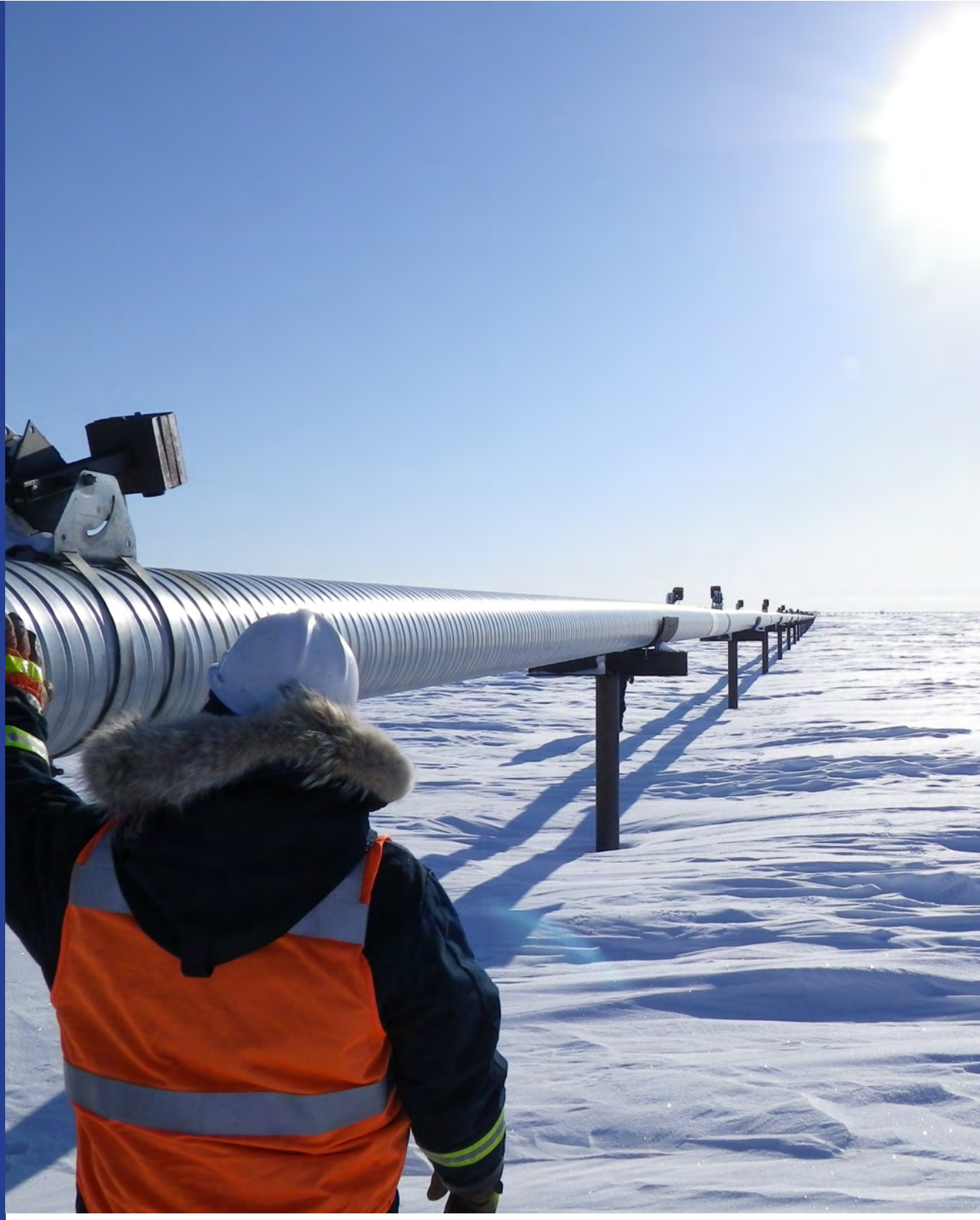
2012 ANNUAL REPORT



STATE PIPELINE COORDINATOR'S OFFICE

STATE OF ALASKA
Sean Parnell, Governor

DEPARTMENT OF NATURAL RESOURCES
Daniel S. Sullivan, Commissioner

STATE PIPELINE COORDINATOR'S OFFICE
Frederick M. Thompson, State Pipeline Coordinator

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
411 West Fourth Avenue, Suite 2C
Anchorage, Alaska 99501

Front Cover: SPCO lease compliance staff accompanied the Badami pipelines operator during the annual walking speed surveillance. Photo credit: Sandra Pierce.
Back Cover: Trans-Alaska Pipeline System near Atigun Pass. Photo credit: Ben Hagedorn.

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Natural Resources

Office of the Commissioner

550 West 7th Avenue, Suite 1400
Anchorage, Alaska, 99501-3650
Phone: 907.269.8431
Fax: 907.269.8918

October 22, 2012

Governor Sean Parnell
550 West 7th Avenue, Suite 1790
Anchorage, Alaska 99501

Dear Governor Parnell,

The Alaska Department of Natural Resources is pleased to enclose a copy of the State Pipeline Coordinator's Office Annual Report for fiscal year 2012.

Safe and reliable energy is essential to our quality of life and economic stability. Since the construction of the Trans-Alaska Pipeline System in the late 1970s, Alaska has been a key contributor to the nation's energy security. Once again, Alaska's bounty of natural resources is a topic of discussion across the nation.

Oil and Gas opportunities continue across the state. In November, the State of Alaska and the Department of the Interior will hold North Slope oil and gas lease sales for the second time in two years. New developments on existing leases in the North Slope area and Cook Inlet, and large-scale pipeline projects are being proposed to ship Alaska's immense natural gas reserves to market. New and existing pipelines regulated by the State Pipeline Coordinator's Office will play a critical role in the future of oil and gas development in Alaska.

The State of Alaska's policy is that development, use, and control of a pipeline transportation system make the maximum contribution to the development of the human resources of this state, increase the standard of living for all its residents, advance existing and potential sectors of its economy, strengthen free competition in its private enterprise system and carefully protect its incomparable natural environment. The State Pipeline Coordinator's Office is responsible for the 18 jurisdictional pipeline right-of-way leases issued under Alaska Statute 38.35, the Alaska Right-of-Way Leasing Act, and one right-of-way grant issued under Alaska Statute 38.05, the Alaska Land Act.

The attached report provides general information for each jurisdictional pipeline, highlights lessee reported activities, summarizes specific state oversight activities for construction, operation, and maintenance, then provides some thoughts on the outlook for the next fiscal year, including updates on several proposed natural gas pipeline projects. An electronic version of the State Pipeline Coordinator's Office Annual Report is available at http://dnr.alaska.gov/commis/pco.

As the State of Alaska works toward reversing the production decline in TAPS and encouraging new development on the North Slope and Cook Inlet, the State Pipeline Coordinator's Office, under the leadership of Mike Thompson, will continue to remain vigilant in its oversight of oil and gas pipelines and facilities on State land. We share the goal of improving our quality of life while protecting our residents and natural environment.

Sincerely,

Daniel S. Sullivan
Commissioner

Enclosure: State Pipeline Coordinator's Office Fiscal Year 2012 Annual Report

CONTENTS

PART I: THE SPCO IN 2012

PART II: LESSEE ANNUAL REPORTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

Introduction to the SPCO

The SPCO provides oversight of AS 38.35 pipelines in Alaska. SPCO lease compliance specialists spend hundreds of hours each year monitoring pipelines and rights-of-way.

State of Alaska policy, as referenced in Alaska Statute (AS) 38.35.010, 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.

An administrative order, signed by Gov. Walter Hickel in 1987, established the State Pipeline Coordinator's Office (SPCO) within the DNR. 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 all 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. A complete SPCO organizational chart is available in Appendix B.

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.

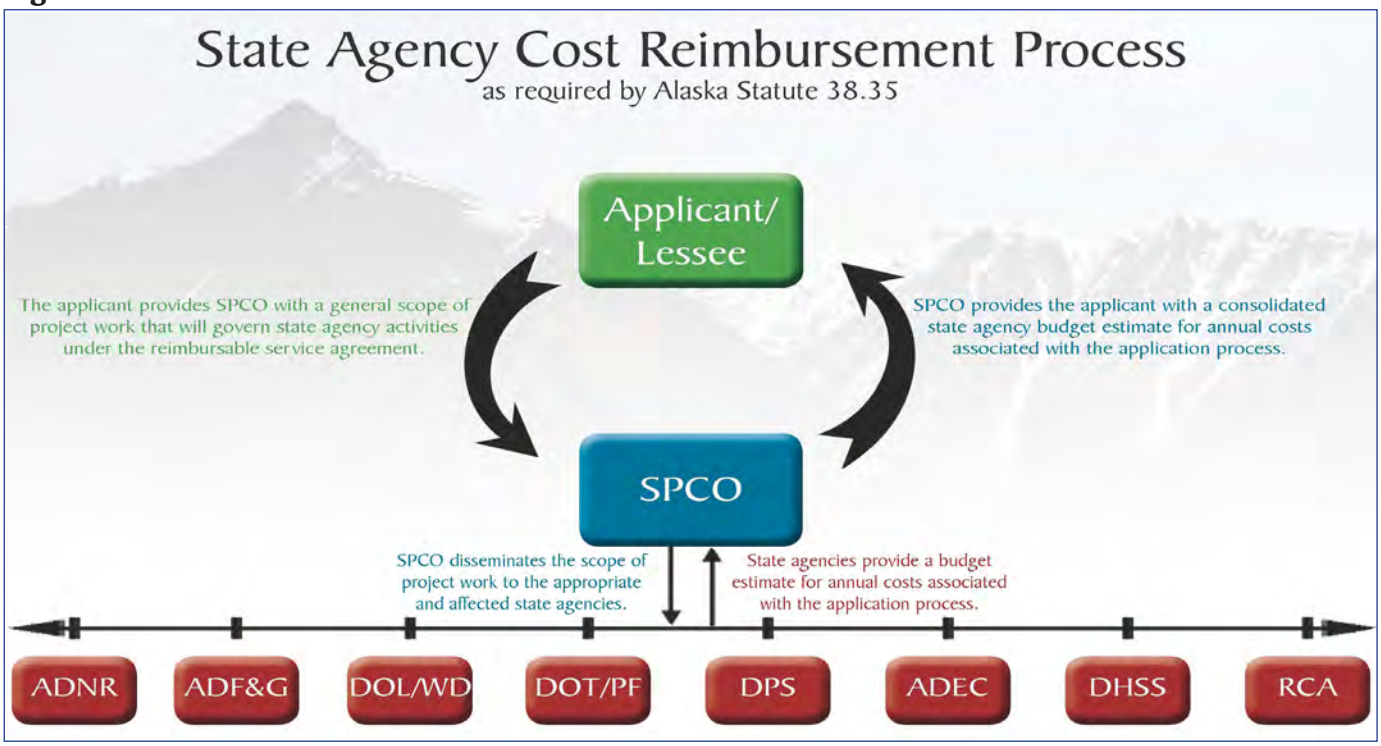
Sections Overview
In addition to the liaisons mentioned above, the SPCO is composed of four main sections: administration, lease compliance and monitoring, right-of-way and permitting, and engineering.

Administrative Section

The administrative section performs multiple functions critical to daily office operations. Administrative staff manage incoming and outgoing correspondence; right-of-way case files; and financial, procurement and other administrative records. Administrative staff also assist with public records requests and perform all administrative functions relating to personnel, payroll, recruitment, budgeting, grants and contracts, accounting, computer and network maintenance, facility management, property control, procurement and travel. In fiscal year 2012 (FY12), administrative staff coordinated and finalized more than 210 travel arrangements for SPCO compliance staff, liaisons and right-of-way specialists to conduct pipeline compliance, assessment and inspection activities.

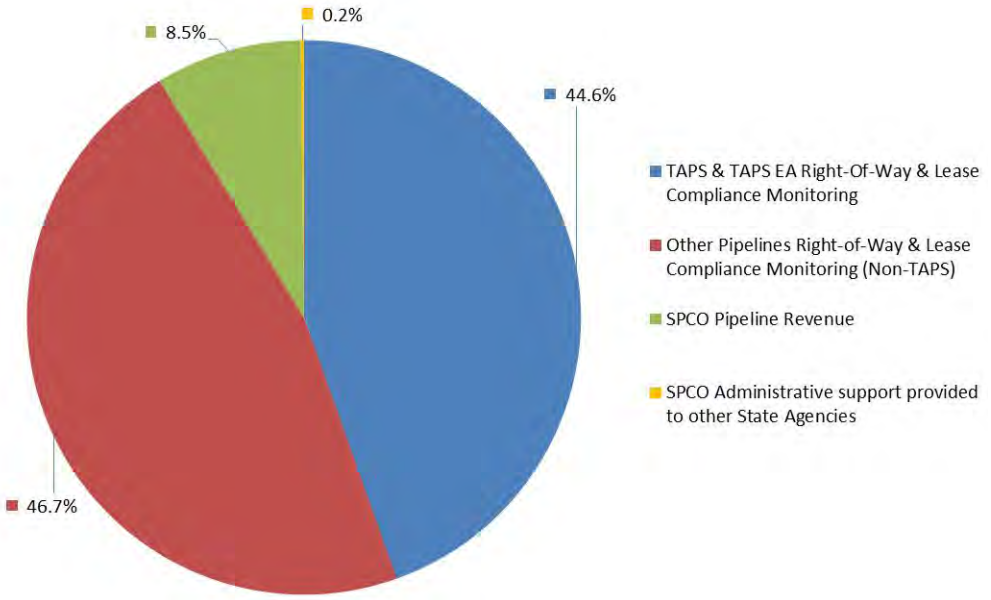
Reimbursable Service Agreements

Figure 1: RSA Flow Chart



The administrative section administers financial resources among state and federal agencies, lessees and applicants for all AS 38.35 pipeline right-of-way lease efforts. Reimbursable Service Agreements (RSAs) are contractual agreements whereby the State, per statute, is reimbursed for costs associated with a pipeline for the life of the project. The administrative section begins the RSA process with a pipeline proponent by requesting an annual work plan (Figure 1). Based on the plan the pipeline proponent provides, the administrative section identifies the state agency resources needed to fulfill the proponent's objectives. Administrative staff coordinate with jurisdictional state agencies, assist with the development of budget estimates for annual costs associated with the application and provide the applicant with a consolidated state agency oversight budget estimate.

