US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Division (1145)
CEPOA-RD
Post Office Box 6898
JBER, Alaska 99506-0898

PUBLIC NOTICE DATE:	**November 1, 2022**
EXPIRATION DATE:	**December 1, 2022**
REFERENCE NUMBER:	**POA-2019-00444-M2**
WATERWAY:	**COLVILLE RIVER**

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to regpagemaster@usace.army.mil. All comments should include the public notice reference number listed above.

All comments should reach this office no later than the expiration date of this public notice to become part of the record and be considered in the decision. Please contact Janet Post at (907) 753-2831, toll free from within Alaska at (800) 478-2712, or by email at janet.l.post@usace.army.mil if further information is desired concerning this notice.

APPLICANT: ConocoPhillips (Alaska) Inc. (CPAI) Attention: Stephen Brashear, P.O. Box 100360, Anchorage, AK 99510, Email: steve.w.brashear@conocophillips.com.

LOCATION: The project sites are located at Latitude 70.419336º N., Longitude 150.27072º W.; Latitude 70.394701º N., Longitude 150.188735º W.; Latitude 70.397901º N., Longitude 150.218294º W.; North Slope Borough, 1,000 feet east of the Colville River, near Nuiqsut, Alaska.

SPECIAL AREA DESIGNATION: The project is located within Snowy Owl Conservation Area and Polar Bear Critical Habitat.

PURPOSE: The applicant's stated purpose is to support additional development and production of petroleum reserves within the Kuparuk River Unit. The proposed project will serve to offset declining production from the Alaska North Slope and maintain throughput of Alaska's Trans-Alaska Pipeline System. Development will provide benefits to local, state, and national economies by creating local hire jobs during construction and operation and new resources to help meet the country's domestic energy demand.

PROPOSED WORK:

Total discharge of 52,200 cubic yards of material (gravel fill, gravel bags for erosion protection, and sand slurry) into 3.73-acres of wetlands, as follows: Discharge 16,500 cubic yards of gravel fill into 1-acre of wetlands to expand the existing DS-3T gravel pad and install erosion protection. Discharge 27,000 cubic yards of gravel fill into 2-acres of wetlands to widen the existing DS-3T access road. Discharge 7,600 cubic yards of gravel fill into 0.7-acre of wetlands to widen the intersection of DS-3T and DS-3S access roads and extend length of culverts or replace with 24-inch or wider culverts. Discharge 1,100 cubic yards of sand slurry into 0.03-acre wetlands to construct 320 vertical support members (VSM) for three pipelines that are 3-miles long. All work would be performed in accordance with the enclosed plan (sheets 1-9), dated September 21, 2022.

ADDITIONAL INFORMATION:

POA-2005-01295-M6 originally authorized the 19.6-acre DS-3T gravel pad, a 2.9-mile access road and the two inactive oil wells, that are existing at the project site. In 2019, the permit was transferred to ConocoPhillips (Alaska) Inc. who plans to drill 29 of the 50 previously approved wells.

Agency	Permits, Approvals, and Other Requirements
Federal Agencies	
USACE	• CWA Section 404 Permit Modification
EPA	• Reviews during the USACE Section 404 permitting process
	• OPA90 SPCC Plan and Facility Response Plan
USFWS	• Marine Mammal Protection Act Letter of Authorization for Incidental Take of Polar Bears Marine Mammal Protection Act Letter of Authorization for Intentional Take (Deterrence of Polar Bears) • Consultation with USACE under Section 7 of the Endangered Species Act (ESA)/Issuance of Biological Opinion for ESA-listed Species
National Marine Fisheries Service	• Consultation with USACE under the Magnuson-Stevens Fishery Conservation and Management Act for Essential Fish Habitat
State Agencies	
ADNR Division of Mining, Land and Water (DMLW), Northern Region	• Temporary Land Use Permits • Cultural Resource Coordination/Consultation with State Historic Preservation Officer under National Historic Preservation Act Section 106
ADNR DMLW, Water Resources Section	• Temporary Water Use Authorizations • Water Rights
ADNR Division of Oil and Gas (DOG)	• Unit Plan of Operations Amendment Approval
ADNR DOG State Pipeline Coordinators Section	• Pipeline Right-of-way Lease
ADEC	• CWA Section 401 Water Quality Certification • CWA Section 402 Alaska Pollutant and Discharge Elimination System permit • Certificates of Proof of Financial Responsibility – Onshore Production Facility • ODPCP - Amendment • Temporary Storage of Drilling Waste • Temporary Camp Permit
Alaska Department of Fish and Game	• Title 16 Fish Habitat Permits • Public Safety Permits
Alaska Oil and Gas Conservation Commission	• Permit to Drill • Approval for Annular Disposal of Drilling Wastes • Area Injection Order (Class II Disposal) • Conservation Order (Pool Rules) • Well Sundries
Alaska Department of Public Safety, Division of Fire and Life Safety	• Fire and Life Safety Plan Review • Fire Marshal Approval
Local Entities	
NSB	• Iñupiat History, Language, and Culture Division: Traditional Land Use Inventory TLUI Clearance Certificate • Administrative Approvals

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: The project avoids discharge of fill into streams, rivers, lakes, drainages, and ponds. Fill area boundaries will be clearly delineated to avoid unnecessary impacts during construction from gravel placement and equipment maneuvers. Sand/slurry VSM back-fill will occur during the winter when soils are frozen; ice features will be utilized to complete the work. Gravel harvest and placement will be conducted in a single construction season to avoid the need for construction of a gravel stockpile pad and to minimize safety risks and gravel mining impacts associated with a multi-year expansion. A combination of project-specific ice features and the existing Kuparuk River field road system will be used to transport the gravel and sand/slurry from an existing permitted gravel source in the Kuparuk River Unit to avoid permanent impacts to wetlands. Ice features will be built only after the ground surface is sufficiently frozen to support the weight of ice construction equipment without damaging the underlying tundra. Ice features will be constructed of at least 6-inches of ice/compacted snow to protect the underlying vegetation and terrain and routed to avoid shrub areas and minimize stream crossings. Aerial surveys aided by infrared technology will be conducted to locate and mitigate impacts to maternal polar bear dens prior to construction of ice roads or other off-pad activities. Gravel placement will occur from existing gravel infrastructure.

b. Minimization: Personnel will be housed in existing or temporary camps during construction and in existing camps during operations, eliminating the need to design a larger pad to accommodate the footprint of additional permanent housing. Gravel for the project will be purchased from an existing permitted gravel source. The project will utilize existing airstrips for transporting equipment and personnel to the area. No overhead powerlines will be installed, minimizing the potential for bird strikes. Minimization measures taken as part of the original construction of DS-3T will continue with the proposed project. The gravel pad was designed and oriented to withstand a 100-year flood event. There would be no permanent discharges of drilling waste or domestic wastewater from DS-3T. Fill has been minimized to the extent practicable by optimizing design and equipment layout. CPAI has an extensive training program for employees and contractors for environmental compliance and safety. The workforce is experienced and familiar with regulatory oversight and performance standards of the North Slope oilfields. Spill prevention strategies are implemented, including the use of fuel transfer standard operating procedures, the use of duck ponds or integrated drip pans under motorized equipment, placement of spill response kits at selected locations, training of field staff for spill response, and use of a spill response Incident Management Team with spill responders on call at all times. CPAI maintains membership in the Alaska Clean Seas spill response cooperative and is a member of the North Slope Operators Mutual Aid Agreement to provide readily available equipment and trained personnel to effectively respond to spills.

c. Compensatory Mitigation: Compensatory Mitigation has been satisfied through an in-lieu fee credit payment to The Conservation Fund on September 12, 2014 (for POA-2005-01295-M6).

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no cultural resources in the permit area or within the vicinity of the permit area. The permit area has been determined to be the proposed project footprint and adjacent areas where heavy equipment may operate during construction. Consultation of the AHRS constitutes the extent of cultural resource investigations by the U.S. Army Corps of Engineers (Corps) at this time, and we are otherwise unaware of the presence of such resources. The Corps has made a No Historic Properties Affected (No Effect) determination for the proposed project. This application is being coordinated with the State Historic Preservation Office (SHPO), federally recognized tribes, and other consulting parties. Any comments SHPO, federally recognized tribes, and other consulting parties may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work. The Corps is requesting the SHPO's concurrence with this determination.

ENDANGERED SPECIES: The project area is within the known or historic range of the polar bear (*Ursus maritimus*), spectacled eiders (*Somateria fischeri*), and Steller's eiders (*Polysticta stelleri*). The project is located within designated critical habitat for polar bears (*Ursus maritimus*), and snowy owl (*Bubo scandiacus*) conservation area.

We are currently gathering information regarding these species and have yet to make a determination of effect. Should we find that the described activity may affect the species listed above, and its designated critical habitat, we will follow the appropriate consultation procedures under section 7 of the Endangered Species Act of 1973 (87 Stat. 844). Any comments the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (NMFS) may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The project area is within the known range of the Arctic Cod (egg, larvae, juvenile, adult).

We are currently gathering information regarding this species and have yet to make a determination of effect. Should we find that the described activity may affect the species listed above, we will follow the appropriate course of action under Section 305(b)(2) of the Magnuson-Stevens Act. Any comments the NMFS may have concerning essential fish habitat will be considered in our final assessment of the described work.

TRIBAL CONSULTATION: The Corps fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This public notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

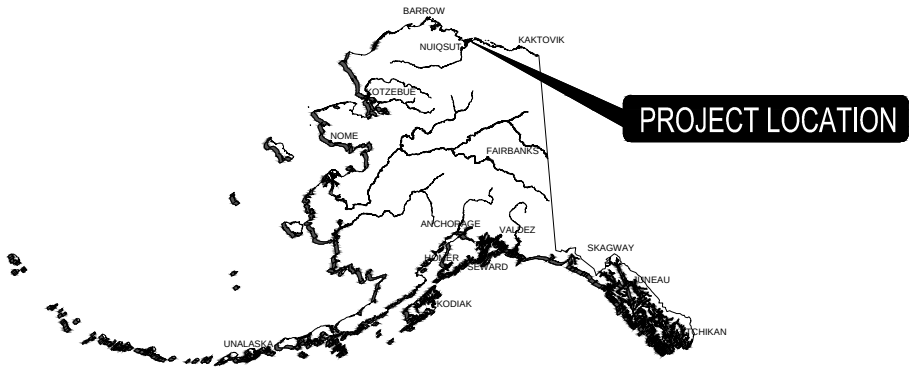
AUTHORITY: This permit will be issued or denied under the following authority:

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

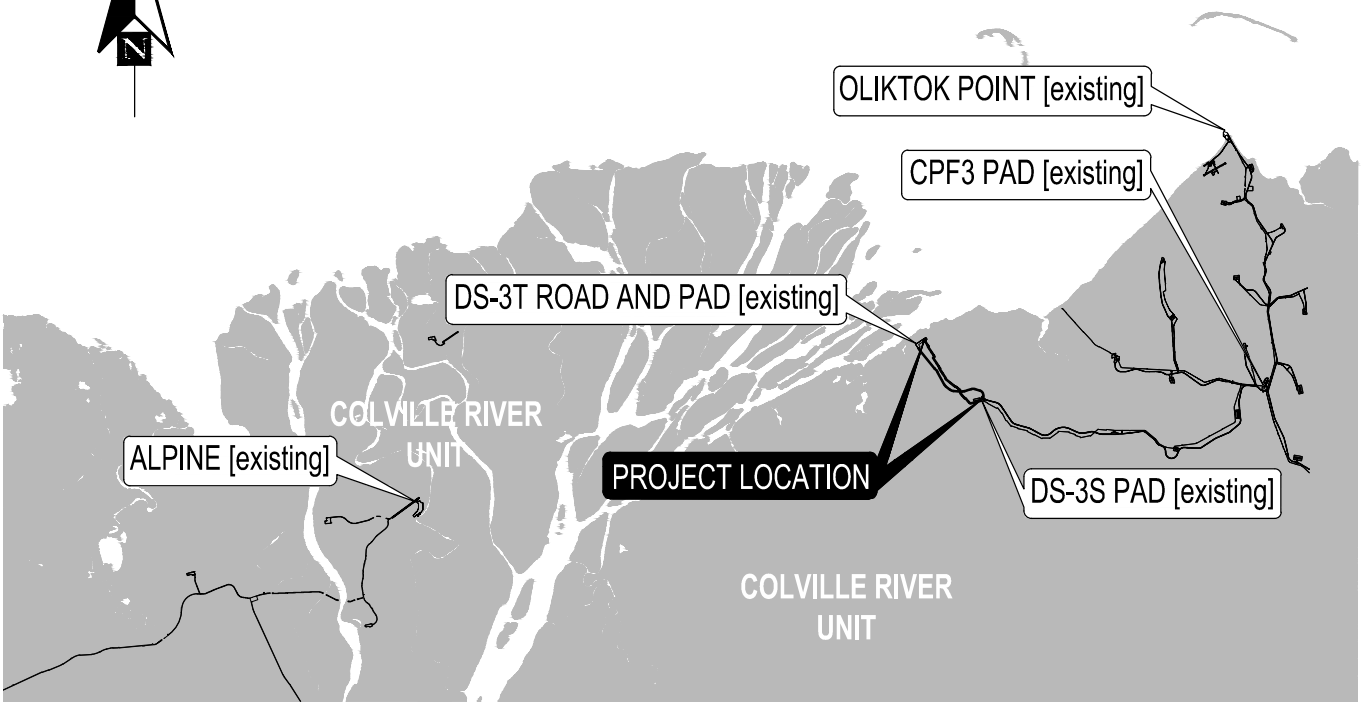
Project drawings are enclosed with this Public Notice.

District Commander
U.S. Army, Corps

Enclosures



ALASKA VICINITY MAP



DS-3T VICINITY MAP

SCALE IN MILES

3 0 3 6 9

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

PURPOSE:
CONSTRUCT PIPELINE AND EXPAND AN EXISTING GRAVEL ROAD AND PAD FOR OILFIELD DEVELOPMENT

DATUM: BPMSL, NAD83 ASP ZONE 4

REFERENCE: POA-2019-00444

APPLICANT: CONOCOPHILLIPS ALASKA, INC (CPAI)

LOCATION:
T12N R7E AND T12N R8E
UMIAT MERIDIAN

PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION

IN: KUPARUK RIVER UNIT

COUNTY: NORTH SLOPE BOROUGH
STATE: ALASKA

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING LAND AND WATER
3700 AIRPORT WAY
FAIRBANKS, AK 99709
(907) 451-2705
ATTN: NICHELLE JONES

U.S. DEPT. OF INTERIOR BUREAU OF LAND MANAGEMENT
222 W 7th AVENUE #13
ANCHORAGE, ALASKA 99513
907-271-5080
ATTN: BUD C. CRIBELY

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
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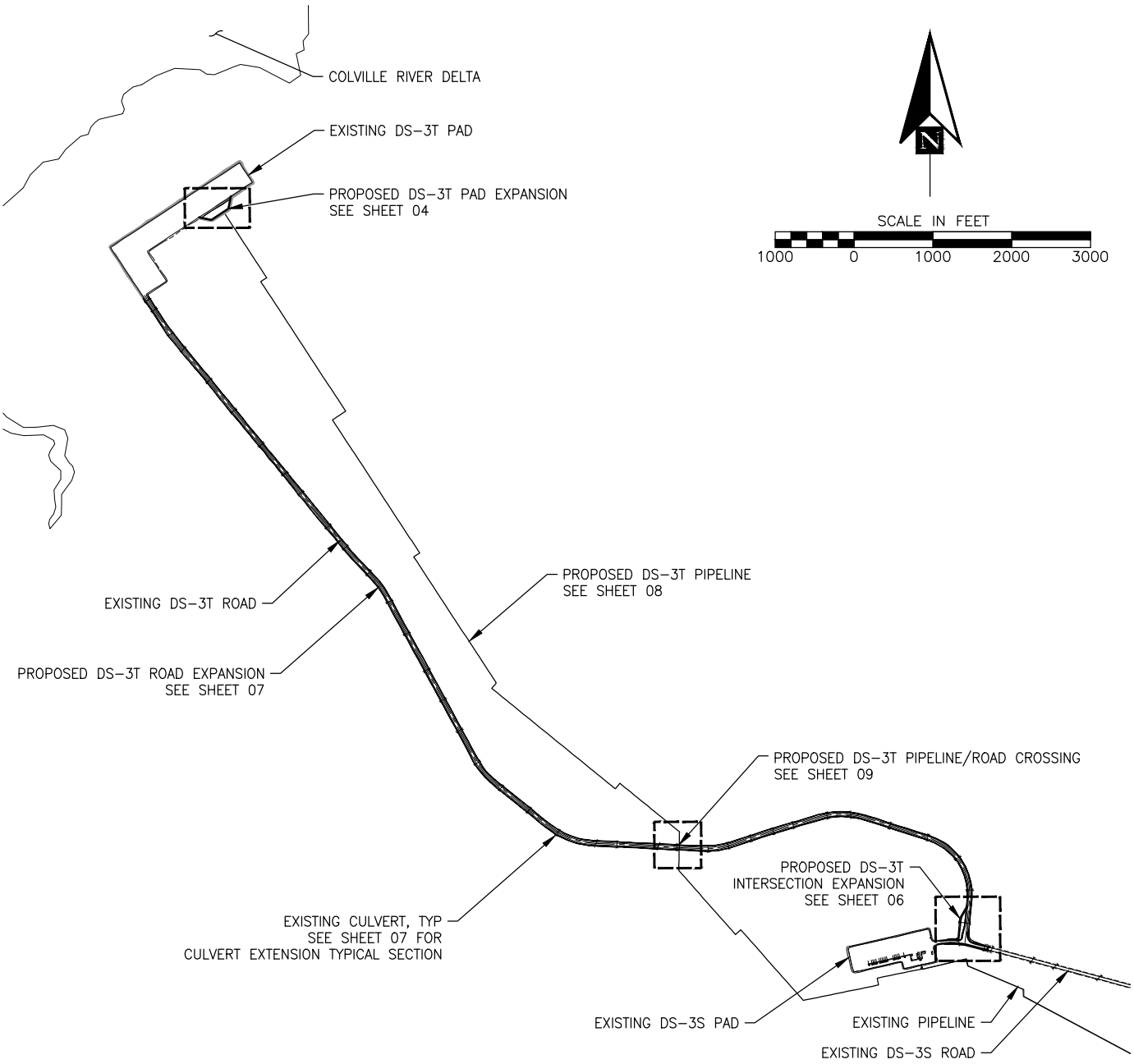
ADJACENT LAND OWNERS



