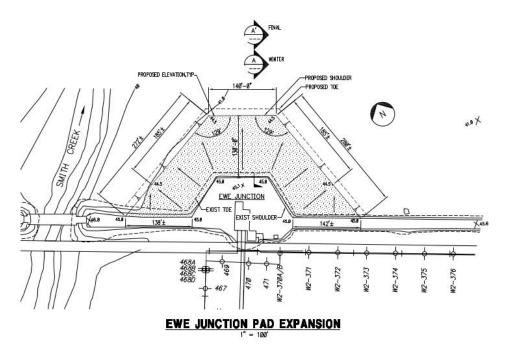


Figure 3. EWE Pad Expansion, Proposed Civil Scope

#### ii. Kuparuk River Crossing

- Install 41 new lengthened HSMs on Kuparuk River crossing pipe rack to increase structural capacity for new EWE pipelines
- Install 22 new VSMs at the Kuparuk River island to accommodate new pipeline expansion loops
  - See Section A for total fill volumes and wetlands impact of VSMs

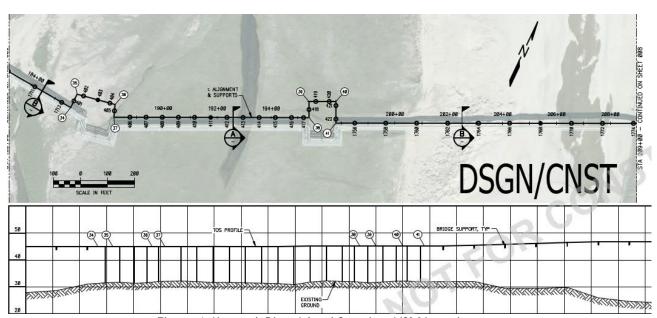


Figure 4. Kuparuk River Island Crossing, VSM Locations

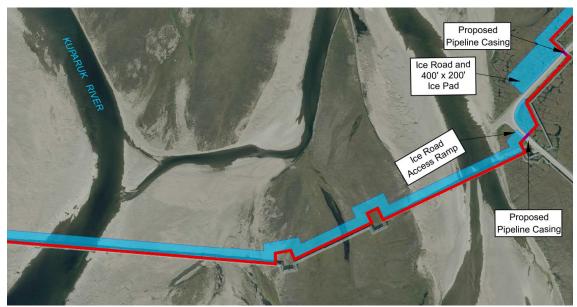


Figure 5. Kuparuk River Island Crossing Aerial

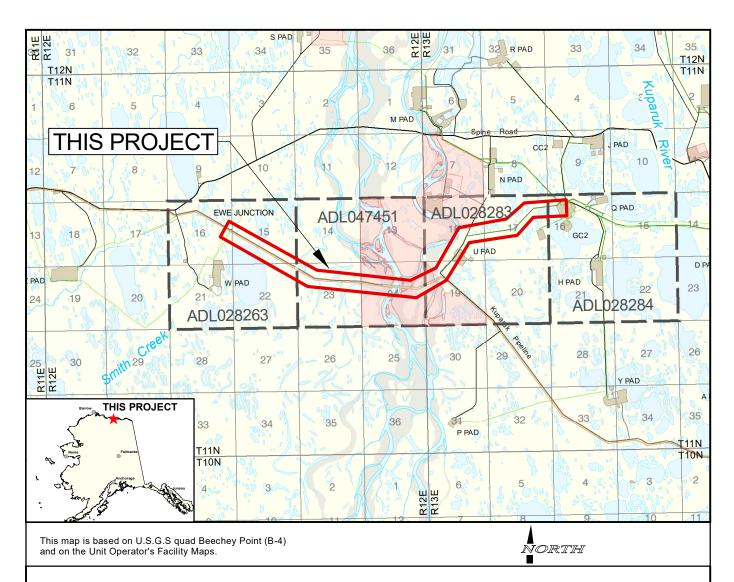
## III. Chronology and Schedule

Project construction activities are scheduled to begin in January 2024, with anticipated completion by December 2025.