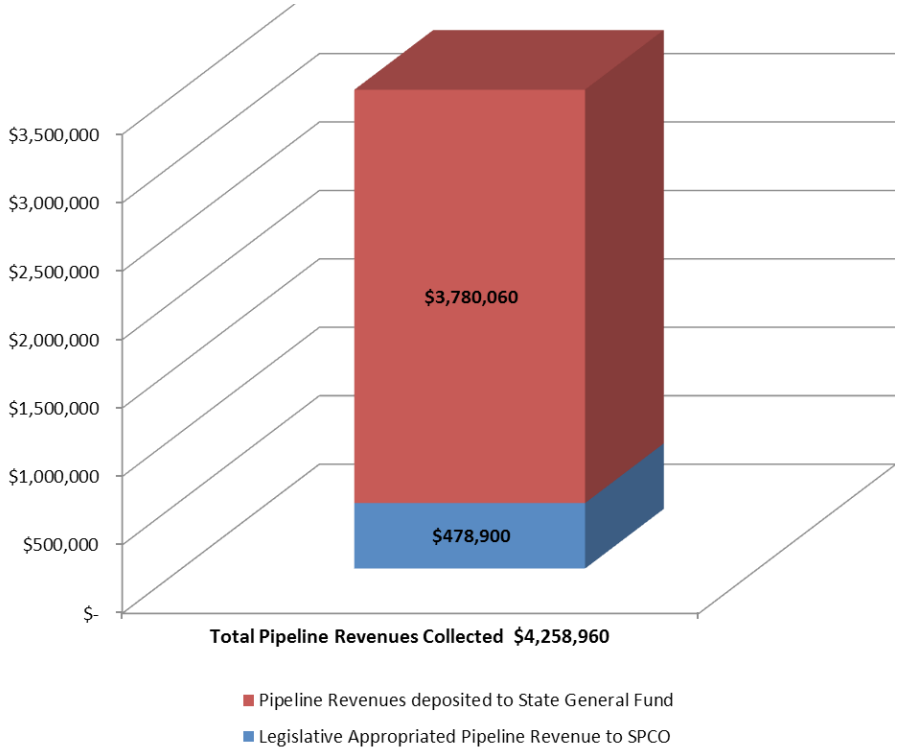
Figure 2: SPCO FY12 Budget Expenditures



Budget Overview

The SPCO budget is revenue-based and largely funded by reimbursements from industry (Figure 2). State agency representatives are supported

Figure 3: Pipeline Revenues

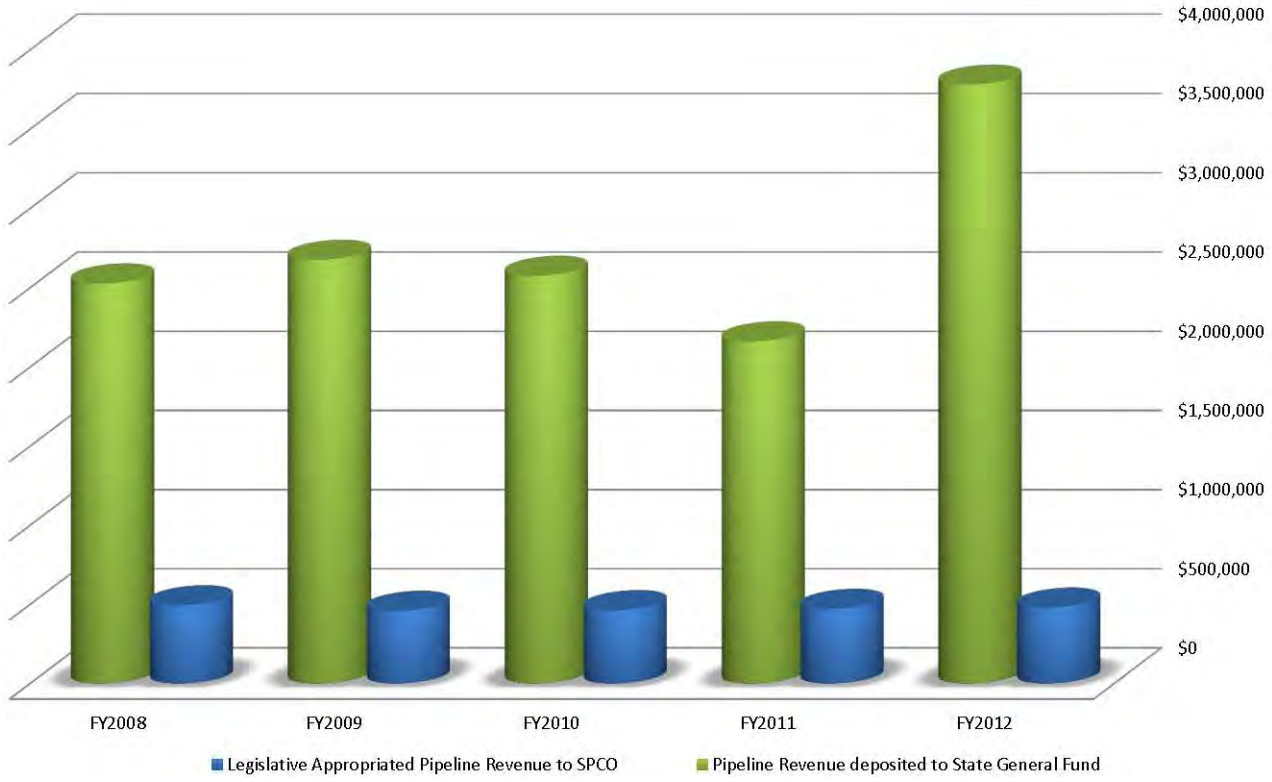


through reimbursable service agreements administered by the SPCO, thus integrating the expertise and authority of multiple departments into one coordinated office. FY12 SPCO program costs totaled $5,432,411.

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. Actual lessee contributions to pipeline revenues are itemized in Appendix E.

Pipeline revenues are deposited in the State's general fund. FY12 SPCO pipeline revenue collections grossed $4.25 million (Figure 3). Each year, the Alaska Legislature appropriates some general fund monies to the SPCO, which are used to support operations unrelated to any specific pipeline lease. The FY12 net deposit (revenue collected minus legislative appropriation to the SPCO) to the general fund was $3.78 million (Figure 4).

Figure 4: SPCO General Fund Revenues - Collected vs. Expended - Five Year Comparison



Lease Compliance Section

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

The role of the lease compliance section is to monitor common carrier pipeline operations for compliance with AS 38.35 requirements of the corresponding right-of-way lease. The SPCO lease compliance program integrates three primary elements: compliance monitoring, lessee annual report monitoring and the SPCO annual report.

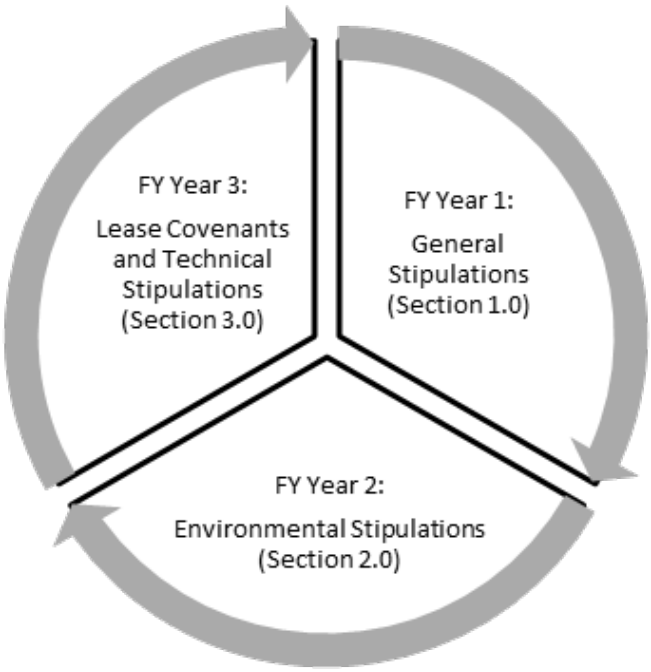
Compliance Monitoring

The purpose of the lease compliance monitoring program is to routinely evaluate compliance with lease requirements. Compliance team members first evaluate each lease requirement and then determine functional status relative to annual surveillance efforts. Many lease provisions are definitions or clarifications of legal/administrative language and do not require surveillance. 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 initiated by the lessee or State Pipeline Coordinator.

At the end of each fiscal year, lease compliance specialists evaluate for compliance every lease requirement in one section of the lease; for example, if compliance specialists are evaluating general lease stipulations in the current fiscal year, then next year they will switch their focus to evironmental stipulations (Figure 5).

Each fiscal year, SPCO compliance specialists inspect in the field surveyable stipulations for compliance and perform a comprehensive evaluation of those stipulations they were unable to field verify during the fiscal year.

Figure 5: Lease Compliance Monitoring



For each activity mentioned above, comprehensive surveillance reports are provided to the lessee. A lease compliance report accompanies field inspections.

The compliance monitoring program is dynamic and evolves in response 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.

Lease requirements cover a broad range of subjects. The compliance section frequently utilizes the expertise of the SPCO engineers, right-of-way specialists and other state agencies to maintain a comprehensive monitoring program.

Project Review and Monitoring

Each year lessees submit to the SPCO proposals for construction and maintenance projects. Projects are generally differentiated from baseline work by the requirement for project-specific regulatory permits and the subsequent need for engineering analysis and design.

For larger and more complex projects, SPCO and lessee staff (permitting specialists, land managers, subject matter experts and engineers) meet early in the planning process to identify and account for particular items of concern, such as the potential impact of project activities on fish and wildlife habitats.

After the lessee and SPCO agree on the final design for a project, SPCO staff shift from a planning/permitting role to one of surveillance and verification. In addition to specific permit stipulations, many projects encompass a broad spectrum of lease requirements. Compliance staff adopt a multi-disciplinary approach when conducting surveillances. Compliance representatives employ the permit and lease requirements and the lessee's issued-for-construction (IFC) package to develop surveillance checklists, which they use in the field to verify compliance with the various safety, engineering, environmental and other regulatory requirements identified for verification.

Surveillance Monitoring

Surveillances serve as independent compliance evaluations, the factual bases for an assessment or technical report or as supporting documentation for an agency permit issuance-determination or verification. SPCO compliance representatives conduct planned and unplanned surveillances on SPCO-jurisdictional pipelines throughout the year and record their observations in surveillance and lease compliance reports.

SPCO works with lessees, through their quality assurance programs, to make certain that the information required to document compliance with the lease and lease stipulations is identified and, upon request, available for review. Several lessees have developed internal compliance matrices that list the lease requirements, parties responsible for managing compliance, necessary processes to manage each requirement, records expected from the process and applicable activities subject to the requirement.

Many lease sections and stipulations impose requirements that are the same as, or overlapped by, legal requirements of state or federal laws or regulations administered and enforced by other regulatory agencies. To avoid duplication of efforts, SPCO will, when appropriate, defer to other agencies' regulatory enforcement to ensure compliance with lease requirements. SPCO monitors and reports on the enforcement activities as they relate to specific lease requirements.

Assessments

Assessments are broader in scope than surveillances and focus primarily on processes or systems, rather than specific lease or permit requirements. Compliance representatives must first identify the scope of an assessment and then gauge the appropriate level of sampling and resources required to conduct the assessment. As an example, the steps below represent the process that an SPCO compliance representative would follow in order to conduct an assessment of a lessee's right-of-way surveillance and monitoring program.

1. Identify the lease requirements.

2. Determine the purpose of the assessment.

3. Define the scope of the assessment. Will the assessment account for the entire surveillance and monitoring program or only a specific portion? The scope should also identify the facilities, activities, documents and employees included in the assessment.

4. Identify methods. Establish the specific data collection methods. The compliance representative might, as part of the assessment, conduct new surveillances, review lessee records and documentation to evaluate compliance trends, interview lessee employees or utilize other methods deemed appropriate by the State Pipeline Coordinator.

5. Analyze data. Compliance representatives integrate the available information and evaluate compliance with the requirements identified in the first step.

6. Write assessment report. Compliance representatives produce a report summarizing the process, analysis and results of the assessment. The report may also include observations, recommendations or findings.

Lease compliance specialist Justin Selvik (left) and Alyeska Pipeline Service Co. staff travel in a Tucker Sno-Cat to an integrity dig in early 2012.

SPCO Annual Report

The purpose of the SPCO annual report is to provide information about SPCO compliance, right-of-way and engineering activities and summarize the lessee annual reports for the public, industry and government audiences. Specifically, the report provides background information about SPCO-jurisdictional pipeline systems, a summary of the SPCO oversight program, a description and the status of issues identified in compliance monitoring efforts and summaries of lessee annual reports. Appendix C contains citations of major source documents for the SPCO annual report.

Engineering Section

SPCO engineers provide technical oversight of facilities, equipment, infrastructure and activities on pipeline leases. SPCO engineers also provide, upon request, civil and technical 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."

The engineering section also coordinates with other agencies to provide technical assistance. The principal efforts of engineering fall into one of four categories:

Lease Pre-Application
The pre-application activities involve gathering information on the technical portion of the project. Typically, this is accomplished by guiding an applicant in preparing a design basis that, when submitted, will be mutually acceptable both to the lease applicant and to the SPCO. The design basis for the SPCO is based on general descriptions of the work. Its purpose is to ensure that the proposed pipeline and facilities adhere to industry standards, meet regulatory and legal requirements, and protect the environment and the land while ensuring safety.

Lease Processing
Engineering's role is to evaluate the capabilities of the lease applicant and prepare a recommendation to the State Pipeline Coordinator or the DNR Commissioner and identify any conditions or requirements for approval.

Lease Monitoring
SPCO engineering provides technical evaluations of the pipeline and facilities on the leases. This work involves reviewing major maintenance, repairs and construction. This often involves providing independent engineering opinions on leasehold activities.

Special Projects
There are occasional work items that do not have a direct relationship to the leases. In the past year, this type of work included items such as:

- Technical assistance to other state organizations

- Writing technical opinions on CD-5 design considerations. The opinion was used by the State to support ConocoPhillips' appeal of a permit denial by the US Army Corps of Engineers (USACE) at CD-5 and was later cited by USACE in its final decision to award the permit (see page 101).

• Technical work and opinions used by the State in the review of the Environmental Impact Statement for Pt. Thomson 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 applications and 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.

SPCO ROW representatives observe inspectors on the Tanana River pipeline bridge.

Pre-lease

The ROW section encourages all applicants to meet with SPCO staff prior to submitting a lease application. Pre-lease meetings help to coordinate realistic timelines and provide an invaluable opportunity to discuss potential obstacles or challenges to preparing and processing the lease application.

Pre-lease meetings provide the opportunity for the SPCO and the applicant to discuss the state statute requirements concerning the public process, the specific expectations of the SPCO and ways to avoid or mitigate any environmental concerns. The ROW section also coordinates permitting for pre-lease applicants to help with field research, exploration and route alignment.

Per AS 38.35, the SPCO issues a public notice after receiving a complete application from the project proponent. After the Commissioner's Analysis and Proposed Decision is written, the SPCO issues a second public notice along with the draft lease. 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

State Pipeline Coordinator and DNR Commissioner determine that the potential lessee is "fit, willing and able" to construct, maintain and eventually terminate the pipeline, then a lease can be issued.

Issuing Leases

The DNR Commissioner receives the proposed final lease after negotiations conclude and the applicant signs the document. After the Commissioner agrees to and signs the document, it becomes a fully-executed lease. The SPCO provides an original of the lease for the applicant and maintains another original in state case files. All AS 38.35 pipeline right-of-way leases and amendments are available at the State Recorder's Officer and online at http://dnr.alaska.gov/commis/pco. See page 13 for a list of SPCO-monitored pipelines.

Permitting

The ROW section issues lease authorizations for all AS 38.35 pipelines. For the Trans-Alaska Pipeline System (TAPS), the ROW section issues land use permits, temporary water use permits, and rights-of-way for roads and boat launches required for operations, maintenance activities and special projects. The permit review process can involve a substantial amount of coordination; each project has unique lease or permit requirements, often depending on these factors:

- Type of work activity
- Project details (schedule, location, special circumstances)
- Land ownership
- Public notice requirements
- Public comments
- Navigable waters proximity
- Water use needs
- Coordination with state, federal and local agencies
- Enforcement and jurisdictional implications
- Effect on habitats and wetlands
- Impact on fish and wildlife
- Engineering and surveying standards
- Land appraisals
- Potential to disturb historic, prehistoric and archaeological resources

In the past, the SPCO has deferred to the DNR regional offices for permitting activities on non-TAPS pipelines. In 2012, the SPCO, per delegation, began permitting activities for all AS 38.35 authorized pipelines.

Amendments

The ROW section evaluates and adjudicates any necessary 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, updates the State of Alaska electronic files, coordinates the lessee annual documentation requirements, updates legal descriptions, assists the SPCO records analyst in updating and maintaining the SPCO case files and performs any additional tasks associated with lease administration for AS 38.35 pipeline right-of-way leases. The ROW section also issues and manages material sales contracts with Alyeska Pipeline Service Co. and conducts annual surveillance inspections of TAPS operations material sites.