DS-3T FACILITIES OVERVIEW PLAN

DS-3T FACILITY QUANTITIES	
DS-3T ROAD LENGTH	2.9 MILES
DS-3T ROAD EXPANSION FOOTPRINT	2.0 ACRES
ROAD EXPANSION FILL QUANTITY	27,000 CY
DS-3T PAD EXPANSION FOOTPRINT	1.0 ACRES
PAD EXPANSION FILL QUANTITY	16,500 CY
DS-3T INTERSECTION EXPANSION FOOTPRINT	0.7 ACRES
INTERSECTION EXPANSION FILL QUANTITY	7,600 CY
PIPELINE VSM COUNT	320
PIPELINE VSM FOOTPRINT	0.03 AC
PIPELINE SLURRY VOLUME	1,100 CY
TOTAL PROJECT FOOTPRINT	3.73 ACRES
TOTAL PROJECT FILL QUANTITY	52,200 CY

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

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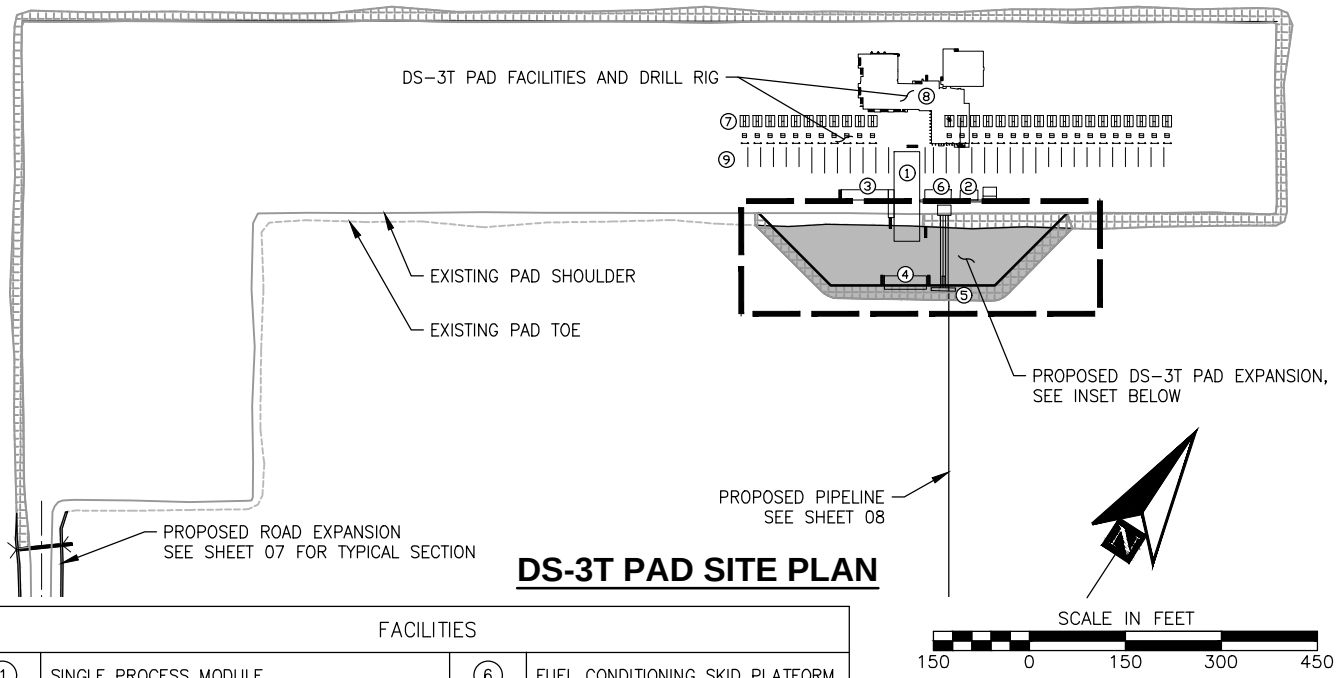
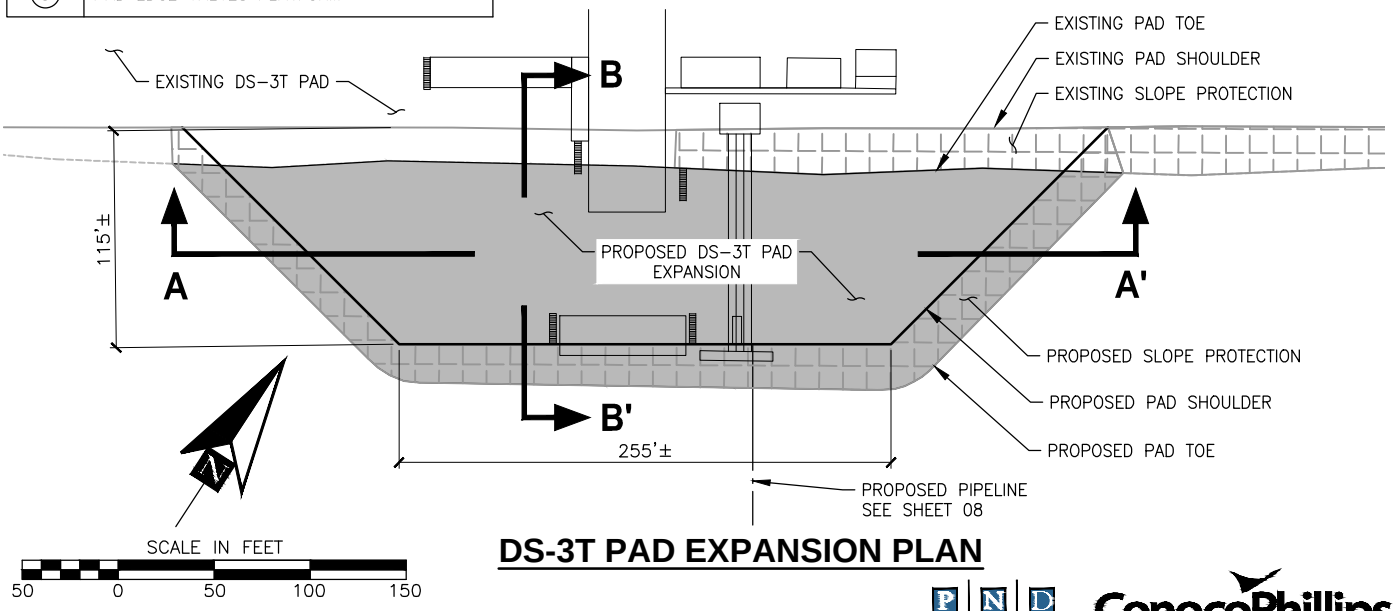


DS-3T PAD SITE PLAN

FACILITIES			
①	SINGLE PROCESS MODULE	⑥	FUEL CONDITIONING SKID PLATFORM
②	PRODUCTION HEATER SKID W/ BURNER HOUSE	⑦	WELL HOUSES
③	CHEMICAL TANK PLATFORM	⑧	DRILL RIG
④	SWITCHGEAR PLATFORM	⑨	HSM's
⑤	PAD EDGE VALVES PLATFORM		



DS-3T PAD EXPANSION PLAN

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
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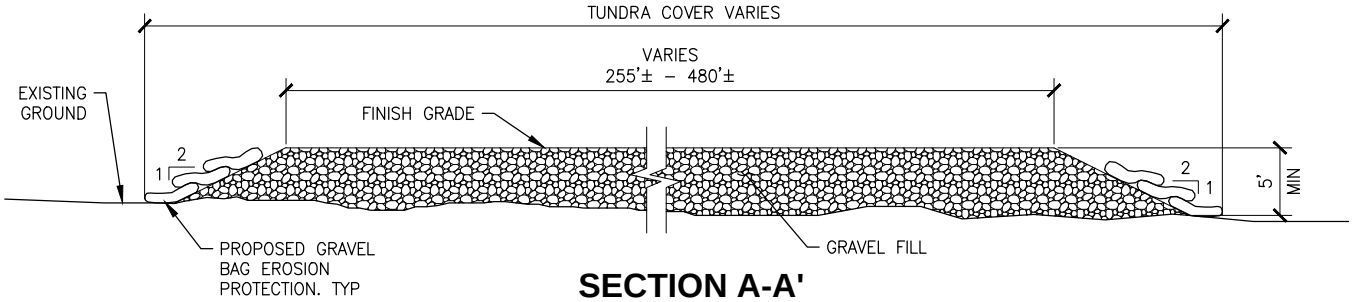
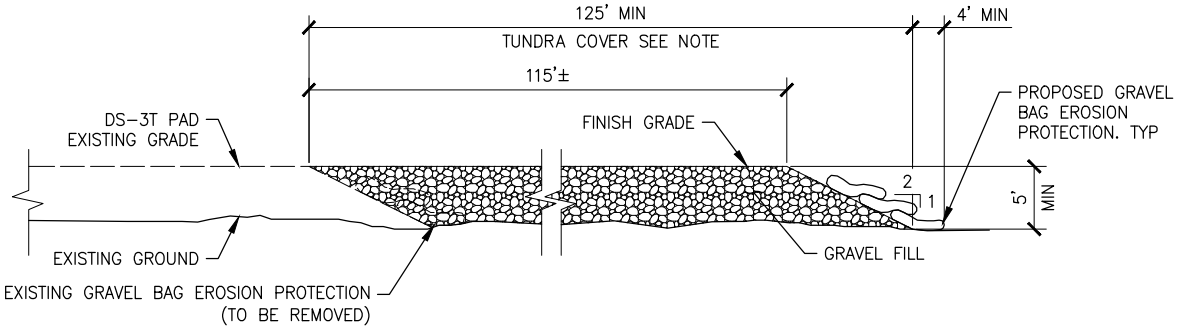
DS-3T PAD EXPANSION PLAN



SECTION A-A'
PAD EXPANSION LONGITUDINAL SECTION

NTS



SECTION B-B'
PAD EXPANSION TRANSVERSE SECTION

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NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND PAD ELEVATION.

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA–2019–00444
APPLICANT: CPAI
PROPOSED: DS–3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
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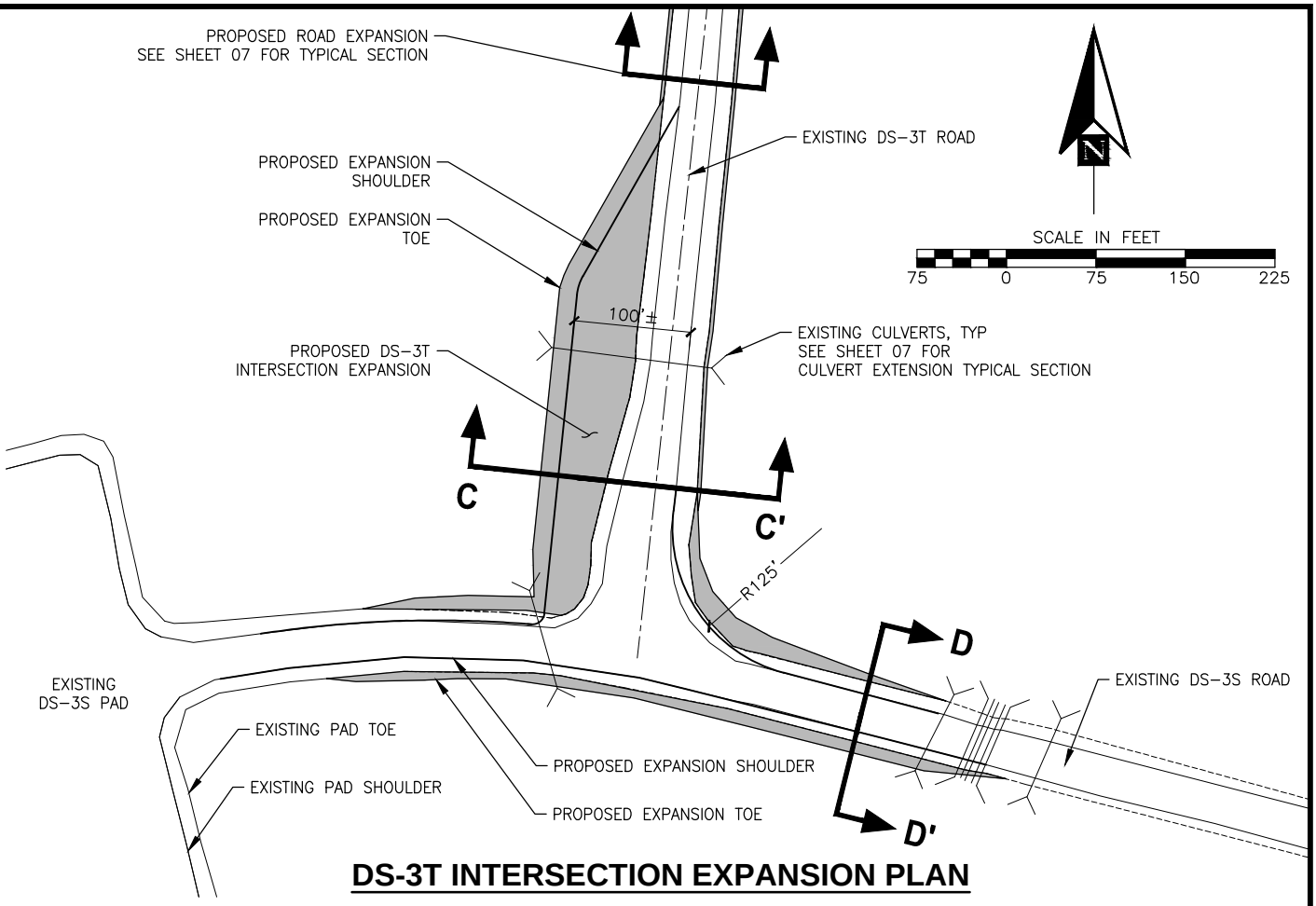
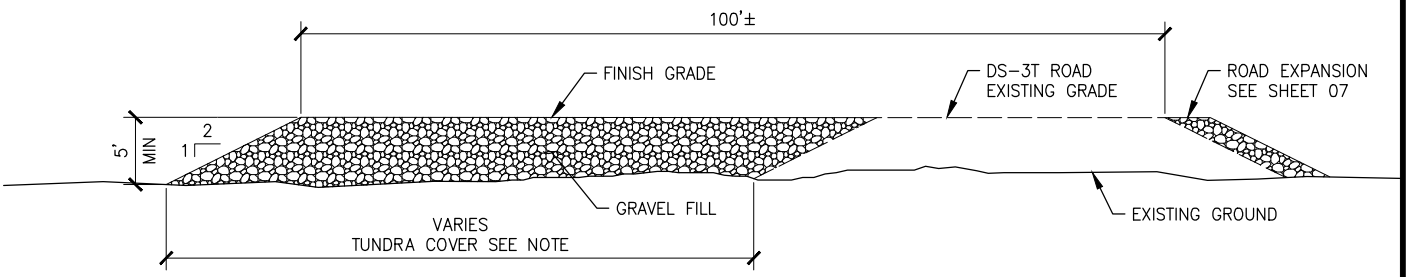
DS-3T PAD EXPANSION SECTIONS



DS-3T INTERSECTION EXPANSION PLAN



SECTION C-C' INTERSECTION EXPANSION

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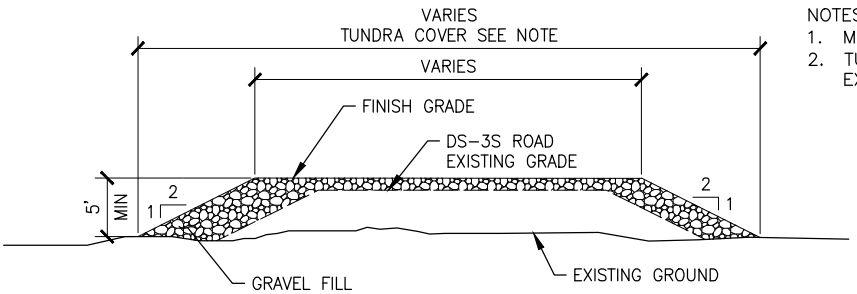

