2014 ANNUAL REPORT

STATE PIPELINE COORDINATOR'S OFFICE

STATE OF ALASKA
Bill Walker, Governor

DEPARTMENT OF NATURAL RESOURCES
Mark Myers, Commissioner

The State Pipeline Coordinator's Office Annual Report is available online at http://dnr.alaska.gov/commis/pco.

Copies may be requested from:

State Pipeline Coordinator's Office
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Anchorage, Alaska 99508

Front Cover: Point Thomson Export Pipeline with Central Pad in the background. Photo credit: Graham Smith
Back Cover: Trans-Alaska Pipeline System. Photo credit: Ben Hagedorn

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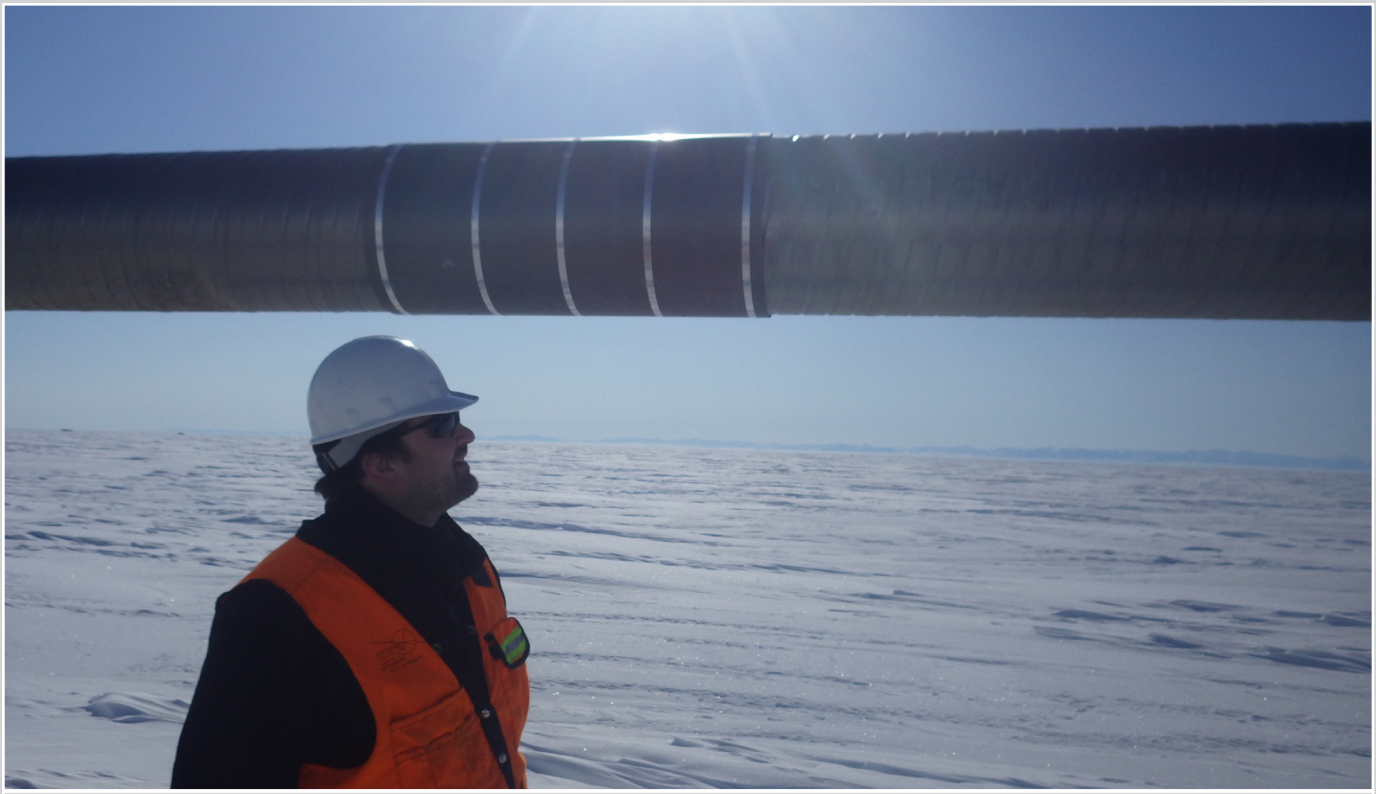
INTRODUCTION TO THE SPCO



The SPCO provides oversight of Alaska Statute 38.35 pipelines in Alaska. SPCO staff spends hundreds of hours each year monitoring pipelines and rights-of-way.

State of Alaska policy mandates that development, use and control of a pipeline transportation system make the maximum contribution to Alaska human resources development, increase the standard of living for all Alaska residents, advance existing and potential sectors of Alaska's economy, strengthen free competition in Alaska's private enterprise system and carefully protect its incomparable natural environment.

The Commissioner of the Department of Natural Resources (DNR) has the authority to issue leases on state land for pipeline rights-of-way to transport products under conditions prescribed by AS 38.35.015 and the associated administrative regulations. The Commissioner delegates the authority and responsibility to administer pipeline right-of-way leases, as allowed by AS 38.35.210, to the State Pipeline Coordinator.

A State of Alaska administrative order established the State Pipeline Coordinator's Office (SPCO) within the DNR and subsequent administrative orders designated the SPCO as the State's lead agency for issuing right-of-way leases under AS 38.35, the Right-of-Way Leasing Act, and coordinating the State's efforts related to the federal right-of-way grant process. The SPCO also coordinates the State's oversight of pre-construction, construction, operation and termination of contract and common-carrier pipelines.

Organization
In addition to right-of-way and lease compliance specialists, engineers and administrative staff, the SPCO includes a representative from the Department of Fish & Game, Habitat Division; safety and electrical inspectors from the Department of Labor & Workforce Development; three representatives from the Department of Environmental Conservation, Spill Prevention & Response and Industry Preparedness programs; and inspectors/building permit reviewers representing the Department of Public Safety, State Fire Marshal's Office.

Right-of-Way Leases
A right-of-way lease includes a wide range of commitments and governs the conduct of both the State and the lessee. A lease remains in effect for the lifetime of the corresponding pipeline and addresses construction, operation, maintenance and termination. The intent of every lease is to preserve human health and environmental stewardship through safe and responsible pipeline operations.

To ensure that all pipeline activities are conducted safely and in compliance with all applicable laws and regulations, each lease incorporates a comprehensive set of stipulations that require conformance to multiple technical, environmental and other important conditions. The stipulations require lessees to establish specific processes, programs and systems to be implemented in all aspects of pipeline operations. When properly administered by the lessee and monitored by the SPCO, the stipulation requirements can effectively ensure the reliable and safe operation of pipeline systems.

The SPCO, in issuing and providing continued oversight of right-of-way leases, strives to limit duplication of efforts while utilizing the expertise of cooperating regulatory agencies. When other state or federal regulatory agencies have jurisdictional authority over certain aspects of pipeline operations, the SPCO will work with the agencies and their respective subject matter experts and regulatory enforcement staff to ensure safe and reliable operations.

Sections Overview
In addition to the liaisons mentioned above, the SPCO is composed of five main sections: administration, lease compliance and monitoring, right-of-way and permitting, special projects and engineering.

ADMINISTRATIVE SECTION

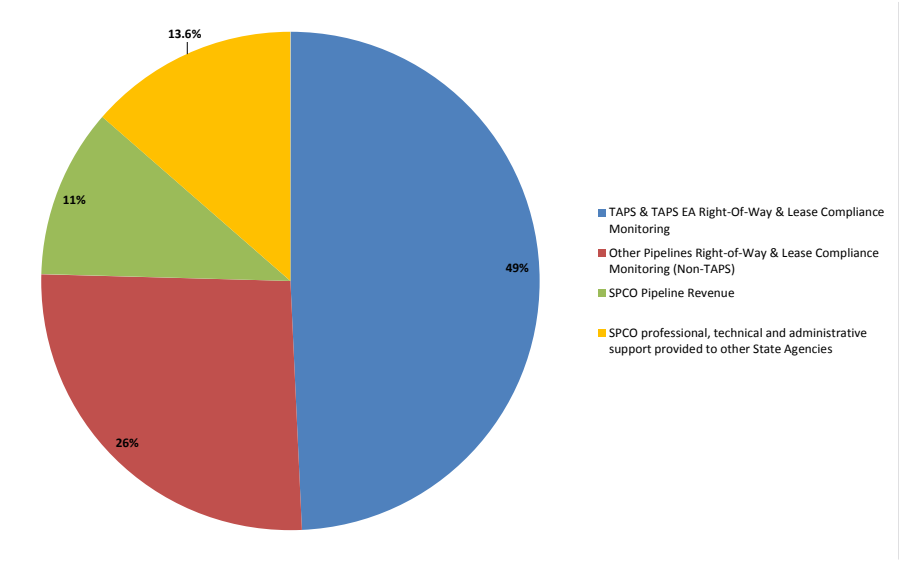
The administrative section performs multiple functions critical to daily office operations. Administrative staff directs, manages and performs all functions relating to personnel, payroll, recruitment, budgeting, grants and contracts, accounting, computer and network maintenance, facility management, property control, procurement and travel. The section processes all incoming and outgoing correspondence and performs document management of right-of-way case files, financial, procurement and other administrative records, including assistance with public records requests. In fiscal year 2014 (FY2014), administrative staff coordinated and finalized more than 95 contracts and agreements. In addition, more than 246 travel arrangements were processed for SPCO compliance and right-of-way specialists to conduct pipeline compliance, assessment and inspection activities.

The SPCO budget is revenue-based and largely funded with reimbursements from industry. State agency representatives are supported through reimbursable service agreements administered by the SPCO; thus integrating the expertise and authority of multiple departments into one coordinated office. FY2014 SPCO program costs totaled $5,232,849.

On behalf of the State, the SPCO collects general fund/ program receipts, also known as pipeline revenues, from lease payments, material sales and application fees.

Pipeline revenues are deposited in the State's general fund. FY2014 SPCO pipeline revenue collections grossed $9.53 million.

SPCO FY14 Budget Expenditures



Each year, the Alaska Legislature appropriates some general fund monies to the SPCO for the purpose of supporting operations unrelated to any specific pipeline lease. The FY2014 net deposit (revenue collected minus legislative appropriation) to the general fund was $8.95 million.

LEASE COMPLIANCE SECTION

Lease compliance specialist Ben Hagedorn conducts a surveillance of the Point Thomson Export Pipeline in March 2014. See more Point Thomson information on page 56.

The role of the lease compliance section is to monitor common-carrier pipeline operations for compliance with AS 38.35 right-of-way lease requirements. The lease compliance team evaluates compliance by conducting field inspections, researching lessee operating processes and reporting findings. The lease compliance team continually works with lessees to verify that the processes and documentation required for lease compliance are available for review and properly utilized by lessees and contractors.

Each fiscal year, lease compliance specialists work to evaluate compliance for every lease requirement in one particular section of each lease - either the general section, environmental section or technical section. For example, if compliance specialists are evaluating general lease stipulations in the current fiscal year, then next year they will focus on environmental stipulations. Because many lease provisions are administrative and do not require compliance efforts, lease compliance specialists determine the functional status of each lease requirement to plan annual surveillance efforts. Other lease provisions apply to specific activity phases, such as construction or termination, and may not be applicable to surveillance and monitoring programs during normal pipeline operations. Some provisions, referred to as "conditional" provisions, are invoked only after an action is initiated by the lessee or State Pipeline Coordinator.

The lease compliance team conducts surveillances on SPCO-jurisdictional pipelines throughout the year and records observations in surveillance and lease compliance reports. Surveillance reports serve as independent compliance evaluations, the factual basis for assessments or technical reports, or as supporting documentation for an agency permit issuance determination or verification. Lease compliance reports provide descriptions of the SPCO field activities and observations in support of the surveillance reports. Surveillance reports and lease compliance reports are then provided to the lessee to convey lease compliance findings.

Because lease requirements cover a broad range of subjects, the lease compliance team frequently utilizes the expertise of the SPCO engineers, right-of-way specialists, and other state and federal agencies to maintain a comprehensive monitoring program. Many lease stipulations impose requirements that are overlapped by state or federal laws or regulations administered and enforced by other regulatory agencies. To avoid duplication of efforts, lease compliance specialists defer to other regulatory enforcement agencies to ensure compliance with those lease requirements. The lease compliance team monitors and reports on the enforcement activities as they relate to specific lease requirements.

The lease compliance team periodically performs in-depth assessments that focus primarily on processes or systems or are derived from a compilation of field observations. Compliance specialists first identify the scope of an assessment, then apply the appropriate level of sampling and resources required to compile the report. The lease compliance team integrates available information from research, interviews, surveillances, and other documentation to evaluate pipeline operations for compliance with lease requirements.

Each year the lease compliance team receives and evaluates the annual reports required of the lessee by every state pipeline right-of-way lease. Lessee annual reports provide information from the past year regarding right-of-way maintenance and engineering activities, internal compliance monitoring, and ongoing studies of specific areas of interest, such as areas of land that are highly susceptible to erosion. The lease compliance team then summarizes lessee annual reports for inclusion in the SPCO annual report.

The compliance monitoring program is dynamic and responds to changing conditions. An annual internal review provides an opportunity for SPCO staff to incorporate program improvements or other necessary modifications to the monitoring program.

ENGINEERING SECTION

SPCO engineers provide technical oversight of facilities, equipment, infrastructure and activities on pipeline leases. The section also provides, upon request, engineering assistance and recommendations to liaison agencies, the DNR Commissioner and the State Pipeline Coordinator.

The engineering section evaluates technical submittals against applicable codes and regulations and AS 38.35, which requires that "the applicant has the technical and financial capability to protect state and private property interests," the lessees "maintain the leasehold and pipeline in good repair," and "promptly repair or remedy any damage to the leasehold."

Lease Pre-Application
Pre-application activities involve gathering information on the technical portion of a proposed project and analyzing the issues involved in the project. Engineering provides guidance and help for technical and regulatory issues.

Lease Processing
Engineering's role in the leasing process primarily is to evaluate and prepare a recommendation to the State Pipeline Coordinator on the technical capabilities of the lease applicant. In addition, the engineering section provides technical conditions or requirements for inclusion in the lease.

Engineers from the SPCO and other Joint Pipeline Office agencies attended a 2014 briefing by Tulsa University personnel on the function and purpose of various instruments and equipment used to test, monitor and characterize ice formation in oil.

Lease Monitoring
The engineering section provides technical evaluations of the construction and operation of pipelines and facilities. This work includes reviewing major maintenance, repairs and construction. This often involves providing independent engineering opinions on leasehold activities.

Special Projects
Engineering may work on items that do not have a direct relationship to the leases. This type of work includes:

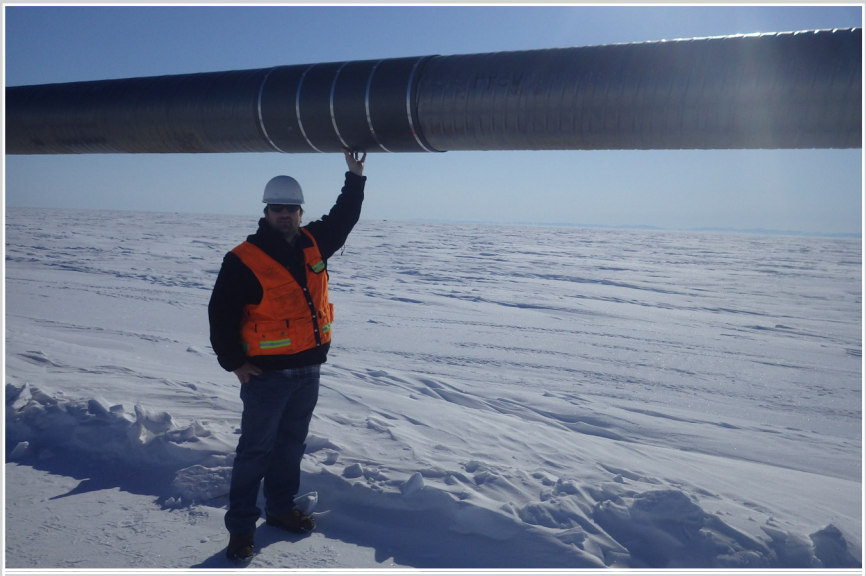
- Providing technical assistance to other state organizations
- Preparing technical opinions
- Analyzing the impact of new regulations or other government activities
- Evaluating new technologies and their applicability to resource development

RIGHT-OF-WAY AND PERMITS SECTION

The SPCO right-of-way and permits section (ROW section) is responsible for a multitude of tasks related to pipeline lease administration. The ROW section processes lease amendments, implements public processes (as required by state statute), prepares legal land contracts, writes decision documents, issues project-specific authorizations, administers rental and other payments, reviews letters of non-objection and performs myriad other functions as necessary or requested by the State Pipeline Coordinator.

Lease Administration

The ROW section is responsible for permitting or coordinating any activity associated with a lease. The ROW section is the point of contact within the SPCO for land use and pipeline rights-of-way.



SPCO ROW specialist Chris Grundman visited the job site during construction of the Point Thomson Export Pipeline.

Permitting

The ROW section issues lease authorizations for all AS 38.35 pipelines, along with land use permits, temporary water use permits, material sales contracts, and rights-of-way for roads and boat launches required for operations and maintenance activities and special projects. The permit review process can involve a substantial amount of coordination; each project has unique lease or permit requirements.

Amendments

The ROW section evaluates and adjudicates amendments to SPCO jurisdictional leases. The lease amendment process is used to revise lease language or add lands to existing rights-of-way for maintenance and operation purposes, or both. The amendment process includes a Commissioner's Decision and public notice.

Other Administrative Duties

The ROW section manages rental schedules, directs and processes payments, documents pipeline activities, assists staff to maintain the SPCO case files, updates the State of Alaska Land Administration System and performs any additional tasks associated with lease administration. The ROW section also issues and manages material sales contracts with lessees and conducts annual surveillance inspections of TAPS operations material sites.