Land Administration System Case File Audit

The SPCO ROW section is in the third and final part of an audit of the land administration system (LAS) case file records for active pipeline right-of-way leases and grant case files. The LAS system is used to locate, research and verify land ownership and land use on state lands. Keeping the LAS case file records accurate and up-to-date is important for DNR adjudicators and the public when researching the status of state lands.

SPCO ROW section representative Chris Grundman conducts a surveillance inspection of a TAPS operations material site.

The LAS audit is divided into three parts for each case file audited. Part one of the audit involved reviewing and updating of each of the four basic record types in LAS: summary record, land record, transaction record and legal description record. Part two of the audit involved reviewing and updating LAS revenue and billing subsystem records for each case file. Part three includes a final quality control check of updates made during parts one and two along with any final edits, corrections and updates to the LAS case file records.

Table 1 below contains basic information about SPCO-monitored pipelines; including the location by region, lessee and current status.

Table 1: SPCO Monitored Pipelines

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	BPTA**	Operating
Badami Utility	415965	North Slope	31	BPTA**	Operating
Endicott	410562	North Slope	26	Endicott Pipeline Co.	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	Milne Point Pipeline, LLC	Operating
Milne Point Products	416172	North Slope	10	Milne Point Pipeline, 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	Northstar Pipeline Co., LLC	Operating
Northstar Oil	415700	North Slope	16	Northstar Pipeline Co., LLC	Operating
Nuiqsut Natural Gas Pipeline	416202	North Slope	14	North Slope Borough	Operating
Oliktok	411731	North Slope	28	Oliktok Pipeline Co.	Operating
Trans-Alaska Pipeline	63574	Prudhoe Bay to Valdez	800	****	Operating

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

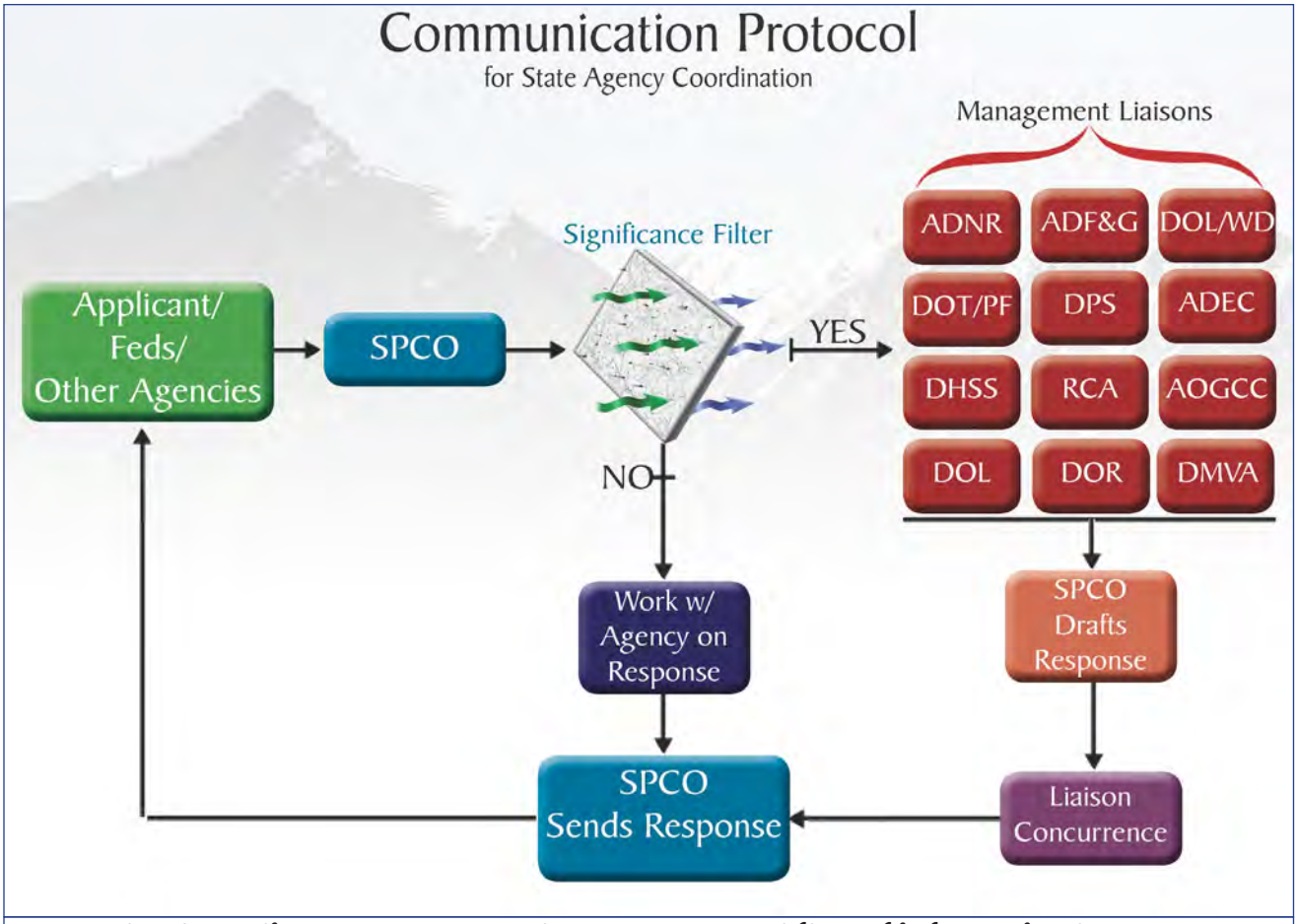
*** BP Transportation (Alaska)* **** Kuparuk Transportation Co.*

***** BP Pipelines (Alaska) Inc.(46.93%), ConocoPhillips Alaska Transportation Inc. (28.29%), ExxonMobil Transportation Company (20.34%), Unocal Pipeline Company (1.36%), Koch Alaska Pipeline Co. LLC (3.08%). Koch Alaska Pipeline Co. and Unocal Pipeline Co. both indicated that they would release their respective interest in TAPS during FY13.*

SPCO Communication Protocol

State agencies and their subject matter experts play major roles in pipeline project review. The SPCO coordinates the participation of state agencies in the review process. This review process developed informally over several years, since there were long periods with no new lease activity, but in FY11 the SPCO formalized the communication protocol for state agencies.

Figure 6: SPCO Communication Protocol



The above diagram represents the SPCO-managed flow of information between pipeline right-of-way applicants and State of Alaska agencies.

The lack of a well-defined process prior to FY11 resulted in some project proponents and federal agencies independently soliciting information and input directly from various levels within a department. The new protocol (Figure 6) ensures that management is well informed, agency input is timely and can be tracked, and all parties receive regular and relevant project status updates.

Today, with multiple gas pipeline proposals, a proposal for a new pipeline route for existing Cook Inlet production and several new pipelines under review on the North Slope, there are numerous pipelines in various stages of the lease pre-application and application processes.

The SPCO requested that the commissioner for each agency with a role in pipeline permitting and oversight designate a "management liaison" to represent the commissioner's office. These positions have become the focal point to help disseminate important documents, review key positions and policy decisions and ensure that the right people get the information they need to make informed decisions.

The SPCO will continue to allocate the necessary resources to ensure that coordination efforts are successful. With multiple potential pipelines under discussion or review at the SPCO, it is more important than ever that the State of Alaska maintain a clear protocol for pipeline project management to make certain that affected departments and agencies are kept current on significant issues.

SPCO Liaisons

Alaska Department of Environmental Conservation

ADEC representatives participate in a source control drill near Chatanika River.

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 (see page 20), 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 s 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 TAPS and the 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

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, including:

- Pipeline pre-construction
- Construction
- Operation
- Maintenance
- Termination activities

ADF&G Liaison Lee McKinley (left) participated in a 2012 site visit hosted by Transcanada Pipeline Co. See page 103 for more information on the Canadian pipeline trip.

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.

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.

Ray Elleven conducts annual safety inspections of TAPS work sites and facilities, reviews project safety plans, monitors accident statistics and represents DOLWD on the JPO management team.

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, fire inspections, construction and building inspections and building fire system plan reviews. The liaison conducts inspections of facilities related to 18 SPCO jurisdictional pipelines. A fully-certified ICC building and fire code plans examiner works with the SFMO liaison to conduct building and fire and gas system plan reviews.

After conducting his inspections, the liaison prepares reports detailing any deficiencies found and corrective actions required. He establishes correction compliance dates and conducts follow-up inspections until all deficiencies have been addressed.

THE SFMO liaison (far left) participates in a safety briefing before inspecting the new Marrioff HI-FOG fire suppression system at TAPS PS4. In a fire event, the new system will discharge a fine water mist at high velocity, which can extinguish fires as effectively as a traditional sprinkler system with much less water. See page 60 for more information.

The SFMO liaison represents the Division of Fire and Life Safety at Joint Pipeline Office meetings, conferences and working groups at the direction of the State Fire Marshal. He assists the JPO in the development of effective 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 the Trans-Alaska Pipeline System (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 follow 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. Administratively, the lead federal agency of the JPO is the Bureau of Land Management (BLM), represented by the Office of Pipeline Monitoring. The lead state agency of the JPO is the Department of Natural Resources, represented by the State Pipeline Coordinator's Office.

The JPO was formed to provide better service to the public and industry by eliminating duplication of efforts; coordinating activities; improving communication between agencies, industry and the public; sharing expenses and streamlining the permitting process. While all agencies retain their individual authorities, through the JPO they collaborate on administrative, technical and regulatory issues regarding jurisdictional oil and gas infrastructure. 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. See Appendix D for more acreage, survey and lease information.

TAPS Owner Companies
BP Pipelines (Alaska) Inc. (46.93%)
ConocoPhillips Alaska Transportation Inc. (28.29%)
ExxonMobil Transportation Company (20.34%)
Unocal Pipeline Company (1.36%)*
Koch Alaska Pipeline Co. LLC (3.08%)*

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.

* *Koch Alaska Pipeline Co. and Unocal Pipeline Co. both indicated that they would release their respective interest in TAPS during FY13.*

The State right-of-way lease applies to the 344 miles of state-owned land in the TAPS right-of-way. Information about the TAPS right-of-way lease appraisal can be found in Appendix E: Pipeline Right-of-Way Lease Appraisal Information.

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.

Valves are placed at major river crossings where quick response would be critical in a spill event.

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 177 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.

The VMT is the TAPS terminus. The VMT 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; a conceptual engineering review was developed in 2003. The lessees approved changes to the pump station configurations, referred to as *strategic reconfiguration*.

TAPS Strategic Reconfiguration/Electrification and Automation

EA project staff pull cable at TAPS PS1. In 2012 APSC had pulled more than 200,000 feet of cable in preparation for the electricification and automation of PS1.

Alyeska Pipeline Service Co. completed strategic reconfiguration (SR) facilities at PS3, PS4 and PS9 during 2005-2008. Past strategic reconfiguration projects involved installing new pumps, variable frequency drives, electrical motors and either turbine generators (PS3 and PS4) or connections to a commercial electrical grid (PS9).

During FY12, APSC continued work on the final phase of SR at PS1. This phase of SR is now referred to as the electrification and automation project (EA).

APSC originally started work at PS1 in the 2000s, but shut down efforts for several years. It restarted work during FY11. APSC installed most of the equipment and new modules during the initial work efforts; the primary project work in both FY11 and FY12 has involved cable pulling, which needs to be completed prior to initiating other work. The EA project appears to be proceeding according to plan and the targets for cable pulls have been met or exceeded. At the end of the fiscal year, APSC pulled more than 200,000 out of a total of 293,000 feet and finished approximately 10,000 out of a planned 31,000 electrical terminations.

The major elements of the EA/SR project include:

1. Three new mainline pumps.
2. Three new variable-frequency drives, used for controlling pump speed.
3. Three new electrical motors, to drive the new mainline pumps.
4. One new Siemens 12mW turbine generator for electrical power.
5. One new 5mW turbine generator for electrical power.
6. One backup 19.2 mV power line and substation connecting PS1 to the Prudhoe Bay power grid.
7. Modification of two of three existing booster pumps for electrical service.

APSC forecasts completion of the PS1 EA project to occur in the summer of 2014.

TAPS Low Flow/Cold Weather Operations/Cold Restart

TAPS has fundamentally different characteristics than oil pipelines located in more temperate climates. One of its unusual features is that approximately half is above ground, exposed to arctic weather conditions. Oil is naturally found with water in North Slope reservoirs. Processing plants remove the majority, but a small fraction of water remains. By agreement, water and sediment can compose up to 0.35% of the oil delivered to PS1.

At lower flow rates in TAPS, fluids cool to a point where the water can potentially become ice within the mainline, pump station piping, equipment, instrumentation, connections and other areas. There are uncertainties on how well TAPS can operate with ice, or how much ice can form before it inhibits operations. Ice can damage pump impellers, plug screens, bind equipment surfaces, plug instrumentation, coat sensors and stop flow in many other ways.

TAPS has always been vulnerable to a cold-weather event caused by failures such as disruptions in the North Slope oilfields, loading problems at the VMT, pipe leaks in the mainline or equipment failures at the pump stations. As flow rates decreased from a peak of 2.1 million to approximately 600,000 bopd, the crude oil temperature has also dropped and the risks and the probabilities of an incident creating ice in the TAPS systems have increased. Within the past decade, TAPS had at least three low-flow events:

Reduced Prudhoe production combined with storms and tanker loading problems. Internal temperatures dipped to 37 °F.

A series of storms delayed tanker loading. Internal temperatures dipped below 40 °F.

A leak at Pump Station 1 created an extended shutdown. Internal temperatures dipped to 26 °F.

While these events were cause for concern, none of them prevented the restart of TAPS. A future event with a more extended shut down or lower flow rate might seriously affect the ability to restart flow in TAPS. A significant operational problem during winter, such as a shut down of a major North Slope oilfield, a fire at a critical facility, bad weather in Valdez, a major equipment failure or pipeline leak could leave TAPS vulnerable.

Concern about cold weather operations, cold restart and ice formation has grown over the past two decades. During FY11, APSC publicly released a study on ice formation and low flow, a project initiated after a low-flow/low-temperature event in November of 2006. Among other conclusions, the study identified problems at throughput volumes between 300,000 and 600,000 bopd.

TAPS Cold Weather Risks

The heat-transfer analysis of the original design reveals that TAPS has always been susceptible to cold temperature problems during abnormal operating conditions. Extrapolation of the predicted temperatures shows that temperatures below 40 °F would be likely at flows below 750,000 bopd. Typical flow rates during the last two winters have ranged from 500,000 - 650,000 bopd. Reduced throughput has removed contingency thermal reserves and increased the probability that winter upsets could produce an extended shutdown. Principal among the challenges TAPS will face with lower throughput during the winter will be:

Ice Formation

As flow rates drop below 550,000 bopd, freezing of water in the oil can occur if no heat is added. This can create a variety of problems, such as disabled instrumentation, plugged pump screens, frozen valves and damaged pump impellers.

Wax

Deposition of paraffins and asphaltenes has increased during the past twenty years as internal fluid temperatures dropped. This trend is expected to continue.

Pigging

Although partially related to the wax problem, maintenance pigging on its own has become an area of further study. Pigs must travel at a certain range of speeds to be effective. As flow decreases, both the efficacy of cleaning and the number of pigs used are concerns.

Water Dropout

Water is entrained at current throughputs in most parts of the pipeline, but it will start separating in more locations as flows drop below 500,000 bopd. Water dropout will increase the potential for internal corrosion at the bottom of the pipe. Flows in the future will change from turbulent to laminar flow, lessening the mixing of fluid.

Geotechnical

Refreezing of buried sections of the mainline is a concern. APSC predicts that displacement limits and possible overstress conditions in limited segments could be created at flows below 300,000 bopd if there is no heating of oil.