Month	Year	Planned scope
January - May	2024	Gravel expansions at EWE Junction and U Pad intersection
June - November	2024	Prework and construction at GC2 and EWE Junction tie-in locations
June - November	2024	Prework in Kuparuk River crossing (no ice road)
January - April	2025	Ice road and ice bridge construction; pipeline installation
May - July	2025	Final tie-in to facilities/lines in service

## IV. Permit Applicability

Entity	Approval	Responsibility
ADNR DOG	Amendment to Lease Operations (LONS 89-050)	Hilcorp
ADNR DOG	Ice road/pad construction approval (LAS 33901)	Hilcorp
ADNR DMLW	Temporary Water Use Authorization	Hilcorp
ADNR SPCS	Construction Notice to Approve	CPAI
North Slope Borough	Development Permit	Hilcorp
North Slope Borough	Traditional Land Use Inventory Clearance (TLUI)	Hilcorp
USACE	Individual Permit (IP)	Hilcorp
ADEC	401 Certification	Hilcorp
ADF&G	Fish Habitat Permit	Hilcorp
USFWS	LOA 2023-2024 (included in scope)	Hilcorp



#### PROJECT LOCATION:

PRUDHOE BAY UNIT - EWE JUNCTION

NAD83

LAT. = 70° 18' 28.14" / DD 70.307815 LONG. = -149° 5' 12.04" / DD -149.086678

ALASKA STATE PLANE ZONE 4, NAD83

X = 1,753,136.68 FEET Y = 5,962,855.12 FEET

PRUDHOE BAY UNIT - GATHERING CENTER 2

NAD83

LAT. = 70° 18' 39.302" / DD 70.310917 LONG. = -148° 51' 46.421" / DD -148.862895

ALASKA STATE PLANE ZONE 4, NAD83

X = 1,780,731.80 FEET Y = 5,964,455.50 FEET

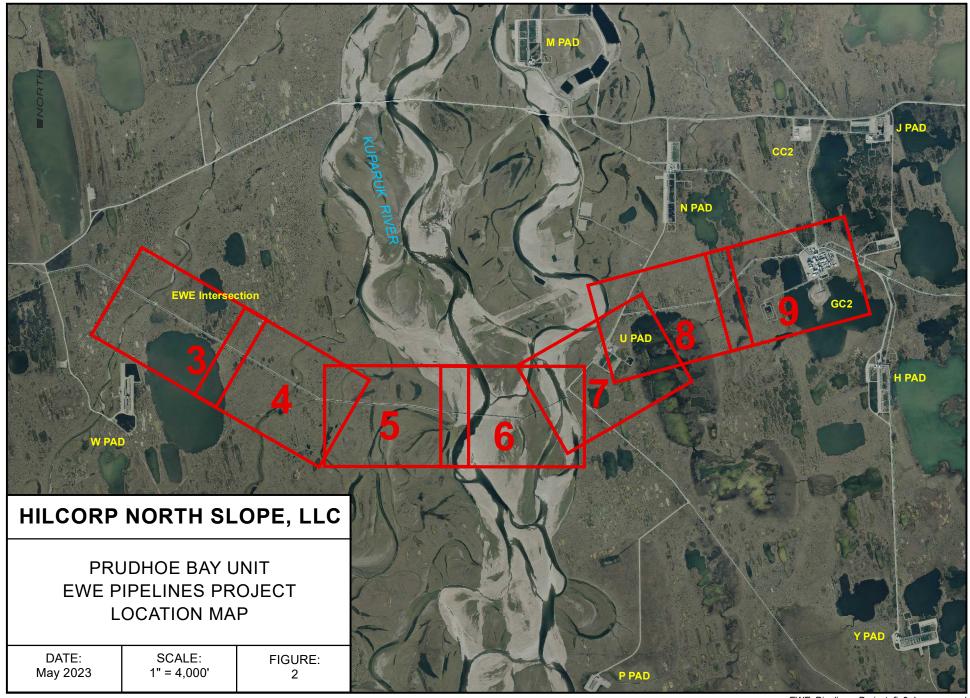
ADL # 028263 SECS. 15, 16, 22 T11N, R13E UMIAT M. ADL # 047451 SECS. 23, 24 T11N, R13E UMIAT M. ADL # 028283 SECS. 17, 18, 19 T11N, R13E UMIAT M. ADL # 028284 SEC. 16 T11N, R13E UMIAT M.