SECTION D-D' INTERSECTION EXPANSION

NTS

NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

DS-3T INTERSECTION EXPANSION PLAN AND SECTIONS

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

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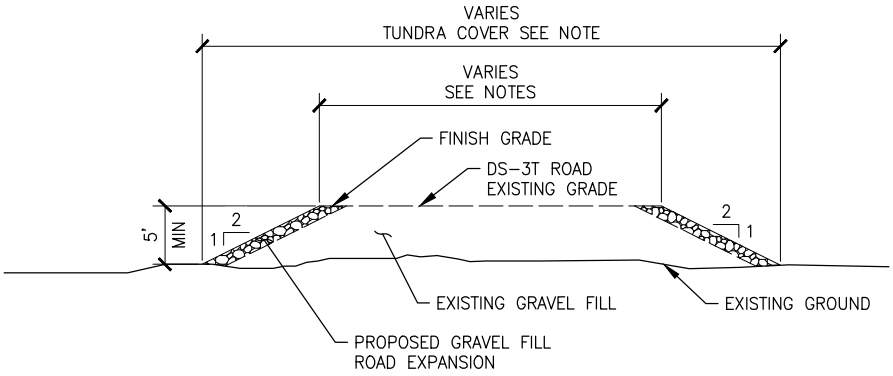
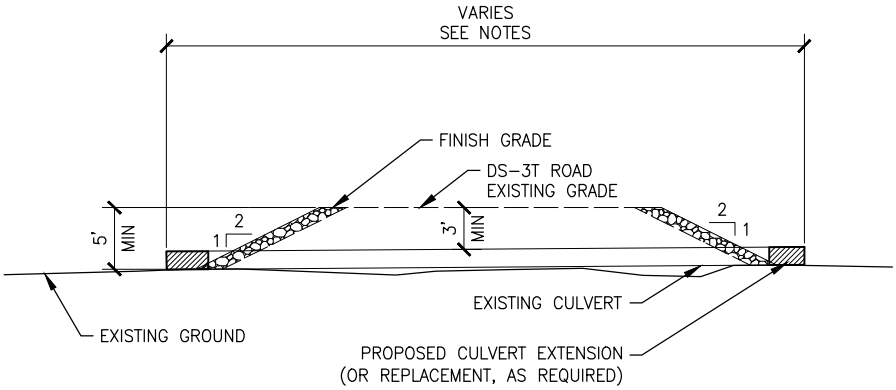


ROAD EXPANSION TYPICAL SECTION

NTS

NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.
3. GRAVEL EXPANSION FOOTPRINT MAY OCCUR ON BOTH SIDES OF THE ROADWAY, AND IN SOME INSTANCES, ONLY ON ONE SIDE OF THE ROADWAY (IN ORDER TO MINIMIZE GRAVEL FILL, FILL FOOTPRINT, AND IMPACTS TO DRAINAGES).
4. NEW ROAD CENTERLINE MAY NOT ALIGN WITH EXISTING ROAD CENTERLINE.



CULVERT EXTENSION TYPICAL SECTION

NTS

NOTES:
1. CULVERT LENGTHS/EXTENSIONS ARE SPECIFIC TO EACH CULVERT LOCATION, DEPENDING ON TOPOGRAPHY, ROAD HEIGHT, AND CULVERT SKEW ANGLE.
2. CULVERT EXTENSIONS MAY BE REQUIRED ON ONE OR BOTH SIDES OF THE ROAD.
3. IF CULVERT EXTENSION IS NOT PRACTICAL, THE EXISTING CULVERT WILL BE REMOVED AND REPLACED.

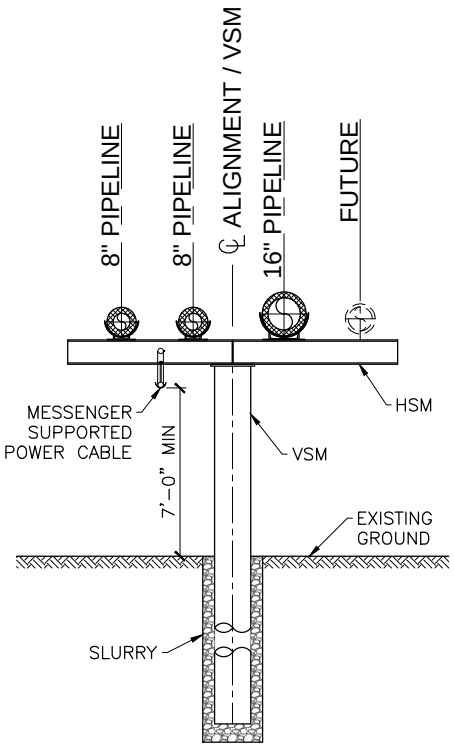
PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

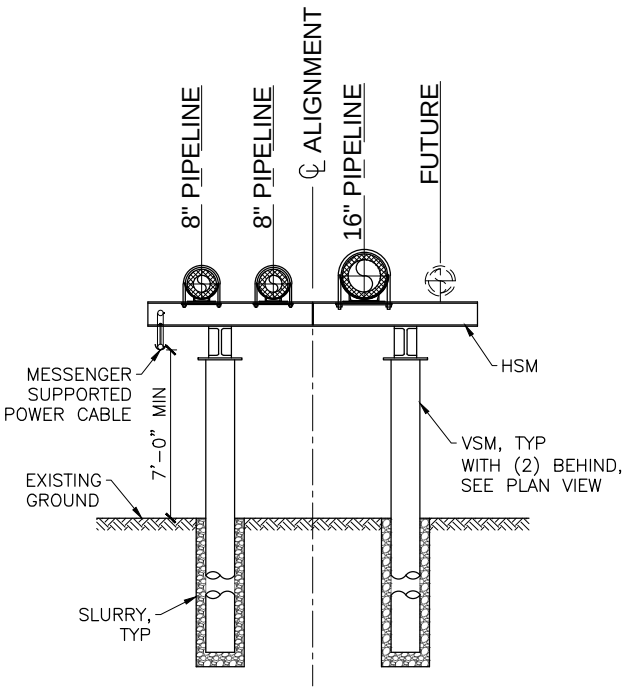
DS-3T ROAD EXPANSION AND CULVERT EXTENSION TYPICAL SECTIONS

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

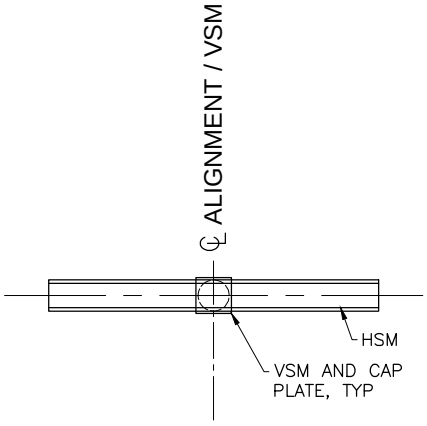
9/21/2022



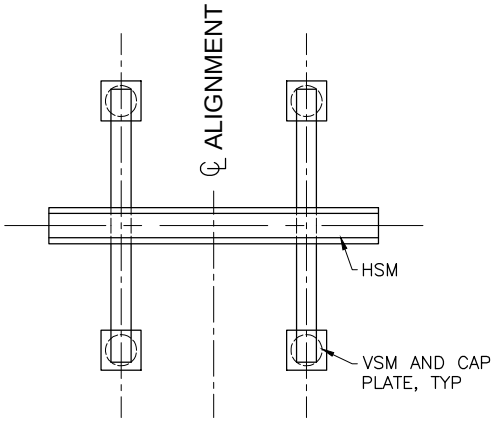
TYPICAL PIPELINE ELEVATION



PIPELINE ANCHOR ELEVATION



TYPICAL PIPELINE PLAN



PIPELINE ANCHOR PLAN

TYPICAL DS-3T PIPELINE DETAILS

TYPICAL DS-3T PIPELINE ANCHOR DETAILS

NOTES:
1. PIPELINE LAYOUTS ARE SCHEMATIC, FOR INFORMATION ONLY. FINAL PIPELINE LAYOUTS WILL BE DETERMINED DURING DETAILED DESIGN.

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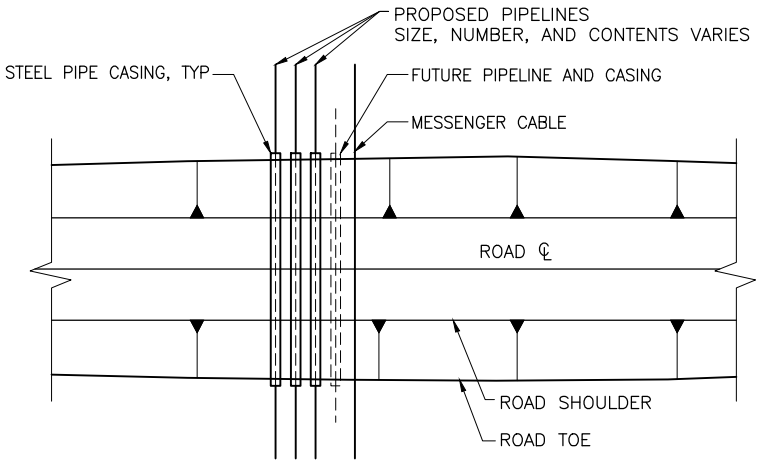

DS-3T PIPELINE/ROAD CROSSING PLAN

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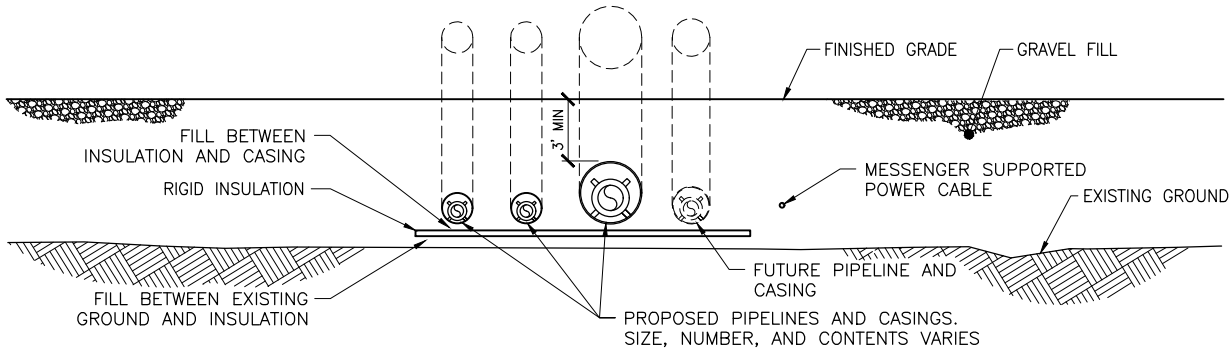
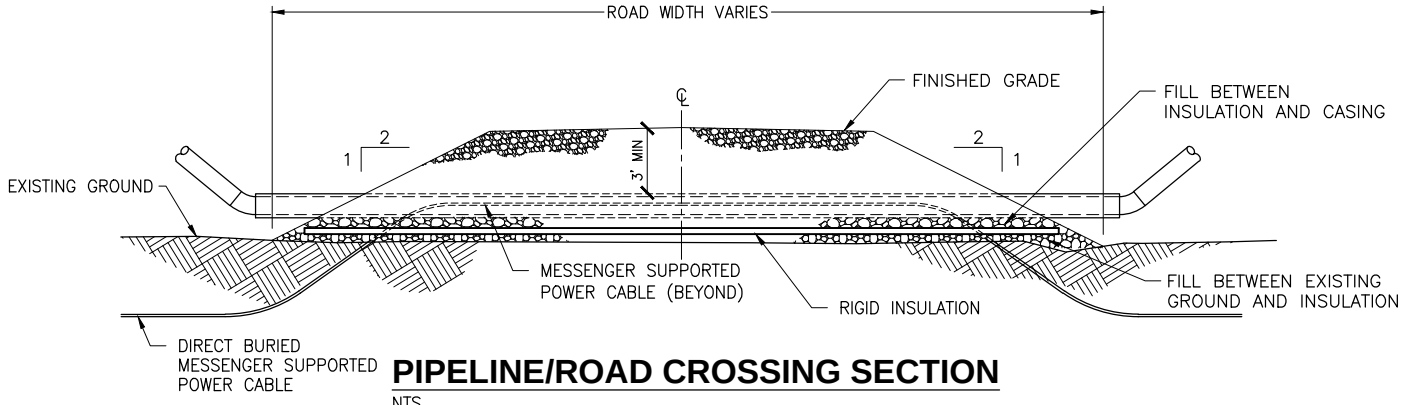


PIPELINE/ROAD CROSSING PROFILE

NTS



PIPELINE/ROAD CROSSING SECTION

NTS

NOTE:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.
3. FINAL ROAD EXPANSION CONDITIONS SHOWN. EXISTING ROAD CONDITIONS (SHOULDER AND TOE) NOT SHOWN FOR CLARITY.

P|N|D ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
SHEET **9** of **9** 9/21/2022

DS-3T PIPELINE/ROAD CROSSING PLAN AND SECTION

Stephen W. Brashear
Senior Environmental Coordinator

ConocoPhillips Alaska, Inc.
Environmental Sustainability & Permitting
P.O. Box 100360
Anchorage, AK 99510-0360
Phone: 907-263-4180
Steve.W.Brashear@ConocoPhillips.com

September 23, 2022

U.S. Army Corps of Engineers – Alaska District
Regulatory Division, CEPOA-RD-N
P.O. Box 6898
JBER, AK 99506-0898

Submitted Electronically to:
regpagemaster@usace.army.mil

Re: **DS-3T Development Project**
Department of the Army Clean Water Act Section 404 Permit Modification
POA-2019-00444

Dear Regulator:

ConocoPhillips Alaska, Inc. (CPAI) requests authorization to place 52,200 cubic yards of material (clean gravel fill, clean gravel bag erosion protection, and sand slurry) onto 3.73 acres of jurisdictional wetlands to expand the existing Drill Site 3T (DS-3T) gravel pad, anchor the side slopes of the expansion, widen the existing access road, expand the access road intersection near Drill Site 3S (DS-3S) and to construct pipelines supported by common vertical support members. The purpose of this project is to provide safe, efficient, and reliable surface facilities to develop DS-3T and bring the production of oil online by the second quarter of 2025.

Project details are provided in the attached ENG FORM 4345 permit application, project description, figures and applicant proposed mitigation statements.

The proposed work is scheduled to begin on August 1, 2023.

If you have any questions or need additional information, please contact me by phone at (907) 263-4180 or by email at gkaenvpermitting@conocophillips.com.

Sincerely,

Stephen W. Brashear
Senior Environmental Coordinator

Attachments:
ENG FORM 4345
Project Description
Drill Site 3T (DS3T) Development Project map
DS-3T Pipeline Construction, Road and Pad Expansion drawings
Avoidance, Minimization, and Mitigation Statements

ConocoPhillips Alaska, Inc

Drill Site 3T Development Project

Department of the Army CWA 404 Permit Modification

POA-2019-00444

Kuparuk River

North Slope, Alaska

September 23, 2022

ENG FORM 4345

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 02-28-2022

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Stephen Middle - W. Last - Brashear	First - N/A Middle - N/A Last - N/A
Company - ConocoPhillips Alaska, Inc. (CPAI)	Company - N/A
E-mail Address -	E-mail Address - N/A
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address- P.O. Box 100360	Address- N/A
City - Anchorage State - AK Zip - 99510 Country - USA	City - N/A State - N/A Zip - N/A Country - N/A
7. APPLICANT'S PHONE NOs. w/AREA CODE	**10. AGENTS PHONE NOs. w/AREA CODE**
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax
N/A 907-263-4180 N/A	N/A N/A N/A

STATEMENT OF AUTHORIZATION

11. I hereby authorize, N/A to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
Drill Site 3T (DS-3T) Development Project (Project)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
North Slope Wetlands	Address N/A
15. LOCATION OF PROJECT	City - N/A State- N/A Zip- N/A
Latitude: °N 70.419336 Longitude: °W -150.270720	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID unknown Municipality North Slope Borough

Section - see attached material Township - see attached material Range - see attached material

17. DIRECTIONS TO THE SITE

The proposed Project, designated DS-3T, includes the existing DS-3T gravel pad (formerly known as Nuna Drill Site 1), an existing access road, and proposed pipelines on the North Slope of Alaska east of the Colville River Delta on State of Alaska owned lands. The DS-3T gravel pad is located approximately 2.3 miles northwest of Drill Site 3S (DS-3S) and approximately 1,000 feet from the northeast bank of the Colville River. See Table 1 in the attached Project Description and the Drill Site 3T (DS-3T) Development Project map for details.