TAPS Low Flow Limit

Both the original design basis and the design basis for the SR project list 300,000 bopd as the design lower limit of TAPS. This is considered the official number submitted for

purposes of the Grant and Lease. Gov. Sean Parnell and DNR Commissioner Dan Sullivan have created a number of initiatives to increase oil production and TAPS flow. These include business incentives, development of the National Petroleum Reserve Alaska and Point Thomson, ConocoPhillips development of CD-5, shale oil development, and others. All of these will have the dual benefits of increasing oil production and reducing cold-weather operational risks of TAPS.

PHMSA Order

USDOT/PHMSA issued Notice of Proposed Safety Order (NPSO) CPF-5-2011-5001S to APSC. It was prompted by an episode that occurred in January 2011, an oil leak at PS1 that cascaded into a line-wide, low-temperature incident. The leak, found in the basement of the PS1 booster pump building, forced two shutdowns of the pipeline, the longest one lasting about 84 hours. Temperatures in the pipeline reached as low as 25.7 °F.

The Notice alleges that "As a result of the investigation, it appears that multiple conditions exist on your pipeline facility that pose a pipeline integrity risk to public safety, property or the environment." APSC disagreed but entered into negotiations and reached a consent agreement with PHMSA during the past fiscal year. In it, APSC still disputed some of the findings, but agreed to make a number of improvements. The principal parts of the agreement require that APSC:

• Replace or remove oil piping that can't be inspected with ILI or another approved method.

• Construct an additional pig launcher/receiver between PS5 and PS10.

• Research increasing pump station tank capacity to mitigate the consequences of a cold weather shutdown.

• Submit a newly revised cold-restart plan to PHMSA.

• Stage equipment critical to cold-temperature operation or cold restart.

Minimum Safe Temperature

In correspondence related to the agreement, APSC stated it "accepted the temperature of 31 °F as the minimum temperature under flowing conditions for safe operation of the pipeline," and "the low flow study recommends the minimum crude oil temperature be maintained at or above 36 °F. Alyeska has initiated projects with the primary purpose of maintaining the crude oil temperature at or above 36 °F." The temperature system limit of TAPS has been discussed and argued for a long time. For example, in 2002 the SPCO suggested 28 °F as a limit. Consensus on this critical value is an important step forward.

Cold Restart and Cold-Weather Operations Procedures
APSC has had cold restart procedures for several years. During the past year, APSC issued revised procedures. It categorizes its response to low temperatures into two areas:

1. Cold-Weather Operations. If internal temperatures drop below 40 °F, APSC will consider implementing contingency operational procedures that will warm the oil. The primary response will be starting or increasing recirculation at pump stations. APSC considers these measures to be a part of normal TAPS operations.

2. Cold Restart. APSC will implement this procedure under more severe conditions, after internal temperatures have dropped below normal operating range and if flow in the mainline has been stopped for extended durations, allowing fluid to cool in place. This may involve pumping fluid both north and south in the mainline to keep oil from gelling.

Recycling Fluid to Add Heat
After the January 2011 incident, APSC started to recycle oil at PS3, PS4, PS7 and PS9 when internal temperatures in the mainline dipped. Recycling is pumping some or all of the TAPS flow through station piping and through one or more pressure-reducing (or drag) valves. Pumps add energy to the fluid, and the pressure drop converts some of the flow energy to heat. Mechanical problems at PS3 and PS4 restricted recycle rates for during winter months. Mechanical problems at PS7 resulted in no recycling during the last half of winter. APSC replaced a valve at PS7 with a flow diffuser, an inner basket with multiple holes. This modification was intended to increase recycle rates and add more heat; however, APSC shut down recycling at PS7 for the remainder of the winter because of flow-induced vibrations. Recycle capabilities at PS3, PS4 and PS7 are being upgraded and are scheduled to be fully operational by the late 2012/early 2013.

Refinery Heat
In February 2012, the Flint Hills Refinery implemented an energy savings project. A side effect of the refinery's improved efficiency is reduction in the temperature of the residuum, the return fluid to TAPS. APSC monitors the return of combined fluid from two refineries at North Pole, the Flint Hills and the smaller PetroStar refineries. Daily reports indicate that the combined fluid temperature dropped approximately 20-25 °F after the modifications. In addition to this, Flint Hills closed two of three process trains. The energy input into TAPS is a combination of residuum volume and temperature, and both have dropped, resulting in much less heat added at North Pole.

Risk Mitigation
The four fundamental approaches for reducing risks of wintertime operations are:

1. Change the effects or characteristics of the ice by injecting additives such as freeze-depressants or emulsifiers.

2. Reduce the amount of ice by reducing the amount of water in the fluid.

3. Increase the temperature of the fluid.

4. Increase production rates from old fields and bringing in oil from new fields.

Evaluation and work on each of these potential solutions is proceeding.

Cold-Weather Operations Projects
APSC has sanctioned projects to improve low-temperature operations and believes that these will be in service for at least part of the winter of CY2012-2013. The following, if successful, might increase TAPS temperatures at the exit of the pump stations by a few degrees over what the previous equipment could attain:

PS3 - The main part of this project involves an improved control valve, which is expected to improve recirculation rates and thereby improve heating capability.

PS4 - This is a project similar to that at PS3.

PS7 - This project will replace the newly installed diffuser with two control valves, one on the inlet and one on the outlet of the station.

In addition, APSC has worked with North Slope producers to eliminate both the average amount of water in TAPS and to limit excursions (slugs of water and/or sediment). The average water content has fallen by about 40% and the excursions are far less frequent.

Cold Restart Projects

SPCO staff traveled to PS12 in May 2012 to view the modifications made the previous winter to facilitate the APSC cold restart plan. In FY13 APSC will install a new engine to power the PS12 cold restart pump.

APSC is in the process installing equipment to improve response to cold restart. This equipment is intended for long-duration shutdowns of TAPS and not for typical cold-weather operations. These include:

• Replacing an engine that powers the cold-restart pump at PS12. The original pump did not meet air-quality permitting requirements.

• Improved recirculation at PS5. The tank heater at this location will be used to add heat in the event of a cold restart.

APSC is in the process of canceling a planned turbine heat recovery project at PS4. In its place, APSC is investigating heating mainline flow at PS5. In addition, APSC is investigating heaters, emulsifiers, freeze-depressants, water-removal, insulation projects or other more significant technical changes to TAPS. Water removal is another approach that APSC is developing. This could be something as simple as a large tank that allows water to settle to the bottom at PS1. Reduction of water and sediment content below the current standard might reduce (but not totally eliminate) problems caused by ice formation.

TAPS Vibrations in Thompson, Atigun and Isabel Passes

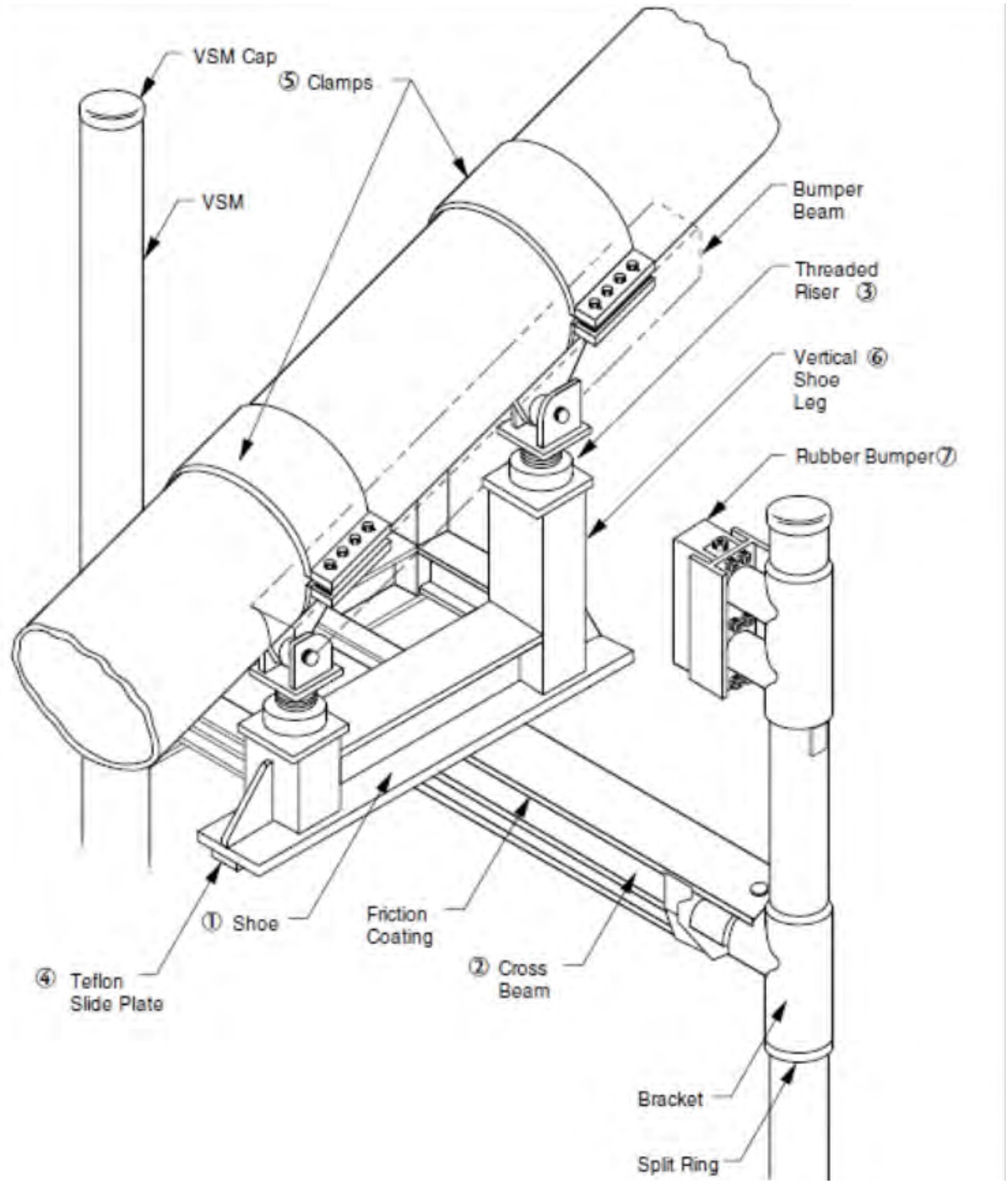
Pictured above is a recently-repaired pipeline support device, known as a "shoe." During the past three years, APSC has discovered cracks in a number of shoes in the Chandalar Shelf area, the location of the most powerful vibrations.

TAPS reaches its highest point in Atigun Pass, where the elevation of the pipeline is 4,739 feet. The second is at Isabel Pass, in the Alaska Range, at 3,420 feet. The third is near Valdez, at Thompson Pass, at 2,812 feet. On the south side of each of these mountain passes, the oil in TAPS gains energy as it drops in elevation, 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. This modification raised fluid level in the mainline at the bottom of the pass, reducing free-fall elevation and impact energy. APSC is testing a similar mitigation measure at the Chandalar Shelf in the Atigun Pass by applying an additional 20-55 psi backpressure at remote gate valve (RGV) 31. Preliminary indications are that vibrations have been reduced, and APSC is evaluating the data to see if TAPS can operated continously with this backpressure.

Vibrations of this type typically act in a mathematically predictable manner. The cumulative amount of fatigue damage is primarily a result of the number and the amplitude of cumulative fatigue cycles. In 2010, a consultant specializing in vibration engineering produced an analysis that concluded that the stresses in the Atigun Pass are

Figure 7: Intermediate Support Assembly Diagram for TAPS (provided by APSC)



not of sufficient amplitude and frequency to create a risk of rupture in the mainline in the intermediate or near future.

The pipeline supports follow a unique regime of cumulative fatigue cycle (also called an S/N curve). During the past three years, APSC has discovered cracks in a number of pipeline support devices, called "shoes," in the Chandalar Shelf area, the location of the most powerful vibrations (Figure 7). These appear to be mostly in welds or started in welds and propagated to the base metal.

APSC now periodically visually inspects 128 shoes, from PLMP 169-170. The monitoring program, when it discovers cracks, schedules the shoes for repairs, for closer monitoring, or for complete replacement.

APSC's previous theory postulated that residual stress from welding during construction-era fabrication was the primary mechanism for crack initiation. APSC listed contributing factors as the geometry of the welds and the type of fillet welds. Fillet welds are inherently less strong than full- or partial-penetration welds; however, recently replaced shoes developed cracks. Consequently, APSC developed a stronger design, modified with the addition of a stiffener plate and more welding. The new design is expected to control fatigue cracking by eliminating flexure of the riser.

APSC is performing a finite element structural analysis on the shoes to improve the design further. This is a highly detailed mathematical analysis that divides a shape into numerous elements, allowing for a highly detailed stress map to be made.

APSC is also installing tri-axial accelerometers at a segment at the Chandalar Shelf. These will record accelerations in three dimensions. Previously, APSC had used strain gauges, which are considered to be less accurate in this type of installation. This change should improve the data logging, analysis and prediction of fatigue analysis. Vibrations at Isabel Pass have been reportedly increasing for the past few years, but are much lower than at the other two passes.

The SPCO will continue monitoring the situation at the three mountain passes as throughput changes. During the past year, engineering and compliance groups visited the sites. APSC provided several updates on its field and engineering work.

As previously stated, fatigue damage is, in general, mathematically predictable. APSC has instituted a monitoring program and has instrumented a section of the mainline to monitor the situation and be able to predict potential failures. The original TAPS design has built-in redundancies, such safety factors include the allowance for limited support failure. For these reasons, and others, the vibrations in these areas do not appear to constitute an integrity threat.

TAPS Throughput and Reliability

APSC provides the SPCO with reports on reliability; however, the values appear to be calculated as availability. Availability is defined as the time that an item is available when it is needed for service. This means that TAPS availability is the percentage the system is online, excluding planned shutdowns or slowdowns.

During FY12, the SPCO documented 41 unplanned shutdowns or slowdowns, totaling 26 hours, 8 minutes. The average duration of each event was 38 minutes. The longest lasted 2 hours, 18 minutes.

Figure 8: TAPS System Availability

The average availability was 99.7% for the year. This was a marked improvement over the previous year. In FY11, the overall availability was lowered by the January 2011 PS1 leak and subsequent low-temperature event. This value is lower than the historical record for the legacy pump stations (operating prior to SR) that achieved an average availability of 99.97%.

The SR design basis specifies a minimum 99.0% availability. TAPS achieved this requirement every month except one, as shown in Figure 8.

APSC reports average throughput by calendar year. In 2011, throughput averaged 582,895 bopd. This represents a reduction of 5.9% from the 2010 average of 619,655 bopd; however, the 2011 reporting period included the January 2011 PS1 leak and low-temperature incident, which resulted in two shutdowns of TAPS.

SPCO FY12 TAPS Activities - Lease Compliance

Throughout the 2012 fiscal year, the SPCO conducted surveillances and reported on the condition of the TAPS right-of-way and facilities, maintenance activities and administrative protocols. The lease compliance section's 2012 TAPS activities yielded 30 surveillance reports, seven lease compliance reports and two assessments (see Appendix G for a complete list of reports). Below is a summary of some SPCO activities along TAPS.