The table below contains basic information about SPCO-monitored pipelines; including the location by region, lessee and status.

Issued Leases	ADL #	Location	Length (miles)*	Lessee(s)	Status
Alpine Diesel	415932	North Slope	34	ConocoPhillips	Operating
Alpine Oil	415701	North Slope	34	ConocoPhillips	Operating
Alpine Utility	415857	North Slope	34	ConocoPhillips	Operating
Badami Sales Oil	415472	North Slope	25	Miller Energy Resources, Inc.	Operating
Badami Utility	415965	North Slope	31	Miller Energy Resources, Inc.	Operating
Endicott	410562	North Slope	26	Harvest Alaska, LLC	Operating
Kenai Kachemak	228162	Cook Inlet	50	Kenai Kachemak Pipeline, LLC	Operating
Kuparuk	402294	North Slope	28	KTC***	Operating
Kuparuk Extension	409027	North Slope	9	KTC***	Operating
Milne Point	410221	North Slope	10	Harvest Alaska, LLC	Operating
Milne Point Products	416172	North Slope	10	Harvest Alaska, LLC	Operations Suspended
Nikiski Alaska	69354	Cook Inlet	70	Tesoro Alaska Pipeline Co.	Operating
North Fork	230928	Cook Inlet	7.4	Anchor Point Energy	Operating
Northstar Gas	415975	North Slope	17	Harvest Alaska, LLC	Operating
Northstar Oil	415700	North Slope	16	Harvest Alaska, LLC	Operating
Nuiqsut Natural Gas Pipeline	416202	North Slope	14	North Slope Borough	Operating
Oliktok	411731	North Slope	28	Oliktok Pipeline Co.	Operating
Point Thomson Export Pipeline	418975	North Slope	33	PTE Pipeline LLC	Construction
Trans-Alaska Pipeline	63574	Prudhoe Bay to Valdez	800	****	Operating

* *The lengths in the table are the approximate total length of the pipeline centerline.*

*** BP Transportation (Alaska)* *** *Kuparuk Transportation Co.*

**** *BP Pipelines (Alaska) Inc., ConocoPhillips Alaska Transportation Inc., ExxonMobil Pipeline Company, and Unocal Pipeline Company.*

SPECIAL PROJECTS SECTION

The SPCO Special Projects section is the office's first point of contact for all new and potential pipeline right-of-way applicants. Since 2009, the SPCO has seen a significant increase in the number of applications and interest in building common carrier pipelines. The Special Projects section was created to provide new applicants more focused attention and assistance, in order to maintain proposed schedules and streamline state, federal and local permitting requirements.

The Special Projects section conducts pre-application meetings with potential applicants. These meetings are essential to coordinating realistic timelines and provide an invaluable opportunity to discuss potential obstacles or challenges in preparing and processing the lease application. At the pre-application meetings, the SPCO typically outlines the right-of-way leasing process, including public processes and other state permits necessary for the project. Additionally, key aspects of the usual right-of-way lease and stipulations, such as designs, work plans and schedules are thoroughly discussed.

Once the SPCO receives the right-of-way application, the Special Projects section initiates a formal process of adjudication and analysis. This process includes issuing a 60-day public notice of the application, researching and drafting the Commissioner's Analysis and Proposed Decision, and drafting the right-of-way lease and stipulations. During this time, the Special Projects section also coordinates negotiations of the draft lease with the applicant. Once the proposed analysis and a draft lease have been finalized, a second 30-day public notice is issued soliciting comments on those documents. Comments received during the public review period are considered in the Commissioner's Final Decision. If the applicant has met all the requirements and the DNR Commissioner determines that the potential lessee is "fit, willing and able" to construct, operate, maintain and eventually terminate the pipeline, then the Commissioner may issue a lease.

Agency Coordination

Coordination with other agencies is a key responsibility of the SPCO and is handled by the Special Projects team for all new projects. Most large pipeline projects require additional permits from other state agencies; accordingly, it is important that the permitting process for a project be as efficient as possible. The SPCO ensures that agencies with permitting authority for the project are brought in early to meet with the applicant and are given ample information and time to review each project. Requests for additional information from agencies are coordinated through the SPCO in order to reduce redundancy and keep pace with project timelines. The SPCO is primarily a land management office; however, its statutory authorities cover a variety of public interests, such as technical designs and aquatic and biotic resources. The SPCO relies on its coordinate agencies, as the experts in their respective fields, to review project documents and to contribute to the SPCO's analysis, lease and

stipulation drafting processes. This coordination and consistent communication have proven instrumental in fulfilling both the state permitting requirements and the applicant's project needs.

Lease Negotiation

The SPCO drafts the Commissioner's Analysis and Proposed Decision, the lease and stipulations. An initial draft is given to the applicant for its review and response. In general, the body of the lease has proven to be a tried-and-true instrument of the state in granting specific rights for the purposes of constructing, operating, maintaining and terminating common carrier pipelines. The stipulations, which are an appendix of the lease, contain project specific mitigations that are often the subject of detailed negotiations.

Issuing Leases

Once a final lease has been agreed upon and all reviews and comment periods have been completed, the applicant and DNR Commissioner both sign the lease. The Special Projects team continues to work with the project proponent – now as a lessee – until all of the required documentation for initiating construction is submitted and approved by the SPCO. Once construction begins, the Special Projects section turns the lease over to SPCO Compliance section representatives, who work closely with the lessee during construction and maintain the SPCO field relationship with the lessee, and to the SPCO ROW group, that manages additional permitting requirements, required contacts and payments under the lease.

SPCO LIAISONS

Alaska Department of Environmental Conservation

The mission of the Alaska Department of Environmental Conservation (ADEC) is to conserve, improve and protect Alaska's natural resources and environment and to enhance the health, safety, economic and social well-being of Alaskans. As a SPCO liaison agency and a participating member of the Joint Pipeline Office, the ADEC strives to accomplish its mission through implementing state statutes and regulations governing jurisdictional pipelines and facilities throughout Alaska.

Three full-time ADEC employees are located in the SPCO. The designated liaison provides technical and policy advice and overall coordination of ADEC efforts within the SPCO; the other two are environmental specialists and focus primarily on oil spill prevention and response readiness.

The ADEC liaison provides coordination and policy guidance for implementing the requirements of ADEC's air quality, water, environmental health and contaminated sites divisions. The ADEC divisions oversee wastewater and solid waste operations and permits, air and water quality permits and management of contaminated sites. The ADEC liaison is a member of the Joint Pipeline Office management team and works with JPO and SPCO staff to ensure that authorizations and permits are consistent with ADEC statutes and regulations.

The ADEC environmental program specialists focus exclusively on oil discharge prevention and contingency plan (C-plan) requirements for the Trans-Alaska Pipeline System (TAPS) and Valdez Marine Terminal (VMT). The ADEC Spill Prevention and Response Division's industry preparedness program requires comprehensive review and approval of TAPS and VMT C-plans every five years.

C-plan activity oversight involves inspecting facility and response equipment, auditing records and conducting and evaluating oil spill response exercises. ADEC's prevention regulations provide for direct oversight of facility piping, crude oil storage tanks, secondary containment and the TAPS mainline. The SPCO engineers, along with licensed professional engineers in ADEC's industry preparedness program, provide continuous support to the environmental program specialists for technical analysis of compliance with prevention regulations.

Alaska Department of Fish & Game

ADF&G liaison Lee McKinley compares notes with Dave Schmidt of Alyeska Pipeline Service Co.

The Alaska Department of Fish & Game (ADF&G) liaison acts primarily as a staff assistant to the director of the Habitat Division. The liaison's duties were expanded in 2010; in addition to managing ADF&G issues related to TAPS, the redefined position also serves as the ADF&G lead on a proposed gas line to the Donlin Gold mine site and the ADF&G liaison to the Petroleum Systems Integrity Office (PSIO). ADF&G administers the fish habitat permit program under Alaska Statutes 16.05.841 and 16.05.871, which includes issuing fish habitat and special area permits, commenting on other agency permits, conducting compliance inspections (using SPCO surveillance procedures) and, when necessary, taking enforcement actions.

The ADF&G liaison's mission is to ensure that pipeline activities avoid or mitigate foreseeable impacts to fish and wildlife resources, habitats and public use of fish and wildlife.

The liaison works with state and federal agencies, Donlin Gold, LLC, and Alyeska Pipeline Service Co. to review and provide input on design criteria, project plans, schedules, procedures, manuals, technical specifications, drawings, facility site selection, alignments and restoration or mitigation proposals pertaining to pipeline-related work.

The ADF&G liaison serves on the JPO management team, provides environmental comments for authorization requests under the state TAPS lease and federal grant, reviews TAPS and VMT oil spill contingency plans, participates in oil spill response events and drills and prepares surveillance reports and assessments that document the lessee's compliance with environmental and other lease and federal grant stipulations.

Alaska Department of Labor and Workforce Development

The Alaska Department of Labor and Workforce Development (DOLWD) is represented within the SPCO by a safety liaison and electrical inspector; both positions focus primarily on TAPS.

The DOLWD safety liaison serves as the SPCO program manager for worker safety and DOLWD technical and policy objectives. He conducts annual safety inspections of TAPS work sites and facilities, reviews project safety plans, monitors APSC accident statistics and represents DOLWD on the JPO management team. He also serves as the SPCO safety manager and facilitates staff safety training.

Mike Buck, the DOLWD safety liaison to the SPCO, conducts a safety inspection of equipment at the Valdez Marine Terminal.

The DOLWD electrical inspector liaison and licensed Alaska electrical administrator serves as the SPCO electrical safety program manager. He spends most of his time conducting routine and random inspections of TAPS facilities to ensure compliance with Alaska's electrical codes and licensing requirements. The DOLWD electrical inspector has the legal authority, established by Alaska statutes and administrative codes (see SPCO website for detailed information), to enforce the National Electrical Code (NEC), State electrical codes and licensing requirements on behalf of the SPCO and the JPO.

The liaison is a member of the International Association of Electrical Inspectors (IAEI). He attends meetings and training sessions hosted by IAEI and other continuing education training on NEC requirements, and he maintains a journeyman electrician license.

Alaska Department of Public Safety, Division of Fire and Life Safety, State Fire Marshal's Office

The duties of the State Fire Marshal's Office (SFMO) liaison to the SPCO include (but are not limited to) annual fire inspections, constructions and building inspections, building and fire system plan reviews, code interpretations, assisting in fire investigations and incident reports, investigation of incident reports and fire system failures.

The liaison conducts inspections of all oil and gas process and production facilities on a state-wide basis; this includes 18 common carrier lines, offshore platforms, gas process facilities, refineries, all Cook Inlet producers, all North Slope producers and TAPS. The liaison coordinates his activities with the Division of Fire and Life Safety directors office and the Plan Review Bureau.

After conducting an inspection, the liaison prepares reports detailing any code violations found and corrective action required. He establishes correction compliance dates and conducts follow up inspections until all deficiencies have been corrected or address as required by current codes.

The SFMO liaison represents the Division of Fire and Life Safety at JPO and SPCO meetings, conferences and working groups at the direction of the State Fire Marshal. He assists the JPO in the development of fire prevention programs for TAPS facilities and operations. He also provides training and technical assistance to SPCO and JPO staff and TAPS owners and operators regarding state fire and safety laws regulations and requirements.

JOINT PIPELINE OFFICE

Mission Statement: To work proactively with Alaska's oil and gas industry to safely operate, protect the environment and continue transporting oil and gas in compliance with legal requirements.

The State/Federal Joint Pipeline Office (JPO) was created in 1990 to facilitate coordination between state and federal agencies in monitoring TAPS and a proposed pipeline project to commercialize North Slope gas.

Since its inception, the scope of the JPO has increased to include petroleum and natural gas pipelines within the State of Alaska and the adjoining Outer Continental Shelf under the respective authorities or jurisdiction of one or more participating agencies.

The JPO is composed of representatives from the following agencies:

State Agencies

Department of Environmental Conservation

Department of Fish and Game

Department of Labor and Workforce Development

Department of Natural Resources: State Pipeline Coordinator's Office

Department of Public Safety: Division of Fire and Life Safety

Department of Transportation and Public Facilities

Federal Agencies

Department of Defense: Army Corps of Engineers

Department of the Interior
- Bureau of Land Management, Office of Pipeline Monitoring
- Bureau of Ocean Energy Management, Regulation and Enforcement

Department of Homeland Security
- Transportation Security Administration
- U.S. Coast Guard

Department of Transportation: Pipeline and Hazardous Materials Safety Administration

Environmental Protection Agency

JPO cooperating agencies share the desire to maintain a system-wide approach to pipeline oversight. The JPO Executive Council Agreement is available online at www.dnr.alaska.gov/commis/pco. Each agency has a unique mission; however, the participating agencies collectively focus their resources on oversight activities that facilitate the safe and reliable transportation of oil and gas to market. The terms of these collaborative efforts are described in the Operating Agreement for the Joint Pipeline Office, available online at www.dnr.alaska.gov/commis/pco.

TRANS-ALASKA PIPELINE SYSTEM (TAPS)

Atlantic Richfield Co. and Exxon discovered the Prudhoe Bay oil field in March of 1968. The owner companies operating at Prudhoe Bay established Alyeska Pipeline Service Co. (APSC) in 1970 to build and operate TAPS. The State of Alaska and APSC entered into a right-of-way agreement on May 3, 1974; the lease was renewed in November of 2002.

In 1977, construction of TAPS was completed and major oil production began on the North Slope. TAPS is composed of an 800-mile, 48-inch diameter pipeline, the Valdez Marine Terminal (VMT), 11 pump stations (original plans specified 12 pump stations, but only 11 were constructed) and various support facilities.

The State right-of-way lease applies to the 344 miles of state-owned land in the TAPS right-of-way. Approximately 376 miles of federal lands and 80 miles of private lands (including Native corporation and Native allotment lands) account for the remainder of the 800-mile pipeline. APSC owns 8.2 miles of the TAPS right-of-way, primarily consisting of lands associated with the VMT and pump station (PS) 1, PS8 and PS9.

North Slope crude oil enters TAPS at PS1 in Prudhoe Bay. TAPS crosses three major mountain ranges before reaching its terminus in Valdez. Three of the four active pump stations (PS1, PS3 and PS4) maintain the necessary pressure to pump crude oil over Atigun Pass, the highest elevation point along TAPS at an altitude of 4,739 feet (the elevation at PS1 is 22 feet above sea level). PS5 provides pressure relief as crude oil descends south of Atigun Pass.

APSC placed PS7 in warm standby mode in 2007. The fourth active pump station, PS9, provides pressure to push the crude oil over the Alaska Range and Thompson Pass and complete its passage to the VMT.

TAPS was built with 178 valves to isolate sections of the pipeline and minimize the size of a spill in the event of a pipeline rupture. The valves are placed to limit the amount of a spill, at any point along the pipeline, to a maximum of 50,000 barrels from static drain down. Valves are placed at major river crossings and other locations where a quick response would be critical in a spill event.

At 4,739 feet above sea level, Atigun Pass is the highest elevation point along TAPS.

The VMT is the TAPS terminus. The VMT is located on privately-owned land and spans approximately 1,000 acres along Prince William Sound near the Port of Valdez. Oil is loaded on tankers at the VMT for shipment. The VMT has a vapor recovery system for the crude-oil storage and relief tanks, a powerhouse, support facilities, crude storage, tanker berths, crude-oil handling systems and metering facilities.

Throughput in TAPS peaked at more than two million barrels of oil per day (bopd)in 1988. The subsequent decline in flow rate triggered a re-evaluation of operating conditions by APSC and the TAPS owners. APSC provided conceptual modifications in the Final Environmental Impact Statement for the TAPS right-of-way lease renewal in 2002. The lessees approved changes to the pump station configurations, referred to as *strategic reconfiguration*.

TAPS STRATEGIC RECONFIGURATION/ELECTRIFICATION AND AUTOMATION

Alyeska Pipeline Service Co. completed Strategic Reconfiguration (SR) facilities at PS3, PS4, and PS9 during 2002-2009. During this period, the company also completed much of the SR work at PS1. At the end of 2005, TAPS owners stopped the project temporarily and changed the sequence of work. Rather than completing a unified project, the companies chose to complete each of the new pump station revamps individually, with work proceeding at only one location at a time. APSC completed SR work at PS3, PS4 and PS9 during the past several years. Only PS1 remains. APSC renamed the ongoing work at PS1 "Electrification and Automation," or E&A. The assigned project number for completion work is S120.

SR and E&A activities started in 2004 and have included the addition of mainline pumps and modules, variable-frequency drives, electrical motors, turbine generators and other specialized equipment. APSC has also modified existing equipment to facilitate the electrification and automation project.

Project completion at the beginning of the fiscal year was 72%. As of June 30, 2014, APSC reported project S120 to be 87% complete. This represents progress of 15% over the past fiscal year. The major work during this time concentrated on the electrical systems and preparation of the major equipment for startup. (Most of the major equipment was installed during 2004-2005.) The company energized much of the new power distribution system serving the new SR/E&A equipment and transferred the feed of some of the legacy power system to the new E&A supply.

TAPS LOW FLOW AND ICE STUDIES

This past fiscal year saw some improvements in meeting the potential challenges of TAPS low-flow, cold-weather operations and cold restart. In particular 2014 was a year of testing and analysis. APSC and the TAPS owners must make fundamental decisions on how to operate TAPS during upcoming winters. They are weighing the options of either heating the pipeline fluids at multiple intermediate points or refining the fluid to ultra-pure standards and operating the pipeline at colder temperatures. Some capital expenditure decisions will probably await more fundamental technical decisions on what will be practical and technically feasible.

Approximately half of TAPS is above ground and exposed to arctic weather conditions.

Background

Oil once took four days to travel through TAPS from Prudhoe Bay to Valdez. Today, the same trip takes about 17 days. If throughput continues to drop, then TAPS will experience additional challenges and require large modifications to meet these challenges. TAPS faces unique problems precisely because it is unique, at least in North America. Approximately half of TAPS is above ground and is therefore exposed to arctic weather conditions. The cool-down rate of above-ground segment is higher than in the buried sections, where the soil mass surrounding the pipeline has thermal inertia.