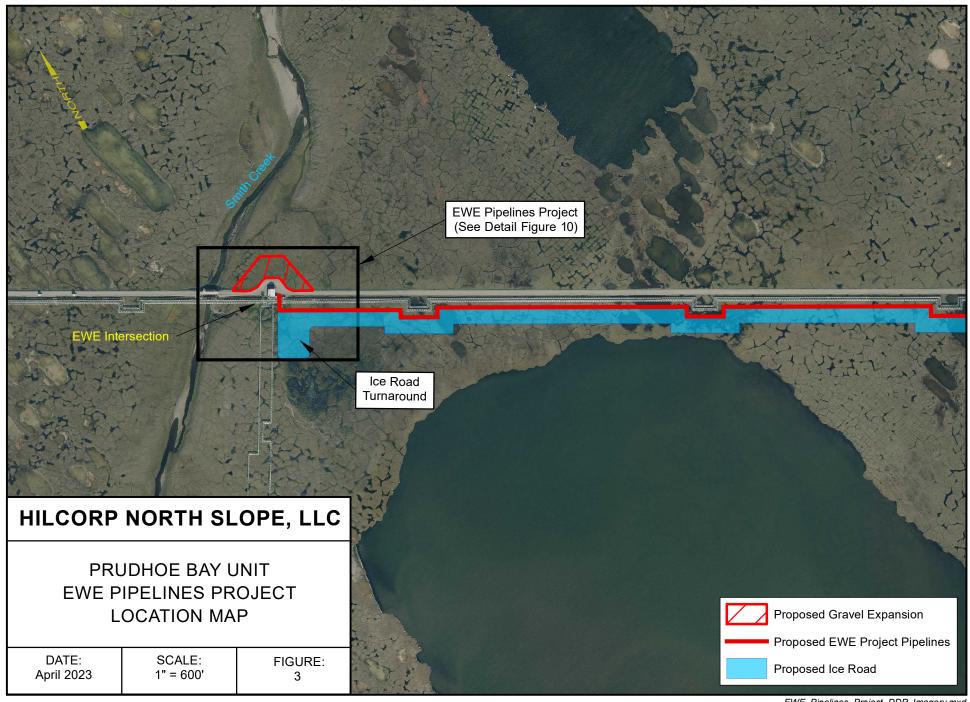
DATUM: MEAN SEA LEVEL ADJACENT PROPERTY OWNER: STATE OF ALASKA