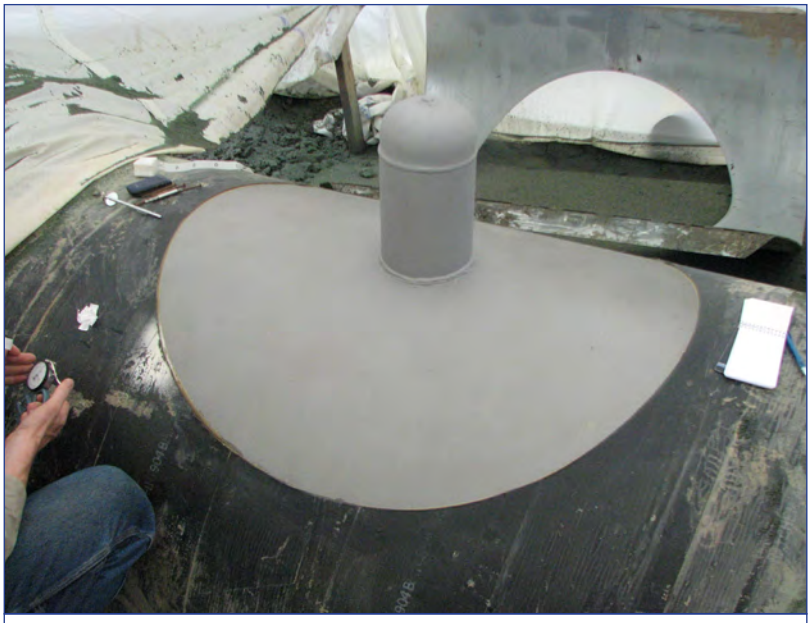
July 2011:
TAPS Pipeline Excavation Surveillance

APSC contractors probe to confirm the depth of cover during an excavation. The vent connection is located within the corrugated metal pipe vault.

SPCO staff traveled to the TAPS right-of-way near Manley Hot Springs Road to conduct a surveillance of a pipeline excavation project. APSC initiated project F673, 2011 Mainline Vents and Drains Remediation, to reduce the risk of a pipeline leak at any one of 400 small-bore connections. Many of these small-bore connections were installed during pipeline construction as vents and drains for pressure testing. Since many of the connections have not been inspected since they were installed, APSC intends to remediate all small-bore connections over a three-year span. The vent and drain connections typically consist of 1.5-inch thredolets or two-inch threaded O-rings. APSC is remediating the connections by encapsulating them with a small section of six-inch pipe that is capped and welded to the exterior of the mainline.

APSC was operating in three different excavation sites at the time of the SPCO visit. Each excavation was at a different stage of project work: pipe excavation activities at pipeline mile post (PLMP) 402.50 had just begun, project work at PLMP 403.43 had exposed the pipe connection and was beginning the remediation phase, and remediation work at PLMP 405.94 was close to completion. Overall, SPCO staff found the condition of the excavation sites and the work within the excavation sites to be satisfactory (SPCO lease compliance report 11-SPCO-R-029).

PLMP 402.5: SPCO staff observed a work crew excavating on either side of the pipe. The crew then used a steel probe to verify the depth of the pipe. The crew removed material over the pipe using a sweeping motion with a backhoe bucket.



A coating inspector checks the texture of the pipe surface to ensure that it falls within specifications for pipeline coating application.

PLMP 403.43: SPCO staff observed some damage to the pipe coating that appeared to be old and in the shape of an excavator bucket tooth. SPCO staff discussed the extent of the damage with the corrosion field engineer on site and requested a copy of the pipeline inspection report for the excavated section of the pipe. Upon review, SPCO found the documentation to be complete.

PLMP 405.94: SPCO staff observed APSC contractors preparing the pipe for pipe coating application. Preparations included sand blasting the encapsulation and adjacent mainline pipe. SPCO verified that the materials used for sand blasting were listed on the project specifications. Following sand blasting, the pipe surface must meet a specific anchor-pattern profile for acceptable coating effectiveness and service life. SPCO observed a pipe coating inspector measuring pipe surface profiles using a Press-O-Film surface profile gauge, and verifying that surface temperature of area met the minimum temperature of 5 °F above the dew point.

Summer 2011:
Right of Way Surveillance

The SPCO conducted an annual surveillance to the TAPS right-of-way in intervals between June and September 2011. During the surveillance, SPCO staff made visual observations of the workpad, the pipeline, the above-ground pipeline support structure and appurtenances. Upon completion of the 2011 surveillance, SPCO staff summarized the information obtained during the 2011 right-of-way surveillance in compliance report 11-SPCO-R-034.

During the 2011 right-of-way surveillance, SPCO staff recorded 275 conditions that appeared abnormal to SPCO staff. 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; floating support shoes and support shoes with excessive longitudinal shoe offset; abnormalities in the pipeline jacketing system; valve enclosure signs and insulation blanketing; and appurtenances such as gates, signs, fencing and public access crossings. None of the conditions observed during the surveillance presented an

immediate threat to human health and safety, the environment or pipeline integrity. Following the 2011 surveillance, the SPCO met with APSC to review the results. The SPCO determined that many of the observations did not meet APSC's reporting criteria, or were already recorded in APSC's maintenance work database. Based on the minor severity of the conditions observed during the 2011 right-of-way surveillance, the SPCO found the right-of-way in a condition that is acceptable to the State Pipeline Coordinator.

Left: Pipeline module damaged from impact with VSM near PLMP 441.

Above: Teflon pad delaminating and detached from the pipeline support shoe near PLMP 619.

The SPCO later utilized the information gathered during the 2011 surveillance in support of an assessment evaluating right-of-way maintenance and overall condition of the right-of-way. A complete description of the assessment may be found on page 42 of this report under the heading "Assessment of the TAPS Right-of-way and Work Pad." A standard methodology was established so that the surveillance can be repeated in the future, both to assess APSC's performance in correcting conditions observed previously, and to perform a trending analysis of right-of-way maintenance.

October 2011:
Cathodic Protection Upgrades at Unnamed Creek

In October 2011, SPCO staff traveled to the TAPS right-of-way to conduct surveillances at an APSC cathodic protection project work site. Cathodic protection is necessary for maintaining the integrity of TAPS and is required by federal regulations.

The project entailed burying magnesium bag anodes along the TAPS right-of-way and replacing zinc ribbon anodes located beneath Unnamed Creek, a tributary of the Lowe River. APSC diverted Unnamed Creek to access the pipeline and to bury the zinc ribbon anodes where the pipeline runs below the creek bed. SPCO staff observed

the diversion of Unnamed Creek into a temporary, man-made channel. SPCO staff visited the work site prior to the creek diversion and immediately after the creek diversion. On both occasions SPCO staff found the project site to be in a clean and orderly condition. SPCO observed APSC mitigating water pollution and making efforts to protect fish habitat (SPCO lease compliance report 11-SPCO-R-033).

Work crews install point wells that will help prevent ground water from entering the excavation, thereby aiding dewatering. This machinery is being operated in the original flow channel of Unnamed Creek (see project description below).

February 2012:
Pipeline Excavation Surveillance

On February 27 and 28, SPCO staff conducted site visits to the TAPS right-of-way near PLMP 76 to monitor a pipeline excavation work site. Vehicular access to the excavation site required crossing the Sagavanirktok River under the authorization of fish habitat permits issued by the Alaska Department of Fish and Game. At the time of the SPCO visit, APSC was constructing an ice road across the Sagavanirktok River to support heavy equipment (see image below).

SPCO staff found the work site to be in a clean and organized condition, despite abnormally cold conditions. APSC staff took precautions to keep equipment operational in the cold weather and responded appropriately to adversities that arose while constructing the ice road across the Sagavanirktok River. SPCO staff observed that APSC was following the conditions of temporary water use permits and land use permits.

APSC identified the extremely cold weather as a contributing cause for nine small

Loaders move snow to construct an ice road across the Sagavanirktok River for access to the right-of-way.

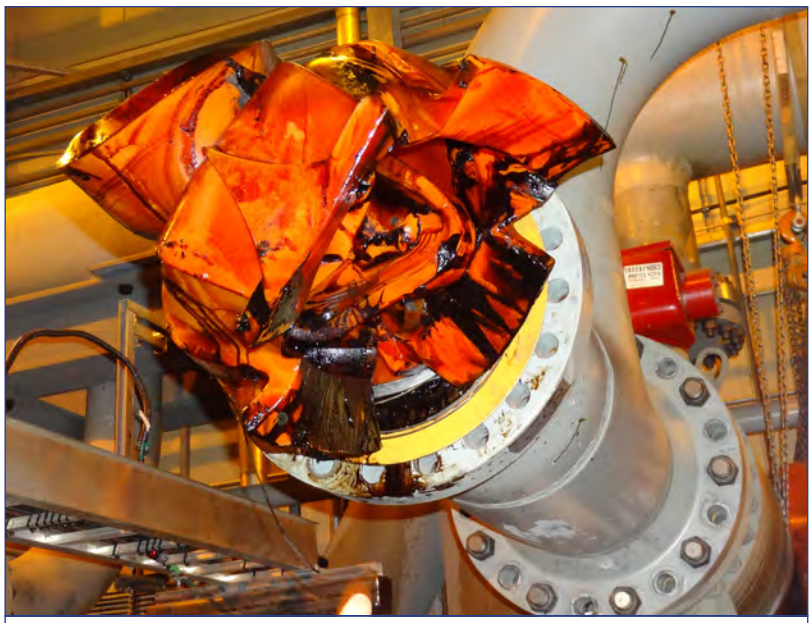
spills of petroleum products, less than a gallon each, that occurred during project work. The spills consisted mainly of hydraulic fluid from failed hydraulic lines on heavy equipment. APSC replaced equipment that had repeat failures. SPCO staff verified that each of the nine spills was properly accounted for concerning JPO notifications (SPCO lease compliance report 12-SPCO-R-003).

May 2012:
PS5 Temporary Bypass and Discharge Relief Piping Replacement

On May 23, SPCO staff visited TAPS PS5 to observe APSC perform project work. APSC executed project number F-806 at PS5 to remove a cleaning pig that was lodged in discharge relief piping during a 2010 unscheduled shutdown of TAPS (SPCO lease compliance report 10-SPCO-R-033). To remove the pig and restore the original discharge relief and injection piping configuration, APSC replaced sections of pressure relief and mainline pipe. APSC accomplished this without any significant interruption to TAPS throughput by constructing bypass piping that diverted flow around PS5.

APSC designed the bypass pipeline with the capability of being re-used for other bypass projects or emergencies. Each bypass pipeline spool is flanged so it can be bolted together and unbolted for removal. The bypass piping is supported by concrete blocks that were manufactured specifically for the temporary piping. The bypass piping is also equipped with pressure, temperature and flow meters.

With the bypass piping in service, APSC is able to operate TAPS at its normal throughput, allowing



Damaged scraper pig lodged in discharge pressure relief piping at PS5 (photo courtesy of BLM).

project work to be conducted without the time constraints associated with major maintenance shutdowns. The bypass piping provides additional time for project crews to complete project work safely.

During the visit, SPCO staff found the project site to be in a clean and organized condition. SPCO observed that project work was conducted in a safe and calculated manner, particularly concerning energy isolation. While at PS5, SPCO staff were provided with documentation that demonstrates adherence to the APSC quality assurance commitments described in the APSC Quality Assurance Program Manual, QA-36.

Assessment of APSC Maintenance Work Prioritization Process

In FY12, SPCO lease compliance staff completed an assessment of APSC maintenance strategies and other methods used for maintenance work prioritization. The assessment provided general background information about APSC maintenance programs and processes, and discussed the development of APSC maintenance strategies and risk rankings. The assessment evaluated APSC processes for prioritizing TAPS maintenance work, and how APSC associates risk with prioritization when scheduling maintenance work. To support the discussion about the association between prioritization and risk, the assessment described an APSC maintenance project to replace concrete encased crude piping at PS1. The piping failed in January of 2011, resulting in an extended shutdown of TAPS.

The assessment found that a particular facet of the APSC maintenance system, referred to as the project work request (PWR) process, did not directly correlate risk with time to implementation or prioritization. The assessment found no mechanism in the PWR process that required APSC to assess risk with regard to scheduling the maintenance work. Specifically, the assessment found that in situations where high priority projects require extended periods of time before implementation, APSC's PWR process did not have an embedded requirement for formally assessing risk, adding interim controls or employing mitigations for managing risk. A disconnect between risk and priority in project planning could increase risk to the environment, human health and safety and pipeline operations.

The SPCO assessment recommended that APSC examine how work is prioritized through the PWR process in its root cause analysis of the January 2011 incident at PS1. The root cause analysis APSC performed in response to the January 2011 incident at PS1 recommended that APSC improve the communication process for raising high-risk issues across organizational interface through use of a universal risk register and selection criteria. The SPCO will follow-up in FY13 to identify and evaluate the processes APSC put in place to improve the communication of high-risk issues at APSC.

Assessment of the TAPS Right-of-Way and Work Pad

Between June and September 2011, SPCO staff conducted surveillances of the TAPS right-of-way between Prudhoe Bay and Valdez. As part of the surveillances, SPCO staff recorded visual observations of the pipeline, its support structure and appurtenances. The surveillances were documented in SPCO report 11-SPCO-R-034.

Utilizing information gathered during 2011 surveillances, the SPCO conducted an assessment to verify that right-of-way maintenance processes are conducted in a manner that is consistent with the TAPS right-of-way lease. This assessment analyzed certain APSC records, procedures and geographic information developed by the SPCO to evaluate TAPS right-of-way maintenance.

The assessment found that APSC has maintenance work management systems, surveillance programs, and monitoring programs that are effective in identifying maintenance needs along the TAPS right-of-way. This assessment found that APSC maintenance processes for the right-of-way acceptable with respect to TAPS right-of-way lease covenants.

The SPCO assessment recommended that APSC continuously improve maintenance processes for the various components of the right-of-way. Some areas of improvement may include strengthening lines of communication across various maintenance programs, encouraging consistency in reporting methodology and increasing the resources available to civil maintenance programs to ensure that the right-of-way remains in an acceptable condition. SPCO staff will continue to monitor consistency in reporting right-of-way conditions in FY13.

SPCO FY12 TAPS Activities - Right-of-Way Section

During FY12, the ROW section conducted inspections and completed surveillance reports for the 19 operating material sale sites on state land along TAPS between Deadhorse and Fairbanks.

During FY12, the SPCO right-of-way section completed 31 authorizations in support of TAPS lease maintenance and repair activities, including:

- Five temporary water use permits and one amended temporary water use permit
- Eleven land use permits and one amended land use permit
- Nine material sale contracts
- One right-of-way issued under AS 38.05.850 for an access road
- Two right-of-way lease amendments (PLMP 19.1 and PLMP 25)

Authorizations are listed in more detail in Appendix H: Authorizations, Rights-of-Way, and Permits Issued by SPCO.

Mineral Material Site Surveillance

During FY12, the ROW section conducted inspections and completed surveillance reports for the 19 operating material sites on state land along TAPS between Deadhorse and Fairbanks (surveillance report numbers 11-TAPS–S-132 to 11-TAPS–S-137, 11-TAPS–S-142 and 11-TAPS–S-146 to 11-TAPS–S-160). A list of all completed surveillance reports can be found in Appendix G: 2012 SPCO Reports. The sites were inspected between July and August 2011 to determine compliance with the material sale contracts, mining and reclamation plans and TAPS lease (Stipulation 2.6, Material Sites). The material sites were found to be generally clean and well-maintained, meeting the requirements for mineral material sites.

Land Use Permits
The ROW section is responsible for administering the permitting process at the SPCO. APSC applies for land use permits for various maintenance and construction activities along TAPS when additional land use area, outside the existing right-of-way, is required to perform the projects. The maintenance and construction activities include, but are not limited to, 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 result from observations or surveillances by either APSC or SPCO staff, or from unexpected events such as floods and wind storms.

Temporary Water Use Permits
The ROW section authorizes temporary water use permits for the use of water resources on state land related to the TAPS right-of-way. If the water source is from an anadromous fish stream, then special requirements may be added to the permit to protect fish and other wildlife. The special provisions typically include intake placement guidelines, special screening requirements and water intake velocity. Temporary water use permitting efforts are coordinated with the SPCO ADF&G liaison.