18. Nature of Activity (Description of project, include all features)

This Project includes the placement of 52,200 cubic yards (cy) of material (clean gravel fill, clean gravel bag erosion protection, and sand slurry) onto 3.73 acres of wetlands, to expand the southeast side of the existing DS-3T gravel pad, anchor the side slopes of the expansion, widen the 2.9-mile DS-3T access road and expand the access road intersection near Drill Site 3S (DS-3S) for module transport, and to construct pipelines supported by common vertical support members (VSM). The Project will be connected to and supported by the existing Kuparuk River Unit (KRU) infrastructure through approximately 3 miles of new pipelines routed from the DS-3T drillsite to DS-3S, and power will be supplied via messenger cable connected the new pipelines. See the attached Project Description and DS-3T Pipeline Construction, Road and Pad Expansion drawings for specific fill requirements and acreage for project components.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the Project is to support additional development and production of petroleum reserves within the KRU. The proposed project will serve to offset declining production from the Alaska North Slope and maintain throughput of Alaska's Trans-Alaska Pipeline System. Development will provide benefits to local, state, and national economies by creating local-hire jobs during construction and operation and new resources to help meet the country's domestic energy demand. See the attached Project Description for details.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

CPAI proposes the placement of 52,200 cy of clean gravel onto 3.73 acres of jurisdictional wetlands to support the production of oil from the Moraine Reservoir within the Torok Formation. The Project will provide safe, efficient, and reliable surface facilities to develop DS-3T and bring the production of oil online by the first quarter of 2025. When it is commissioned, DS-3T will leverage existing KRU facilities that are currently in operation. See the attached Project Description for details.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
51,100 clean gravel fill	1,100 slurry/sand	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 3.73

or

Linear Feet N/A

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Please see the attached Avoidance, Minimization, and Compensation Statements. Compensatory Mitigation has been satisfied through an in lieu fee credit payment to The Conservation Fund on September 12, 2014.

24. Is Any Portion of the Work Already Complete? [X] Yes [ ] No IF YES, DESCRIBE THE COMPLETED WORK

Authorized under POA-2019-00444: 275,000 (cy) of clean gravel were placed on approximately 19.6 acres of tundra to build the existing DS-3T gravel pad; 200,000 (cy) of clean gravel were placed on tundra to build a 2.9 mile access road from DS-3S to DS-3T. See the attached Project Description for details.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- State of Alaska, Department of Natural Resources, Division of Mining Land and Water; 3700 Airport Way

City - Fairbanks State - AK Zip - 99709

b. Address- Arctic Slope Regional Corporation; P.O. Box 129

City - Utqiagvik State - AK Zip - 99723

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
ADEC	CWA 401 WQC	TBD	TBD	TBD	N/A
ADNR DOG	Unit Plan of Ops	TBD	TBD	TBD	N/A
NSB	Admin Approvals	TBD	TBD	TBD	N/A
See the attached	Project Description	for further details	TBD	TBD	TBD

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Stephen G. Brashear 9/23/2022

SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

PROJECT DESCRIPTION

DRILL SITE 3T

DEVELOPMENT PROJECT

KUPARUK RIVER UNIT

PROJECT DESCRIPTION

ConocoPhillips Alaska, Inc.
P.O. Box 100360
Anchorage, AK 99510-0360

Table of Contents

LIST OF TABLES

ATTACHED FIGURES

ABBREVIATIONS and ACRONYMS

ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
Caelus	Caelus Energy Alaska, LLC
CPAI	ConocoPhillips Alaska, Inc.
CWA	Clean Water Act
cy	cubic yards
DMLW	Division of Mining, Land and Water
DS-3S	Drill Site 3S
DS-3T	Drill Site 3T
EPA	United States Environmental Protection Agency
GI	Gas Injection
GKA	Greater Kuparuk Area
H	horizontal
HSM	Horizontal Support Member
KIC	Kuparuk Industrial Center
KOC	Kuparuk Operations Center
KRU	Kuparuk River Unit
NSB	North Slope Borough
ODPCP	Oil Discharge Prevention and Contingency Plan
Pioneer	Pioneer Natural Resources Alaska, Inc.
PO	Produced Oil
Project	DS-3T Development Project
SPCC	Spill Prevention, Control, and Countermeasure
SPM	Single Production Module
SWPPP	Storm Water Pollution Prevention Plan
TLUI	Traditional Land Use Inventory
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
V	vertical
VSM	Vertical Support Member
WI	Water injection
WOUS	Waters of the Unites States

1.0 APPLICANT

ConocoPhillips Alaska, Inc. (CPAI)
PO Box 100360
Anchorage, Alaska 99510-0360
Point of Contact: Steve Brashear
Phone: (907) 263-4180

2.0 PROJECT LOCATION AND SITE DESCRIPTION

The proposed Drill Site 3T (DS-3T) Development Project, was initially authorized for the permittee Pioneer Natural Resources Alaska, Inc. (Pioneer) by United States Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 Department of the Army Permit POA-2005-01295-M6. The permit was transferred to Caelus Energy Alaska, LLC (Caelus) on September 18, 2014. Caelus executed work approved by POA-2005-01295-M6 to construct the existing DS-3T gravel pad, formerly known as Nuna Drill Site 1, and the existing access road that connects DS-3T to the Kuparuk River field road network. Additionally, Caelus drilled two wells on the DS-3T gravel pad and suspended the wells in 2013. On September 13, 2019, POA-2005-01295-M6 was transferred to CPAI and is now referenced by the new permit number POA-2019-00444.

2.1 Project Location

The proposed DS-3T Development Project (Project) includes the existing DS-3T gravel pad, an existing access road, and proposed pipelines on the North Slope of Alaska, east of the Colville River Delta on lands owned by the State of Alaska. The DS-3T gravel pad is located approximately 2.3 miles northwest of Drill Site 3S (DS-3S) and approximately 1,000 feet from the northeast bank of the Colville River. The DS-3T gravel pad is located within the North Slope Borough (NSB) and within the Kuparuk River Unit (KRU). The mineral rights are owned by Arctic Slope Regional Corporation and the State of Alaska. None of the proposed project facilities are located on or near Native Allotments or traditional use areas. Table 1 lists the existing and proposed project component locations. See the attached “DS-3T Pipeline Construction, Road and Pad Expansion” drawings for the project location and vicinity map.

Table 1: Project Location

Project Component	Township	Range	Section(s)[a]	Latitude[b]	Longitude [b]
DS-3T Drillsite (existing pad and proposed expansion)	12N	7E	1	70.419336	-150.27072
Proposed Access Road Widening and culvert extensions	12N	7E	1, 2, 11, 12, 13	__	__
	12N	8E	17, 18	__	__
DS-3T Access Road (existing and proposed intersection expansion)	12N	8E	17, 18	70.394701	-150.188735
Proposed Pipelines: • 16” Produced Oil (PO) • 8” Water Injection (WI) • 8” Gas Injection (GI)	12N	7E	1, 12, 13	__	__
	12N	8E	18	__	__

Project Component	Township	Range	Section(s)[a]	Latitude[b]	Longitude [b]
Proposed Pipeline Road Crossing	12N	8E	18	70.397901	-150.218294

[a] All sections are within the Umiat Meridian
[b] Latitude and longitude coordinates for linear Project features are not provided because of the multiple locations these features traverse. Approximate linear feature coordinates are available upon request.

2.2 Site Description

The project area is within the Arctic Coastal Plain physiographic region and the DS-3T gravel pad is located east of the Colville River Delta. The landscape is comprised of flat tundra, low dwarf vegetation, shallow lakes and ponds, and palustrine and marine/estuarine wetlands resulting from poorly drained soils. As is typical on the North Slope, the project area is located on permafrost where the subsurface is perennially frozen.

3.0 PROJECT OVERVIEW

3.1 Project Purpose and Need

The placement of gravel at DS-3T and construction of pipelines from DS-3T to DS-3S will support the production of oil from the Moraine Reservoir within the Torok formation. The Project will provide safe, efficient, and reliable surface facilities to develop DS-3T and bring the production of oil online by the second quarter of 2025. When it is commissioned, DS-3T will leverage existing KRU facilities that are currently operational.

The Project will support additional development and production petroleum reserves within the KRU Oil & Gas unit. The proposed project will serve to offset declining production from the Alaska North Slope and maintain throughput of Alaska's Trans-Alaska Pipeline System. Development will provide benefits to local, state, and national economies by creating local-hire jobs during construction and operation, tax revenues, royalties, and new resources to help meet the country's domestic energy demand.

Although hydrocarbon production is not a water-dependent activity, virtually all land on the North Slope of Alaska's coastal plain is jurisdictional wetlands as defined by 33 Code of Federal Regulation 328.3(b).

3.2 Project Summary

CPAI proposes to place 52,200 cubic yards (cy) of material (clean gravel fill, clean gravel bag erosion protection, and sand slurry) onto 3.73 acres of wetlands, to expand the southeast side of the existing DS-3T gravel pad and anchor the side slopes of the expansion, widen the 2.9-mile DS-3T access road and expand the access road intersection near DS-3S for module transport, and to construct pipelines supported by common vertical support members (VSM). The Project will be connected to and supported by the existing KRU infrastructure through approximately 3 miles of new pipelines routed from the DS-3T drillsite to DS-3S and power supplied via messenger cable connected to new pipelines. See the attached "DS-3T Pipeline Construction, Road and Pad Expansion" drawings for specific fill requirements and acreage for project components.

DS-3T was originally permitted for up to 50 wells, and CPAI has reconfigured the on-pad facilities to optimize the utilization of space, accommodate a single production module (SPM) and appurtenances, and commence hydrocarbon production. The gravel pad will be expanded by

placing 16,500 cy of clean gravel fill and clean gravel-filled bags for erosion protection onto 1.0 acre of wetlands to allow for safe and efficient access to develop hydrocarbon resources.

In addition to the DS-3T gravel pad expansion, the access road will be widened to accommodate delivery of the SPM and other production facilities and increase vehicle traffic safety from DS-3S to DS-3T by placing 27,000 cy of clean fill onto 2.0 acres of wetlands. Where the DS-3T access road intersects with the DS-3S access road 7,600 cy of clean gravel will be placed on 0.7 acres of wetlands to expand the turn radius of the intersection to accommodate the delivery of the SPM in quarter three of 2024.

The Project will be connected to and be supported by the existing KRU infrastructure through pipelines and a power line (attached to the proposed pipelines via messenger cable) routed from the DS-3T gravel pad to the DS-3S drillsite. The new pipelines will include a 16-inch diameter produced oil (PO) pipeline, an eight-inch diameter water injection (WI) pipeline, and an eight-inch diameter gas injection (GI) pipeline. The pipelines will be installed on approximately 320 VSMs and new horizontal support members (HSM). The HSMs will accommodate space for a future potential pipeline. The power line will be routed to DS-3T via messenger cable attached to the new pipelines, and a pipeline crossing will be installed in the existing DS-3T access road. The pipelines and messenger cable will be installed a minimum of seven feet above the tundra surface, except where the pipelines meet the DS-3T and DS-3S gravel pads and the proposed pipeline crossing.

Existing culverts will be extended at various locations along the existing access road where the road will be widened to maintain surface drainage patterns during construction and operations. Where culvert extensions are not practical, the existing culvert(s) will be removed and replaced with culvert(s) a minimum of 24 inches in diameter.

CPAI proposes to drill up to 29 wells to develop hydrocarbon resources from the existing DS-3T pad. Two existing wells that were drilled and suspended by Caelus and will be plugged and abandoned by CPAI in December 2022. See the attached “DS-3T Pipeline Construction, Road and Pad Expansion” drawings for project summary details.

Table 2 summarizes the initial construction of the DS-3T gravel pad and access road that was previously executed by Caelus as approved by POA-2005-01295-M6.

Table 2: Existing Infrastructure

Activity	Area (Acres)	Description
DS-3T Gravel Pad	19.6	2.3 miles north of DS-3S, connected by road, within the Kuparuk River field.
DS-3T Access Road	21.0	Gravel road connecting DS-3T and DS-3S
Wells	N/A	2 suspended on-pad wells

Table 3 summarizes the proposed gravel pad expansion, access road widening, and the proposed pipelines with VSMs.

Table 3: Proposed Project Summary

Activity	Area (Acres)	Description
DS-3T Gravel Pad Expansion	1.0	Expand gravel pad and install erosion protection to accommodate support infrastructure
DS-3T Access Road Widening	2.0	Widening of gravel road for safe module transport
Access Road Intersection Expansion	0.7	Widening of the intersection of DS3T and DS3S Access Roads for safe module transport
Pipeline VSMs	0.03	Sand slurry back-fill
Pipeline Road Crossing Installation	—	Install casings to accommodate pipelines and power routed between DS-3T and DS-3S
Culvert Extension	—	Extend culverts along access road at road-widening locations
Drill Wells	—	Drill 29 of the 50 wells previously approved.
Total Acres	3.73	

4.0 PROJECT SCHEDULE

Development activity for the Project is planned to begin as early as August 2023. Drilling activities will begin in Q4, 2024 and extend through 2027 with first oil anticipated in Q2, 2025. The DS-3T gravel work will begin in August 2023 and will include pipeline casing installations, and the SPM will be delivered in the summer of 2024. Pipelines will be constructed starting in November 2023 and pipeline hydrostatic testing will commence in August 2024. Drilling and completion activities will be conducted from October 2024 through 2027. Table 4 below summarizes the project schedule details.

Table 4: Estimated Project Schedule

Timeframe	Project Activity
Q3-Q4 2022	Submit permit applications and supporting documents
Q4 2022	Plug and abandon existing suspended wells
Q3 2023 – Q2 2024	Gravel mining, gravel pad expansion, access road widening, culvert extensions, and intersection expansion
Q4 2023 – Q2 2024	Ice road and ice pad construction
Q4 2023 – Q2 2024	Pipeline construction
Q4 2023 – Q2 2024	Pipeline crossing (casing installation)
Q1 2024 – Q1 2025	Drill site facilities construction
Q3 2024	SPM Sealift & transport to DS-3T
Q3 2024	Pipeline tie-ins
Q3 2024	Pipeline hydrostatic testing
Q4 2024 – Q4 2027	Drilling and completion activities
Q2 2025	First oil

As detailed design progresses, the project construction and drilling schedule may be modified. The placement of gravel for the 1.0-acre gravel pad expansion, the 2.0-acre road widening, and the 0.7-acre intersection expansion is planned to be completed in one construction season to

minimize safety risks and gravel mining impacts associated with a multi-year expansion. VSM installation and pipeline installation is also scheduled to be completed in one construction season. Workover operations will occur intermittently throughout the life of the field.

5.0 TEMPORARY AND PERMANENT IMPACTS TO WETLANDS

The proposed pad expansion will result in unavoidable temporary impacts and permanent impacts to jurisdictional wetlands located within the project area. Temporary impacts include increased turbidity and sediment. The permanent impacts would affect a total of 1.0 acre of jurisdictional wetlands for the proposed gravel pad improvements, 2.7 acres of jurisdictional wetlands for the proposed road improvements, and 0.03 acres of jurisdictional wetlands for back-filling VSMs. Table 5 lists the project footprint quantities and fill requirements to Waters of the United States (WOUS).

Table 5: Footprint of Project Components and Fill Requirements to WOUS

Component	Fill Type	Footprint (acres)	WOUS Footprint (acres)	Fill Quantity (cy)	Notes/Assumptions
DS-3T Gravel Pad Expansion	Gravel/gravel erosion protection	1.0	1.0	16,500	Based on a minimum pad thickness of 5 feet with 2H:1V side slopes.
DS-3T Access Road Widening	Gravel	2.0	2.0	27,000	Based on a minimum pad thickness of 5 feet with 2H:1V side slopes.
DS-3T Access Road Intersection Expansion	Gravel	0.7	0.7	7,600	Based on a minimum pad thickness of 5 feet with 2H:1V side slopes.
Pipeline VSMs	Sand slurry	0.03	0.03	1,100	Approximately 320 off-pad VSMs
Totals	Gravel	3.7	3.7	51,100	
	Sand slurry	0.03	0.03	1,100	
	Total fill	3.73	3.73	52,200	

6.0 PROJECT COMPONENTS

6.1 Existing Project Components

The existing DS-3T gravel pad currently consists of the following components:

- 19.6-acre gravel pad with erosion protection
- 2.9-mile grave access road
- 2 existing wells drilled and suspended by the previous permittee

6.2 DS-3T Proposed Project Components

CPAI proposes to construct and install the following Project components:

- 1.0-acre gravel pad expansion of DS-3T
- 2.0-acre gravel access road widening improvements between DS-3T and DS-3S
- 0.7-acre access road intersection expansion near DS-3S

- 16-inch PO pipeline
- 8-inch WI pipeline
- 8-inch GI pipeline
- New VSMs and HSMs to support three pipelines and a messenger cable with additional space for a future pipeline
- Road crossing for pipelines and power
- Culvert extensions
- 29 new wells and wellhead shelters (including 54 mouseholes to support drilling)

6.3 Proposed DS-3T Gravel Pad Expansion and Drillsite Components

The proposed 1.0-acre gravel pad expansion will be constructed with clean gravel and will have an average pad thickness of five feet from the tundra surface with side slopes of 2 feet of horizontal (H) width to 1 foot of vertical (V) height (2H:1V) in most areas. The *Kuparuk Storm Water Pollution Prevention Plan* (SWPPP) will be amended to include DS-3T construction and management of the expanded gravel pad drainage. See the attached "DS-3T Pipeline Construction, Road and Pad Expansion" drawings for details.