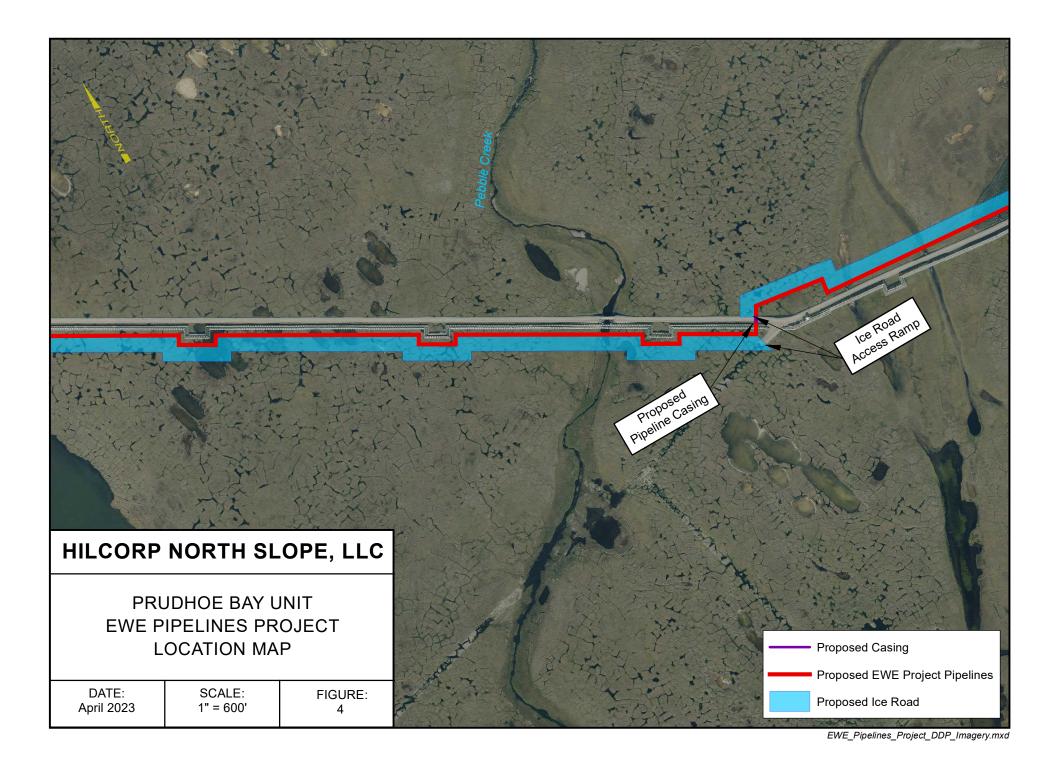
## HILCORP NORTH SLOPE, LLC

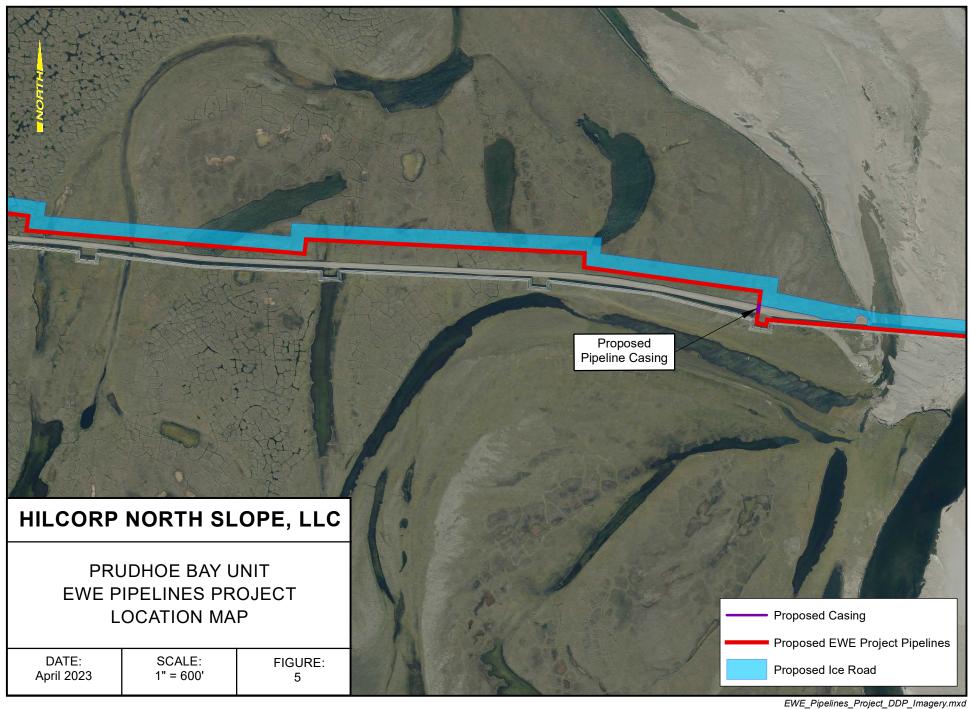
PRUDHOE BAY UNIT EWE