TAPS Right-of-Way Amendments:
Construction and Maintenance of 11 Buried Sills at Sagavanirktok River, PLMP 19.1
On June 14, 2012, the SPCO issued the "Amendment of the Right-of-Way Lease for the Trans-Alaska Pipeline, ADL 63574, Buried Sills at Sagavanirktok River, PLMP 19.1" to APSC to add approximately 5.5 acres of state land between a side channel of the Sagavanirktok River and the buried TAPS pipeline.

In this area, the Dalton Highway and the pipeline follow the west side of the braided Sagavanirktok River floodplain, which is more than a mile wide. Soils consist of organic silt with some sand, gravel mixed with sand, numerous cobbles and scattered boulders. Progressive bank erosion over the past several years has decreased the buffer between the stream bank and the pipeline. After the severe spring breakup in 2011, the buffer was reduced to as few as 80 feet.

The amendment is for the construction and maintenance of 11 buried sills. These structures will consist of excavated trenches filled with riprap and will protect TAPS by preventing additional erosion near the buried pipe.

Construction and Maintenance of Cathodic Protection Upgrades near PLMP 25
On June 25, 2012, the SPCO issued the "Amendment of the Right-of-Way Lease for the Trans-Alaska Pipeline, ADL 63574, Cathodic Protection Upgrades, PLMP 25" to add approximately four acres to construct and maintain cathodic protection upgrades. The purpose of adding this land is for the construction and maintenance of cathodic protection upgrades, a fuel gas line tap and a generator skid in order to reduce corrosion of the buried mainline TAPS pipeline in this area.

Department of Environmental Conservation Liaison FY12 TAPS Activities

ADEC and BLM representatives conducted multiple containment site inspections during FY12.

The ADEC liaison participates regularly in JPO meetings to help facilitate coordination and consistency with other agencies concerning ADEC authorizations and planned TAPS activities. JPO meetings include the APSC Lands and Permits meetings and weekly meetings with JPO member agencies.

A key ADEC effort that continued throughout FY12 was APSC's procurement of a engine to provide pumping capabilities at PS12 in the event that Cold Weather Operations or Cold Weather Restart plans require the incorporation of PS12 facilities. Although APSC purchased the engine in FY12, it was not delivered by the end of the fiscal year and will require certain modifications before final delivery to PS12. ADEC will continue to track the issue and provide relevant information to the SPCO and JPO during FY13.

Division of Environmental Health

ADEC's Division of Environmental Health regulates drinking water, food safety and sanitary practices. The environmental health programs involved with TAPS include solid waste disposal, pesticides, drinking water distribution and food service activities. These responsibilities encompass the entire pipeline system, including pump stations, response bases, support facilities, work pads, temporary camps and the VMT. Following is a summary of permits administered by EH Programs in FY12.

Solid Waste Disposal: Stipulation 2.2.6.2 is the primary Lease requirement for waste disposal on TAPS. There are three ADEC-permitted solid waste disposal sites on TAPS. APSC manages these permits and is responsible for the proper collection, storage and disposal of waste at the waste disposal facilities. The permits were renewed in FY12 and will expire in 2016. ADEC in FY12 reviewed the operational records of these facilities and identified no compliance issues.

Pesticides: Stipulation 2.2.5.1 of the Lease and Grant requires that APSC receive approval from the State Pipeline Coordinator and the BLM Authorized Officer prior to using pesticides on the TAPS right-of-way. ADEC's pesticide control regulations in 18 AAC 90 require APSC to obtain permits for pesticide use within the TAPS right-of-way. APSC continues to seek alternative measures to avoid or minimize the use of pesticides on TAPS. In FY12, there were no pesticide use permits or authorizations requested from APSC.

Drinking Water: The Drinking Water Program ensures that systems supplying water for drinking meet the minimum health standards required by ADEC's Drinkwater Regulations. The program oversees the operation and specific monitoring plans for each permitted system. During FY12 APSC maintained 14 ADEC-approved drinking water systems for TAPS facilities and operated in compliance with ADEC requirements found in 18 AAC 80.

Food Service: Every food service facility associated with TAPS is required to maintain a Food Service Permit. The focus of oversight is on risk factors that are directly linked with the causes of food borne illnesses. ADEC's food safety regulations require close coordination with the Drinking Water, Solid Waste, and Sanitation Programs. These programs work together to oversee compliance of the regulated facilities along TAPS. There are six food service permits associated with TAPS operations. During FY12 there were no significant compliance issues for these facilities.

Division of Water

The Division of Water (WQ) oversees compliance with the Water Quality and Wastewater Discharge standards outlined in 18 AAC 70, 18 AAC 72, and 18 AAC 83. The requirements of ADEC's water regulations apply to all TAPS operations. During FY12, ADEC reviewed project activities that involved wastewater discharge. ADEC also reviewed solid waste disposal sites and active material sites for compliance with ADEC storm water requirements. There were no compliance issues identified in FY12.

In 2008, the EPA approved the State of Alaska's application to administer and enforce the Alaska Pollutant Discharge Elimination System (APDES) program in lieu of EPA's managing the National Pollutant Discharge Elimination System (NPDES) program in Alaska. The approved State program includes an implementation plan that transfers the administration of specific program components from EPA to ADEC in phases over a multi-year period. Phases I-III were successfully transferred from EPA to ADEC prior to FY12.

The final phase of the program, Phase IV, is directly related to oversight of TAPS wastewater discharge permits, and it was initially scheduled to be completed early in FY12 on October 31, 2011. This transfer was delayed, and in March 2011, ADEC proposed a one-year extension of the transfer of Phase IV. Phase IV facilities include oil and gas, cooling water intakes and discharges, munitions and all other remaining facilities not previously transferred in Phases I-III. On August 11, 2011, EPA approved ADEC's request for a transfer extension and Phase IV facilities will now transfer to ADEC on October 31, 2012. Once this program component is transferred, ADEC will incorporate all existing NPDES permits into the APDES Program and begin administration under state regulation.

Table 2: TAPS WQ Permit Activities During FY12

Permit	Site / Facility	Date Issued	Date Expires
AK0023248	VMT	8/1/04	EPA renewal pending
AKG570038	TAPS Pump Station 4 WWTF	8/24/06	EPA renewal pending
POA-2008-444-4	Columbia Creek TAPS Gravel Fill	4/28/08	4/26/13
AKR05CF19	Material Site 117-2BD	8/21/09	9/29/13
AKR05CJ54	Material Site 114A-2	11/9/09	9/29/13
AKR05DA25	Material Site 38-1R	1/21/10	9/29/13
AKR05CF15	Material Site 41-3	8/21/09	9/29/13
AKR05CF18	Material Site 39-11	8/21/09	9/29/13
AKR05CF13	Material Site 64-2	8/21/09	9/29/13
AK005056312E001	MP7762 12-E-001 Dewatering	2/1/12	12/31/12
AK005056312E002	MP8051 12-E-002 Dewatering	2/1/12	12/31/12
AK005056312E003	MP 8051 12-E-003 Dewatering	2/1/12	12/31/12
AK005056312E004	MP58439 12-E-004 Dewatering	2/1/12	12/31/12
AK005056312E005	MP64894 12-E-005 Dewatering	2/1/12	12/31/12
AK005056312E006	MP68459 12-E-006 Dewatering	2/1/12	12/31/12
AK005056312E007	PLMP 1515 12E007 MH Fuel Gas Hot Tap Excavation Dewatering	4/30/12	12/31/12
AK005056312E008	PLMP 1762 Cable Cross Excavation Dewater	4/30/12	12/31/12
AK005056312E009	PLMP 12E009 1799 Cable Cross Excavation Dewatering	4/30/12	12/31/12
AK005056312E010	PLMP 2509 12-E-010 Excavation Dewatering	4/30/12	12/31/12
AK005056312E011	PLMP 2510 12-E-011 Excavation Dewatering	4/30/12	12/31/12
AK005056312E012	PLMP 2511 12-E-012 Excavation Dewatering	4/30/12	12/31/12
AK005056312E013	PLMP 2512 12-E-013 Excavation Dewatering	4/30/12	12/31/12
AK005056312E014	PLMP 2554 12-E-014 Excavation Dewatering	4/30/12	12/31/12
AK005056312E015	PLMP 2563 12-E-015 Excavation Dewatering	4/30/12	12/31/12
AK005056312E017	MP6172 12-E-017 Excavation Dewatering	6/13/12	12/31/12
AK005056312E016	MP61271 12-E-016 Excavation Dewatering	6/13/12	12/31/12
AK005056312E018	MP61329 12-E-018 Excavation Dewatering	6/12/12	12/31/12

Division of Air Quality

APSC holds nine Title V Operating and 20 Title I Construction permits related to TAPS for Pumps Stations 1, 3, 4, 5, 6, 7, 9, 10, and the VMT issued by programs in the Division of Air Quality (AQ). In addition, there are seven minor, source specific permits issued to APSC for emission sources at various Pump Stations and the VMT. ADEC monitors compliance throughout the year, conducting compliance inspections and review of operator monitoring reports. The ADEC liaison at the SPCO coordinates with AQ's Air Permit Program, SPCO and JPO agencies to support the compliance with Lease and Grant stipulations.

VMT Air Quality Permit Renewal: The ADEC AQ Division issued the VMT operating permit in March of 2012. The permit will expire in April of 2017.

TAPS Cold Restart Plan: The potential need to restart TAPS following a shutdown in cold weather conditions continued to be a significant planning and operational concern for JPO agencies during FY12. APSC's updated Cold Restart and Cold Weather Operations plans were presented to JPO agencies in the fall of 2011. Plans involve activities that may require permitting by ADEC's Air Permit Program. The ADEC liaison worked with JPO and SPCO agencies, ADEC's Air Permit Program and APSC throughout FY12 to ensure that all permit requirements were identified and would be accomplished.

A significant component of the Cold Restart plan is the installation of pump drivers (engines) at PS7, PS9 and PS12. APSC approached ADEC in early 2011 requesting that it make a determination concerning permitting requirements to install and operate "emergency" pumps at these pump stations. APSC proposed to install 540 hp booster pumps at PS7 and PS9 and a 3,390 hp pump at PS12. APSC stated the sole purpose of the units was to prevent oil gelling during an extended, unscheduled pipeline shutdown in cold weather. In FY12, after review of the request, ADEC notified APSC that, under the conditions outlined in the submittal, no permit would be required for these engines. This determination help to allay concerns of SPCO, BLM and PHMSA staff related to stipulations in the state Right-of-Way Lease and federal Grant of Right-of-Way and to federal pipeline operations regulations requiring reliable safe operation of TAPS.

APSC accomplished the installation of the Cold Restart engines at PS7 and PS9 during FY11 and planned to have a new engine installed at PS12 during the winter of 2011-2012. Manufacturer delays led to the engine not being shipped to APSC by the end of FY12. The ADEC liaison and ADEC's Air Permit Program staff will track the arrival of the engine in FY13 and continue to monitor its configuration, location and operation for compliance with ADEC's air quality regulations.

TAPS and VMT Air Permit Compliance Status: ADEC's Air Permit Program staff conducted on-site inspections and compliance reviews on TAPS facilities; the ADEC liaison reviews these reports for inclusion in the SPCO document tracking

system. In addition, the liaison routinely coordinates with program staff to assure permitting issues or status changes are communicated to the SPCO. These activities ensure APSC is operating in accordance with applicable ADEC permits and consistent with stipulations of the state Right-of-Way Lease. During FY12 a total of five full compliance reviews were conducted on TAPS facilities. APSC remained in compliance with ADEC air regulations during FY12.

Table 3: ADEC Compliance Reviews

Pump Station	Review Date
PS1	11/7/11
PS5	3/14/12
PS7	3/14/12
PS9	6/07/12
PS10	3/13/12

Spill Prevention & Response Division

Valdez Marine Terminal Winter Snow Event: The VMT experienced a near record breaking snowfall over the winter of 2011-2012. More than 450 inches of snow fell

Large volumes of snow on the crude oil storage tanks and other infrastructure components at the VMT in FY12 became a prime concern for APSC, the DEC and JPO.

in Valdez between October and April with the majority falling during the month of December 2011. The official snow fall in Valdez for December was 152.2 inches; however, the micro climates around Valdez meant that actual snowfall at other

locations varied tremendously. This unusual amount of snow, in such a short period, proved difficult to manage for TAPS and VMT operators. Snow accumulations quickly outpaced normal removal capabilities. Large volumes of snow on the crude oil storage tanks and other infrastructure components at the VMT became a prime concern for APSC, the SPCO, and the JPO. In December 2011, APSC prioritized "at risk" assets and snow removal needs and mobilized additional snow removal crews to ensure the safety of personnel, minimization of oil discharge risk, and integrity of infrastructure. The ADEC liaison and environmental program specialists at the SPCO monitored snow accumulation and removal activities on a daily basis. ADEC staff consulted with APSC, SPCO and JPO to ensure measures taken would minimize risk to oil transfer, storage and delivery components and minimize risk to the environment. ADEC focused primarily on impacts to VMT response capabilities, structural stress on petroleum storage tanks, tank farm secondary containment and snow disposal.

Contaminated Sites Program: In FY12 there were 32 "open" contaminated sites along TAPS. The liaison continues to coordinate with the Contaminated Sites program to provide SPCO and JPO with assistance in the resolution of contaminated sites issues along the TAPS right-of-way corridor and to ensure the sites are returned to the land managers in an acceptable condition. Activities at the Five Mile Air Strip were the primary focus of SPCO/ JPO and ADEC Contaminated Sites interactions during FY12. The site was closed by ADEC without conditions on November 18, 2011; however, BLM has additional concerns with the site and has requested further site characterization and sampling from APSC. ADEC continues to provide assistance to the BLM staff, as requested.

Oil Discharge Prevention and Contingency Planning (C-plan): C-plans are required by State of Alaska pollution prevention statutes and regulations, the State TAPS Right-of-Way Lease and the Federal Grant of Right-of-Way. Variations of spill prevention and response plans are also required by JPO member federal agencies, including PHMSA, USCG and the EPA. ADEC staff at the SPCO review and enforce compliance with C-plans for TAPS and the VMT. In so doing, they support the SPCO in fulfilling Lease Stipulation 2.14, Contingency Plans.

Each C-plan is reviewed for compliance with State of Alaska statutes and regulations in 18 AAC 75, Article 1 and Article 4. Once approved, C-plans must be renewed every five years. The operator may submit proposed plan amendments during the effective period for ADEC's review and approval. ADEC conducts the review of the TAPS Pipeline and VMT C-Plans in coordination with BLM and other JPO agencies. Oversight of C-plan compliance includes reviewing the plan application, conducting and evaluating spill response exercises, and conducting audits and inspections of facilities, equipment and documentation.

TAPS Pipeline C-plan: The Response Planning Group (RPG) composed of APSC, ADEC, and JPO personnel, meet regularly to facilitate on-going oversight of the C-plan and compliance with Alaska statutes and regulations and Grant stipulations

for oil spill response planning. The purpose of RPG meetings is to coordinate C-plan amendments, drills and exercises, inspections, audits and emerging issues among the various JPO agencies and APSC. Ten Response Planning Group meetings were held in FY12.

At the end of FY11 APSC submitted an application to renew the TAPS C-plan. A 30-day Public Review period began on July 1, 2011. A Request for Additional Information was sent to APSC on August 16, 2011; APSC responded on September 16, 2011. A second Request for additional information was sent to APSC on September 28, 2011. APSC responded, and on October 7, ADEC issued the final 10-day public comment period. On November 30, 2011, ADEC approved the renewal application with six conditions of approval. Since its approval on November 30, ADEC has approved four minor amendments to the C-plan.