The proposed gravel pad expansion is sized and designed to provide adequate space for drillsite facilities, valve shelters, rig movement, drilling material storage, and well work equipment. A total of 29 wells are planned for the Project, and thermosyphons will be installed directly behind the wells to protect the on-pad pipe rack VSMs.

Processing of production fluid beyond routine well testing and heating of process fluids is not planned at DS-3T. DS-3T drillsite facilities may include the following components and equipment, and additional tools and equipment necessary for safe and effective operations:

- Chemical injection module (including tanks within module, containment, and exterior tank fill connection
- Chemical, drilling and production fluid storage with containments and truck loading areas (as required for bulk loading and unloading)
- Chemical storage tank platform
- Construction Camp
- Construction trailers and offices
- Drill rigs and all ancillary components
- Emergency shutdown module
- Envirovac
- Equipment and material storage
- Fuel gas conditioning module and skid
- Lighting as needed near the well rows
- Pig launching/receiving module
- Production heater and appurtenances
- Production heater skid
- Remote electrical and instrumentation module
- Single Production Module (SPM)
- Switchgear platform
- Transformer platforms
- Utility terminals

- Valves shelter platform
- VSMs (on-pad to support piping and facilities)
- Well houses and well laterals

6.4 Power Source and Communications

Power will be supplied to DS-3T from the DS-3S 34.5kV transmission line. Power from DS-3S to DS-3T will be suspended from the DS-3T pipelines via messenger cable.

6.5 Material Site

A total of approximately 52,200 cy of clean gravel, sand and slurry material will be required to fill 3.73 acres of WOUS for this project. Materials will be sourced from existing permitted sources within KRU and will be hauled to the project area on the existing Kuparuk River field road system. Material collection and placement is planned to be completed in one construction season.

6.6 Camp Requirements

A temporary construction camp will be located on the DS-3T gravel pad. The camp will accommodate up to 140 beds and will be placed on the southwest portion of the existing gravel pad. The camp will support the housing of construction workers and ice road crews during the Project's construction phase. Drilling operations will be supported by drill rig camps. During operations, personnel will be housed at the existing Kuparuk Operations Center (KOC) and Kuparuk Industrial Center (KIC) camps. Table 6 provides details for camp requirements to support construction, drilling, and operations.

Table 6: Camp Use

Project Phase	Camp	Location	Schedule of Use
Construction	Temporary Camp	DS-3T	Q2 2023 – Q1 2025
Drilling	Drill rig camp(s)	DS-3T	Q4 2024 – Q4 2027
Operations	KOC and KIC	Central Processing Facility 1	Q2 2025 – end of field life

6.7 Office Requirements

Construction office trailers and break shacks will be on site during construction and may be onsite intermittently to support drilling and operations activities.

6.8 Water Use Requirements

Freshwater will be required to support the Project during construction, drilling, and operations phases. Freshwater will be used to supply potable water for the construction and drilling camps. Additional freshwater withdrawals from local permitted lakes will be needed during pipeline construction (ice road and ice pad construction and maintenance, hydrostatic pipeline testing), for drilling support, and during operations (dust suppression). Water will be withdrawn from local permitted lakes with water withdrawal authorizations including water rights, temporary water use authorizations, and where necessary, fish habitat permits.

7.0 ICE CONSTRUCTION

A combination of project-specific ice features will be constructed, maintained, and utilized to construct the new pipelines across tundra to the DS-3T drillsite. Freshwater will be required for the construction and maintenance of ice roads and pads.

8.0 DRILLING

Drilling is planned to begin in October 2024. Drilling and completion activities will occur from October 2024 through 2027, until all planned wells are completed. Drill rig engines will be powered by ultra-low sulfur diesel and drill rig boilers and heaters will be operated by low end point diesel prior to the commissioning of the new power line routed to DS-3T via messenger. Once the powerline is commissioned drill rig engines will be operated by shore power generated at Central Processing Facility 3 and ultra-low sulfur diesel fuel will be available for back-up.

9.0 FLUID STORAGE

Diesel may be stored on site during drilling and construction operations. Other fluid storage during the operations phase includes drilling wastes such as cuttings, mud, and other hydrocarbon products, corrosion inhibitor, scale inhibitor, emulsion breaker, foam inhibitor, surfactant, methanol and glycol. Fluids used in well drilling, workovers, treatments, and associated operations will be stored at DS-3T as well as other locations in the Greater Kuparuk Area.

Secondary containment for single-wall storage tanks with a capacity of 55 gallons or more will be large enough for the contents of the largest tank in the containment with additional capacity to allow for local precipitation. Double-walled storage tanks will be designed to contain a leak and will utilize a system to prevent a discharge resulting from overfill. Double-walled fuel storage tanks with a capacity of 660 gallons or more will be located within a lined dike or otherwise covered by a local waiver of lined dike requirements. Manifold tanks without isolation valves will be treated as a single tank for calculating secondary containment requirements.

Oil storage will comply with state and federal oil pollution prevention requirements, according to the *Kuparuk Oil Discharge Prevention and Contingency Plan* (ODPCP) and *Spill Prevention, Control, and Countermeasure (SPCC) Plan*. Secondary containment for oil storage tanks will be sized appropriately to the container type and according to governing regulatory requirements in 18 Alaska Administrative Code 75 and 40 CFR 112.

10.0 CONTINGENCY PLANS

CPAI will amend, as needed, the existing *Kuparuk ODPCP* and *Kuparuk SPCC Plan* to address operation of the expanded DS-3T drillsite. The *Kuparuk ODPCP* complies with State of Alaska requirements in Alaska Statute 46.04.030, 18 AAC 75, United States Environmental Protection Agency (EPA) regulations in 40 CFR 112.20. The *Kuparuk SPCC Plan* complies with Federal US EPA regulations in 40 CFR 112.

The intent of the ODPCP and SPCC Plan is to demonstrate CPAI's ability to prevent facility oil spills from entering the water and land and to ensure effective response in the event of an accidental release.

10.1 Spill Prevention Measures

CPAI provides regular training for its employees on the importance of preventing oil spills, hazardous substances spills, and spill reporting. CPAI provides new-employee orientation, annual environmental training seminars, and annual training for oil handling personnel on ODPCP and SPCC Plan requirements. CPAI employees participate in frequent safety meetings to address spill prevention and response issues as appropriate. The CPAI Incident Management Team also participates in regularly scheduled training programs and conducts spill response exercises in coordination with local, state and federal agencies.

CPAI conducts ground-based and aerial examinations of pipelines and facilities. Aerial surveillance is often aided by aircraft-mounted infrared technology. Infrared technology makes it possible to identify spills based on the temperature signature resulting from the release of warm fluid. The infrared technology can detect heat in darkness or when other circumstances such as fog or drifted snow limit visibility.

10.2 State Spill Response Plan

CPAI has implemented an oil spill contingency plan designed to minimize accidental oil spill impacts. The existing Alaska Department of Environmental Conservation (ADEC) approved *Kuparuk ODPCP* will be amended, as needed, to address the expanded DS-3T drillsite. As demonstrated by the *Kuparuk ODPCP*, CPAI will ensure that readily accessible inventories of appropriate oil spill response equipment and personnel in the Greater Kuparuk Area (GKA) will be available for use at the drillsite. In addition, the spill response cooperative, Alaska Clean Seas, will act as CPAI's primary response action contractor and will provide trained personnel to manage all stages of a spill response, from containment to recovery and cleanup.

10.3 Federal SPCC Plan

The *Kuparuk SPCC Plan* has been established in accordance with federal regulations and describes CPAI's spill prevention programs in place to minimize the potential for oil discharges at KRU facilities. This plan will be updated, as needed, to address the expanded DS-3T drillsite. In addition, the existing *Kuparuk ODPCP* serves as the EPA-approved SPCC Facility Response Plan and demonstrates that CPAI's capability to respond to potential oil spills entering the water and land and to ensure rapid response in the event of an accidental release.

10.4 Subsidence Issues

Thermosyphons will be installed directly behind the wells to protect the on-pad pipe rack VSMs.

11.0 EROSION CONTROL

The existing L-shaped DS-3T gravel pad is designed and orientated to withstand a 100-year flood event. Additionally, the side slopes are armored with clean gravel filled bags, each containing four cubic yards of clean gravel to protect the pad against erosion. See the attached "DS-3T Pipeline Construction, Road and Pad Expansion" drawings for erosion control placement details.

The proposed project will continue to follow the *Kuparuk SWPPP*, which will be updated to include the expanded DS-3T gravel pad. This plan outlines procedures for operation, monitoring, and maintenance of various erosion control methods. Erosion control in the GKA is accomplished using a combination of engineering and physical armor methods.

12.0 SNOW REMOVAL

A snow removal plan will be drafted for DS-3T. GKA standard operation procedures require the use of snow blowing equipment that minimizes gravel carryover to the tundra. Snow removal plans require placement of cleared snow in designated snow push areas.

13.0 WASTE DISPOSAL

13.1 Wastewater

Sanitary waste generated from the construction and drilling camps will be hauled to the wastewater treatment facility at KOC. The treated wastewater will be hauled to and disposed of at an existing approved disposal site as per the regulations.

13.2 Solid Waste

Food waste will be placed in a municipal solid waste dumpster equipped with a cage and door to prevent wildlife access. The food waste will be transported to the Oxbow Landfill. Other non-hazardous solid waste will be recycled or transported to the Oxbow Landfill. Hazardous or solid waste associated with the Project will be managed in accordance with the ADEC and EPA regulations.

Drilling waste (muds and cuttings) will be disposed of onsite through annular disposal or transported to an approved Class II disposal well such as the Kuparuk disposal wells at Drill Site 1B. Permanent reserve pits are not required. Waste materials generated from well work will be managed according to the *Alaska Waste Disposal and Reuse Guide*. Produced water will be processed and re-injected to the subsurface or in certain situations, disposed of through an approved disposal well.

14.0 AIR EMISSIONS

Drilling will be conducted under the existing KRU Minor General 2 Permit AQ1015MG201P or other portable oil and gas operation permitting mechanisms. No additional permitting actions are anticipated for construction support, well installation or operations. Installation of a production heater is planned, and an applicability determination will be completed to determine potential permitting actions. No stationary emission units are anticipated to be added to support the proposed expansion.

15.0 WILDLIFE

CPAI has developed a *Wildlife Avoidance and Interaction Plan* for CPAI's North Slope locations in consultation with state and federal agency representatives to provide guidance to CPAI employees and contractors and assist them in implementing appropriate standardized procedures when wildlife is encountered. CPAI will continue to follow this plan for DS-3T and will update or modify the plan as necessary in consultation with regulatory agencies and the local community. The Nuna project was subject to prior ESA consultation with USFWS (April 18, 2012, Biological Opinion for Nuna POA-2005-1295-M6). The Project activities will be carried out in accordance with the Reasonable and Prudent Measures and Terms and Conditions of that Biological Opinion.

15.1 Endangered Species Act and Marine Mammal Protection Act

Threatened or endangered species that may occur in the DS-3T project area include polar bears (Ursus maritimus), spectacled eiders (Somateria fischeri), and Steller's eiders (Polysticta stelleri). The DS-3T project is located within designated critical habitat for polar bears.

The Project overlaps with preferred spectacled eider nesting habitat, but this habitat is not constrained on the North Slope or in the project area.

Steller's Eiders are extremely rare along the central Beaufort Sea coast where the GKA and DS-3T are located. Breeding distribution in Alaska is primarily near Utqiaġvik, although the historical range included the entire Arctic Coastal Plain of Alaska (Quakenbush et al. 2002). In the last 22 years, Steller's Eiders have been sighted 3 times on the Colville delta (1995 [J. Bart, Boise State University, pers. comm.], and 2001 and 2007 [Johnson et al. 2002, 2008b]), and 5 times in the Greater Kuparuk Area (1995, 2000, 2001, 2007, and 2014 [Anderson et al. 2008; CPAI, unpubl. data]). There are no records of Steller's Eider nests or broods from the Colville River delta or adjacent Kuparuk oilfield areas, including breeding bird surveys conducted by the US Fish and Wildlife Service (USFWS) from 1992 to 2012.[1]

All gravel placement activities for the proposed project would occur outside the bird nesting window (no fill activities will occur between June 1 and July 31) so as to avoid disturbance to any active Steller's or spectacled eider nests. Additionally, off-pad activities are prohibited in the project area during bird nesting season without additional approvals. The low densities of Steller's and spectacled eiders in the proposed project area and the construction schedule will limit the potential for adverse effects from the proposed project on Steller's and spectacled eiders.

Historical surveys have identified zero polar bear dens within 5 miles of the project location. Polar bears are not likely to be adversely affected by the proposed project. Project activities are assessed and conducted in accordance with the Beaufort Sea Incidental Take Regulations and Letters of Authorization for incidental and intentional take issued to CPAI by the USFWS. CPAI's *Wildlife Avoidance and Interaction Plan* contains a Polar Bear Avoidance and Interaction Plan. This plan details information on polar bear interaction procedures, polar bear dens and denning habitat protections, den survey techniques, (including visual and infrared surveys), personnel training, attractant management, best management practices, and work cessation procedures.

16.0 CULTURAL RESOURCES

An archeological field survey, *Cultural Resources Reconnaissance for the Nuna Project, North Slope, Alaska for the Year 2010*, was conducted in 2010 by Reanier & Associates, Inc. prior to initial DS-3T gravel pad construction and no cultural resources were identified in the project area and no previously unknown cultural resources were identified in the Project during the field survey.

Reanier & Associates, Inc. conducted an additional survey of the proposed DS-3T project area in summer 2022 to locate currently unknown sites and drafted a forthcoming letter report stating there are no listed or eligible properties existing in the vicinity of the worksite. Letter reports resulting from surveys include:

[1] References are available upon request.

- Background information on the history of the landscape and human use of the study area since the last ice age,
- Physical descriptions of the area,
- Results of the reconnaissance survey, and
- Conclusions and recommendations for cultural resource clearances.

The records review will include the Alaska Heritage Resources Survey database, maintained by the Office of History and Archaeology within the Alaska Department of Natural Resources (ADNR) and the Traditional Land Use Inventory (TLUI) database, maintained by the NSB.

Cultural resources are not anticipated to be impacted by the proposed project. The USACE, NSB, State of Alaska, and local entities will be notified immediately if prehistoric, historic, or archaeological objects are discovered during construction or operations.

17.0 ALASKA NATIVE HIRE POLICY

CPAI is committed to continuing its partnership with local contractors and businesses in the development of the Greater Kuparuk Area. This gravel will be placed by the existing maintenance contractor work force at Kuparuk. When reasonably foreseeable to do so, CPAI has committed to hire and, where appropriate, to provide training to Kuukpik shareholders, Nuiqsut residents, and Alaska Natives. When appropriate, local resident hire will continue to be coordinated through the Kuukpik employment coordinator to identify and place qualified individuals interested in working on the project. In addition, CPAI and its contractors assist with scholarships, career training, and internship opportunities to further expand local workforce capabilities and ensure that local residents are hired and retained.

18.0 TRAINING

CPAI provides new-employee orientation on health, safety, and environmental issues, annual environmental training seminars, and appropriate certification classes for specific activities including spill prevention and response. All North Slope employees and contractors are required to complete an 8-hour unescorted training program where they receive a North Slope Environmental Field Handbook and an Alaska Safety Handbook. This training emphasizes protection of archaeological and biological resources, avoiding conflicts with subsistence activities, relevant health and safety measures, and project mitigation commitments.

19.0 PERMITS, AUTHORIZATIONS AND APPROVALS

Table 7 provides a summary of permits, authorizations, and approvals that may be required to construct the Project. In some cases, current permits will be amended or modified to incorporate the expansion.