PIPELINES PROJECT VICINITY MAP

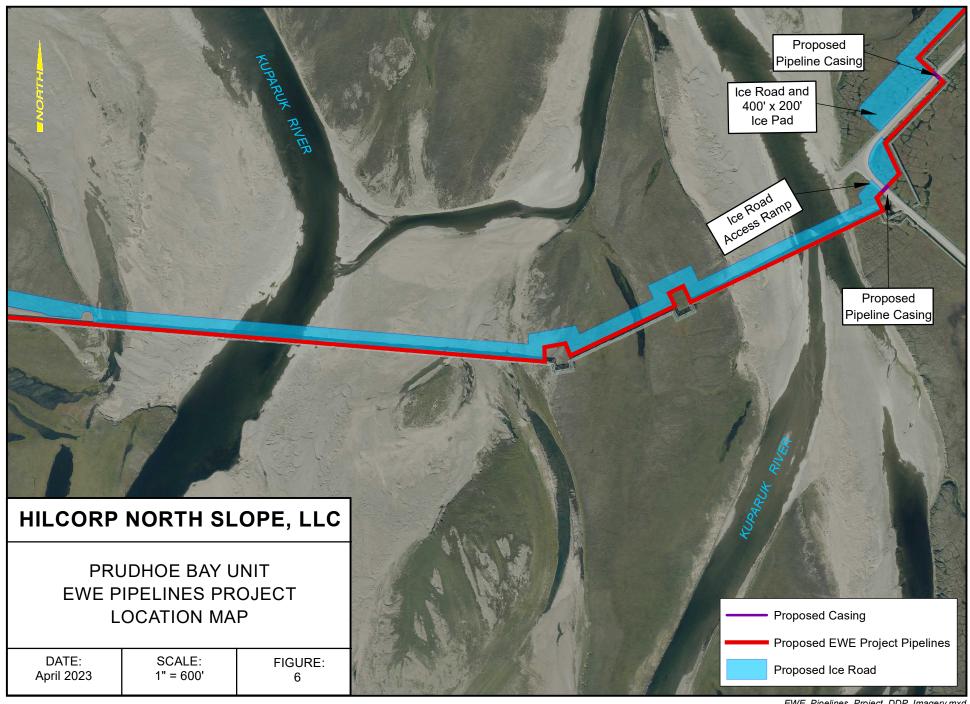
DATE: April 2023 SCALE: 1" = 1.5 Miles FIGURE:

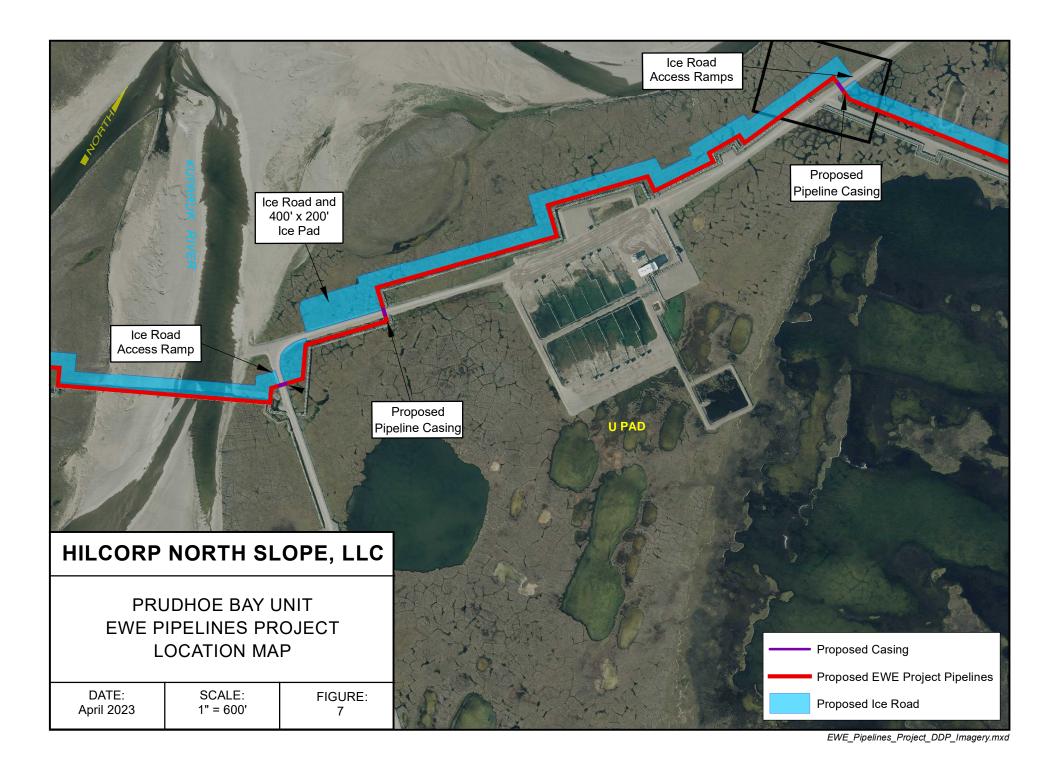


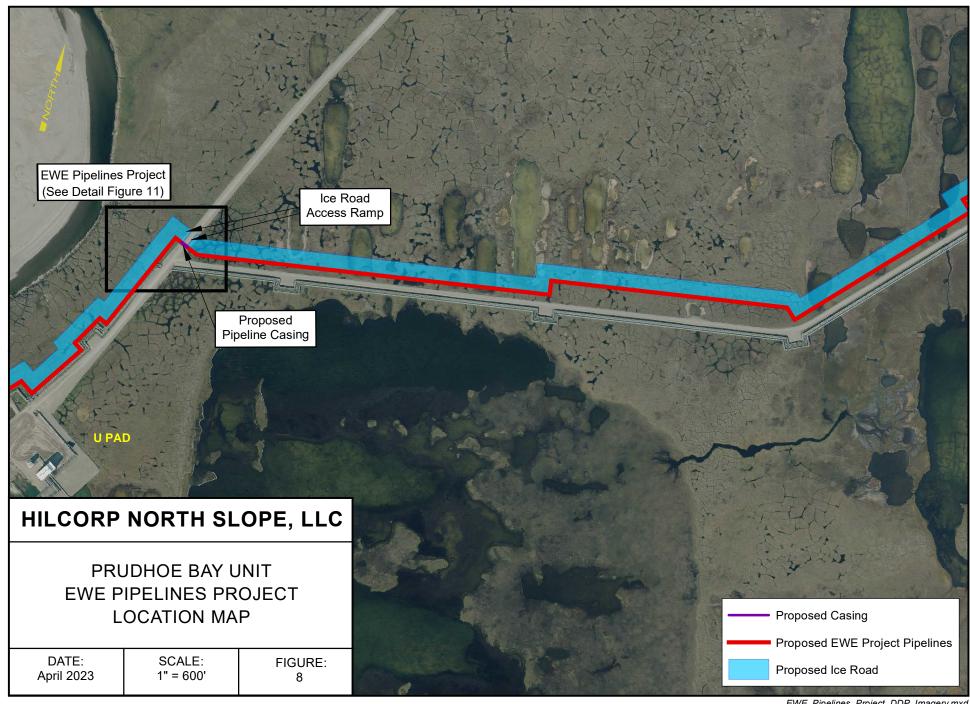


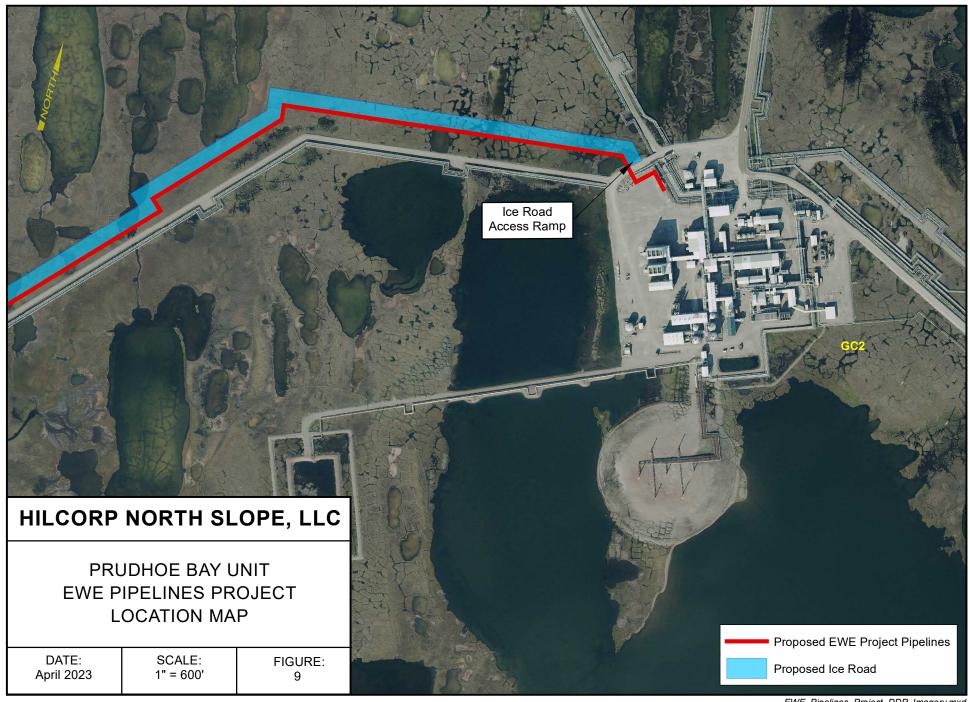


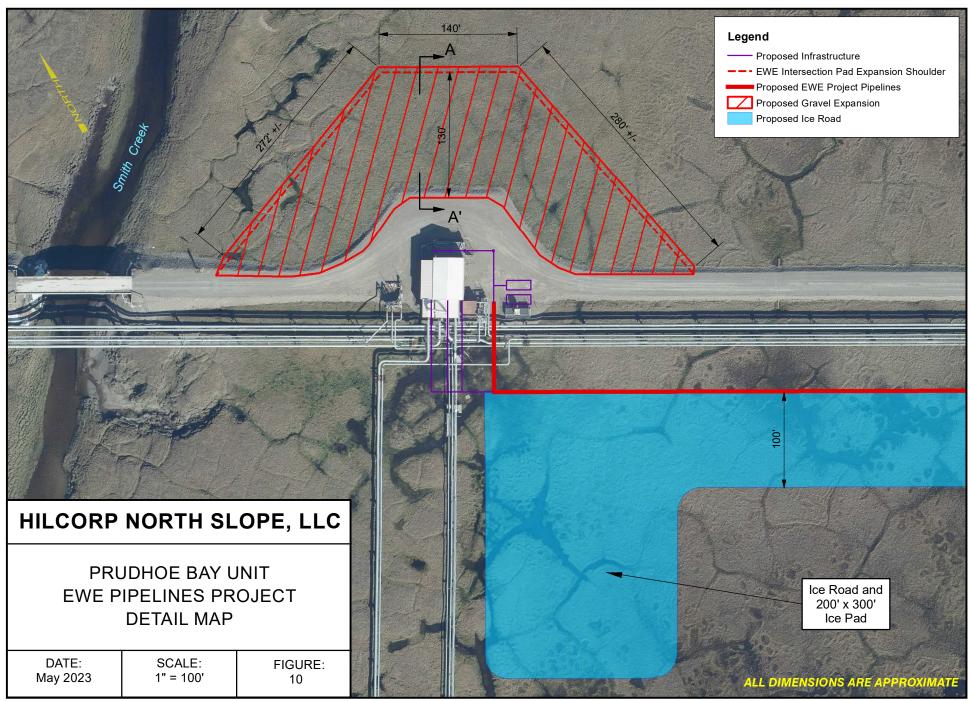