During the renewal period, the decision from the Cascadia adjudicatory hearing on ADEC's November 30, 2006, approval of the TAPS C-plan was issued. The decision affirmed ADEC's 2006 approval of the TAPS C-plan. The key issue was whether ADEC staff had utilized the correct approval criteria for APSC's demonstration of plans to ensure protection of environmentally sensitive areas in the Copper River Drainage. The Deciding Officer concluded that sensitive area protection was adequately addressed in the Response Planning Standard Scenario and the 12 additional spill response scenarios in the C-plan. No appeals were filed against the decision, and ADEC staff used it as a guide in the approval of the 2011 C-plan renewal.

Significant C-plan oversight issues during this fiscal year included secondary containment liner replacement and the internal inspection of tank Tank 190 at PS9. The internal inspection schedule and secondary containment liner replacement were the result of the May 2010 Tank 190 overfill event. APSC provided a copy of the tank inspection results to ADEC, and ADEC staff and engineers were satisfied with its return to service. ADEC and PHMSA staff at the JPO coordinated to ensure both agencies requirements were satisfied before approval to return Tanks 190 to active service was granted. The secondary containment liner replacement started near the end of FY12 and will be completed later that year.

During FY12 APSC also requested a waiver from the requirements of conducting a monthly visual external inspection of for Tank 170 at PS7 and Tank 220 at PS12 because the tanks are in use for Cold Restart or Cold Weather Operations only. APSC requested that ADEC approve an annual inspection as an alternative. ADEC granted a waiver for the external inspection of Tank 220 to be conducted on a quarterly basis because it is located at a normally unstaffed facility. The waiver request for Tank 170 was denied because it is located at a staffed facility. It also shares a location with another tank that must be inspected monthly.

Valdez Marine Terminal C-plan: The VMT C-plan Coordination Group meets quarterly to discuss ongoing oversight and coordination of activities, compliance, emerging issues, exercises, inspections, and scheduling of response drills. ADEC and BLM staff

participate in these meetings. The Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) is also a member of the VMT C-plan Coordination Group and participates regularly in meetings and review of the VMT C-plan. The VMT C-plan was renewed at the end of FY08. Two routine amendments to the VMT C-plan were reviewed and approved in FY12, and one was denied due to insufficient information provided at the time of the request.

APSC's initiative to rewrite the Response Planning Standards (RPS) oil spill scenario in the VMT C-plan grew into an effort to reorganize the entire C-plan in FY12. Two workshops involving the coordination group and subject matter experts from other agencies and APSC were convened during FY12. The project is ongoing and will be completed when the VMT C-plan is submitted for renewal FY13.

ADEC has regulatory authority to require C-plan holders to conduct oil spill response exercises. In FY12, ADEC staff participated in six major spill response exercises on TAPS and the VMT.

ADEC made three important VMT petroleum storage tank decisions in FY12. On August 31, 2011, APSC requested an extension of the internal inspection interval based on the Risk Based Inspection (RBI) methodology in American Petroleum Institute Standard 580 and 581 (API 580 and 581). RBI is an allowable practice by ADEC regulation, and this is the first time in it has been applied at such a high profile facility in Alaska. APSC submitted two versions of the RBI, the second version addressing questions and concerns raised by ADEC and by JPO agencies. ADEC hired a third party RBI engineering expert to provide technical expertise for the review. On June 15, 2012, ADEC approved a 14-year internal inspection interval based on acceptance of the RBI analysis and application of conservative corrosion rate data to the estimated

corrosion rate of the tank bottom. ADEC's second major tank decision was to grant a waiver to extend the internal inspection interval for Tank 5 by two years. The waiver was based primarily on the protective benefits of continuous dedicated and effective cathodic protection of the tank bottom. The waiver included six conditions. One of the conditions stated that any significant interruption or anomaly in the operation of the cathodic protection system would result in the reconsideration of the waiver. The third major decision ADEC made was to revoke the waiver for Tank 5's internal inspection interval on May 23, 2012. ADEC revoked the waiver based on the lack of proper operation in the cathodic protection system for a six-month period. ADEC expects APSC to submit a new waiver request in FY13 after completing improvements in inspection, maintenance and training procedures. The inspection interval decisions for both Tank 10 and Tank 5 were highly contested by PWSRCAC. ADEC accepted written concerns and recommendations from PWSRCAC, met with staff several times and provided a presentation on ADEC oversight of petroleum storage tanks to the Board of Directors on May 4, 2012.

The PWSRCAC has a significant stake in the safe operation of the southern end of TAPS and the VMT. PWSRCAC is a member of the VMT C-plan Coordination Group, and because of their level of interest, PWSRCAC staff are active and involved in providing additional review of most of the operations at the VMT, whether they involve air emissions, water quality, facility integrity or oil discharge prevention and response planning. As a result, the ADEC liaison and environmental program specialists at the SPCO attend as many committee and Board of Directors meetings as possible. During FY12, ADEC staff attended all three Board of Directors meetings and numerous Oil Spill Prevention and Response Committee meetings.

During FY12, ADEC staff monitored implementation of corrective actions for the VMT secondary containment system that stemmed from a Notice of Violation issued in 2008. As a result of extremely heavy snowfall over the winter, APSC did not conduct work on the secondary containment drainage system during the winter months as anticipated. ADEC issued a temporary waiver for limited breaches in secondary containment so that repairs to the drainage system could continue. The deadline for secondary containment repairs is October 31, 2012. ADEC staff expect to work with APSC to close out the Notice of Violation once all repairs have been successfully completed. ADEC will also coordinate with BLM to ensure that requirements of a federal Notice for the same system are met and that all agencies agree that the system meets state and federal regulations and Grant and Lease stipulations.

Drills and Inspections: ADEC has regulatory authority to require C-plan holders to conduct oil spill response exercises. Specific requirements for exercises are incorporated into both TAPS and VMT C-plans. In FY12, ADEC staff participated in six major spill response exercises at TAPS and the VMT.

APSC conducts at least one Incident Management Team (IMT) exercise per year. At these exercises, the ADEC response team is led by one of the department's regional State On-Scene Coordinators (SOSC). The SOSC, Federal On-Scene Coordinator

(FOSC), and Incident Commander , together with their support staff, form the Unified Command. The Unified Command is responsible for executing an effective response.

Table 4: Major Oil Discharge Response Exercises, FY12

Date	Facility	Exercise Type	Location	Agencies
7/20/11	VMT	Equipment Deployment/IMT	VMT, Valdez	ADEC, BLM
8/24/11	TAPS	Equipment Deployment /Limited IMT	Middle Fork Koyukuk River	ADEC,BLM
9/22/11	TAPS	Equipment Deployment /IMT	PS1	ADEC, BLM, EPA
9/27/12	VMT/PWS Tanker Plan	Personnel Call out Exercise	VMT, Valdez	ADEC, USCG
10/13/12	VMT	Equipment Deployment	VMT, Valdez	ADEC, BLM, USCG
5/8/12	TAPS	Unannounced Equipment Mobilization	GRB	ADEC,BLM

ADEC has the statutory and regulatory authority to conduct compliance inspections for prevention requirements and C-plan commitments and to determine the plan holder's response readiness. A key component of ADEC's oversight involves assessment of readiness and response training. ADEC's inspections for FY12 were based on priorities established in cooperation with the JPO Oil Spill Team. To the degree possible, inspections are coordinated with federal JPO agency staff to avoid duplication and enhance efficiency. During FY12, ADEC staff conducted nine field inspections:

Table 5: ADEC Field Inspections, FY12

Date	Facility	Inspection Focus	Location
7/11/11	TAPS, PS1	oil spill prevention and records review	PS 1
7/12/11	TAPS, PS3 and associated containment sites	tank farm oil spill prevention, containment sites (PS1 to PS3) and records review	PS 3, TAPS
7/12/11	TAPS, PS4	tank farm oil spill prevention, containment sites (PS3 to PS4) and records review	PS 4, TAPS
7/13/11	TAPS, PS5	tank farm oil spill prevention, containment sites (south of Atigun to PS5) and records review	PS 5, TAPS
7/14/11	YRB	OSCP tank and associated loading area	YRB
7/14/11	PS7	tank farm and associated secondary containments, vehicle fueling area and associated tankage	PS7
7/19/11	TAPS	containment sites between BRB and PS12	TAPS
5/4/12	VMT	BWT secondary containment and east tank farm CP rectifiers	VMT
6/22/11	TAPS	Tank 190 piping, tank and secondary containment (with BLM)	PS9

Department of Fish & Game Liaison FY12 TAPS Activities

APSC baseline crews have been actively maintaining low-water crossings and culvert structures along TAPS in compliance with the conditions of Fish Habitat Permit FH 11-SPO-0007.

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 11-SPO-0007. The liaison completed 123 written surveillance reports in FY12 (see Appendix G for a full list of reports).

APSC Environmental Surveillances and Repairs

APSC conducted fish stream surveillances at 641 sites along TAPS. The APSC Right-of-Way and Civil Maintenance Group worked on 89 drainage structures in 2011. Three sites required extensive repair (and Fish Habitat Permits issued by the SPCO) to provide long-term fish passage and 85 sites required routine maintenance; the remaining 552 sites required no work.

Fast One Mile Creek

Fast One Mile Creek is located at PLMP 618.2, approximately 32 miles south of PS10. The creek is a high gradient anadromous fish stream that originates from a small high habitat value lake complex, just upstream of where it crosses TAPS, and drains into the Copper River.

APSC maintains a low water crossing (LWC) for vehicles at Fast One Mile Creek adjacent to the pipeline. Over time, a head cut formed just downstream of the LWC causing a steep drop off that was likely an impediment to fish passage. APSC attempted to restore fish passage by constructing a let-down structure on a rock base filled with imported gravel to prevent French draining. Within the base, a channel was formed for fish passage, which included boulder clusters to provide diverse flows to dampen high velocities and small pools within the channel for fish resting areas. The ADF&G liaison along with APSC employees inspected this site, post construction, shortly after spring breakup and then again later in the summer. The fish passage improvements held up well through lower flows and the typical high flows associated with spring thaw. ADF&G will continue to monitor this project for future fish passage.

Fast One Mile Creek low water crossing before (left) and after (right) fish passage restoration.

Little Tonsina Flats Low Water Crossing Repair

Little Tonsina Flats is located approximately 45 miles south of PS11 and four miles north of PS12. The Little Tonsina Flats is a large wetland complex that provides important summer rearing habitat for coho salmon. This area drains into the Little Tonsina River and eventually into the Copper River.

APSC maintains several LWCs for vehicles through the Little Tonsina Flats adjacent to the pipeline. Two of these LWCs required repairs that exceeded what was allowable under the annual line-wide low-water crossing maintenance permit in order to reestablish fish passage. On an interesting side note, an APSC staff member was able to take a picture of a fish immediately utilizing one of the LWCs as the fish passage repairs were completing.

Beaver Dam Removal
In the past, APSC would submit multiple requests under the TAPS lease and grant for removal of nuisance beaver dams that threatened pipeline and right-of-way integrity and, in some cases, blocked fish passage. Authorizations issued by the JPO would include similar stipulations.

In FY11, the JPO issued on a one-year trial basis a line-wide authorization for beaver dam removal within the TAPS right-of-way. The authorization included several specific conditions, notifications and reporting requirements. The intent of the authorization was to allow for a faster response time to minimize potential damage and to discourage beavers from investing significant time and energy in areas adjacent to the work pad. Under this authorization, APSC was able to remove six beaver dams in FY12. After a review of the 2012 beaver dam removal activities, the JPO opted to renew the line wide authorization until 2013.

Department of Labor & Workforce Development FY12 TAPS Activities

Safety Inspections

The SPCO safety liaison conducted 45 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 the 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 11 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.

GRB Mainline Pipe Replacement
PS4 Pre-Shutdown Activities
PS9 Walking Working Surface Project
GRB Removed Mainline Pipe Cleaning
VMT Fire Water System Excavation
VMT BWT DAF Cell Coating
PS9 Tank 190 Cleaning
PS7 Crude Oil Recirculation Project
PS9 Tank 190 Cleaning
PS5 Stuck Pig Removal

Injuries
APSC injury rates are below the Bureau of Labor Statistics (BLS) national average for North American Industry Classification System code 486, Pipeline Transportation. BLS maintains injury rates by calendar year and the most recent statistics available at the time of reporting are from December 31, 2010.

The National Total Recordable Cases rate for 2010 was 2.5 injuries per 200,000 man-hours worked. APSC and its contractors had seven recordable injuries in 2011, with a rate of 0.25 per 200,000 man-hours worked.

The National Days Away From Work Cases rate for 2010 was 1.1 injuries per 200,000 man-hours worked. APSC and its contractors had one lost time injury in 2011 with a rate of .04 per 200,000 man-hours worked. This injury occurred in FY11.

APSC and its contractors have had three recordable injuries as of June 30, 2012, with a rate of .22 injuries per 200,000 man-hours worked.

APSC reports all recordable injuries (according to the Occupational Safety & Health Administration definition) to the SPCO safety liaison. APSC and its contractors had eight recordable injuries in FY12, none of which were days away from work cases.

August 4, 2011
A Doyon Universal Services employee at the VMT experienced back pain after vacuuming steps in the maintenance shop. Because prescription medicine was prescribed, it was reclassified from first aid to a recordable incident on Aug. 9, 2011.

September 18, 2011
A Houston Contracting Co. (HCC) employee was pushing a wheelbarrow up a mound at PS1, when it tilted. The employee tried to stop the wheelbarrow from tilting, resulting in the employee twisting and straining his back. Prescription medicine was given to the worker, making this a recordable incident.

November 1, 2011
A HCC employee was driving to Fairbanks from PS4 in a Kenworth tractor without a trailer when he lost control at a corner, leaving the roadway and rolling the truck down an embankment. He was injured and given prescription medication, making this a reportable accident.

November 12, 2011
An Ahtna Construction employee was at PLMP 787 when he slipped on a piece of ice, resulting in a minor ankle sprain. The injury was reclassified to a recordable incident on Dec. 9, 2011, when an X-ray revealed a fracture.

December 22, 2011
A TCC, LCC, employee reported that while unloading a piece of equipment at SERVs, the employee's hand was caught in a pinch point when the equipment became unbalanced, resulting in a fracture and laceration.

February 1, 2012
A Crowley employee on a barge received a facial laceration while attempting to provide feed water to fill a suction line. Once the line was filled, the employee attempted to reset a cam lock. Residual pressure on the line forced the cam lock off, which then struck the employee in the face. He received sutures, making this a recordable injury.

February 17, 2012
Two HCC employees were part of a larger crew clearing snow off Tank 9 at the VMT. They were injured as a result of a shifting wedge of snow, estimated to weigh 400,000 pounds. The snow mass shifted, pushing the two workers over the side of the tank. The snow and ice moving over their fall protection gear sheared safety lines, causing the workers to fall to the ground. The workers received multiple lacerations and contusions requiring medical treatment, making this two recordable injuries.

Electrical Inspections

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 FY12, the SPCO electrical inspector performed 83 inspections, issued one notice of violation, and reviewed 62 certificates of fitness. The electrical inspector also provides code interpretations and is the JPO engineering staff's code compliance consultant. A list of all FY12 inspection reports can be found in Appendix G.

Line-wide Inspections
In 2012, the DOLWD electrical inspector documented work as APSC continues to upgrade cathodic protection, security, and communications systems.

VMT Overhaul of Berth 4
This project included replacing the Tanker Ship's loading arms, numerous upgrades to the electrical systems, and a new automation system that included interfacing and control of Berth 4 from the Operation Control Center in Anchorage. This project is nearing completion.

PS1 Electrification and Automation Project
A major milestone was accomplished in the spring of 2012. The new Electrical Sub-Station was commissioned and energized. It, along with the new Siemens Gas Turbine generator, will supply the power to the new electric pumps, new buildings, and the old buildings that will remain on site after this project is completed. As of June 30, 2012, cable wire pulls are almost 60% complete and the project is progressing well. With so much electrical work still left to do on this project, management has implemented a night shift of electricians. Electricians are now working on this project 24 hours a day. ASPC hopes to have all cables pulled before winter sets in.