The decline in throughput has created concern that during winter, with lower flow rates, TAPS fluids cool to a point where water can form into ice within the mainline, pump station piping, equipment, instrumentation, connections and other areas. Ice could damage pump impellers, plug screens, bind to equipment surfaces, plug instrumentation, coat sensors, and stop TAPS flow in a variety of other ways. If not managed correctly, wax deposition can also create issues by fouling equipment and instrumentation.

Water occurs naturally in oil reservoirs. Although processing plants remove the vast majority of produced water, a small but significant amount still remains. Under commercial agreements, water and sediment (BS&W) can comprise up to 0.35 percent of the oil delivered to PS1. This does not sound like a large amount of water; however, if it all froze it would result in 9-10 million pounds of ice.

After a 2006 low-flow event, North Slope operators worked to reduce water in TAPS. They have largely been successful. During 2014, the composite BS&W in TAPS was in the range of 0.12 to 0.15 percent. Water production rates vary significantly among the fields; for example, on an average day in 2014, the Northstar oilfield would have 0.001 percent BS&W and Kuparuk would have 0.18 percent.

In addition, operators have reduced the magnitude and number of excursion events. Although field operators have made modifications to their processing facilities, the bulk of these improvements appear to be the result of tighter process tolerances and improved operational discipline.

APSC is currently adding heat to the system during winter months by recycling TAPS flow at pump stations. In addition to throughput decline, low TAPS flow rates can also result from plant upsets, shipping delays or tanker loading problems.

Low Flow Issues

TAPS has always been susceptible to cold temperature problems from lower flow rates; however, throughput decline during the past two decades has resulted in increasing operational risks during winter. Flow rates during 2012 averaged 547,866 barrels of oil per day (bopd) and 2013 they dropped to 534,480 bopd. Last winter, rates were marginally higher, averaging about 560,000 bopd. Winter rates have been higher than average because they do not include reductions for facility shutdowns for summer North Slope maintenance projects.

Reduced throughput has removed contingency thermal reserves and increased the probability that upsets during winter could result in an extended shutdown. Within the past decade, TAPS has experienced three low flow events caused by mechanical problems or tanker loading delays:

Low output from Prudhoe Bay caused fluid temperatures in TAPS to drop to about 40°F at the coldest instrumented location. Although no major operational problems resulted from the low temperatures, APSC was forced to use intermittent pumping for the first time.

Flow was reduced because high winds at the VMT disrupted tanker loading for long periods. Internal temperatures in TAPS reached 37°F. For the second time, APSC employed intermittent pumping.

Flow was stopped twice while a leak was repaired. The combined shutdown duration extended to 11 days. Internal temperatures reached 26°F at the coldest instrumented point.

None of these incidents was serious enough to prevent restart of TAPS, but future extended shutdowns or lower flows could result in severe operational difficulties. Each succeeding winter, as throughput shrinks, concern about cold weather operations, cold restart and ice formation has grown.

Cold-Weather Risk Factors
The winter operational risks that TAPS will face with lower throughput include:

Ice Formation
Free or fixed ice has the potential to create problems, such as disabled instrumentation, plugged pump screens, frozen valves and damaged pump impellers.

Wax
Deposition of paraffins and asphaltenes is predicted to increase as fluid temperatures in the pipeline drop.

Pigging
The reduced velocity of maintenance pigs may decrease the efficacy of cleaning the pipe walls. A larger number of pigs in the pipeline at any time add operational concerns.

Water Dropout
Oil and water will start separating more readily as flow decreases.

Corrosion
Concentration of water on the bottom of the pipe next to the wall or water pocketed in low areas can create localized corrosion.

Leak Detection
Under upset or unusual conditions, the leak detection system may not perform with the required accuracy.

After the 2011 low flow incident, USDOT/PHMSA issued Notices CPF-5-2011-5001S and CPF-5-2013-5008. These were later modified and negotiated to agreements.These documents and associated information identified a number of other potential issues associated with low flow.

Cold Restart and Cold-Weather Operations
During winter, based upon weather and other conditions, APSC plans to implement procedures for one of three operating modes:

1. Normal Operations.

2. Cold-Weather Operations. When internal temperatures drop below 40°F, APSC can implement contingency operational procedures that will increase the temperature of the oil to that target temperature. This operating regime is for flowing conditions with temporary low-temperature excursions or for shorter-duration shutdowns or slow-downs. APSC does not have to implement these operating procedures for all of TAPS. It can do so for one or more segments and have the rest remain in normal operating mode.

3. **Cold Restart.** This has remained, to date, only a contingency. APSC would implement this procedure only under more severe conditions, after internal temperatures have dropped well below normal operating range and if flow in the mainline has been stopped for an extended duration. This operating regime is for a static flow situation or for an extended shutdown in winter. Measures may involve additional heating, contingencies such as pumping fluid both north and south in the mainline to reduce oil gel strength, removing ice and wax accumulations and restarting the pipeline with ice and thick crude oil.

Recycling to Add Heat
After the January 2011 incident, APSC started additional recycling of oil around pump stations. APSC is now able to recycle oil at PS3, PS4, PS7 and PS9. APSC monitors mainline temperatures and adjusts the amount of recycling at each pump station according to mainline fluid temperatures, past weather conditions, and predicted weather.

Recycling involves pumping a portion of TAPS flow through station piping and one or more pressure-reducing valves. The equipment is deliberately operated at an inefficient point in the pump curve. As a result, the pumps add both flow energy and a significant amount of thermal energy to the fluid. During FY2014, the enhanced recycling systems installed the previous year at PS4 and PS7 were improved with changes in controls and vibration mitigation.

Refinery Heat
In February 2014 Flint Hills Resources announced that it would cease operations at its North Pole refinery. During past winters, TAPS benefitted from heat from three refineries: the Flint Hills refinery, the North Pole PetroStar refinery, and the Valdez PetroStar refinery. During FY2013, APSC successfully negotiated an agreement for the Flint Hills Refinery to contribute more heat to TAPS.

The refineries add thermal energy because they function as "topping plants," rather than full refineries. They refine only the more easily utilized hydrocarbons and return

the remainder, known as residuum, to TAPS. The return fluid has been through high-temperature processes, such as fractional distillation. These processes increase the temperatures in the residuum, typically to about 120°F.

The refinery closure is significant; however, APSC has always calculated TAPS heating requirements without factoring the refinery heat and has stated that TAPS can compensate for the loss of heat from the Flint Hills refinery by recycling more at the pump stations, primarily at PS7.

Pigging and Wax

Although not typically considered a cold operating issue, pigging could well be the limiting factor for TAPS low throughput. Up to two percent of the fluid in TAPS is wax, or paraffin. This does not sound like much, but if all wax precipitated or dropped out at once, TAPS would produce about 55 million pounds. The actual weight would likely be larger, 70-80 million pounds, because it is usually bound in a matrix of oil and asphaltenes.

At some point deposits of wax, oil and asphaltenes could accumulate to a point where it becomes difficult to clean them out with pigs moving at slower velocity created by lower throughput. Studies and analysis show that problems managing wax will greatly increase when the TAPS flow velocity drops to about one foot per second. This corresponds to the transition to laminar flow and a throughput of about 200,000 bopd. There are some possible remedies, such as innovative pigs and chemicals that either suspend wax in solution or clean it. Still, the ability to pig the pipeline might become the ultimate factor in determining TAPS longevity.

One improvement for maintenance pigging during the last fiscal year is the installation of a pig launcher and receiver at PS9, scheduled to become fully operational in late 2014. This installation satisfies an agreement made under PHMSA Notice Notices CPF-5-2011-5001S. No longer will a pig have to travel 656 miles between PS4 and the VMT. This distance will be broken into two segments, 404.8 miles from PS4 to PS9 and 251.8 miles from PS9 to the VMT. Shorter pigging distances translates to greater operational flexibility and less wear on the pigs. Pigs that are in better shape will hopefully result in improved cleaning.

Ice Studies

APSC and the TAPS owners are currently attempting to evaluate ice formation under the conditions found in TAPS. They are performing testing, mathematical analysis and computer simulations to better ascertain physical properties and to understand the "system limits" of TAPS during winter operations. System limits are the maximums and minimum physical properties under which a plant or pipeline can operate in a stable and well-controlled manner.

The type of ice that would form in TAPS is different from the type of ice that we are most familiar with: freshwater ice, ice on lakes and rivers, or in freezers. Ice in TAPS

would form from produced water, water that flows with oil from wells. The processing facilities on the North Slope remove the vast majority of the water, along with the natural gas that is also produced with the oil.

Left: a test chamber at the Tulsa testing facility
Right: University of Tulsa testing facility

Produced water is highly saline and has other chemicals it acquired under the intense heat and pressure in reservoirs. It freezes at a variety of temperatures. Ice that freezes at higher temperatures rejects salts and the remainder freezes at lower temperatures. Adding to the complexity of ice in TAPS is that it would form in the presence of crude oil. Ice formation in the presence of oil reduces bonding strength, decreases structural strength, and increases porosity.

APSC has initiated a number of studies to understand the complexity of the physical principles of ice formation and to understand wax deposition and precipitation. This could involve something as simple as a large tank at PS1 that allows water to settle to the bottom, where it can be drained. Reduction of water and sediment content below the current standard might reduce problems caused by ice formation.

The company has moved its ice studies from Sarnia, Ontario, to the University of Tulsa, and constructed a state-of-the art testing facility at that location. Building a new facility was necessary because few facilities have the capability of performing flowing ice studies of hydrocarbon mixtures.

Looking Ahead

During the past several years, the TAPS owners and APSC have investigated many possible changes to TAPS. For the near future, the pipeline will have to operate in one of two ways.

The first option would require installing additional line heaters over the next 10-15 years. APSC is nearing the limits of the heat that it can practically extract from station recycling, but even at very low flow rates, heat would only be needed during cold winter months.

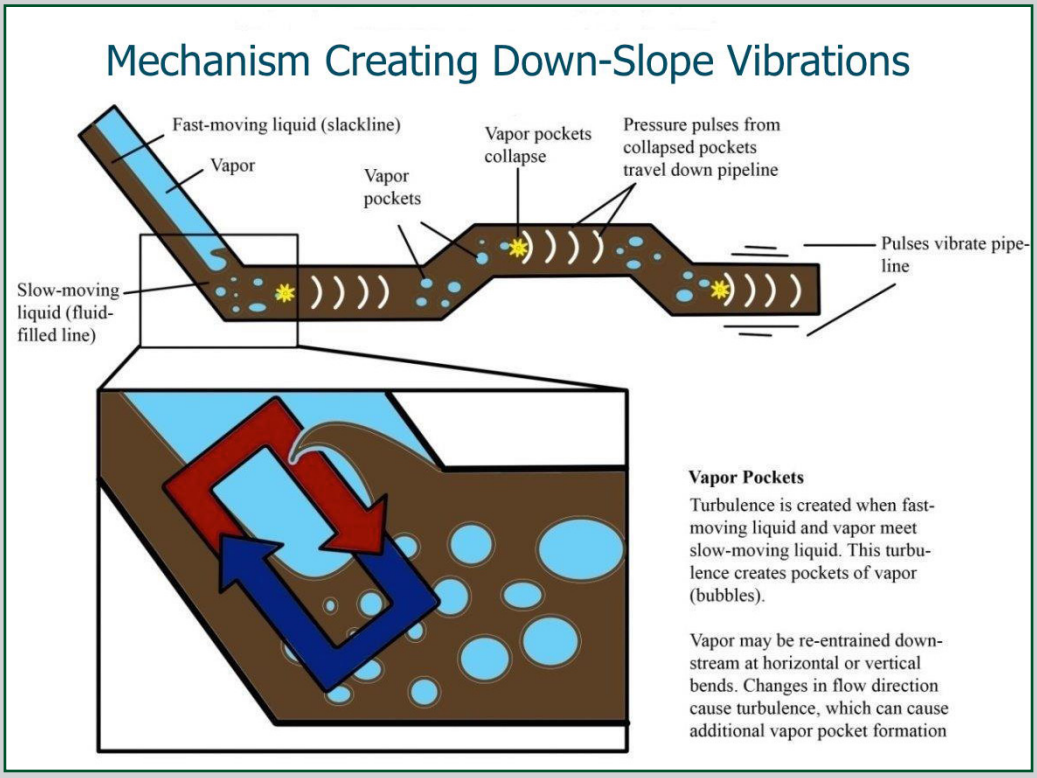
The second option involves removing enough water from the crude to operate at colder

temperatures and lower flow rates without significant ice formation. Often referred to as the "cold, dry pipeline," this option has important advantages. It can mitigate the cold restart problem, because the oil could be allowed to cool in place during a shutdown. It can also save energy, lowering costs of transport. Making TAPS less expensive to operate would improve the economic decline curve, leading to a longer TAPS operational lifetime.

APSC and the TAPS owners are conducting numerous tests to investigate the technical practicality of both options. The flow loop testing at the University of Tulsa is the largest and most important test, but it is only one of about a dozen testing programs that are being conducted roughly in parallel during 2014. The goal is to analyze and correlate research to arrive at a decision on the future operation of TAPS.

TAPS VIBRATIONS IN THOMPSON, ATIGUN AND ISABEL PASSES

TAPS reaches its highest point in Atigun Pass, where the elevation of the pipeline is 4,739 feet. The second highest is at Isabel Pass, at 3,420 feet. The third is at Thompson Pass, north of Valdez, at 2,812 feet. On the south side of each of these mountain passes, oil in TAPS gains energy as the elevation drops, trading the potential energy of higher elevations for kinetic energy and pressure at lower elevations.



Thompson Pass started to experience vibrations during the 1990s. APSC mitigated these by increasing downstream backpressure. Following this model, APSC increased backpressure at Atigun at RGV31. This has reduced vibrations a minor amount. The engineering consensus is that vibration at Atigun Pass is not of sufficient amplitude and frequency to create a risk of rupture in the mainline in the near or intermediate future; however, following the discovery of cracks in support shoes, APSC now periodically visually inspects pipeline shoes in the Atigun Pass area. During this fiscal year this program of monitoring, followed by repairs and replacement as necessary, continued.

APSC installed tri-axial accelerometers at a segment at the Chandalar Shelf below Atigun Pass. These will record accelerations in three dimensions. Previously, the company has used strain gauges, which are considered to be less accurate. This change should improve the data logging, analysis and prediction of fatigue.

Vibrations at Isabel Pass have been reported more frequently this year. These were first reported during a low-flow event in 1995 and are predicted to increase gradually with reduction in throughput. However, vibrations remains well below those at the other two major mountain passes.

The SPCO plans to continue monitoring the situation at the three mountain passes as throughput changes. During the past year, the engineering and compliance groups visited the sites.

TAPS THROUGHPUT AND RELIABILITY

During the past year, TAPS throughput continued to decline, but by a lower percentage than previously. The following table shows the decline during the past five years by calendar year.

Calendar Year	Average Throughput	Decline Previous Yr	Decline Previous Yr
	(bopd)	(bopd)	(percentage)
2009	672,028	31,523	4.691
2010	619,655	52,373	8.452
2011	582,895	36,760	6.306
2012	547,866	35,029	6.394
2013	534,480	13,386	2.504

The throughput statistics for FY2014 are:

Throughput	Date(s)	Volumes
Average Daily Rate	(July 1, 2013 to June 31, 2014)	530,292 bopd
Cumulative Volume	(July 1, 2013 to June 31, 2014)	193,556,501 bbl
Minimum Rate FY2014	(August 11, 2013)	202,763 bbl
Maximum Rate FY2014	(December 22, 2013)	586,725 bopd

All measurements are gross standard volumes (GSV) producer receipts received at Pump Station 1.

The design basis for Strategic Reconfiguration, submitted to comply with the State lease, uses 99.0% availability as a minimum system performance requirement. There was no availability or reliability requirement for the original legacy equipment.

The first Strategic Reconfiguration facility came online in 2007. The last should be finished sometime in 2015. The new equipment originally reduced the availability for the TAPS system. This is understandable and should be expected to occur when newer equipment replaces older equipment that has been modified and optimized over many years.

After 30 years of successive improvements, the legacy equipment had attained a system availability of 99.997% in FY2006. In FY2007, the first of the Strategic Reconfiguration facilities started up. The SPCO tracked a greatly increased number of shutdowns afterwards. With a few exceptions, such as the PS9 overflow incident in May 2010 and the low-temperature shutdowns in January 2011, there has been a trend of increasing availability, fewer shutdowns, and shorter-duration shutdowns. During FY2014, TAPS attained the same availability as the legacy equipment.

TAPS ENCAPSULATION FAILURE

On September 8, 2013, workers investigated a malfunctioning backpressure control valve at the VMT. They discovered a 10-inch diameter section of the mainline pipe wall. The metal object was composed of a 2-inch THREAD-O-RING (T-O-R) fitting with an intact but eroded cap welded in the middle. Cured epoxy surrounded the T-O-R.

Left: Ten-inch diameter wall section with two-inch T-O-R, cap and epoxy (photo courtesy of APSC)
Right: Dome-like encapsulation structure

The metal object was traced to a site at PLMP 385.77, a location mid-way between PS6 and PS7, near Erickson Creek No. 1. An in-line inspection (ILI) in April 2013 detected the missing metal, but the results were interpreted as a 10-inch branch connection.

On August 13, 2012, welders installed a secondary containment device around a construction-era aboveground hydrotest vent at PLMP 385.77. APSC called this design an "encapsulation." Approximately 91 encapsulations were installed around belowground and aboveground old mainline vents and drains. The vents and drains were installed during original TAPS construction for filling, venting, and draining air and water for hydrotesting. They have not been used since start-up.