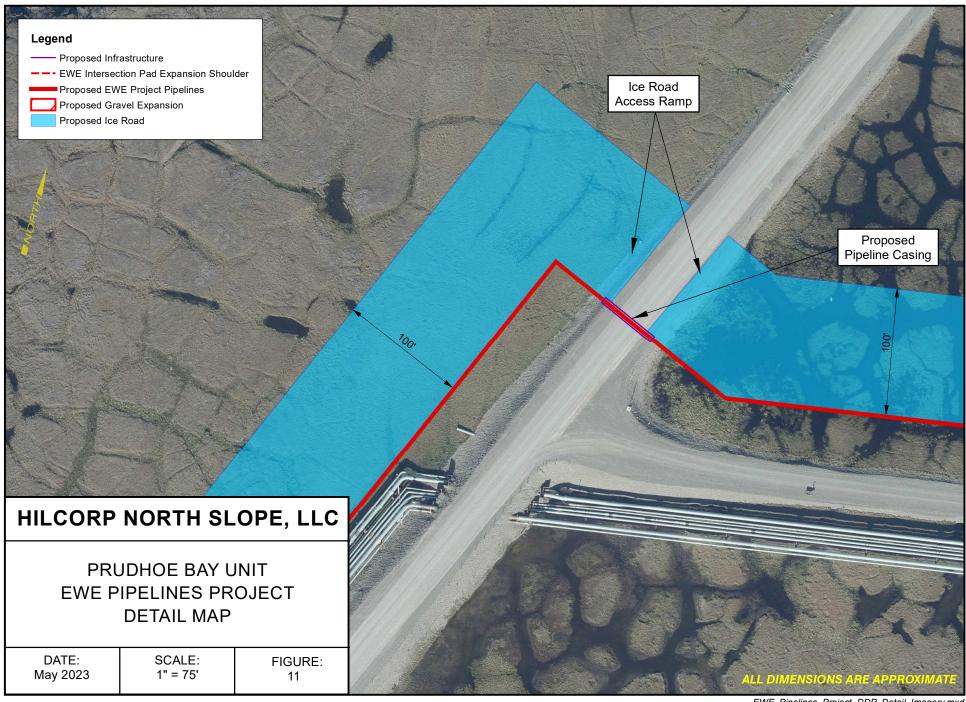


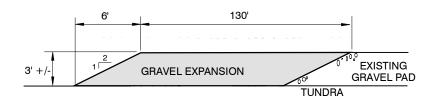




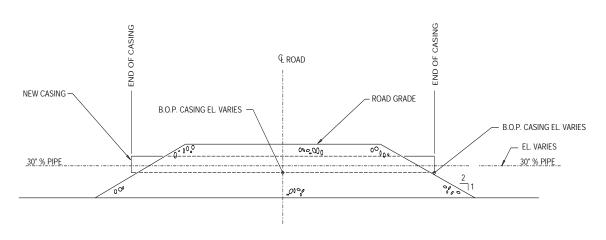








## GRAVEL EXPANSION A - A'



## TYPICAL CASING CROSS SECTION

# HILCORP NORTH SLOPE, LLC

PRUDHOE BAY UNIT EWE PIPELINES PROJECT CROSS SECTIONS

DATE: April 2023 SCALE: NOT TO SCALE FIGURE: 12