Table 7: Summary of Permits, Authorizations and Approvals

Agency	Permits, Approvals, and Other Requirements
Federal Agencies	
USACE	• CWA Section 404 Permit Modification
EPA	• Reviews during the USACE Section 404 permitting process

Agency	Permits, Approvals, and Other Requirements
	• OPA90 SPCC Plan and Facility Response Plan
USFWS	• Marine Mammal Protection Act Letter of Authorization for Incidental Take of Polar Bears Marine Mammal Protection Act Letter of Authorization for Intentional Take (Deterrence of Polar Bears) • Consultation with USACE under Section 7 of the Endangered Species Act (ESA)/Issuance of Biological Opinion for ESA-listed Species
National Marine Fisheries Service	• Consultation with USACE under Section 7 of the ESA/Issuance of Biological Opinion for ESA-listed Species • Consultation with USACE under the Magnuson-Stevens Fishery Conservation and Management Act for Essential Fish Habitat
State Agencies	
ADNR Division of Mining, Land and Water (DMLW), Northern Region	• Temporary Land Use Permits • Cultural Resource Coordination/Consultation with State Historic Preservation Officer under National Historic Preservation Act Section 106
ADNR DMLW, Water Resources Section	• Temporary Water Use Authorizations • Water Rights
ADNR Division of Oil and Gas (DOG)	• Unit Plan of Operations Amendment Approval
ADNR DOG State Pipeline Coordinators Section	• Pipeline Right-of-way Lease
ADEC	• CWA Section 401 Water Quality Certification • CWA Section 402 Alaska Pollutant and Discharge Elimination System permit • Certificates of Proof of Financial Responsibility – Onshore Production Facility • ODPCP - Amendment • Temporary Storage of Drilling Waste • Temporary Camp Permit
Alaska Department of Fish and Game	• Title 16 Fish Habitat Permits • Public Safety Permits
Alaska Oil and Gas Conservation Commission	• Permit to Drill • Approval for Annular Disposal of Drilling Wastes • Area Injection Order (Class II Disposal) • Conservation Order (Pool Rules) • Well Sundries
Alaska Department of Public Safety, Division of Fire and Life Safety	• Fire and Life Safety Plan Review • Fire Marshal Approval
Local Entities	
NSB	• Iñupiat History, Language, and Culture Division: Traditional Land Use Inventory TLUI Clearance Certificate • Administrative Approvals

DRILLSITE 3T (DS3T) DEVELOPMENT PROJECT MAP

Drillsite 3T (DS3T) Development Project

150°30'0"W
150°0'0"W
70°30'0"N
70°25'0"N
70°20'0"N

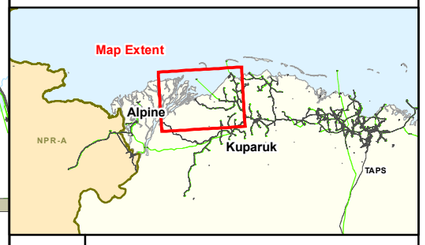
Beaufort Sea
OOOGURUK UNIT
NIKAITCHUQ UNIT
OOOGURUK
OLIKTOK DOCK
OLIKTOK DEW LINE SITE
DS3R
DS3Q
DS3O
DS3M
DS3N
DS3K
DS3I
DS3J
KUPARUK RIVER UNIT
DS3H
DS3A
DS3C
CPF3
DS3B
DS3S
DS3G
DS3F
DS1Q
DS2W
DS2U
DS1Y
DS2X
DS2T
MINE SITE F
DS2V
DS2Z
DS2A
DS3T
Anachlik Island
Nuekshat Island
PIKKA UNIT
QUOKKA UNIT
NAN ND-B
Kupigruak Channel Kuukpigruaq
East Channel Colville River
Kalubik Creek Quluviq
Colville River Kuukpik
Miluveach River

Infrastructure

- Pipeline
- Pad
- Road
- DS3T Location

Boundaries

- Oil and Gas Unit



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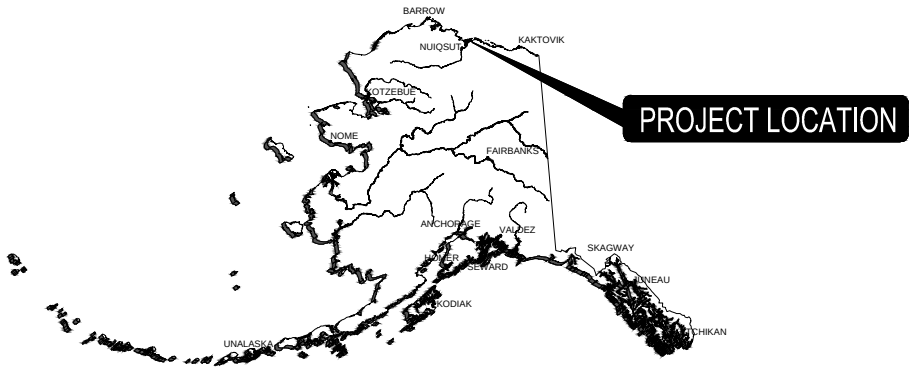
0 1 2 Miles

ConocoPhillips Alaska, Inc.

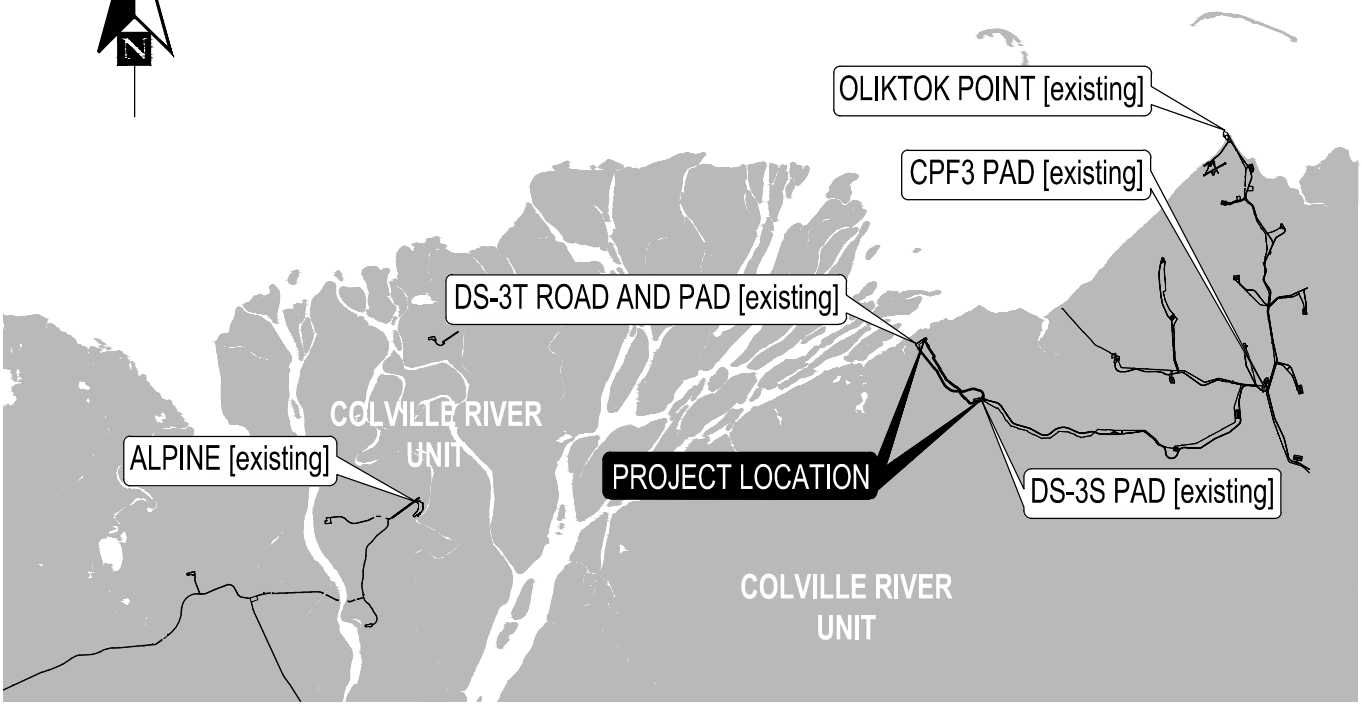
July 21, 2022

Document Name: DS3T_Location.mxd

DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION DRAWINGS



ALASKA VICINITY MAP



DS-3T VICINITY MAP

SCALE IN MILES

3 0 3 6 9

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

PURPOSE:
CONSTRUCT PIPELINE AND EXPAND AN EXISTING GRAVEL ROAD AND PAD FOR OILFIELD DEVELOPMENT

DATUM: BPMSL, NAD83 ASP ZONE 4

REFERENCE: POA-2019-00444

APPLICANT: CONOCOPHILLIPS ALASKA, INC (CPAI)

LOCATION:
T12N R7E AND T12N R8E
UMIAT MERIDIAN

PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION

IN: KUPARUK RIVER UNIT

COUNTY: NORTH SLOPE BOROUGH
STATE: ALASKA

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING LAND AND WATER
3700 AIRPORT WAY
FAIRBANKS, AK 99709
(907) 451-2705
ATTN: NICHELLE JONES

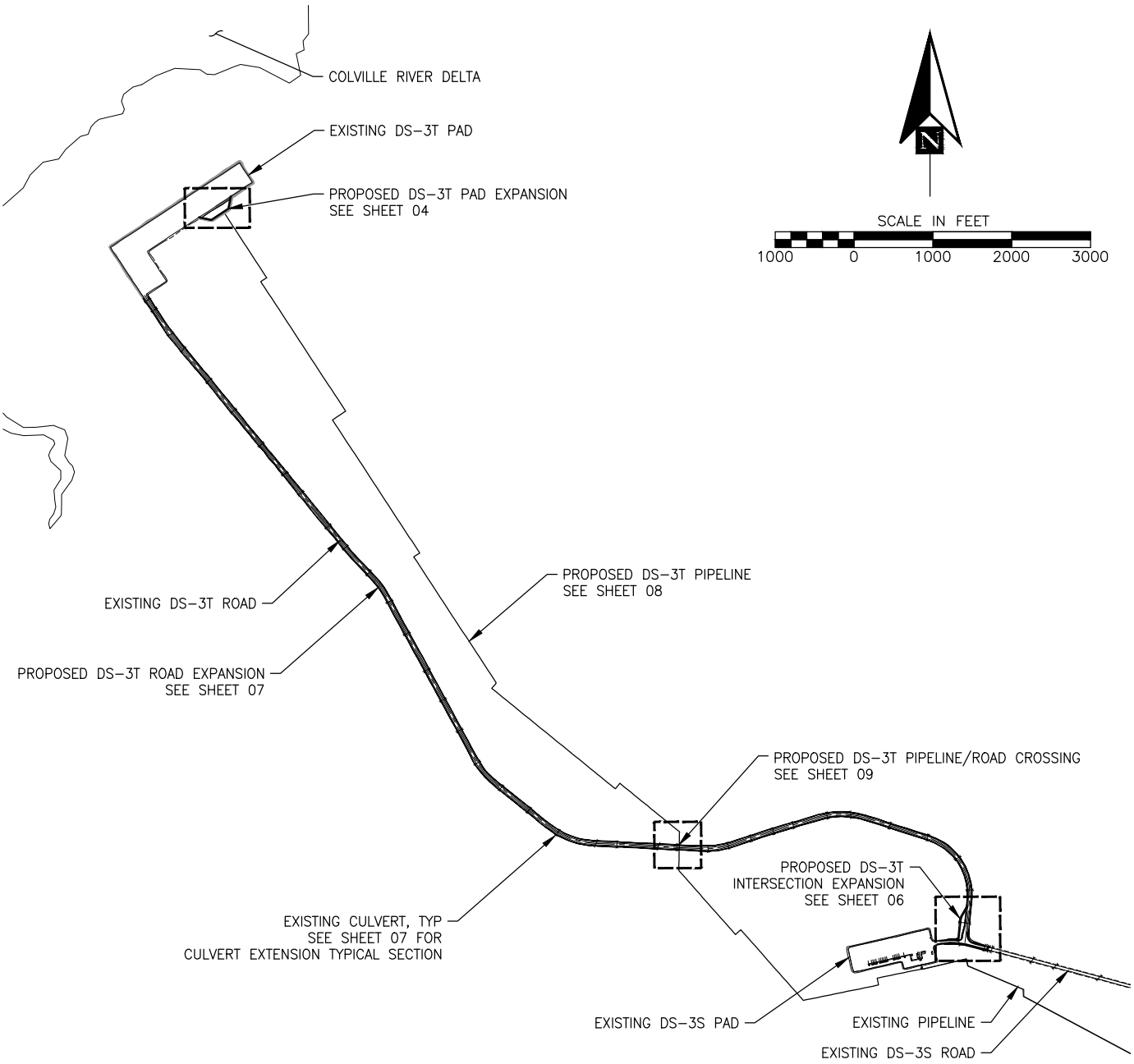
U.S. DEPT. OF INTERIOR BUREAU OF LAND MANAGEMENT
222 W 7th AVENUE #13
ANCHORAGE, ALASKA 99513
907-271-5080
ATTN: BUD C. CRIBELY

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
SHEET **2** of **9** 9/21/2022

ADJACENT LAND OWNERS



DS-3T FACILITIES OVERVIEW PLAN

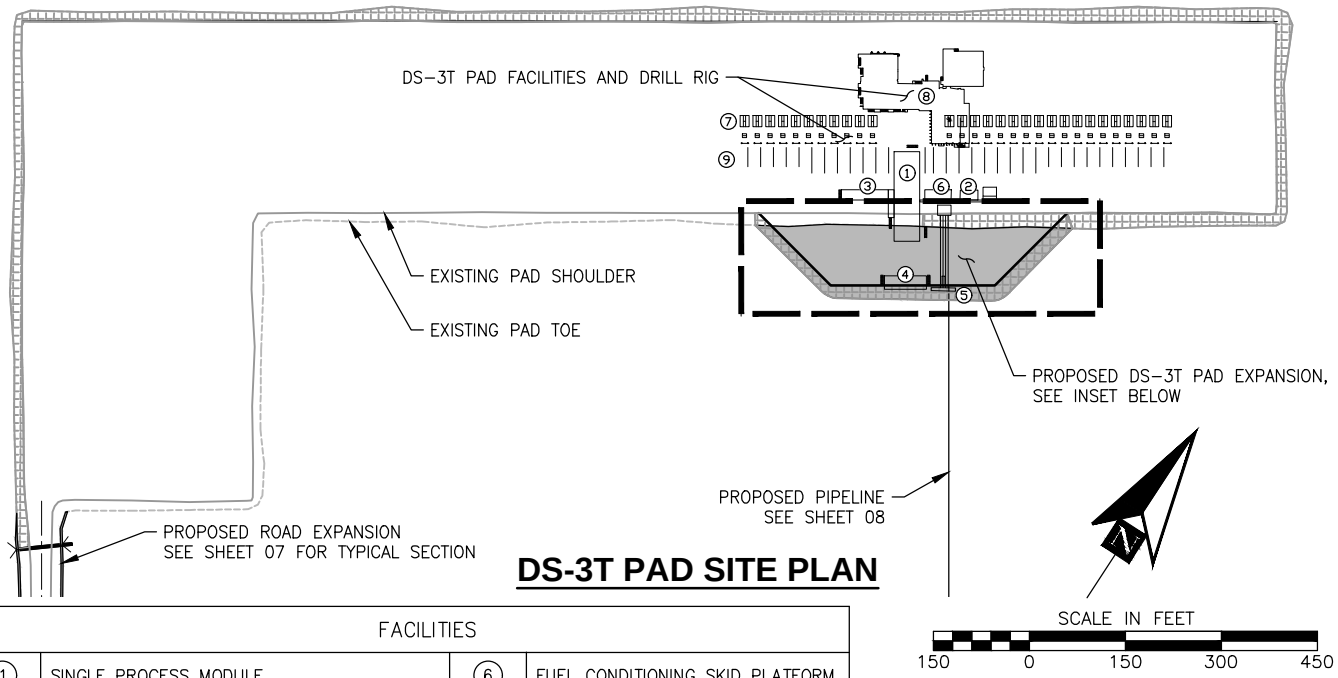
DS-3T FACILITY QUANTITIES	
DS-3T ROAD LENGTH	2.9 MILES
DS-3T ROAD EXPANSION FOOTPRINT	2.0 ACRES
ROAD EXPANSION FILL QUANTITY	27,000 CY
DS-3T PAD EXPANSION FOOTPRINT	1.0 ACRES
PAD EXPANSION FILL QUANTITY	16,500 CY
DS-3T INTERSECTION EXPANSION FOOTPRINT	0.7 ACRES
INTERSECTION EXPANSION FILL QUANTITY	7,600 CY
PIPELINE VSM COUNT	320
PIPELINE VSM FOOTPRINT	0.03 AC
PIPELINE SLURRY VOLUME	1,100 CY
TOTAL PROJECT FOOTPRINT	3.73 ACRES
TOTAL PROJECT FILL QUANTITY	52,200 CY

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

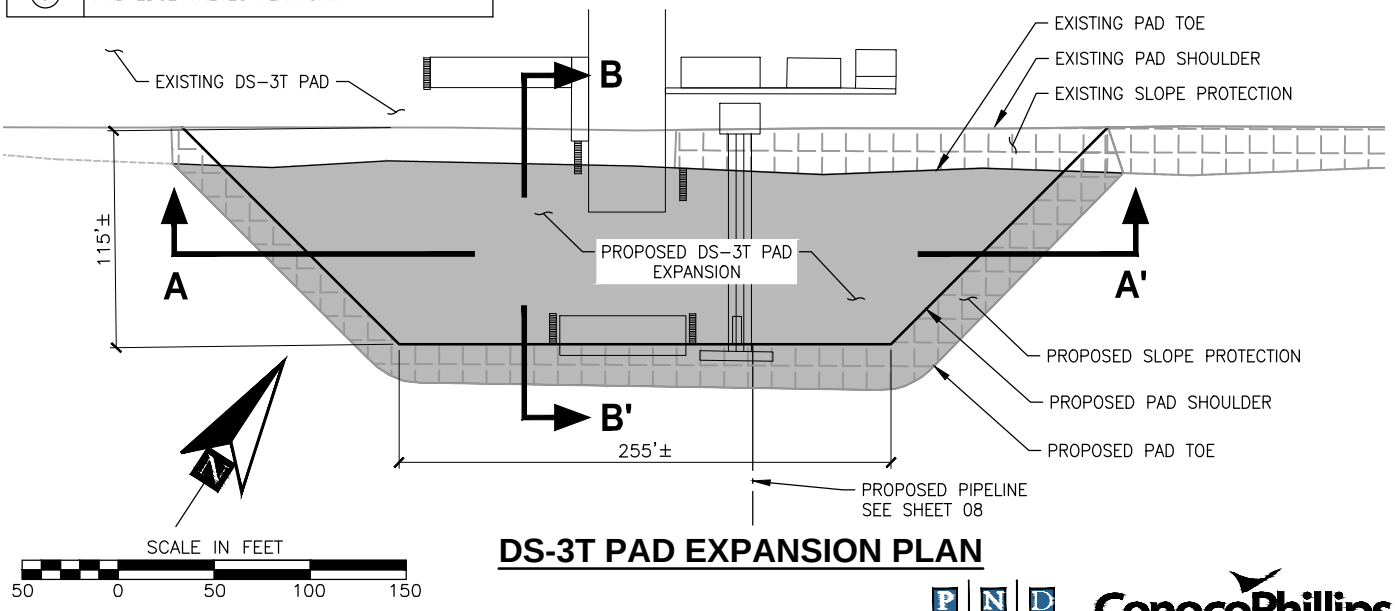
REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