From 2010 to 2013, APSC installed 4-inch, 6-inch, 10-inch and 12-inch encapsulations as a line-wide program at sites deemed to be at the highest risk. Engineers designed the structures to be capable of completely containing a leak at the highest pressures in TAPS; however, should a leak occur, the encapsulations would be a "dead leg." To minimize the potential for internal corrosion, workers filled the void with a two-part epoxy in a single pour. The fill fitting on the top was temporarily left open to vent to relieve pressure from expanding gas and curing epoxy.

PLMP 385.77 was one of only four locations on the mainline that had a 10-inch encapsulation. The VMT had an additional four 10-inch and one 12-inch encapsulation, but workers installed the epoxy at those sites in two separate pours. The remainder of the pipeline had one 4-inch, one 12-inch, and approximately eighty 6-inch encapsulations. Laboratory tests have revealed that the single pour volume of epoxy within the 10-inch encapsulations is linked to the greatest risk of mainline failure, so

APSC has focused on the three remaining 10-inch mainline installations. APSC has investigated and tested all of the remaining 10-inch encapsulation pipeline sites using a variety of nondestructive tests, such as visual, magnetic particle, standard shear wave ultrasonic, and radiography. Mechanical measurements of the encapsulations were also performed using tape measures to ascertain bulging of the encapsulation. APSC also used a specialized imaging technique known at Phased-Array Ultrasonic Testing (PAUT). This method can image and measure small base metal and weld discontinuities in great detail.

It is estimated that the failure happened within 3-4 hours of the epoxy pour, based upon the time measured from a pour to failure in laboratory testing. The ejected metal traveled more than 400 miles to the VMT, pushed along by the flow of crude oil or pigs. The coupon presumably bypassed the pumps at PS9 by travelling in wax pushed by a pig while the pump station was in bypass mode.

Field investigations and nondestructive testing have not found evidence of similar failures or cracking within the encapsulations at other sites. For a repair, APSC installed a reducing branch hot tap tee. It was designed to envelop entirely the encapsulation and to withstand full line pressure.

Split tee installed at PLMP 385.77

On March 13, 2014, PHMSA issued Proposed Safety Order CPF 5-2014-5003S, identifying a number of corrective items. On June 17, 2014, APSC and PHMSA entered into a Consent Agreement, and on June 27, 2014, PHMSA issued a Consent Order to enforce the Agreement.

SPCO FY2014 TAPS ACTIVITIES - LEASE COMPLIANCE

Lease compliance specialist Ben Hagedorn conducts a surveillance at a TAPS work site.

Throughout FY2014, the SPCO conducted surveillances and reported on the condition of the TAPS right-of-way, facilities, maintenance activities and administrative protocols. The lease compliance section's TAPS activities yielded 17 lease compliance reports and one assessment. Below are brief summaries of a few SPCO lease compliance activities along TAPS in FY2014.

Annual Right-of-Way Surveillance

The SPCO conducted an annual line-wide surveillance of the TAPS right-of-way in FY14. During the surveillance, SPCO staff made visual observations of the workpad, the pipeline, the above-ground pipeline support structure, and appurtenances such as gates and signs. Lease compliance staff recorded observations made throughout the right-of-way surveillance and summarized their findings in eight lease compliance reports.

During the FY2014 right-of-way surveillance lease compliance staff recorded conditions that appeared abnormal. Some of the observations included isolated areas of ground cracking, sinking and erosion along the workpad; damaged insulation modules; Teflon pads that have become detached from the pipeline support shoe and support shoes with excessive longitudinal shoe offset; crossbeams out of level; abnormalities in the pipeline jacketing system; and damaged or missing appurtenances such as gates, signs, and fencing. None of the conditions observed

during the surveillance presented an immediate threat to human health and safety, the environment or pipeline integrity.

Following the FY2014 right-of-way surveillance, lease compliance staff met with APSC to review the results. SPCO lease compliance staff determined that many of the observations were already recorded in APSC's maintenance work database. Based on the minor severity of the conditions observed during the FY2014 right-of-way surveillance, lease compliance staff found the right-of-way in a condition acceptable to the State Pipeline Coordinator.

The SPCO later utilized the information gathered during surveillance in support of an assessment evaluating right-of-way maintenance and overall condition of the right-of-way (14-SPCO-A-001). The assessment found that APSC right-of-way maintenance work management systems, surveillance programs and monitoring programs continue to effectively identify major maintenance needs along TAPS. The assessment found that APSC right-of-way maintenance processes are acceptable in regard to right-of-way lease requirements. The assessment recommended that APSC consider formalizing the process by which right-of-way conditions are communicated throughout company departments.

Cold Weather Operation Surveillances

In the second quarter of FY2014, SPCO staff traveled to TAPS pump stations to monitor the progress of project work conducted in preparation for cold weather operations. During these field visits, SPCO staff documented the status of project work to enhance crude heating capabilities. SPCO staff documented these visits in three lease compliance reports; 14-SPCO-R-022, 14-SPCO-R-024 and 14-SPCO-R-025.

SPCO and other Joint Pipeline Office representatives observe cold weather operations at Pump Station 7.

During the cold weather operations surveillance, SPCO staff learned that APSC had made preparations to add heat to crude by recycling it in a loop around piping at pump stations 3, 4, 7 and 9. At pump station 7, SPCO observed APSC preparing to further recirculate crude through drag valves. APSC utilizes drag valves to restrict flow, causing a drop in fluid pressure and converting kinetic energy generated by the pump into thermal energy.

Additional Surveillances

Throughout FY2014 SPCO lease compliance staff conducted other lease compliance activities along TAPS that included monitoring project work and addressing unexpected issues. For example, SPCO lease compliance staff visited integrity excavation work sites to monitor the project work on the pipeline and the condition of the leasehold in regard to erosion and re-vegetation (14-SPCO-R-019 and 14-SPCO-R-023). SPCO noted one particular work site with significant erosion at pipeline milepost 756.76. SPCO lease compliance staff discussed the issue with APSC to ensure the pipeline workpad was repaired and future erosion mitigated.

Flooding over the TAPS right-of-way at PLMP 19

Lease compliance staff also monitored aufeis and subsequent flooding along the Sagavanirktok (Sag) River that caused excessive water flow over the TAPS right-of-way at PLMP 19. The Sag River flooded the area between the TAPS right-of-way and Dalton Highway. SPCO staff found river water flowing back and forth over the right-of-way, at low water crossings in some locations, and over regular pipeline burial and drive lane sections at other locations. In general, water flow over the pipeline right-of-way was moving slowly and did not appear to be immediately threatening the right-of-way or pipeline. APSC reinforced the right-of-way with riprap in areas that appeared to have the highest energy flow to protect the pipeline from potential flood damage. APSC is planning project work to repair cathodic protection facilities damaged by the flood.

SIPPS and SCADA - A Tale of Two Systems

Most people familiar with TAPS speak about its control system as a singular system, but nowadays TAPS is controlled by two completely separate systems:

SCADA: **S**upervisory **C**ontrol **A**nd **D**ata **A**cquisition

SIPPS: **S**afety **I**ntegrity **P**ressure **P**rotection **S**ystem

The vast majority of pipelines are operated via SCADA systems, the industry standard since the middle of the 20th century. Until several years ago, TAPS operated only with an older SCADA system that dated from construction in the 1970s. APSC has updated the control system to take advantage of new "smart" instrumentation, which is fast becoming the new standard in facility and pipeline design.

APSC created a two-tier system. Less important data is handled by the SCADA system. Critical information and signals, like key instrumentation readings and initiation of mainline valve closures, were moved to SIPPS. The company built SIPPS to a higher standard, known as Safety Integrity Level 2, or SIL-2. SIL systems are built and certified on both an integrated system level and on an component level. In other words, to be certified to any level of SIL, a system must be built of all SIL-certified components and everything connecting those components must be built with the same rigor. SIL certification demonstrates a high level of hardware and software design and quality, and high manufacturing quality of all equipment, components, and materials.

SIL-rated systems are representative of the industry's search for better and safer ways of operating complex pipelines and facilities. SIL certifications are part of an approach termed "functional safety" by an international standard called IEC 61508. Functional safety's overall goal is to have automatic protection functions that operate reliably and correctly. If a problem prevents this, the system must then fail in a predictable manner (fail to safe).

The functional safety approach is proving to be a valuable adjunct to other methods used by the industry to engineer safety into pipelines and facilities and to mitigate risks; such as hazard and operability (HAZOP) reviews and Risk Assessments (RAs). All of these approaches are different, but they retain mutual goals: to meet regulations, to protect the environment, and to enhance process and worker safety.

SPCO FY2014 TAPS ACTIVITIES - RIGHT-OF-WAY SECTION

The State Pipeline Coordinator's Office right-of-way (ROW) section in FY2014 completed several authorizations in support of TAPS lease maintenance and repair activities, comprising:

- Thirteen material sale contracts
- One material site designation
- Four temporary water use authorizations
- Two right-of-way lease amendments
- Nineteen land use permits

Material Site Surveillance

In FY2014 material sites were inspected to determine compliance with the material sale contracts, mining and reclamation plans and TAPS lease stipulation 2.6.

During FY2014 the SPCO ROW section conducted inspections and completed surveillance reports for the operating material sites on state land along TAPS between Deadhorse and Fairbanks. The sites were inspected to determine compliance with the material sale contracts, mining and reclamation plans and TAPS lease stipulation 2.6. The material sites were found to be clean and well-maintained. SPCO staff notified APSC of one unsatisfactory observation made during the field visits; APSC rectified the situation to allow the SPCO to satisfactorily close out the item. All the sites met the requirements for material sites.

Land Use Permits
The SPCO issues land use permits to APSC for maintenance and construction activities, including low-water crossings and pipeline work pad maintenance, below-ground pipe excavation, soil investigations, mineral material storage and oil spill contingency sites and Conex storage. APSC tracks projects that require permitting and applies for permits in advance of project work. Other permit applications may result from observations or surveillances by either APSC or SPCO staff, or from unexpected events such as floods and wind storms. In FY2014, the SPCO issued 19 land use permits for TAPS activities.

Trans-Alaska Pipeline System Temporary Water Use Authorizations
In summer 2014, SPCO met with representatives from the DNR Water Resources Section, Department of Environmental Conservation and APSC to discuss dewatering uses along TAPS during pipeline operations and maintenance activities. In order to ensure pipeline system integrity, APSC may excavate along TAPS at different locations and some of these excavations may require dewatering. Dewatering is considered a non-consumptive use and is typically for a short duration of time, but usually requires obtaining temporary water use authorizations.

Based on these discussions, SPCO has implemented Temporary Water Use Authorizations (TWUAs) for dewatering that are consistent with AS 46.15 Water Use Act. The DNR Water Resources Section determined that using the U.S. Geological Services hydrologic cataloging units identified through its hydrologic cataloging unit codes (HUCs) along TAPS was the most effective approach for authorizing these dewatering activities. There are a total of 19 different HUCS along the TAPS alignment.

APSC applied for 19 TWUA applications for dewatering along TAPS for an up to five-year period. In APSC's applications, it lists a maximum possible dewatering volume for a proposed extremely wet location, although the typical dewatering activities are for far less than the maximum volume. The applications also list the maximum potential rate of dewatering at a project site and describe the types of projects anticipated. The TWUA issued for dewatering only applies to pumping of the near-surface groundwater that seeps into an excavation trench. No activities within surface water resources would be authorized under a TWUA issued for dewatering.

In the review and determination documents, the SPCO identifies water use authorizations, subsurface water rights, contaminated sites and Drinking Water Protection Area Sources and Zones along a two-mile corridor along TAPS within each HUC. After receiving these TWUAS, APSC must acquire all other necessary authorizations, including additional TWUAs, for any other water resource uses.

TAPS Right-of-Way Amendment:
Cathodic Protection Upgrades at PLMP 774.16 & 775.95
On July 24, 2013, the Commissioner signed the amendment to add 0.71 acres at two sites of State land near Thompson Pass for the installation and maintenance of cathodic protection upgrades along the TAPS mainline pipeline. Improvements

include the installation of new Anodeflex alongside an approximate total of 6,569 feet of mainline pipe in the existing TAPS right-of-way. Drilled magnesium rods and junction boxes will be installed to support the Anodeflex and tie the systems into the new rectifier modules at each site. The cathodic protection upgrades were designed to protect the buried pipeline from corrosion.

TAPS Right-of-Way Amendment:
Construction and Maintenance of Revetment at Dietrich River, PLMP 186

On May 30, 2014, the Commissioner signed the amendment to add approximately 3.14 acres of land below the ordinary high water mark of the Dietrich River. The site is approximately 40 miles north of Coldfoot and 50 miles south of TAPS Pump Station 4. The purpose of the request is to install a low-profile revetment at pipeline milepost 186 on the Dietrich River to protect the integrity of the buried TAPS pipeline. River flow pattern changes have resulted in the loss of stream bank and, if not mitigated, will continue to erode and threaten the pipeline downstream of remote gate valve 34.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION LIAISON FY14 TAPS ACTIVITIES

In FY2014 ADEC staff participated in a TAPS spill exercise on the Middle Fork Koyukuk River.

The Alaska Department of Environmental Conservation (ADEC) provides support to the SPCO and the JPO as mandated by Alaska Administrative Order No. 134. The JPO Operating Agreement further details DEC participation in the JPO structure (see page 15). ADEC assigned three full-time personnel to the SPCO during FY2014; an ADEC liaison and two planning specialists from the Division of Spill Prevention and Response (SPAR). The ADEC liaison and the SPCO work closely throughout the year to ensure all ADEC activities associated with TAPS by personnel not directly assigned to the SPCO are communicated to the JPO. The liaison is a part of the JPO Management Team, providing ADEC council and guidance to the agencies making up the JPO.

During FY2014 the ADEC liaison coordinated a meeting between the ADEC Contaminated Sites Program, BLM and DNR to discuss the administration of contaminated sites along TAPS. This effort allowed the three organizations to discuss how the ADEC program works and the needs and requirements of DNR and BLM. That meeting led to close coordination among the groups that has enabled JPO agencies to move forward on contaminated sites and related water use issues.

The ADEC Division of Environmental Health was active in oversight of TAPS and the VMT in FY2014. The division's food safety, drinking water and solid waste programs all conducted inspections of TAPS facilities with satisfactory results.

The ADEC Division of Air conducted seven full compliance evaluations of permitted

TAPS facilities during FY2014. PS7 and PS4 were found in compliance with permit requirements. The remaining five facilities (PS5, PS1, PS9, PS3 and the VMT) were found in less than satisfactory condition at the time of the inspections. Investigation and enforcement of some of the violations noted during the inspections is ongoing; however, none of the violations were considered serious.

ADEC assigned two full-time environmental specialists to the SPCO to focus on TAPS oil spill prevention and response readiness through plan oversight, inspections and response exercises. Conducting and participating in response exercises allows ADEC to validate plan commitments, resources and training along the pipeline and at the VMT. ADEC attended eight spill response exercises during FY2014; three at the VMT and five on TAPS. Exercises range from small, focused deployments to highly involved multi-day events. Each exercise provided an opportunity for APSC and agency representatives to evaluate response readiness and identify areas for improvement as well as document successful tactics for future use.

On August 19, 2013, the department attended an APSC-led exercise at the Middle Fork Koyukuk River. The exercise simulated a 550-barrel spill of North Slope crude with three on-water task forces supported by vessels and helicopters. The goal of the deployment was to mitigate the spread of oil in the Koyukuk River with two main strategies; get in front of the oil to prevent its spread and initiate collection of oil at the discharge point to reduce river and river bank impacts. Containment boom and skimmers were deployed and a great deal of ingenuity and resourcefulness was shown by responders.

More information about the Alaska Department of Environmental Conservation and its divisions can be found at http://dec.alaska.gov/.

DEPARTMENT OF FISH & GAME LIAISON FY2014 TAPS ACTIVITIES

The ADF&G liaison conducted field inspections of the TAPS right-of-way with APSC representatives at various locations along the 800-mile pipeline, from the North Slope to Valdez. The ADF&G liaison visited pre and post-project sites and prepared surveillance reports at a representative sample of the locations. The liaison discussed with APSC solutions for construction, maintenance and project timing to avoid or minimize impacts to fish resources and habitats.

The ADF&G liaison's surveillance activities revealed that, in an effort to ensure efficient fish passage, APSC baseline crews have been actively maintaining low-water crossings and culvert structures along the right-of-way in compliance with the conditions and stipulations of Fish Habitat Permit FH 14-SPO-0007. The ADF&G liaison wrote four trip reports that provided surveillances on 236 drainage structures in FY2014.

APSC Environmental Surveillances and Repairs
APSC conducted fish stream surveillances at 652 sites along TAPS. The APSC right-of-way and civil maintenance group worked on 113 drainage structures in FY2014.

Five sites required extensive repair (and Fish Habitat Permits issued by the SPCO) to provide long-term fish passage, 16 sites were deemed high priority sites for fish passage and 92 sites required routine maintenance, some of which were completed in 2013 and the remainder scheduled for 2014. Fifteen sites required additional monitoring to assess fish passage during varying water levels; the remaining 529 sites required no work.

Alignment Slough
Alignment Slough is fish stream located at pipeline milepost 218.45, approximately 20 miles north of Coldfoot. A revetment was constructed in the winter of 1999 at the confluence of Alignment Slough and the Middle Fork Koyukuk River due to continuing bank erosion towards the pipeline. During construction the outlet of Alignment Slough was blocked by a layer of riprap which provided continuity for the revetment across the slough.

In FY2014, APSC restored fish passage by removing the layer of riprap blocking the slough outlet and reshaping the slough's channel grade and cross section. There is still minor work to perform in order to optimize fish passage planned for FY2015; however, during a June 2014 inspection trip, ADF&G observed a large grayling in Alignment Slough. Fish passage was completely blocked prior to this restoration project. ADF&G will continue to monitor and work with APSC in the future to ensure fish passage at this site.

DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT FY14 TAPS ACTIVITIES

SPCO safety liaison Mike Buck conducts a safety inspection at the Valdez Marine Terminal. During inspections he checks for compliance with the health and safety requirements in Stipulation 1.20: Health and Safety.

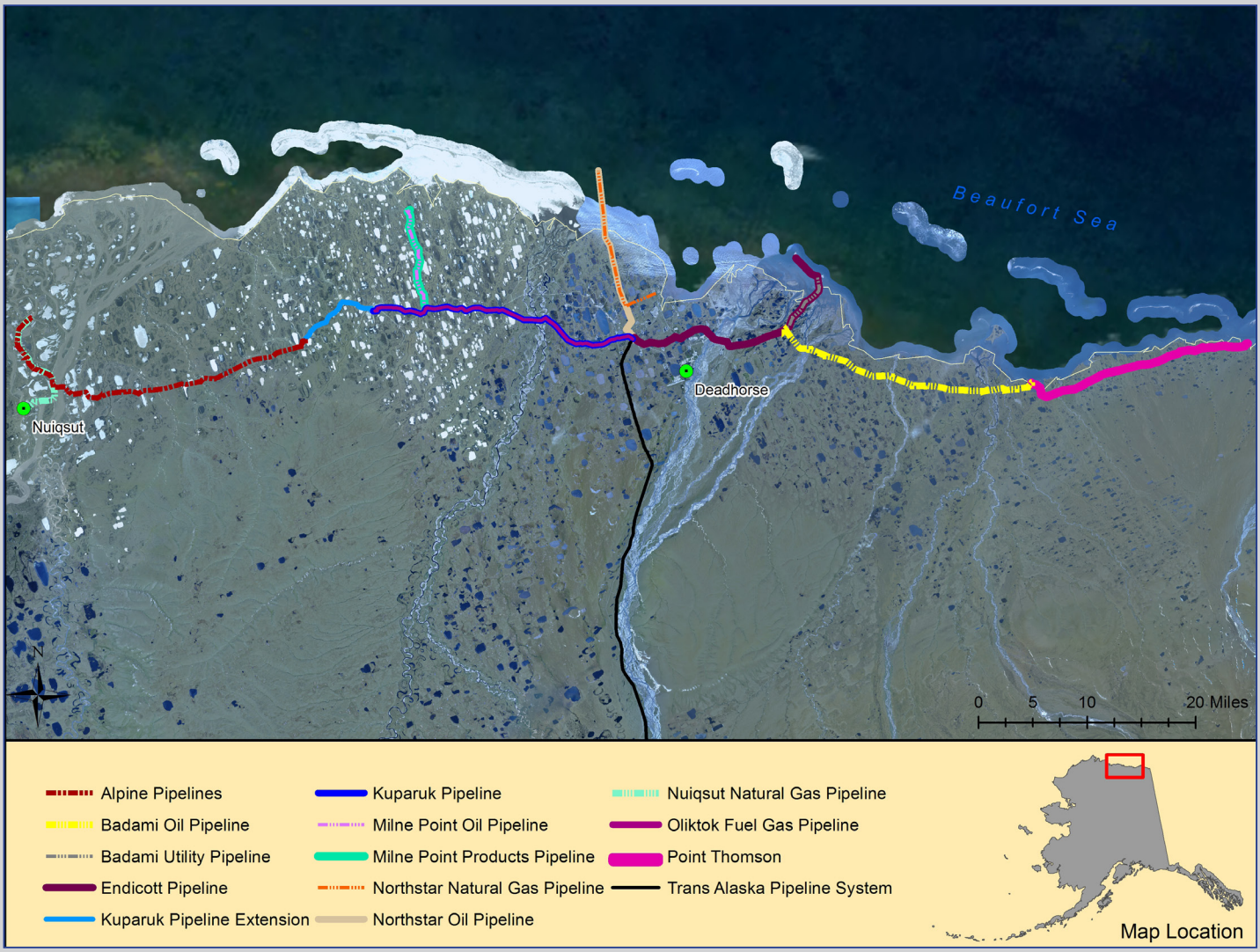
The SPCO safety liaison conducted 18 annual safety inspections of TAPS facilities for compliance with the health and safety requirements in Stipulation 1.20: Health and Safety. TAPS facilities include the pump stations, response bases, the Fairbanks-area shops and storage facilities and the VMT. The safety liaison uses Federal Occupational Safety and Health Administration (OSHA) standards (29 CFR 1910 and 29 CFR 1926) to develop and update inspection criteria.

In addition to annual inspections, the safety liaison conducted four work site safety inspections. The standard for a work site inspection is the same as annual safety inspections, but with more emphasis on safety programming and procedures.

The SPCO electrical inspector tracks code violations, issues notices of violation and verifies corrections with follow-up inspections. The electrical inspector confirms that electricians and contractors are licensed and inspects electrical work during random on-site inspections to verify that the code requirements are met. The electrical inspector focuses on timely verification of code violation abatements.

In FY2014, the SPCO electrical inspector performed 70 inspections, issued one notice of violation and reviewed 50 certificates of fitness. The electrical inspector also provides code interpretations and is the JPO's electrical code compliance consultant.

NORTH SLOPE PIPELINES



This section of the SPCO annual report focuses on pipelines on the North Slope of Alaska. The North Slope has numerous existing pipeline systems and several proposed (see the Proposed Pipelines section of this report).

BP Exploration (Alaska) Inc. (BPXA) operates the Endicott, Milne Point and Northstar pipeline systems on the North Slope. The Milne Point system includes Milne Point oil and product pipelines, and the Northstar system includes Northstar oil and gas pipelines.

ConocoPhillips Alaska, Inc. (CPAI), operates the Alpine, Kuparuk and Oliktok pipeline systems on the North Slope. The Alpine system is composed of the Alpine diesel, oil and utility pipelines. The Kuparuk system includes the original Kuparuk pipeline and Kuparuk extension.

North Slope Borough (NSB) operates Nuiqsut Natural Gas Pipeline (NNGP), which transports natural gas from the CPAI Alpine production pad to the village of Nuiqsut. Nutaaq Pipeline, LLC, operates the Badami sales oil and utility pipelines.

Each pipeline subsection includes an overview of the pipeline system and highlights from SPCO compliance, right-of-way and engineering activities during 2014.

BADAMI PIPELINES

DNR issued the Badami Sales Oil Pipeline Right-of-Way Lease (ADL 415472) and the Badami Utility Pipeline Right-of-Way Lease (ADL 415965) on December 15, 1997.

The Badami Sales Oil Pipeline and the Badami Utility Pipeline run parallel on vertical and horizontal support members from Endicott to Badami, the eastern-most producing oilfield on the North Slope. The only buried segments of these pipelines are below-grade crossings at the Shaviovik, Kadleroshilik and Sagavanirktok Rivers. Flow in Badami Sales Oil Pipeline is east-to-west and flow in Badami Utility Pipeline is the reverse, west-to-east.

Badami Sales Oil Pipeline is insulated and 12 inches in diameter. It originates at the Badami Central Production Facility (CPF). Badami CPF houses the pigging facilities, mainline pumps and metering equipment for the pipelines. The pipeline terminates at a tie-in on Endicott Pipeline. From the termination, Badami and Endicott oils co-mingle and flow through the Endicott pipeline to PS1, and then through TAPS.

Badami Utility Pipeline originates at an intersection on the Endicott causeway. It connects to the fuel gas line that feeds the satellite island from the Endicott main production facility. It transports fuel gas from the Endicott tie-in to Badami CPF, a distance of 31 miles. When Badami is producing, the oilfield does not typically need the utility pipeline. It generates fuel gas in sufficient volumes to support all field facilities.

Badami Transfer of Interest

On April 25, 2013, the Commissioner received a request to transfer lease ownership for the Badami Sales Oil Pipeline (ADL 415472) and the Badami Utility Pipeline (ADL 415965) from BP Transportation (Alaska) Inc. (BPTA) to Nutaaq Pipeline, LLC (Nutaaq). Nutaaq is owned by Savant Alaska, LLC, and Badami Pipeline Holding, LLC, which is 100 percent owned by Arctic Slope Regional Corporation Exploration, LLC.

Since January 2012 personnel from Savant or one of its affiliates have been providing operator services to the Badami pipelines. Savant and ASRC Exploration were involved in the effort to restart production from the Badami Unit in November 2010 and officially took over unit operations in January 2012. The transfer to Nutaaq resulted in some management changes, but no changes in the use of the Badami Pipeline rights-of-way are proposed.

Badami Weir on the west side of the Sagavanirktok River

Badami Weir and Right-of-Way Surveillance

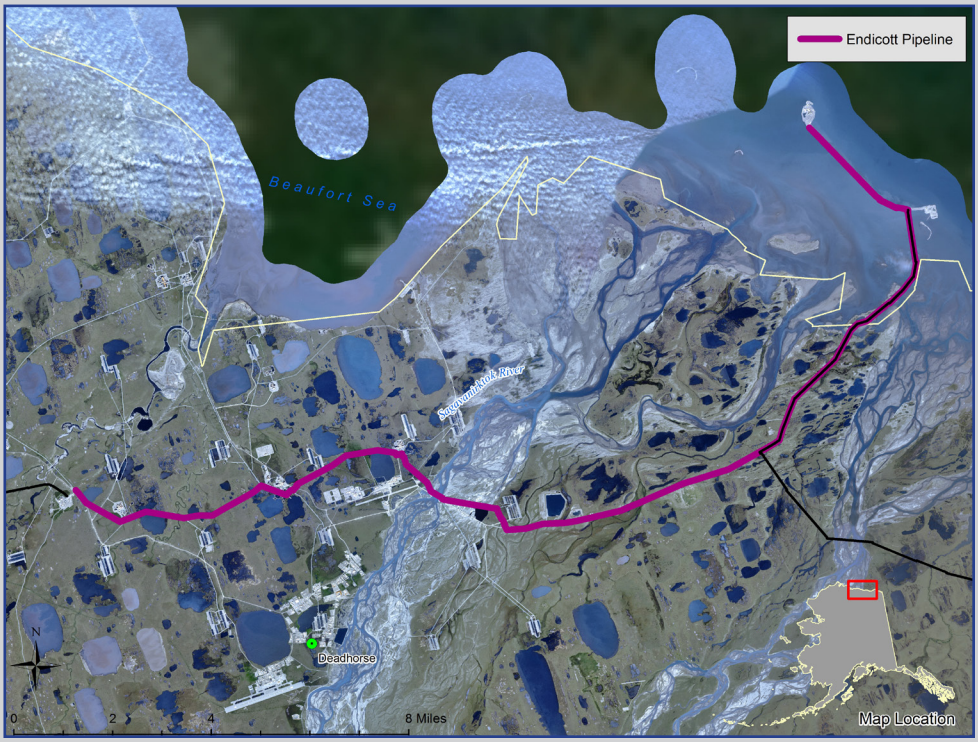
On August 26 and 27, 2013, SPCO staff performed a surveillance of the Badami Weir and adjacent right-of-way. SPCO staff found the weir functioning and in good repair. At the time of the visit there was no water flowing over the weir and no noticeable erosion that would compromise the integrity of the weir or the pipelines. Indigenous plant growth seems to have improved since the last SPCO site visit in June 2012.

Piggable Wye Installation

In FY2014 SPCO engineering staff reviewed plans for installation of a piggable wye that will be installed at the beginning of the Badami pipeline, which will one day also be the terminus of the Point Thomson Export Pipeline. This facility will allow both maintenance and ILI pigs launched from Point Thomson to travel to a pig receiver at Endicott via the Badami pipeline. This is possible because both pipelines are the same nominal diameter, 12 inches.

ENDICOTT PIPELINE

Endicott oil field development is located on offshore state land approximately 10 miles northeast of Prudhoe Bay. BPXA, the Endicott Pipeline operator, describes Endicott as the first continuously producing offshore oil field in the Arctic.



Endicott facilities are situated on man-made gravel islands, called the main production island (MPI), the satellite drilling island (SDI) and Endeavor Island, a small island that abuts the MPI. Endicott lies north of Sagavanirktok River Delta about 15 miles east of Prudhoe Bay and inside the barrier islands in the Beaufort Sea. The Endicott islands are linked to shore by a 1.5-mile causeway, with a road and above-ground pipeline support from the inter-island causeway that links MPI and SDI to the Sagavanirktok River Delta uplands. An eight-mile gravel road extends from the end of the causeway to the Prudhoe Bay road system. The causeway system provides year-round access to a portion of the Endicott pipeline and facilities.

Endicott Pipeline transports processed crude oil from the Endicott oil field development and the Badami oilfield to Trans-Alaska Pipeline System PS1. The 16-inch diameter Endicott pipeline originates at Module 303 on MPI, is mounted on vertical support members along the main causeway and parallels the onshore road system until it terminates at PS1 where there is a pig receiver and metering equipment. The Badami sales oil pipeline connects to the Endicott pipeline at the approximate mid-point of Endicott Pipeline. Badami oil is co-mingled with Endicott oil for delivery to PS1.

Endicott Heater Installation

The winter of 2013/14 saw the first full winter of operation of the modified heater for Endicott. Production for Endicott was no longer sufficient to meet TAPS delivery specifications for temperature. Northstar has seen a similar decline, but it had a heater located near PS1 to boost oil temperatures. BP modified the tubing bundle, valves, instrumentation and piping to accommodate flows from both fields, while keeping each separate to allow for downstream metering and monitoring. The SPCO performed spot records checks and determined that the new combination heater was working

reliably and accurately kept both fields' temperatures in the optimal target range of 105-110°F.

Right-of-way Surveillance

On August 26 and 27, 2013, SPCO staff performed a surveillance of the Endicott Oil Pipeline right-of-way.

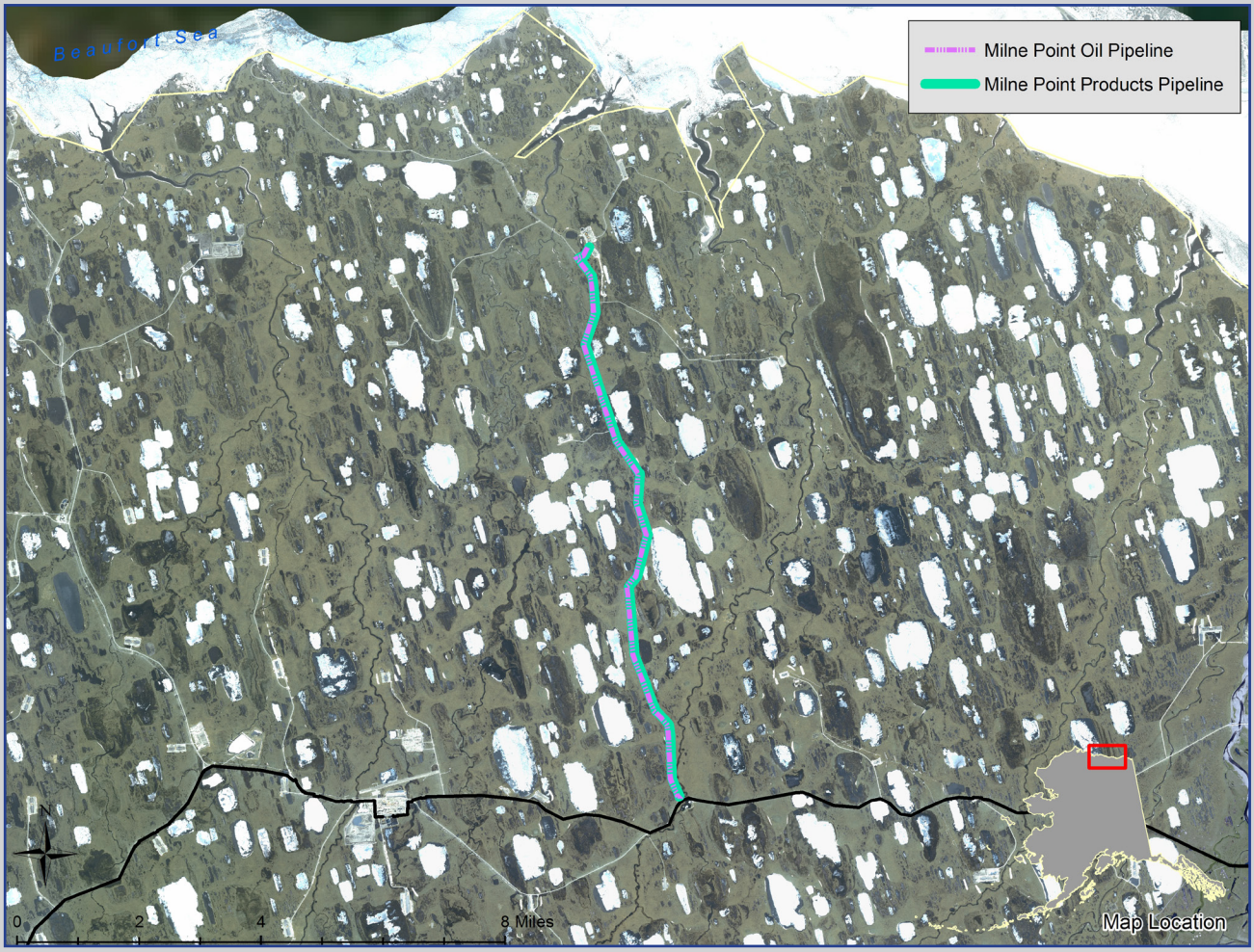
SPCO staff noted debris on the right-of-way between the Sagavanirktok River and Drill Site 6 consisting of pipeline insulation, pipeline jacketing and general debris associated with maintenance activities. On August 30 the SPCO sent letter 13-398-AS to BPTA stating that all debris within the Endicott right-of-way be removed by September 12, 2013. The SPCO also requested that BPTA pick up debris that may have been blown from the Endicott right-of-way to adjacent lands. On September 16, 2013, lease compliance staff performed a follow-up surveillance and observed the right-of-way to be clear of all debris. BPXA personnel stated that 22 truck-loads of debris were removed after the August 27 SPCO site inspection.

On June 18, 2014, SPCO staff performed a surveillance of the Endicott Oil Pipeline right-of-way from the satellite production island to PS1 and observed occasional pipeline jacketing/insulation, but not to the degree observed in 2013. In response to SPCO's observations in 2013, the Corrosion, Inspection, and Chemical Group enacted a new right-of-way cleaning program, which began in July 2014.