 9/21/2022



DS-3T PAD SITE PLAN

FACILITIES			
①	SINGLE PROCESS MODULE	⑥	FUEL CONDITIONING SKID PLATFORM
②	PRODUCTION HEATER SKID W/ BURNER HOUSE	⑦	WELL HOUSES
③	CHEMICAL TANK PLATFORM	⑧	DRILL RIG
④	SWITCHGEAR PLATFORM	⑨	HSM's
⑤	PAD EDGE VALVES PLATFORM		



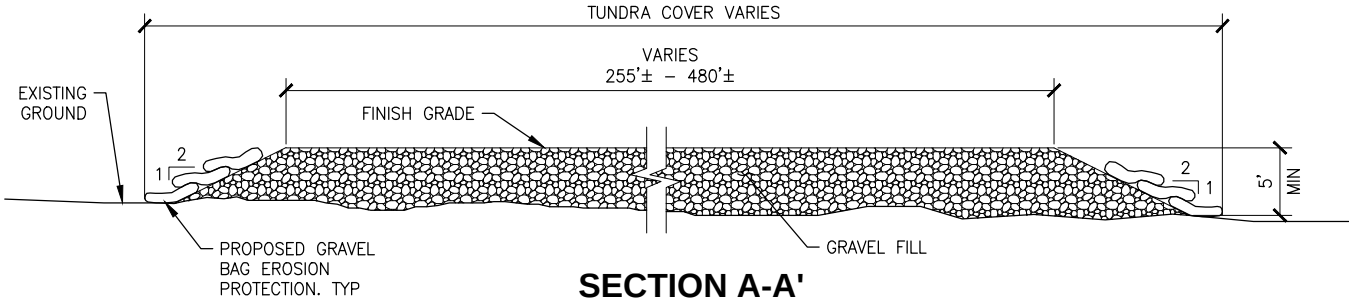
DS-3T PAD EXPANSION PLAN

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

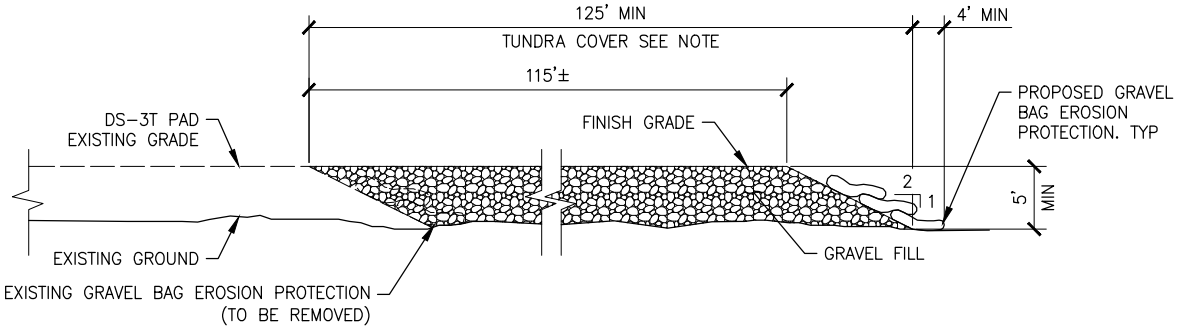
REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
SHEET **4** of **9** 9/21/2022

DS-3T PAD EXPANSION PLAN



SECTION A-A'
PAD EXPANSION LONGITUDINAL SECTION

NTS



SECTION B-B'
PAD EXPANSION TRANSVERSE SECTION

NTS

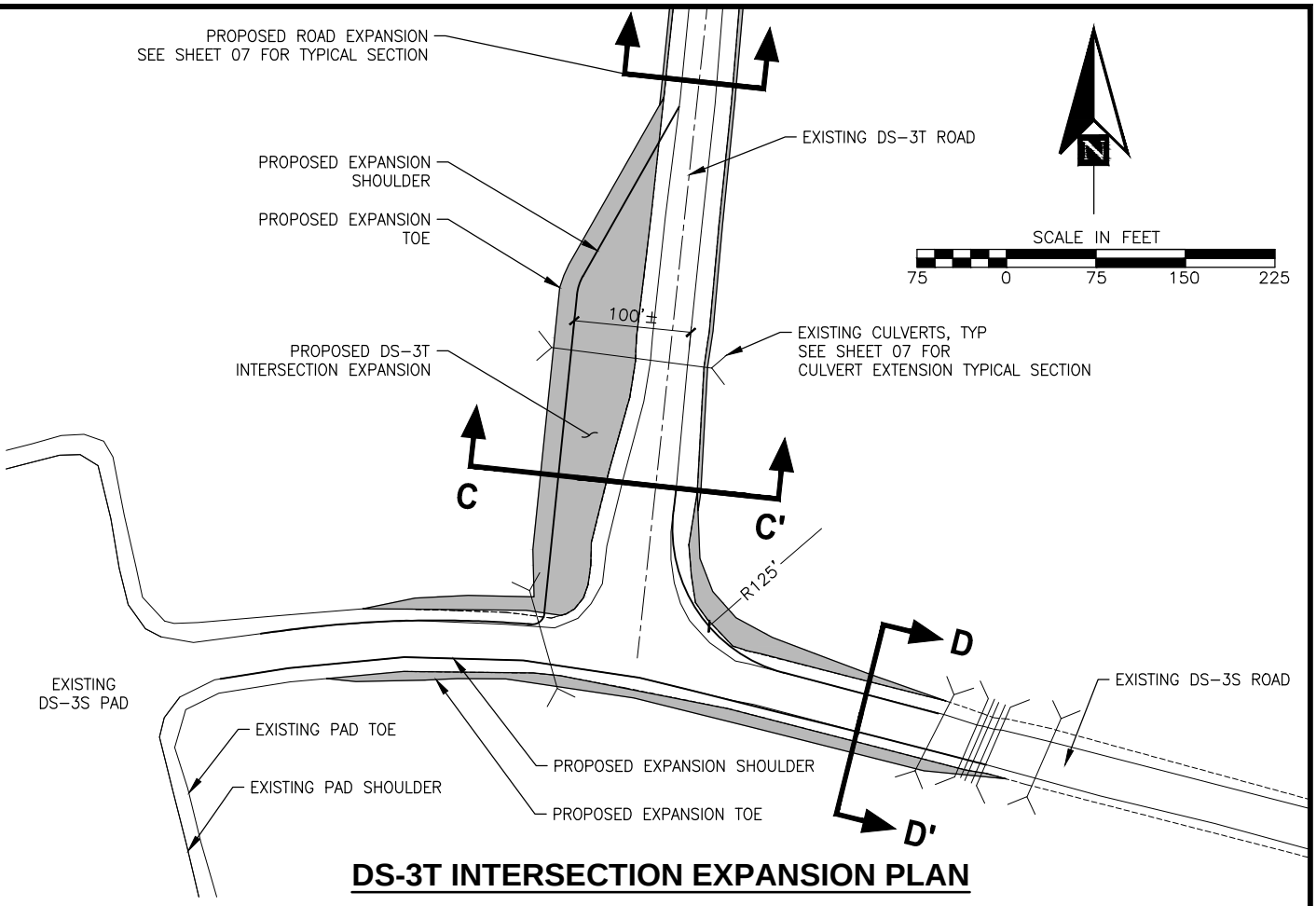
NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND PAD ELEVATION.

PND ENGINEERS, INC.

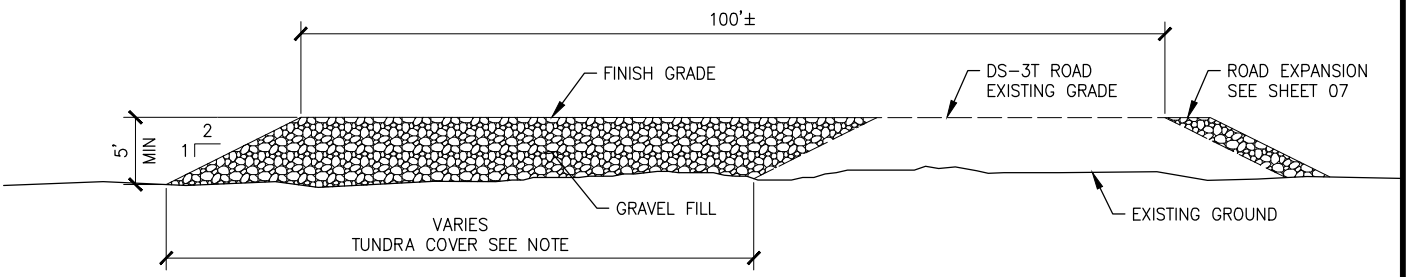
ConocoPhillips Alaska, Inc.

REFERENCE: POA–2019–00444
APPLICANT: CPAI
PROPOSED: DS–3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA
SHEET **5** of **9** 9/21/2022

DS-3T PAD EXPANSION SECTIONS

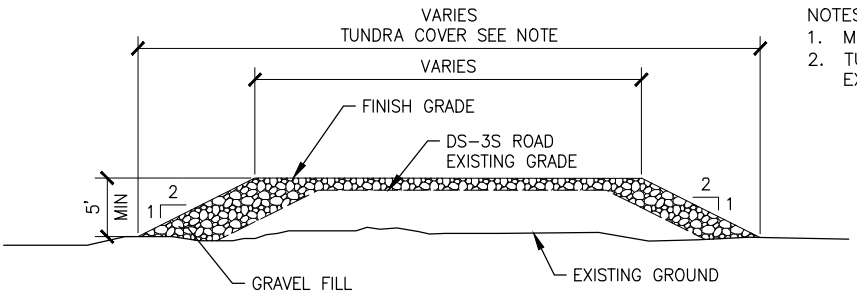


DS-3T INTERSECTION EXPANSION PLAN



SECTION C-C' INTERSECTION EXPANSION

NTS



SECTION D-D' INTERSECTION EXPANSION

NTS

NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.

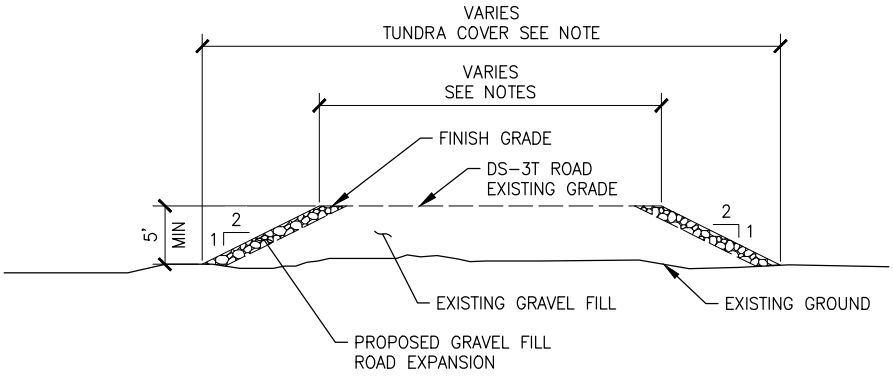
PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

DS-3T INTERSECTION EXPANSION PLAN AND SECTIONS

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

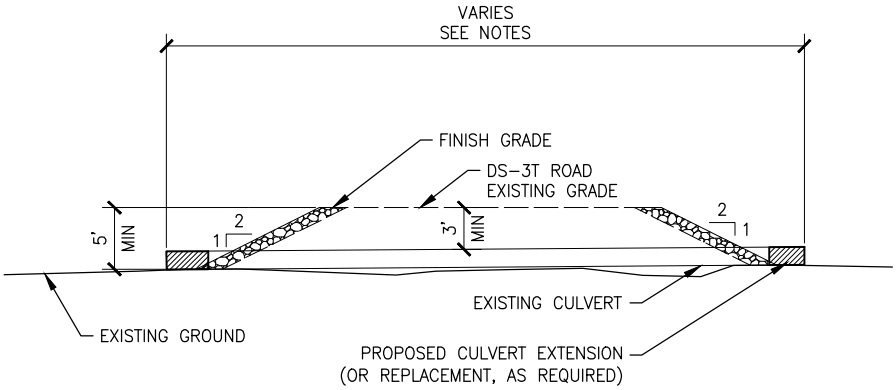
9/21/2022



ROAD EXPANSION TYPICAL SECTION

NTS

NOTES:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.
3. GRAVEL EXPANSION FOOTPRINT MAY OCCUR ON BOTH SIDES OF THE ROADWAY, AND IN SOME INSTANCES, ONLY ON ONE SIDE OF THE ROADWAY (IN ORDER TO MINIMIZE GRAVEL FILL, FILL FOOTPRINT, AND IMPACTS TO DRAINAGES).
4. NEW ROAD CENTERLINE MAY NOT ALIGN WITH EXISTING ROAD CENTERLINE.



CULVERT EXTENSION TYPICAL SECTION

NTS

NOTES:
1. CULVERT LENGTHS/EXTENSIONS ARE SPECIFIC TO EACH CULVERT LOCATION, DEPENDING ON TOPOGRAPHY, ROAD HEIGHT, AND CULVERT SKEW ANGLE.
2. CULVERT EXTENSIONS MAY BE REQUIRED ON ONE OR BOTH SIDES OF THE ROAD.
3. IF CULVERT EXTENSION IS NOT PRACTICAL, THE EXISTING CULVERT WILL BE REMOVED AND REPLACED.

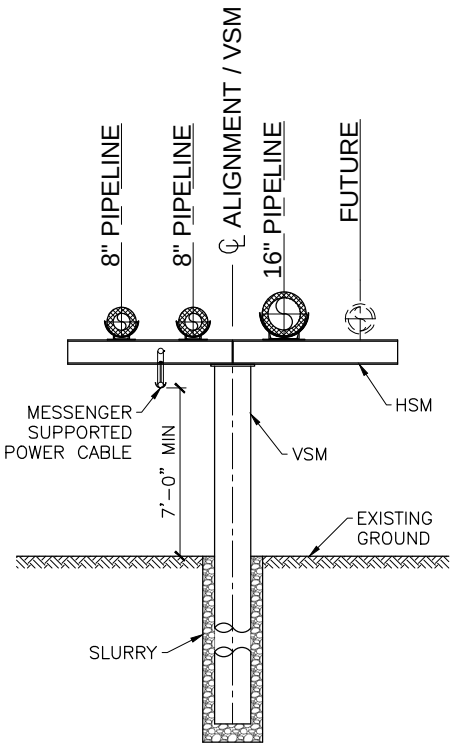
PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

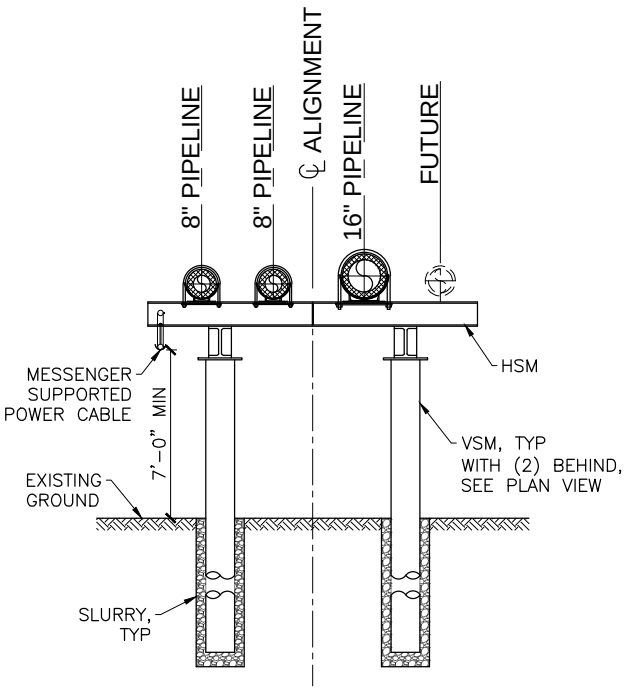
DS-3T ROAD EXPANSION AND CULVERT EXTENSION TYPICAL SECTIONS

REFERENCE: POA-2019-00444
APPLICANT: CPAI
PROPOSED: DS-3T PIPELINE CONSTRUCTION, ROAD AND PAD EXPANSION
AT: ALASKA

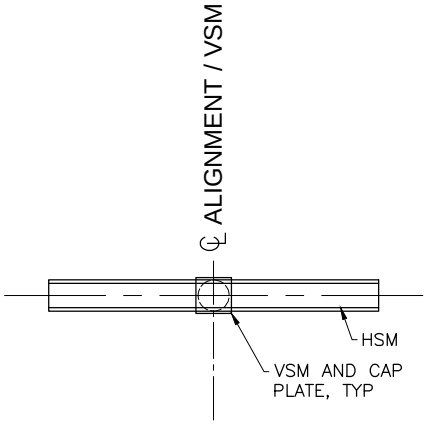
9/21/2022



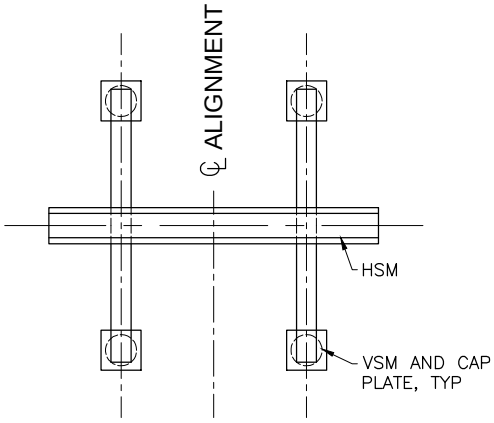
TYPICAL PIPELINE ELEVATION



PIPELINE ANCHOR ELEVATION



TYPICAL PIPELINE PLAN



PIPELINE ANCHOR PLAN

TYPICAL DS-3T PIPELINE DETAILS

TYPICAL DS-3T PIPELINE ANCHOR DETAILS

NOTES:
1. PIPELINE LAYOUTS ARE SCHEMATIC, FOR INFORMATION ONLY. FINAL PIPELINE LAYOUTS WILL BE DETERMINED DURING DETAILED DESIGN.