BP staff inspecting Endicott Pipeline

During the June surveillance SPCO staff observed scaffolding on top of a series of pipelines within the Endicott right-of-way. BP staff stated that a work order would be created to remove the scaffolding. SPCO staff then traveled to Drill Site 9 where a 3-phase produced water line spilled on the Endicott right-of-way in August, 2013. The site appeared to be completely remediated and there was no evidence of the spill. Finally, SPCO staff traveled to the site where in March a contractor drove over the Endicott Pipeline four times while packing snow drifts. SPCO staff looked at a large section of the pipeline jacketing and found no evidence of damage.

MILNE POINT PIPELINES



Milne Point oil pipeline construction began in 1984 and was completed the following year. The 14-inch diameter pipeline was designed to transport processed crude oil from Milne Point Unit, operated by BPXA, to Kuparuk Pipeline, operated by CPAI. Milne Point Pipeline originates at Milne Point Central Facilities Pad (CFP) Module 58, passes below Spine Road east of Central Processing Facility One (CPF-1) and terminates at the Kuparuk Pipeline connection near Module 68. Module 68 houses metering instruments, leak detection equipment and a pig receiver. In 2007, BPXA removed a section of Milne Point Pipeline inaccessible to pigging tools and replaced it with corrosion-resistant duplex stainless steel.

The Milne Point products pipeline was built in 2000 and placed on Milne Point Pipeline supports. The eight-inch pipeline transported natural gas liquids from Oliktok Pipeline to the Milne Point CFP for use in enhanced oil recovery processes. BPXA shut down the Milne Point products pipeline in 2002 and, in December of 2006, purged and physically disconnected it from Oliktok Pipeline, in compliance with SPCO and USDOT/PHMSA regulations.

Right-of-way Surveillance

On August 26 and 27, 2013, and June 18, 2014, SPCO staff conducted surveillances of the Milne Point Oil (MPO) and Milne Point Products (MPP) pipelines rights-of-way.

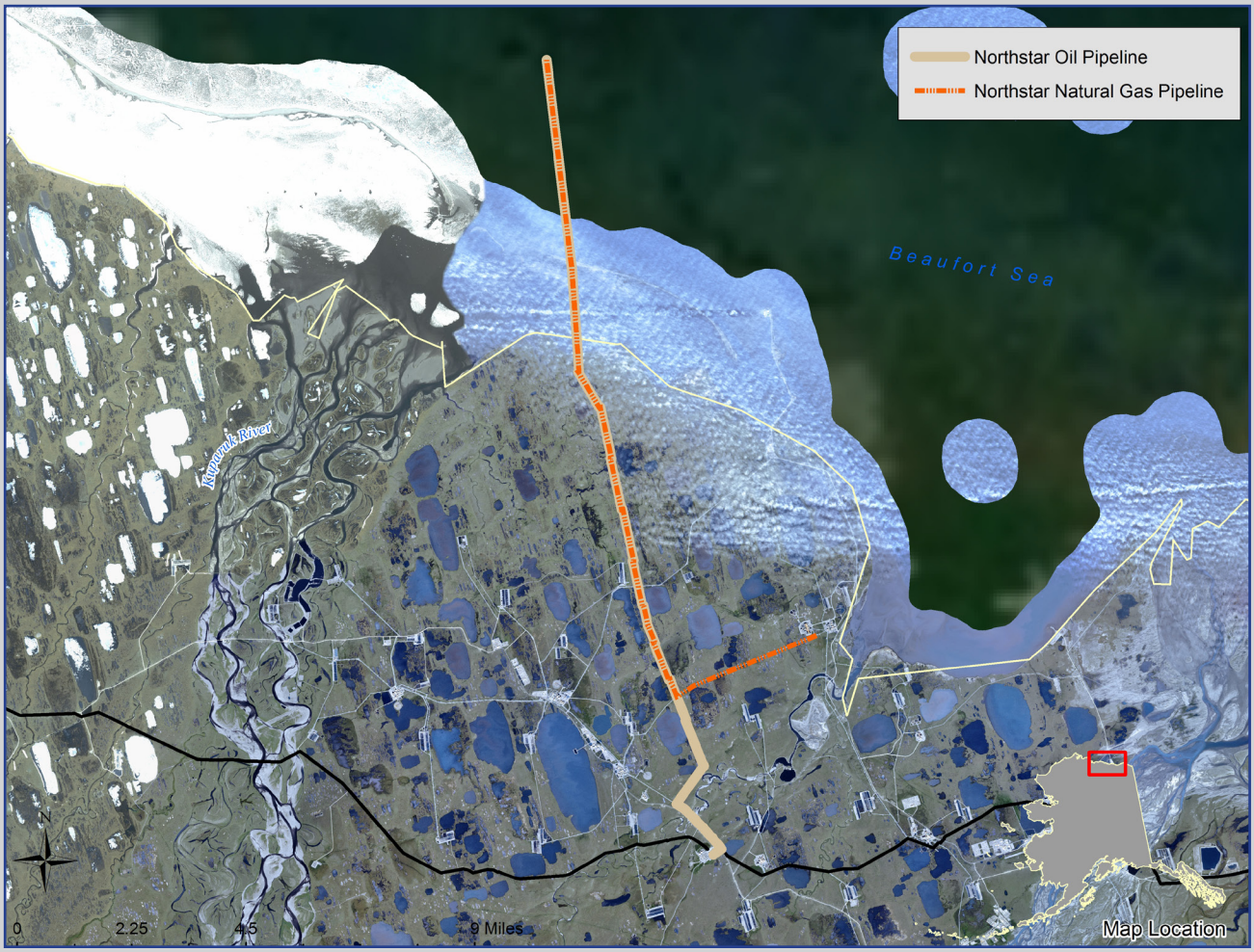
SPCO staff observed some broken centralizers on the Milne Point products pipeline. Centralizers help to reduce jacket corrosion by elevating the pipeline out of water, thereby preventing moisture saturation of the insulation can lead to external pipe corrosion. None of the broken centralizers appeared to be broken underneath the pipeline, so there was adequate distance between the pipeline and the casing. BP representatives stated that prior to starting the pipeline back up they would look into addressing the broken centralizers.

On May 11, 2014, BP discovered an approximately five-gallon diesel spill, likely leaked from a vehicle on the Central Facility Pad (CFP), that had entered the oil pipeline right-of-way. BP staff reported to SPCO that the spill was cleaned up on May 15, 2014. During the June 2014 surveillance SPCO staff observed a boom at the base of the sloping edge of the CFP and erosion occurring on the edge. Cones were in place to denote the erosion and spill site and prevent vehicles from entering the area.

Milne Point Pipelines with Central Facility Pad in the background

SPCO staff contacted BP in regard to the status of the diesel spill clean-up. BP explained that the boom was left in place while the snow was melting to collect any residual diesel. The boom was removed on July 2, 2014. BP staff provided pictures of the site after the boom was removed and the erosion was remediated.

NORTHSTAR PIPELINES



Northstar oil field is located about six miles off the Alaska coast in the Beaufort Sea. Royal Dutch Shell discovered the reservoir in 1983 with exploration wells drilled from Seal Island (also known as Northstar Island), where the Northstar production facilities are positioned today.

BPXA acquired most of the Northstar leases and began efforts to develop the field in 1995. DNR issued a pipeline right-of-way lease in October of 1999; BPXA began producing oil from Northstar in late 2001.

The Northstar oil pipeline transports processed crude oil from the Northstar facilities to TAPS PS1. A second pipeline transports natural gas, used to maintain reservoir pressure, from the Prudhoe Bay central compressor plant to Northstar Island. The two pipelines share vertical support members for their above-ground sections and a subsea trench for the offshore portion.

The trenched pipes were designed and constructed to withstand seabed ice gouge and settlement loading conditions of thawed soils. In addition to standard leak detection systems that monitor pressure, volume and temperature in the pipeline, the operator employs a leak detection system called LEOS (Leak Detection and Location System), which is designed to sense hydrocarbon vapors surrounding the pipelines. In FY2012

BPXA tested the LEOS secondary leak detection system on the Northstar subsea pipeline segment and concluded that the enhancements have greatly reduced the threshold detection level. USDOT/PHMSA regulates the Northstar pipelines' corrosion inspection programs.

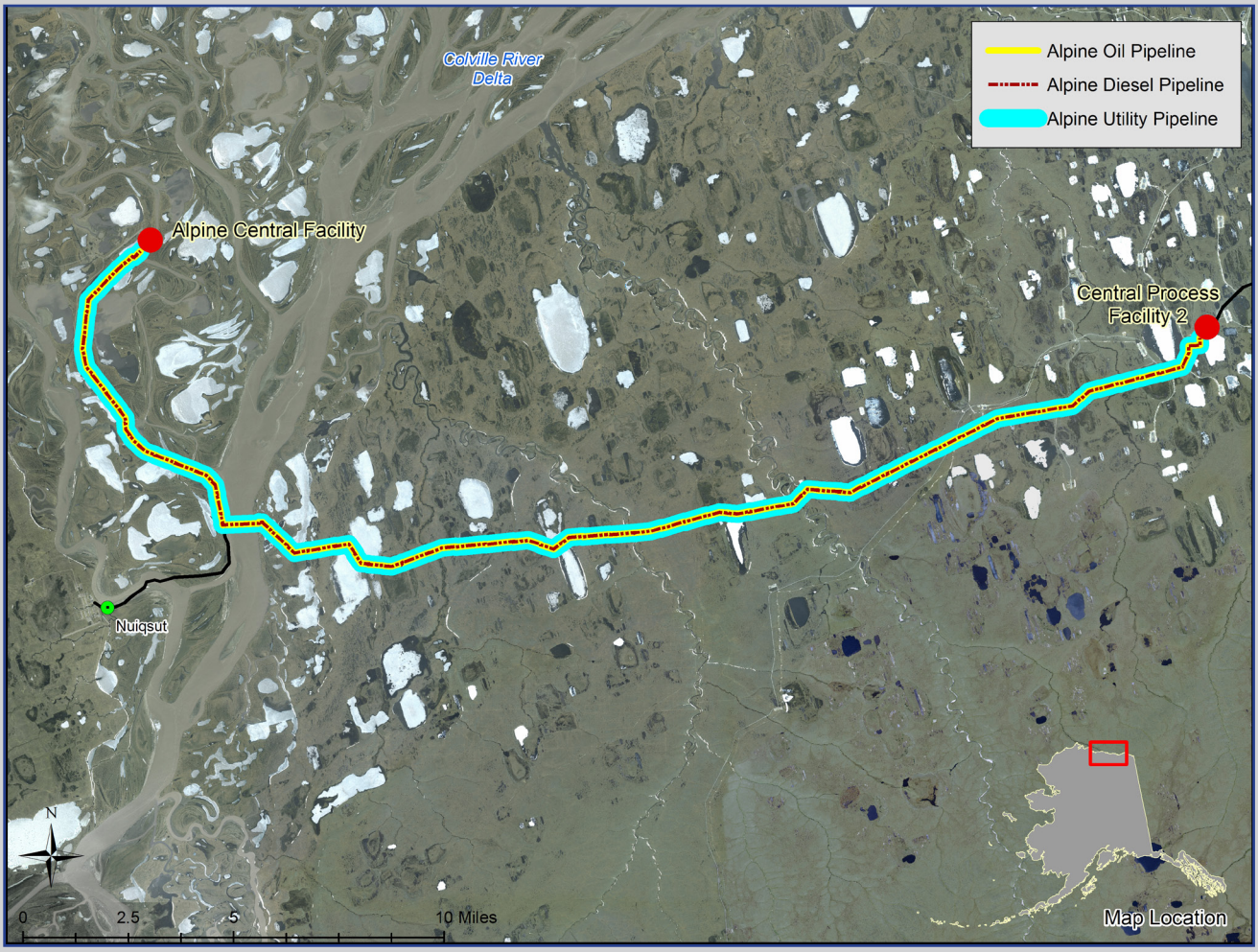
Right-of-way Surveillance

On September 16, 2013, SPCO staff performed a surveillance of the Northstar Pipelines' landfall just east of Point Storkersen, about 3.5 miles west of Prudhoe Bay. The seaward side of the backfilled trench had only a trace amount of vegetation growing on it, leaving the erosion control fabric exposed. This is likely caused from the occasional high energy storms that produce elevated sea levels. The erosion control fabric appeared to be functioning as intended despite the lack of vegetation growing around on it.

Northstar pipelines landfall with Northstar Island in the background

An erosion gulley had formed beneath the west side of the erosion control fabric, a condition that had been noted during previous BPXA surveys and likely caused by snow melt running off the pad or summer rainfall. The gulley will likely enlarge over time, and the side slope will require further treatment. At the time of the SPCO site visit it did not necessitate immediate action.

ALPINE PIPELINES



The Alpine pipeline system consists of three separate pipelines that transport materials across state-owned and Kuukpik Corporation lands between the Alpine Central Processing Facility and the Kuparuk River Central Processing Facility 2 (CPF-2). The 34.6-mile long Alpine pipeline system includes a 14-inch diameter crude oil pipeline, a 12.75-inch diameter treated seawater pipeline and a 2.375-inch diameter diesel line. The majority of the pipeline system is supported by vertical support members (VSM), with the exception of the Colville River crossing where the pipeline system is buried. The Nuiqsut Natural Gas Transmission Line shares the support system from the Alpine Central Processing Facility to the west banks of the Colville River crossing.

ConocoPhillips Alaska, Inc. (CPAI) is continuing to perform work related to the newly developed CD-5 drill site, which is scheduled to begin delivering oil to the Alpine Central Processing Facility by 2015.

In-line Investigations

In May 2013 CPAI conducted two in-line investigations (ILIs) on the Alpine oil pipeline. One was a magnetic flux (MFL) smart pig, and the other one was an inertial measurement unit (IMU) pig. The MFL can measure corrosion and mechanical damage by saturating the pipe wall with magnetism and measuring the resultant magnetic

fields. The IMU uses gyros and accelerometers to measure the three-dimensional coordinates of the pipe.

These two inspections measured metal loss, deformation and centerline position of the pipe. Analysis of ILI data is a complex activity and usually takes months. Crews using ultrasonic and radiographic equipment investigated potential problem sites during the following winter. The IMU pig suffered from technical problems and its results had to be dismissed as not usable. CPAI performs ILIs on most transmission pipelines at higher frequencies than regulatory minimums.

Right-of-way Surveillance

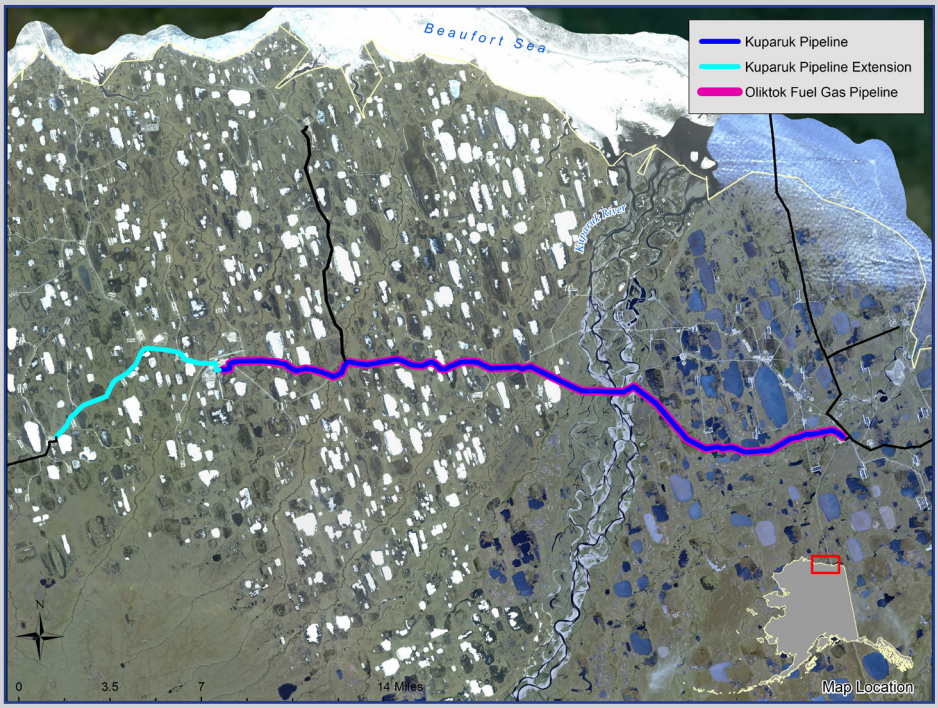
SPCO staff visited the Alpine leaseholds in July 2013 to inspect the physical conditions of the rights-of-way and to observe associated work being conducted at the Alpine Central Processing Facility. SPCO staff found the right-of-way to be in satisfactory condition and associated project work not adversely affecting the rights-of-way.

SPCO staff performed a surveillance inspection of the condition of the Alpine leaseholds in August 2013. Summer surveillance priorities included inspecting cased crossings, culverts, tundra damage, wildlife blockage, damage to modules, and for any evidence of damage to the pipeline. SPCO staff found the rights-of-way to be in satisfactory condition during the surveillance field visit.

SPCO staff visited the Alpine Central Processing Facility in June 2014 to conduct a surveillance field visit and to observe work related to the CD-5 construction project. SPCO staff found the rights-of-way to be in satisfactory condition, and project work related to the CD-5 construction progressing on schedule.

KUPARUK PIPELINES

The Kuparuk (KPL) pipeline and Kuparuk Extension pipeline (KPE) are located within the Kuparauk River Unit (KRU) and transport processed crude oil to the surrounding areas and eastward to the Trans-Alaska Pipeline System via Pump Station 1. The 9-mile long, 18-inch diameter KPE connects the Alpine Oil Pipeline to the KPL to bring processed crude oil from the Colville River Unit to the KRU at the Central Process Facility 1. At the Central Process Facility 2 (CPF-2), the KPL begins and travels approximately 28 miles to a pig receiver adjacent to PS1. The KPL is set on above ground vertical and horizontal support members shared with the Oliktok Pipeline and is accessible by road for most of its length.



When the new 24-inch KPL was constructed in 1984, the original 16-inch KPL pipeline was converted to the Oliktok Pipeline, which currently carries natural gas liquids from PS1 to CPF-1. In 2009, a 12-inch segment of KPE was replaced with an 18-inch pipe, which made that portion of the pipeline accessible to pigging tools.

In-line Inspection

During September 2013, CPAI performed an MFL smart pigging of the Kuparuk Pipeline. Most of the areas identified as having potential damage were external and under weld packs, which follows a trend seen on North Slope pipelines.

Right-of-way Surveillance

SPCO staff completed surveillance inspections in July and August 2013 and June 2014 and did not observe any conditions that posed a threat to pipeline integrity, the environment or wildlife.

OLIKTOK PIPELINE

The 16-inch Oliktok Pipeline (OPL) transports natural gas liquids from Prudhoe Bay westward approximately 28 miles to the Kuparuk River Unit. The OPL begins at Module 501 near Pump Station 1 adjacent to Prudhoe Bay Skid 50, before it crosses the Spine Road and terminates at the Kuparuk Central Process Facility 1 (CPF-1). In 1981, the original right-of-way application for the OPL was approved for crude oil service, but amended to natural gas service in 1984 and finalized in 1986.

CPAI is continuing to perform work for the Oliktok Fuel Gas Conversion Project that will convert the OPL from transporting natural gas liquids to natural gas. The purpose of the project is to utilize the OPL to import fuel gas from the Prudhoe Bay Unit to the Kuparuk River Unit solely for combustion use. A majority of the conversion project work has been completed, with full service start-up of natural gas transportation expected to occur in fall of 2014.

The majority of the OPL is situated on vertical and horizontal members that place the line about five feet above the ground, except where it intersects caribou and road crossings. A fiber optic cable and associated appurtenances are mounted at each vertical support member along the pipeline for enhanced communication.

Right-of-way Surveillance
In July 2013 SPCO compliance staff traveled to the Oliktok pipeline to inspect the physical conditions of the pipeline right-of-way. A culvert at the East Creek access road along the OPL pipeline and culverts near VSM 70 appeared to pose a potential risk to drivers accessing the right-of-way. SPCO staff returned to the leasehold in August to verify that the culverts had been repaired. Repairs to the East Creek access road and VMS 70 culverts were completed that area were no longer considered potential safety hazards.

SPCO staff visited the Oliktok Pipeline leasehold in June of 2014 to conduct a surveillance on the physical conditions of the right-of-way and to observe the progress of the Oliktok Fuel Gas Conversion Project. SPCO staff followed the OPL right-of-way from the KRU CPF-2 to Module 501 at Pump Station 1. Overall, SPCO staff found the right-of-way to be in satisfactory condition and the Oliktok project to be progressing as scheduled.

NUIQSUT NATURAL GAS PIPELINE

The approximately 14.4-mile long Nuiqsut Natural Gas Pipeline (NNGP) transports natural gas from the Alpine Production Facility to the village of Nuiqsut, within the Colville River Delta. The NNGP proceeds from Alpine in a southeasterly direction, sharing the vertical support member system with the Alpine oil, diesel and utility pipelines. The NNGP is aboveground for about 8.8 miles as it leaves the Alpine Production Facility, and is buried under the main channel of the Colville River for 5.6 miles.

Right-of-way Surveillance

SPCO staff traveled the Nuiqust right-of-way in August 2013 to observe work related to cathodic protection (CP) system repairs. An independent engineering contractor recommended that each test station in question undergo an integrity excavation for inspection, to adequately detect the cause of the malfunction, and to make necessary repairs. Heavy equipment was used to excavate the CP test stations which had previously been identified as having failed or non-functioning anode connection lead wires. Due to delays in equipment deliveries, the project was pushed back and SPCO staff planned a follow-up visit to the right-of-way.

SPCO staff returned to the Nuiqsut right-of-way in September 2013 to observe progress being made on cathodic protection (CP) system repairs and upgrades. Project work continued to be delayed because necessary equipment needed to complete the project had not yet arrived in Nuiqsut. In the interim, site engineers and contractors completed pipeline ultrasonic testing (UT) and coating damage inspections. The operator also carried out summer pipeline surveillance and inspections. SPCO staff plan to follow up on repairs made to the CP stations in the future.

POINT THOMSON EXPORT PIPELINE

Construction of Point Thomson Export Pipeline completed in 2014. In the image above crews lift the pipe on to the installed vertical and horizontal support members. *Photo courtesy of ExxonMobil*

The Point Thomson Export Pipeline (PTEP), a critical component of the newest development on the North Slope, reached significant milestones in 2014 as the construction phase and subsequent hydrostatic testing were completed. ExxonMobil, the pipeline operator, designed the 22-mile, 12-inch-diameter pipeline with a capacity of 70,000 barrels per day and plans to begin shipping condensates by 2016.

The Point Thomson field, located approximately eight miles west of the Arctic National Wildlife Refuge and now the easternmost developed oil field in Alaska, holds an estimated eight trillion cubic feet of natural gas and 20 million barrels of condensates. For background information on the PTEP project visit http://dnr.alaska.gov/commis/pco/pt_thomson.html.

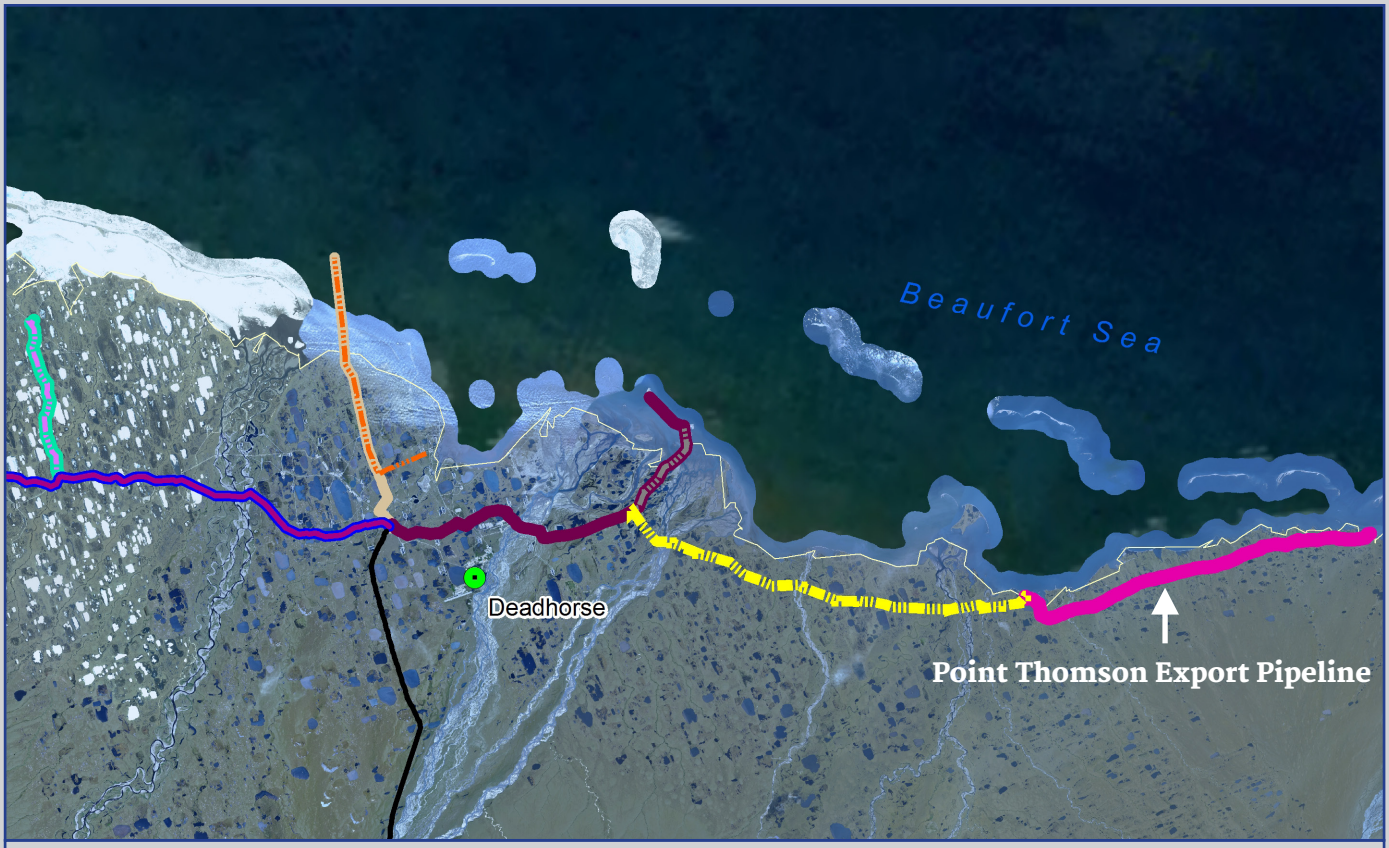
Right-of-way Surveillance

During FY2014, SPCO lease compliance staff conducted surveillances and reported on the condition of the PTEP right-of-way. The lease compliance section's activities yielded six lease compliance reports that described the SPCO's oversight of construction activities on the PTEP right-of-way.

SPCO staff made observations of pipeline construction activities, monitored the condition of the right-of-way, checked quality control documentation and documented compliance to the covenants of the lease. SPCO staff observed pipe receiving and stringing, welding procedures and facilities, coating procedures and facilities, pipe raising, survey monuments, ice road construction and maintenance. All of the SPCO surveillances generated during pipeline construction reflected satisfactory findings.

Piping staged for the construction of Point Thomson Export Pipeline

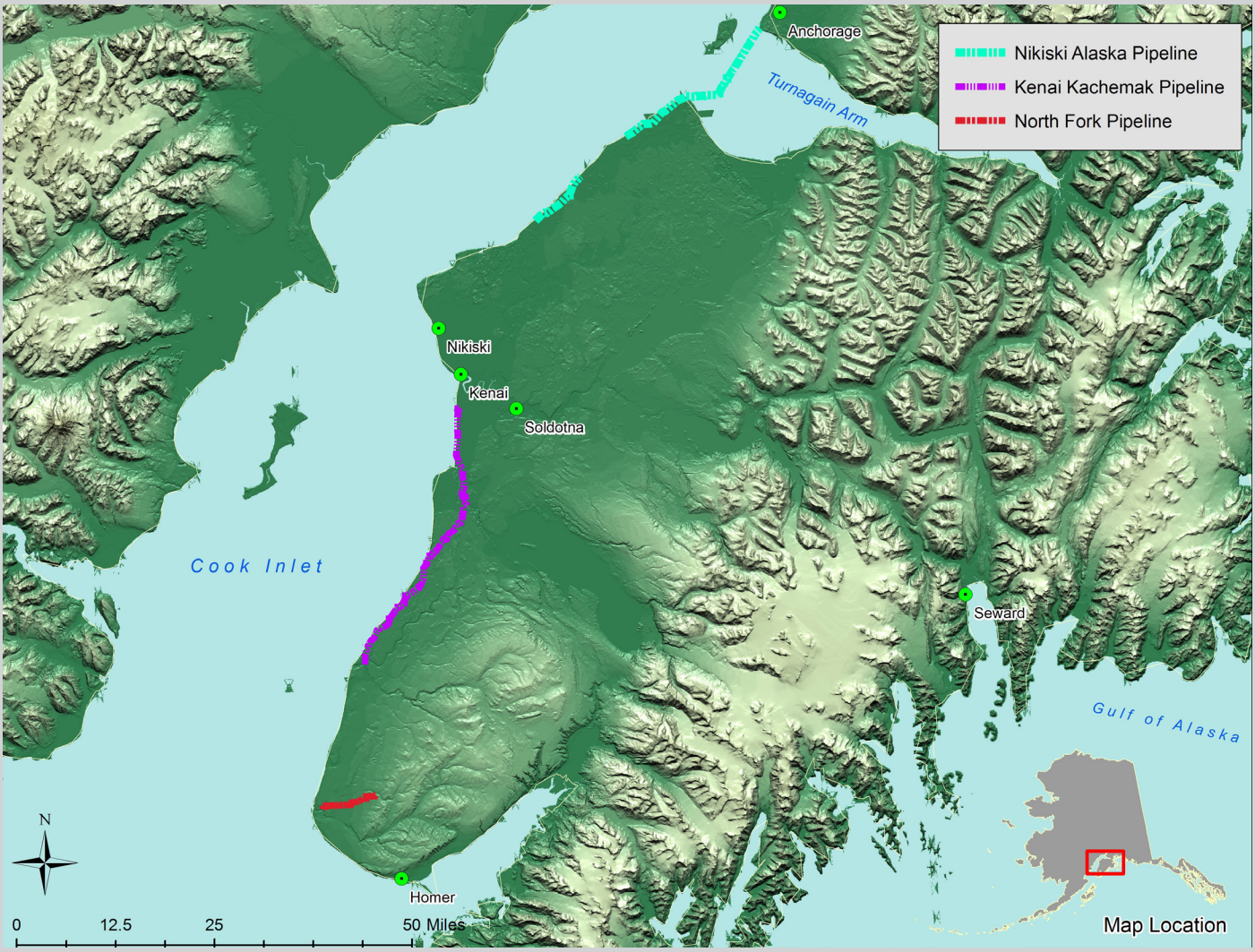
Point Thomson Export Pipeline prior to being raised on to the VSM pipe saddles



The Point Thomson Export Pipeline connects Point Thomson oil field, the easternmost developed oil field on the North Slope, with existing North Slope infrastructure.

The 22-mile, 12-inch-diameter pipeline has a capacity of 70,000 barrels per day and will begin transporting condensates from the Point Thomson field by 2016.

SOUTHCENTRAL PIPELINES



This section of the report focuses on southcentral Alaska pipeline systems under the jurisdiction of the SPCO. Before 2010, southcentral Alaska SPCO-jurisdictional pipelines included Kenai Kachemak Pipeline (KKPL), operated by Marathon Pipe Line, LLC (MPL), and Nikiski Alaska Pipeline (NAP), operated by Tesoro Alaska Pipeline Company (Tesoro). In 2010, the SPCO issued a right-of-way lease to Anchor Point Energy, LLC, for a 7.4-mile long natural gas pipeline from the North Fork production pad to the Anchor Point area. North Fork Pipeline began transporting gas on April 7, 2011.

KENAI KACHEMAK PIPELINE

The Kenai Kachemak Pipeline (KKPL) is a high-pressure, primarily buried, natural-gas transmission pipeline on Alaska's Kenai Peninsula. Throughout its route, the pipeline parallels Kalifornsky Beach Road, the Sterling Highway, Cohoe Loop Road, and Oilwell Road. It was built in three phases during 2003, 2004 and 2006. The KKPL mainline was built with 12-inch pipe of 0.330 and 0.5-inch wall thickness, and is rated for a maximum allowable operating pressure of 1,480 pounds per square inch (psig).

Right-of-way Surveillance

On February 28, 2014, SPCO lease compliance staff traveled to Kenai to discuss current operations and upcoming projects and to look at document tracking systems. The pipeline operator provided access to all requested program information and documentation and SPCO staff found all documents to support lease requirements.

On April 16, 2014, SPCO staff traveled to the Kenai Peninsula to observe portions of the KKPL right-of-way, discuss current operations and learn more about upcoming projects. SPCO staff drove the majority of the right-of-way from the terminus on Kalifornsky Beach Road to Ninilchik. The Cohoe Loop Road (Kasilof Extension) portion and the Happy Valley Extension were not driven. All observed portions of the right-of-way appeared to be in an acceptable condition.

Bart Pad lateral tie-in to Kenai-Kachemak Pipeline

On July 30, 2014, SPCO staff traveled to the Bart Pad to look at the recent tie-in to the KKPL. The site was clean and orderly. The hot tap was conducted on July 25, 2014, with gas flowing soon after. SPCO staff accessed the right-of-way and the Bart Pad to observe newly installed infrastructure.

NIKISKI ALASKA PIPELINE

Nikiski Alaska Pipeline is a buried pipeline that begins at Tesoro Alaska Pipeline Company's (Tesoro) Kenai Refinery in Nikiski. The pipeline route runs along the Kenai Spur Highway through the Captain Cook State Recreation Area, and then parallels the coast to Point Possession before crossing the Turnagain Arm. The pipeline route continues along the Tony Knowles Coastal Trail, through the Ted Stevens Anchorage International Airport, and then along Northern Lights Boulevard. The pipeline runs near the Alaska Railroad right-of-way for the remainder of the route, terminating at the Port of Anchorage.

The Nikiski Alaska Pipeline was constructed in 1976. The pipeline has a 10.75-inch outside diameter and transports refined petroleum products from Tesoro's Kenai Refinery to the Port of Anchorage. The pipeline operates under USDOT/PHMSA pipeline safety regulations and transports refined products suitable for industrial, government, commercial and consumer use. The Nikiski Alaska Pipeline's maximum operating pressure is 1,440 psig. Mainline pumps, meters, and the pig launcher are located at Tesoro's Kenai Refinery.

Right-of-way Surveillance
On October 3, 2013, SPCO staff traveled to Nikiski to conduct an aerial surveillance of the Nikiski Alaska Pipeline right-of-way from the Tesoro refinery to the terminus at the Port of Anchorage. Heavy rains prior to the SPCO aerial surveillance caused water to rise in many of the creeks and drainages.

Stream crossings at Seven Egg and Scaup Creek both appeared to be in an acceptable condition. SPCO staff observed rutting caused from a vehicle adjacent to the bank of Bishop Creek. The vehicular rutting occurred away from the creek bank and did not appear to negatively affect the stream crossing. SPCO observed bank erosion occurring on both the north and south bank of Otter Creek. This appeared to be caused by public use of the right-of-way; specifically, people driving their vehicles across the creek.