PND ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

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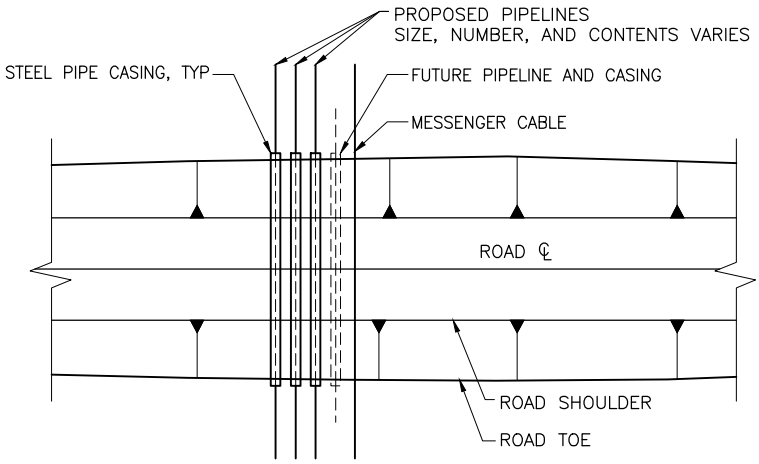
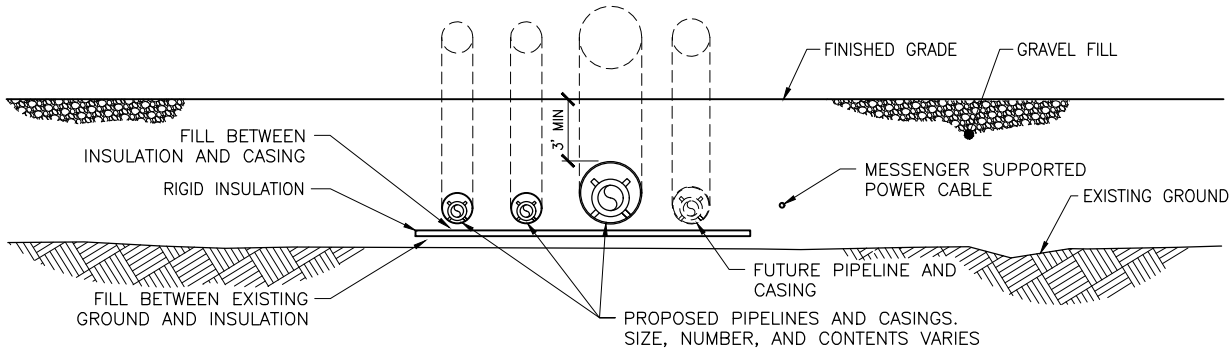
AT: ALASKA
SHEET **8** of **9** 9/21/2022



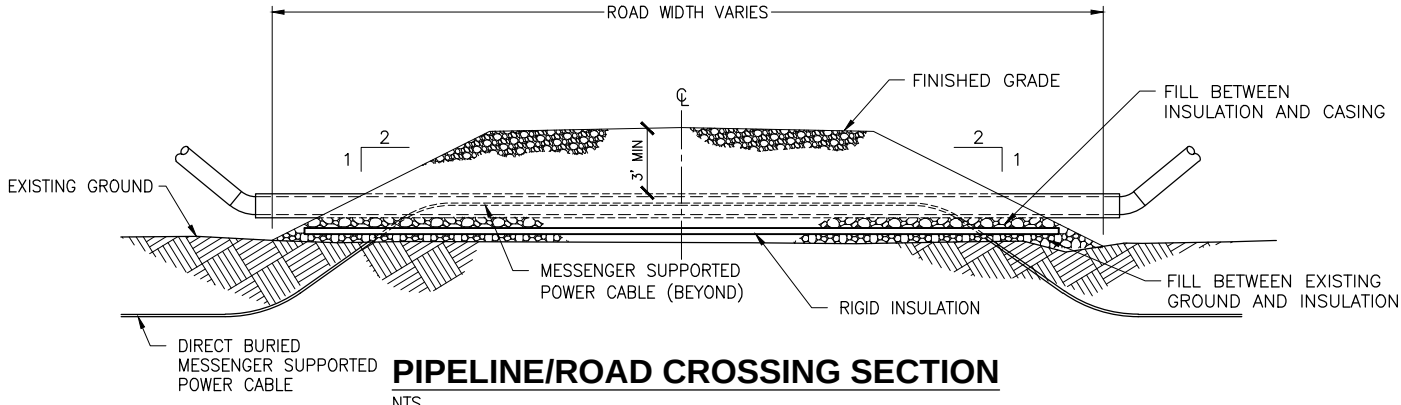
DS-3T PIPELINE/ROAD CROSSING PLAN

NTS



PIPELINE/ROAD CROSSING PROFILE

NTS



PIPELINE/ROAD CROSSING SECTION

NTS

NOTE:
1. MINIMUM GRAVEL DEPTH 5.0' WITH 2:1 FILL SLOPES.
2. TUNDRA COVER (FILL FOOTPRINT) WILL VARY BASED ON EXISTING GROUND TOPOGRAPHY AND ROAD ELEVATION.
3. FINAL ROAD EXPANSION CONDITIONS SHOWN. EXISTING ROAD CONDITIONS (SHOULDER AND TOE) NOT SHOWN FOR CLARITY.

P|N|D ENGINEERS, INC.

ConocoPhillips Alaska, Inc.

REFERENCE: POA-2019-00444
APPLICANT: CPAI
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DS-3T PIPELINE/ROAD CROSSING PLAN AND SECTION

AVOIDANCE, MINIMIZATION, AND MITIGATION STATEMENTS

Applicant Proposed Mitigation Statements

Background:

The U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency issued regulations that govern national compensatory mitigation policy for activities in waters of the U.S., including wetlands, authorized by Corps permits. The final mitigation rule was published in the federal register on April 10, 2008 and became effective on June 9, 2008. The final rule establishes standards and criteria for the use of appropriate and practicable compensatory mitigation for unavoidable functional losses of aquatic resources authorized by Corps permits (33 CFR Part 332). Additionally, the rule requires new information to be included in Corps permit applications and public notices to enable meaningful comments on applicant proposed mitigation. In accordance with 33 CFR Part 325.1(d)(7), "For activities involving discharges of dredged or fill material into waters of the U.S., the application must include a statement describing how impacts to waters of the United States are to be avoided and minimized. The application must also include either a statement describing how impacts to waters of the United States are to be compensated for or a statement explaining why compensatory mitigation should not be required for the proposed impacts." For additional information, the final mitigation rule can be viewed at: http://www.usace.army.mil/cw/cecwo/reg/news/final_mitig_rule.pdf.

Mitigation is a sequential process of avoidance, minimization, and compensation. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. Please provide your proposed avoidance, minimization, and compensatory mitigation below:

Applicant's Proposed Mitigation (attach additional sheets as necessary):

1. Avoidance of impacts to waters of the U.S., including wetlands:

Please describe how, in your project planning process, you avoided impacts to waters of the U.S., including wetlands, to the maximum extent practicable. Examples of avoidance measures include site selection, routes, design configurations, etc...

ConocoPhillips Alaska, Inc. (CPAI) requests authorization to place 52,200 cubic yards of clean gravel fill and erosion protection onto 3.73 acres of jurisdictional wetlands to expand the southeast side of the existing Drill Site 3T (DS-3T) pad and anchor the side slopes of the expansion, widen the 2.9-mile DS-3T access road and expand the access road intersection near Drill Site (DS-3S) for module transport, and to construct pipelines supported by common vertical support members (VSM). The project is designated DS-3T. Support infrastructure includes a pipeline road crossing, culvert extensions, 29 new wells, and drillsite facilities. The purpose of this project is to access the Moraine Reservoir within the Torok formation.

Due to the abundance of wetlands on the North Slope and the project vicinity, avoiding all fill discharges into wetlands is not practicable. Upon approval, some proposed avoidance measures include:

Site Selection

- The project avoids discharge of fill to streams, rivers, lakes, drainages, and ponds.
- The project avoids direct discharge of fill to excluded wetlands
- Fill area boundaries will be clearly delineated to avoid unnecessary impacts during construction from gravel placement and equipment maneuvers.

One-season Construction Phase

- Gravel placement will occur from existing gravel infrastructure.

- Sand/slurry VSM back-fill will occur during the winter when soils are frozen; ice features will be utilized to complete the work.
- Gravel harvest and placement will be conducted in a single construction season to avoid the need for construction of a gravel stockpile pad and to minimize safety risks and gravel mining impacts associated with a multi-year expansion.
- A combination of project-specific ice features and the existing Kuparuk River field road system will be used to transport the gravel and sand/slurry from an existing permitted gravel source in the Kuparuk River Unit to avoid permanent impacts to wetlands.
- Ice features will be built only after the ground surface is sufficiently frozen to support the weight of ice construction equipment without damaging the underlying tundra.
- Ice features will be constructed of at least 6 inches of ice/compacted snow to protect the underlying vegetation and terrain and routed to avoid shrub areas and minimize stream crossings.
- Aerial surveys aided by infrared technology will be conducted to locate and mitigate impacts to maternal polar bear dens prior to construction of ice roads or other off-pad activities.

2. Minimization of unavoidable impacts to waters of the U.S., including wetlands:

Please describe how your project design incorporates measures that minimize the unavoidable impacts to waters of the U.S., including wetlands, by limiting fill discharges to the minimum amount/size necessary to achieve the project purpose.

Practicable minimization measures have been incorporated into the project location and design. Upon approval, some of the proposed minimization measures for both direct and secondary impacts include:

Use of Existing Infrastructure

- Personnel will be housed in existing or temporary camps during construction and in existing camps during operations, eliminating the need to design a larger pad to accommodate the footprint of additional permanent housing.
- Gravel for the project will be purchased from an existing permitted gravel source.
- The project will utilize existing airstrips for transporting equipment and personnel to the area.
- No overhead powerlines will be installed, minimizing the potential for bird strikes.

Design and Erosion Control

- Minimization measures taken as part of the original construction of DS-3T will continue with the proposed project.
    - The gravel pad was designed and oriented to withstand a 100-year flood event.
    - No permanent discharges of drilling waste or domestic wastewater from DS-3T.
- Fill has been minimized to the extent practicable by optimizing design and equipment layout.

- Well conductor piles and thermosyphons around wells may be installed to mitigate heat transfer from wellbore fluids.
- To minimize impacts to nesting birds, discharge of gravel onto tundra will not occur during bird nesting season.
- Additional lighting will be consistent with the original plan for DS-3T which minimizes the impact of the lights on the surrounding environment while meeting legally required codes and regulations. These protocols ensure that radiation of light from drill rigs and infrastructure is reduced by placement and/or shading to direct light inward and downward to minimize light radiating upward and outward.
- Application of dust control measures to roads, pads, and mining activities will occur to protect vegetation.
- Side slopes will be armored in areas deemed necessary by hydrology studies to prevent erosion of the fill material.
- The proposed project will continue to follow the *Kuparuk Stormwater Pollution Prevention Plan.* This plan outlines procedures for operation, monitoring, and maintenance of erosion control methods.

Training

CPAI has an extensive training program for employees and contractors for environmental compliance and safety. The workforce is experienced and familiar with regulatory oversight and performance standards of the North Slope oilfields.

- CPAI employs Field Environmental Coordinators to monitor compliance with permits and CPAI best practices.
- CPAI requires adherence to strict guidelines for travel on ice roads to avoid tundra damage including ice road training, speed and weight limits, and installation of delineators along both sides of the road.
- The CPAI *Wildlife Avoidance and Interaction Plan* will be followed to minimize impacts to wildlife. This plan provides procedures to protect personnel and avoid or mitigate impacts to polar bears, grizzly bears, foxes, and other wildlife.
- CPAI will continue to provide cultural awareness training for all project employees and contractors and prohibit employees in the Greater Kuparuk Area (GKA) from participating in hunting, fishing, and trapping activities while on “work status” to reduce potential for increased competition for subsistence and recreational wildlife resources.

Spill Prevention and Response Planning

- Spill prevention strategies are implemented at GKA, including the use of fuel transfer standard operating procedures, the use of duck ponds or integrated drip pans under motorized equipment, placement of spill response kits at selected locations, training of field staff for spill response, and use of a spill response Incident Management Team with spill responders on call at all times.
- CPAI maintains membership in the Alaska Clean Seas spill response cooperative and is a member of the North Slope Operators Mutual Aid Agreement to provide readily available equipment and trained personnel to effectively respond to spills.

- Fluid transfer is conducted in accordance with the existing North Slope Fluid Transfer Standard Operating Procedure.

3. Compensation for unavoidable impacts to waters of the U.S., including wetlands:

Please describe your proposed compensatory mitigation to offset unavoidable impacts to waters of the U.S., or, alternatively, why compensatory mitigation is not appropriate or practicable for your project. Compensatory mitigation involves actions taken to offset unavoidable adverse impacts to waters of the U.S., including wetlands, streams and other aquatic resources (aquatic sites) authorized by Corps permits. Compensatory mitigation may involve the restoration, enhancement, establishment (creation), and/or the preservation of aquatic sites. The three mechanisms for providing compensatory mitigation are mitigation banks, in-lieu fee of mitigation, and permittee-responsible mitigation. Please see the attached definitions for additional information.

Compensatory Mitigation has been satisfied through an in-lieu fee credit payment to The Conservation Fund on September 12, 2014. Please see the attached payment confirmation email.

Faith Martineau

From: Lina, Julie
Sent: Tuesday, September 16, 2014 8:31 AM
To: Martineau, Faith
Subject: FW: Caelus Nuna Project - Wire Transfer

-----Original Message-----
From: Meiklejohn, Brad [mailto:bmeiklejohn@conservationfund.org]
Sent: Monday, September 15, 2014 2:48 AM
To: Lina, Julie
Cc: Hoffman, Dale; Michiel E Holley
Subject: Re: Caelus Nuna Project - Wire Transfer

Julie,

The Conservation Fund received the wire payment from Caelus Energy as compensatory mitigation for the Nuna Project.

Brad Meiklejohn
Alaska State Director
The Conservation Fund
2727 Hiland Road<x-apple-data-detectors://0/0>
Eagle River, Alaska 99577<x-apple-data-detectors://0/0>
(907) 694-9060<tel:(907)%20694-9060>
www.conservationfund.org<http://www.conservationfund.org/>

On Sep 12, 2014, at 8:24 PM, Bradmeiklejohn <bradmeiklejohn@aol.com<mailto:bradmeiklejohn@aol.com>> wrote:

Will do, Julie, once we see the wire come through.

On Sep 12, 2014, at 7:09 PM, "Lina, Julie" <Julie.Lina@caelusenergy.com<mailto:Julie.Lina@caelusenergy.com>> wrote:

Hi Brad,

I understand Marc Byerly left you as message also regarding the wire transfer completed today for the Nuna Project. We look forward to receiving a confirmation letter from you next week.

Thanks again for your help.

Julie

Julie Lina
Senior Regulatory Coordinator
Caelus Energy Alaska, LLC
700 G St., Suite 600 l Anchorage, AK 99501 Direct 907.343.2106 l Cell 907.440.0270
Julie.Lina@caelusenergy.com<mailto:Julie.Lina@caelusenergy.com>

Please note the new company and email address

_____

_____

Definitions:

Enhancement: the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

In-lieu fee program: a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for DA permits. Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor. However, the rules governing the operation and use of in-lieu fee programs are somewhat different from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu fee program are governed by an in-lieu fee program instrument.

Mitigation bank: a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by DA permits. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

Permittee-responsible mitigation: an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

Practicable: available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Preservation: the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Restoration: the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.