SPCO staff observed erosion occurring on both banks of Miller Creek. This same observation was made during a SPCO aerial surveillance in August 2012. Due to the elevated water levels in the streams SPCO staff was unable to determine if the stream crossing has eroded further since the 2012 observation.

The right-of-way appeared to be in a variable condition. Portions appeared to be in good repair while others were muddy wetlands that have been torn up from vehicular travel. There was abundant evidence that the right-of-way is well-traveled by the public.

On April 16, 2014, SPCO staff traveled to the Kenai Peninsula to observe segments of the Nikiski Alaska Pipeline right-of-way and discuss operations and future project plans.

NORTH FORK PIPELINE

The SPCO granted Anchor Point Energy, LLC, a right-of-way lease for the purpose of constructing dual four-inch natural gas pipelines, called the North Fork Pipeline. The entire pipeline length is 7.4 miles with 6.6 miles of the length on State land. The North Fork Pipeline begins at the North Fork Production Pad, located 8.6 miles east of Anchor Point, and terminates in Anchor Point. The pipeline ties into Anchor Point Pipeline, operated by Alaska Pipeline Company.

The North Fork Pipeline comprises two segments, 6.25 miles of Fiberspar Linepipe and 1.25 miles standard steel construction. The Fiberspar Linepipe is a composite pipe consisting of an inner thermoplastic pressure barrier reinforced by high-strength glass fibers embedded in an epoxy matrix. This was the first time that a common carrier line, regulated by USDOT/PHMSA, was constructed out of a composite pipe material. USDOT/PHMSA required that a special permit, with project-specific stipulations, be issued for the pipeline construction.

Pipeline markers on the North Fork Pipeline right-of-way

Pipeline construction began in October 2010 and completed at the end of February 2011. The right-of-way width was 50 feet during construction and decreased to a 20-foot operating width post-construction. First delivery of gas occurred on March 31, 2011.

Right-of-way Surveillance

On April 15, 2014, SPCO staff traveled to the Kenai Peninsula to monitor activities on the North Fork Pipeline. SPCO staff toured the pad, including the well houses and pig launcher. SPCO staff observed the right-of-way along the Alaska Department of Transportation segments, and upstream of the blowdown station. All observed portions of the right-of-way appeared to be in an acceptable condition.

On July 29, 2014, SPCO staff traveled to the North Fork Pipeline to conduct a walking right-of-way surveillance from the production pad to the ENSTAR tie-in. SPCO staff drove the right-of-way from the blowdown station to the transfer of custody pad. The right-of-way and fencing around the blowdown station both appeared to be in good condition.

PROPOSED PIPELINES

Before a pipeline right-of-way lease is issued by DNR, the SPCO conducts a review and decision process as required by AS 38.35, the Right-of-Way Leasing Act. Each potential pipeline lessee is evaluated to ensure that they meet the "fit, willing, and able" requirements outlined in AS 38.35.100. In FY14, the SPCO was in various stages of the leasing process with several potential and current applicants. The following pages contain brief descriptions of theses pipeline projects.

ALASKA STAND ALONE PIPELINE
The State Pipeline Coordinator's Office issued a right-of-way lease to the Alaska Gasline Development Corporation (AGDC) on July 25, 2011. The lease conveyed a right-of-way interest in state land for the development of an in-state 24-inch diameter natural gas liquids pipeline travelling from the North Slope to the Cook Inlet area where it would connect into the existing Cook Inlet natural gas delivery system. The lease included a right-of-way corridor, called the spur line, to travel approximately 35 miles from the mainline route to bring gas to Fairbanks.

In early 2013, plans for the ASAP project changed. The project no longer proposes to ship natural gas liquids, which will allow the pipeline to operate at a lower pressure, with easier access for offtakes along the pipeline route. In addition, the project has increased to a 36-inch diameter pipe.

ASAP PERMITTING
The SPCO issued three land use permits and four temporary water use authorizations for AGDC to continue its geotechnical borehole program at various locations along the ASAP alignment from Prudhoe Bay to the Mat-Su. Another permit was issued for a seismic trench investigation study between Nenana and Fairbanks with cooperation from the DNR Division of Geological and Geophysical Surveys.

Other permits associated with field activities include authorizations with the Alaska Department of Fish and Game, Alaska Department of Transportation and Public Facilities, the DNR Division of Parks and Outdoor Recreation and the Office of History and Archaeology, the DNR Division of Mining, Land and Water, Northern Region Office, and the Trust Land Office. AGDC is also continuing its pedestrian type field investigations for fish and stream studies and archaeological surveys.

ALASKA LNG
In 2013, South Central LNG (SCLNG) completed a summer field season to explore a proposed pipeline route and LNG facility to ship Alaska's North Slope gas to Asian and other world markets. In fall 2013, the SCLNG project was re-named the Alaska LNG (AKLNG) Project. AKLNG is an integrated team of BP, ConocoPhillips, ExxonMobil, and TransCanada. In spring 2014 AKLNG held several meetings with state and federal agencies to present possible pipeline routes and discuss required permits and procedures. Among these meetings were consultations with the Federal Energy

Regulatory Commission (FERC), who will be the lead federal agency in a National Environmental Policy Act (NEPA) environmental review of the project. Legislative actions in the 2014 legislative session approved the partnership of the State with the industry corporations; the designated state agency on the project is the Alaska Gasline Development Corporation.

ALASKA LNG PERMITTING

SPCO issued Alaska LNG three land use permits for its 2014 summer field season, for meteorological ocean studies in the Cook Inlet and hydrological studies on the North Slope. Other permits associated with summer field activities include authorizations with the Alaska Department of Fish and Game and the DNR Division of Parks and Outdoor Recreation and Office of History and Archaeology.

The Alaska LNG project would include an LNG facility in Nikiski. The image above, provided by the project, is an illustration of the proposed plant.

POLAR LNG

On April 10, 2012, Polar LNG, LLC, submitted an amended application to construct a pipeline and liquefied natural gas (LNG) facility on the North Slope in order to truck natural gas from Prudhoe to Fairbanks. The proposed pipeline was to begin west of Flow Station 1 and head south to the Polar LNG Pad within the Prudhoe Bay Unit in Deadhorse. The pipeline was proposed to be approximately 3.5-miles in length and eight inches in diameter, with a proposed maximum throughput of 50 million standard cubic feet per day. The lease tract for the Polar LNG Pad was approved under a separate DNR authorization issued by the Division of Mining, Land and Water, Northern Region Office.

The SPCO completed a Commissioner's Fit, Willing and Able Analysis and Proposed Decision and accompanying draft lease, which were published on April 13, 2013. The Commissioner's Final Finding and Decision approving the lease was signed on October 11, 2013. On April 29, 2014, the SPCO received a letter from Polar returning the unexecuted right-of-way lease and requesting the termination of the application. The case was closed effective June 16, 2014.

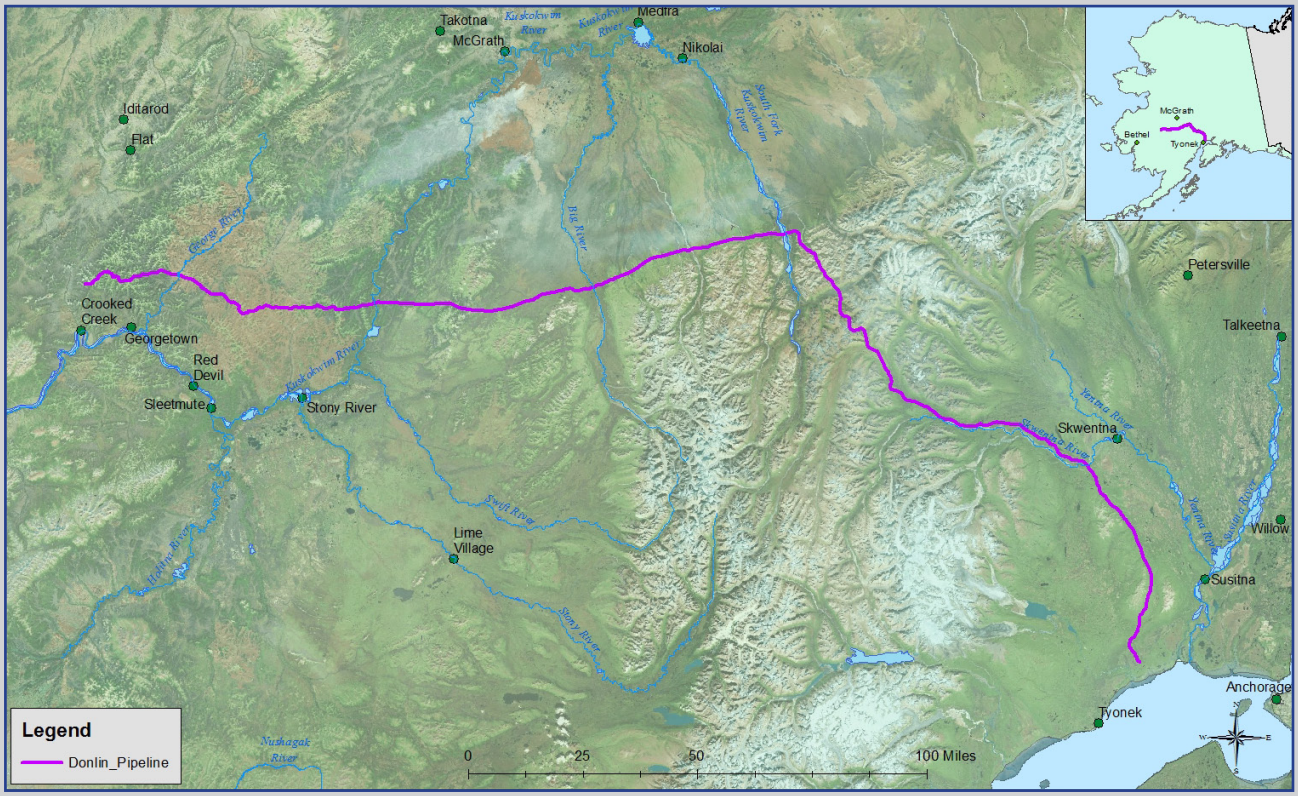
TRANS-FORELAND PIPELINE

On November 26, 2012, Cook Inlet Energy submitted an application for an AS 38.35 Pipeline Right-of-Way across the seafloor of Cook Inlet. The application was public noticed on December 5, 2012. On October 23, 2013, Trans-Foreland Pipeline Company, LLC, submitted an amended application for the project, changing the applicant company, and modifying the pipeline route slightly. This amended application was public noticed on October 30, 2013. The amended application proposes to construct a 29-mile pipeline that will be buried in uplands and tidelands, and laid on the seafloor across Cook Inlet. Approximately 22 submerged miles of the pipeline are on state lands and approximately four miles of buried pipeline will be located in the state-owned North Kenai Spur Highway right-of-way. Remaining uplands in the project area are borough lands or privately owned. The pipeline will extend from the Cook Inlet Energy-owned Kustatan Production Facility, located on the West Forelands of Cook Inlet to the Nikiski – Kenai Pipeline Company, located on the East Forelands of Cook Inlet. The proposed pipeline right-of-way will contain an 8.625-inch diameter pipe with a wall thickness of 0.5 inches. The applicant anticipates transporting up to 62,600 barrels of oil per day.

For a full explanation of this design, please review the application documents located on the SPCO's website. This pipeline, if built, will be utilized by oil producers in western Cook Inlet, such as Cook Inlet Energy and its affiliates, to replace the current use of the Cook Inlet Pipeline, which transports oil to the Drift River Tank Farm where it is then loaded on tankers and transported across the inlet. Once built, producers will no longer need tankers to transport oil across Cook Inlet.

The SPCO has been working closely with Trans-Foreland Pipeline Company, LLC, to complete the Commissioner's Fit, Willing and Able Analysis and Proposed Decision, which will detail the project and its possible impacts on local resources and uses of those resources. Trans-Foreland Pipeline Company, LLC has indicated a desire to begin construction in early 2015.

DONLIN GOLD PIPELINE



On April 9, 2014, Donlin Gold LLC (Donlin) submitted an AS 38.35 application for the proposed pipeline originating at an existing natural gas pipeline near Beluga, Alaska, near the north shore of Cook Inlet, and terminating at the Donlin mine site on the upper Kuskokwim River. Public notice of the application was issued on May 14, 2014 through July 14, 2014. Prior to submitting their pipeline application, Donlin had been in communication with the SPCO for over three years regarding the proposed route.

The Donlin pipeline is a proposed 14-inch pipeline, designed to transport approximately 73 million standard cubic feet per day of natural gas, and would require one compressor station. The pipeline would be located on approximately 206 miles of state land, and the remainder of the 315-mile pipeline would be on federal and native lands. The Donlin Gold Mine, the pipeline termination point, is located on Calista lands. Associated facilities include the compressor station, a fiber optic communications line to the mine, and an electric transmission line from Beluga to the compressor station. During construction, the pipeline right-of-way would include additional lands for purposes such as airstrips, barge landings, campsites, roads, pipe storage yards, storage facilities, and gravel material sites on the Kuskokwim River. The proposed construction right-of-way width is 150 feet, reducing to a 50-foot wide right-of-way in most places for the operational life of the pipeline.

The Donlin project is much larger than the pipeline. The entire purpose of the pipeline is to provide fuel for mining operations at the proposed Donlin Gold mine, which is proposed to be located near Crooked Creek. The mine and pipeline require a permit authorization under Section 10 of the Rivers and Harbors Act of 1899 and Section 404

of the Clean Water Act from the United States Army Corp of Engineers (USACE). The SPCO continues to participate in the public scoping meetings and review of documents being prepared for the Environmental Impact Statement (EIS) that is being drafted by the USACE for the entire Donlin Gold project (pipeline and mine). The EIS will include a thorough discussion of the pipeline and pipeline route. The SPCO will not consider alternative routes to the pipeline; rather the SPCO will only analyze the route for which Donlin applied.

Due to the size of the Donlin project and the multiple components, including the mine, infrastructure in support of the mine and the pipeline, the DNR Office of Project Management and Permitting (OPMP) has taken on the lead state role as the coordinating state representative in the EIS process. The SPCO and OPMP have a cooperative relationship, under which the SPCO will provide analysis, review, engineering and land management support for all aspects of the EIS pertaining to the pipeline and the pipeline route. Thus far, as part of the EIS process, the SPCO participated in the Aniak and Bethel public scoping meetings, as well as regular project team meetings.

DONLIN GOLD PIPELINE PERMITTING

The SPCO has also been working closely with Donlin as the company seeks land use permits in order to conduct surveys and studies on the proposed pipeline corridor. For the summer field season of 2014, Donlin will continue geotechnical work authorized under existing five-year land use permits issued in 2013. New authorizations from the Alaska Department of Fish and Game have been requested for 2014 field work.

SPECTRUM LNG

On October 9, 2012, Spectrum Alaska, LLC, applied for an Alaska Statute (AS) 38.35 Right-of-Way Lease for the purpose of constructing and operating a natural gas pipeline and liquefied natural gas (LNG) facility on the North Slope. The proposed pipeline will transport natural gas from a connection just south of Flow Station 3 to a new pad adjacent to Spine Road where a LNG plant will be constructed. The entire proposed right-of-way, which includes the pad and LNG facility, is on state land.

The pipeline will be eight inches in diameter, for a length of 1,100 feet, with a design maximum throughput of approximately 50 million standard cubic feet (MMscf) per day. The plant, which has an initial production capacity of approximately 100,000 gallons per day, will process the natural gas to LNG so it can be trucked to supply points. The initial planned construction timeframe was summer 2013 and winter 2014, subject to the completion of a Commissioner's Decision and issuance of a pipeline right-of-way lease. The SPCO issued the Commissioner's Analysis and Preliminary Decision on July 31, 2013, and the Final Decision on October 11, 2013. The Right-of-Way Lease to Spectrum Alaska, LLC was signed on October 15, 2013 with an effective date of August 15, 2014.

On May 5, 2014, Spectrum Alaska, LLC and the Alaska Industrial Development and Export Authority (AIDEA) submitted a request to transfer the lease from Spectrum to

AIDEA. The SPCO is processing the transfer request for the right-of-way lease. For more information on the status of this project, see the section on AIDEA below.

ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY (AIDEA)

The Alaska Industrial Development and Export Authority (AIDEA) applied for a natural gas pipeline on the North Slope on February 14, 2014. The pipeline, ADL 420136, was proposed to connect to an LNG facility to be constructed on a workpad authorized under a DNR Northern Region Office public and charitable lease authorization, ADL 419992. The AIDEA project would have been located approximately one mile east of the Spectrum LNG facility and pipeline right-of-way. On May 5, 2014, AIDEA contacted the SPCO to request instead a cancellation of its authorizations and a transfer of the Spectrum right-of-way lease, ADL 419409. AIDEA proposes to start construction on the pad for the LNG facility by August 2014.

Report Correction, Retraction and Amendment Guidelines

To propose a correction to any information in this report, please follow these steps:

1. Submit a written request for a correction to the following address:
   Graham Smith
   State Pipeline Coordinator's Office
   3651 Penland Parkway
   Anchorage, AK 99508

2. In the request, please include the following:
   - Contact address, telephone number and email address
   - The page number and, if applicable, the table number of the proposed change
   - Suggested and specific wording that would correct the alleged error
   - Supporting evidence and references

3. Upon receipt of the written request, the SPCO will send a written response acknowledging receipt of the suggestion.

4. The SPCO will evaluate every suggestion and provide a written response to the requestor describing the reasons that the request will be accepted or rejected. Alternatively, the SPCO may ask for additional information if the original request is deemed to have insufficient evidence for evaluation.

5. The SPCO will respond in writing with a determination directly to the requestor. If the SPCO determines that an error was made in this report, the SPCO will include the changes and retractions in the online version of the current annual report.

Thank you for reading the 2014 State Pipeline Coordinator's Office Annual Report. Please visit our website: http://dnr.alaska.gov/commis/pco to find out more about the SPCO.