PS6 New Diesel Generators and Removal of Manifold Building
APSC installed a set of two new high-efficiency diesel generators to provide more power with less fuel consumption for PS6, also known as the Yukon River Response Base (YRB). APSC is also in the process of removing the manifold building to facilitate a straight though pipe bypass of this inactive pump station.

Weather Stations Project
This project is ongoing, with weather stations now installed at most pump stations as well as other locations along the TAPS right-of-way. Most have satellite up-links to send information from each location back to a contractor who will compile and refine the data.

Department of Public Safety Fire Marshal FY12 TAPS Activities

The State Fire Marshal's Office (SFMO) in FY12 conducted multiple fire and life safety inspections on TAPS and associated facilities. Inspection sites included TAPS pump stations, the Glennallen Response Base and the Valdez Marine Terminal. The SFMO liaison to the SPCO performs inspections on an annual basis under the authority of AS 18.70 and AS 42.06.630.

March 13 - 16, 2012
The SFMO liaison in March 2012 conducted fire and life safety inspections of TAPS PS1 – PS4 and the Galbraith Airport near PS4. Seventeen minor safety hazards were identified during the inspections and were corrected on the spot or within 30 days of the inspections (12-098-AS). Many of the hazards involved missing or improperly displayed exit signs and storage in unauthorized areas.

April 23 - 25, 2012
The SFMO liaison identifed sixteen minor life safety hazards during inspections of PS5 in April 2012. The hazards included inaccurate fire control panel labels, missing or improperly displayed exit signs and unauthorized hardware (hold-down devices and external locks) on exit doors. All hazards were corrected on the spot or within the required timeframe.

On the same trip, the SFMO liaison conducted inspections at PS6 and identified five minor life safety hazards involving storage in unauthorized areas and improper exit signs and lighting. APSC corrected all the hazards within the timeframe established by the SFMO liaison. The liaison also performed inspections at PS7 and found no violations.

May 12 - 16, 2012
In May 2012 the SFMO liaison traveled with the SPCO public information officer and safety liaison to conduct fire and safety inspections at the VMT and GRB. The group was escorted through the facilities by the VMT fire chief and various APSC staff.

The SFMO liaison identified 19 violations of State fire and safety regulations (five were corrected on the spot) and issued a Notification of Hazard and Order to Correct in June 2012. APSC personnel addressed the remaining hazards within the timeframe established by the SFMO liaison.

Marioff Fire Suppression System Commissioning
On April 17, 2012, the SFMO liaison and SPCO public information officer traveled to PS4 to observe the commissioning of a new fire suppression system for the pump station

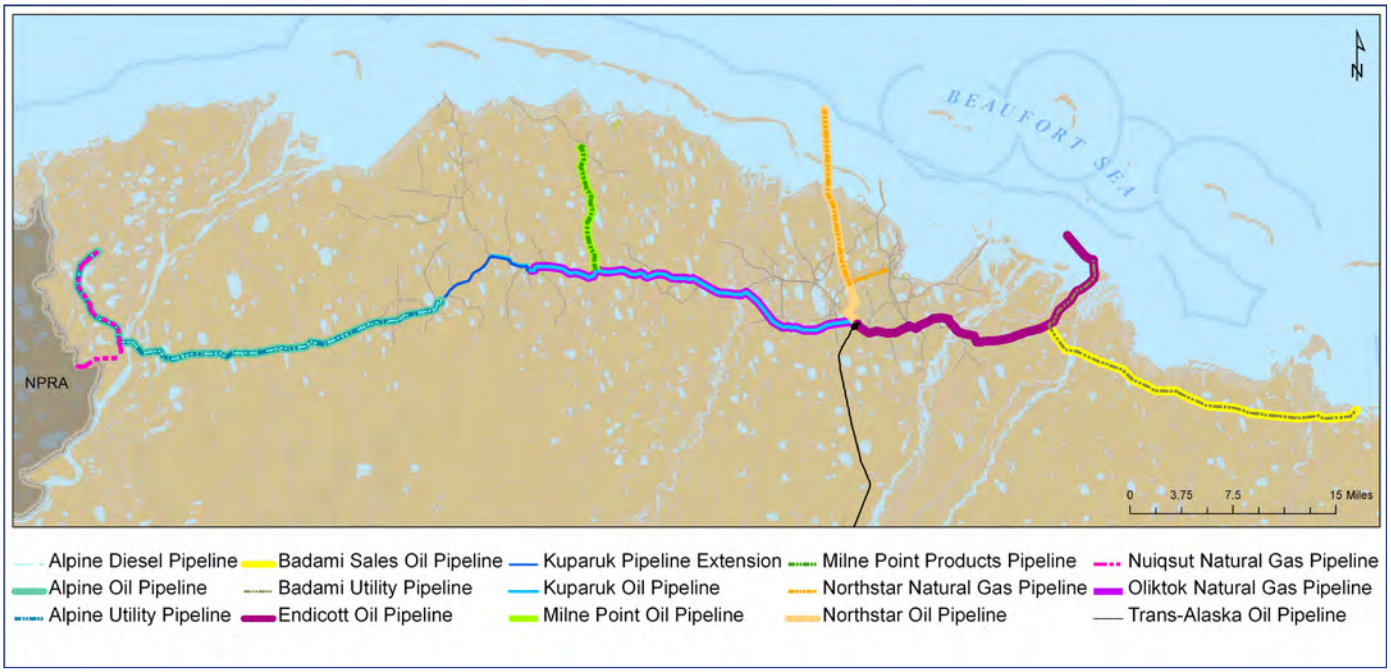
living quarters. The Marioff HI-FOG fire system discharges a fine water mist at high velocity, which can extinguish fires as effectively as a traditional sprinkler system with much less water.

State Fire Marshal liaison John Cawthon (right) and an APSC contractor participate in the commissioning of the new Marioff HI-FOG fire suppression system at TAPS PS4.

Several tests preceded the commissioning of the Marioff system, including pressure and hydro tests and numerous other checks to confirm that the system would perform correctly in a fire event. The installers used small plugs to scour every pipe in the system prior to construction and built a Conex to house the water tanks, instrument panels and other machinery.

The State of Alaska in 2007 approved the use of Marioff HI-FOG fire suppression systems for rural schools, and to date the Marioff system has been installed in more than 10 village schools in Alaska. Like the rural Alaska communities, APSC chose to convert the PS4 living quarters to the Marioff system because of the unique advantages that it has over traditional fire suppression systems. Maintenance costs are lower, less water is used and fire damage can be kept to a minimum. Gas cylinders drive the sprinkler pump, so the system requires no electricity, another advantage for remote Alaska schools and APSC.

North Slope Pipelines



This section of the SPCO annual report focuses on SPCO-juridictional pipelines on the North Slope of Alaska. The North Slope has seven existing pipelines and one proposed (see the Proposed Pipelines section of this report).

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

Each pipeline subsection includes an overview of the pipeline system and highlights from SPCO compliance, right-of-way and engineering activities during 2012.

BP Transportation (Alaska) Inc. Pipelines

Badami Pipelines

BP in FY12 added and replaced vibration dampeners, like the one pictured above, on the Badami pipeline to mitigate wind-induced vibration.

Badami Sales Oil Pipeline connects the eastern-most development on the North Slope, Badami oil field, to Endicott Pipeline. The 12-inch pipeline originates at Badami Central Production Facility (CPF). Badami CPF houses the pig launcher, mainline pumps and metering equipment for the pipelines. The pipeline terminates at the tie-in with Endicott Pipeline, approximately 25 miles west of Badami CPF. The Badami pipelines share vertical support members and, except at the Shaviovik, Kadleroshilik and Sagavanirktok river crossings, are above ground.

The Badami Sales Oil Pipeline Right-of-Way Lease (ADL 415472) and Badami Utility Pipeline Right-of-Way Lease (ADL 415965) were both approved by the DNR Commissioner and issued on December 15, 1997. See Appendix D for acreage, survey and lease information.

The six-inch Badami utility pipeline originates at the "T" intersection on the Endicott causeway where it ties-into the fuel gas line that travels from the Endicott main production island to the satellite drilling island.

The Badami utility pipeline was designed to transport fuel gas from the Endicott tie-in to Badami CPF, a distance of 31 miles, to power Badami facilities. BPXA operated the Badami utility pipeline intermittently to supply fuel gas prior to and during start-up of Badami CPF. In 2007, BPXA also operated the utility pipeline briefly to supply gas needed to propel a pig through the Badami oil pipeline. Badami Utility Pipeline was restarted in August 2010 and is currently in operation. When Badami is producing oil it can also produce its own fuel gas to support facilities and field operations.

The Badami oil pipeline continues to flow at low rates and experiences low temperatures during winter. In January 2012, BPXA had to clear a partial ice plug by flushing with methanol, but there were no shutdowns due to ice formation. BPXA reconciled the data from two inertial guidance pig (geopig) runs at the Badami oil pipeline crossing of the Shaviovik River and concluded that, while there is a surface depression, the pipeline has not subsided or heaved significantly. SPCO engineers reviewed this work and did not find any inconsistencies or errors in the approach.

March 2012:

State Fire Marshal Annual Inspection

On March 6, 2012, the SFMO liaison conducted fire and life safety inspections of the Badami production facilities. The liaison inspected the Badami facilities for compliance with applicable building, fire and mechanical codes and under the authority of AS 18.70 and AS 42.06.630. He identified six minor safety hazards; all hazards were either corrected on the spot or addressed within the required action time-frame. There were no issues or hazards identified on the pipeline right-of-way.

May 2012:

Annual Report Review

On May 2, 2012, SPCO staff issued 10 surveillances on Badami pipelines. These surveillances were conducted in association with the 2011 Annual ADNR Surveillance and Monitoring Report. The report contains information on programs, operations, maintenance, surveillance and monitoring, environmental studies, audits and assessments, and right-of-way events, incidents and issues that occurred in calendar year 2011. All surveillances issued in association with these documents resulted in satisfactory findings.

June 2012:

Engineering Right-of-Way Inspection

The SPCO technical engineer traveled in June 2012 to inspect the Badami pipelines and rights-of-way. He and the BPXA representative observed the subsidence in the cover material over the pipelines on the east bank of the Shaviovik River. The SPCO agrees with the BPTA assessment that the subsidence has stabilized and does not pose an immediate threat to the pipeline. The SPCO engineer concluded in his report that the Badami pipelines and rights-of-way appeared to be in good working condition at the time of his inspection.

Badami Release of Interest Surveys

The SPCO met with BPTA to discuss the finalization of the Badami oil and utility construction rights-of-way and rights-of-way surveys. The Badami leases require the lessee to complete surveys prior to the release of the construction rights-of-way and implementation of the operation and maintenance rights-of-way. The Badami oil pipeline right-of-way record of survey (EPF 2008-09) was recorded during FY11. The Badami utility pipeline right-of-way survey was sent to the lessee's surveyor for the final Mylar® copy of EPF 2008-09 in FY11. When the Mylar® copy has been approved by State survey staff, signed by the DNR Commissioner and properly recorded, the release of interest of utility right-of-way will be adjusted to the size and acreage for pipeline operations and maintenance.

Endicott Pipeline

A caribou herd crosses near Endicott Pipeline in 2012. Endicott was the first continuously producing offshore oil field in the Arctic.

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 the 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 comingled with Endicott oil

for delivery to PS1. See Appendix F of this report for more information on the physical characteristics of Endicott Pipeline.

The operational right-of-way for Endicott Pipeline is 150 feet wide, except along the causeway, where the right-of-way width is 500 feet (see Appendix D for acreage, survey and lease information). In early 2010, BPXA commissioned a survey of the Endicott area to obtain more-accurate acreage information. DNR approved the updated survey information and executed a minor lease amendment on January 25, 2010.

BPXA notified the SPCO in July of 2010 that two BPXA-operated pipelines, the 32-inch diameter seawater treatment plant pipeline to Flow Station 2 and the 24-inch gas pipeline to Flow Station 2, had settled on top of Endicott Pipeline. The lines were lifted to design grade and permanent VSMs were installed on both pipelines in February 2012. BPTA reported no insulation or jacket damage to either pipeline.

November 2011
State Fire Marshal Annual Inspection
On November 3, 2011, the SFMO liaison conducted fire and life safety inspections of the Endicott production facilities. The liaison inspected 21 facilities for compliance with applicable building, fire and mechanical codes and under the authority of AS 18.70 and AS 42.06.630. He identified four minor safety hazards involving hardware on exit doors and one minor hazard in the Environmental Warehouse circuit breaker. All hazards were addressed by BP within the required action time-frame. There were no issues or hazards identified on the pipeline rights-of-way.

May 2012:
Annual Report Review
On May 2, 2012, SPCO staff issued four surveillances on Endicott Pipeline. These surveillances were conducted in association with the 2011 Annual ADNR Surveillance and Monitoring Report. The report contains information on programs, operations, maintenance, surveillance and monitoring, environmental studies, audits and assessments, and right-of-way events, incidents and issues that occurred in calendar year 2011. All surveillances issued in association with these documents resulted in satisfactory findings.

Milne Point Pipelines

The Milne Point oil pipeline in 2011 transferred more than eight million barrels of crude oil from Milne Point Unit to Kuparuk Pipeline.

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.

The Milne Point oil pipeline remains in service and in 2011 transported 8,037,113 barrels of crude oil to Kuparuk Pipeline. More information about Milne Point oil pipeline is available in the Lessee Annual Report Summaries section of this report.

The Milne Point Pipeline right-of-way has retained its original construction width of 150 feet, pending ongoing North Slope survey work. BPTA submitted an as-built survey to the State to initiate the release of interest process for the Milne Point products pipeline. In FY11, DNR approved the Milne Point products pipeline right-of-way survey (EPF 2007-57) for recording. In FY12, the SPCO completed the analysis and recommendation for the transition of the construction right-of-way to the operation and maintenance right-of-way. On September 20, 2011, the DNR Commissioner executed the Release of Interests for the Milne Point Products Pipeline Right-of-Way Lease and the document was recorded in the Barrow Recording District.

May 2012:

Annual Report Review

On May 2, 2012, SPCO staff issued 10 surveillances on Milne Point pipelines. These surveillances were conducted in association with the 2011 Annual ADNR Surveillance and Monitoring Report. The report contains information on programs, operations, maintenance, surveillance and monitoring, environmental studies, audits and assessments, and right-of-way events, incidents and issues that occurred in calendar year 2011. All surveillances issued in association with these documents resulted in satisfactory findings.

April 2012:

State Fire Marshal Annual Inspection

Between April 9 and 11, 2012, the SFMO liaison conducted fire and life safety inspections of the Milne Point production facilities. The liaison inspected the A Pad and Milne Point Unit (MPU) facilities for compliance with applicable building, fire and mechanical codes and under the authority of AS 18.70 and AS 42.06.630. There were nine minor safety hazards identified at A Pad; most of the hazards involved missing or improperly displayed exits signs, the use of extension cords for permanent wiring and unauthorized hardware (such as external locks) on exit doors.

The SFMO liaison identified five minor safety hazards in MPU facilities. Hazards included snow buildup outside of exits, storage in unapproved areas and unauthorized hardware on exit doors. All hazards identified at A Pad and the MPU were either corrected on the spot or addressed within the required action time-frame. There were no issues or hazards identified on the pipeline rights-of-way.

Northstar Pipelines

The Northstar oil pipeline transports processed crude oil from the Northstar facilities to the Trans-Alaska Pipeline System.

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 FY12 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. See Appendix F for more information on the physical characteristics of the Northstar pipelines.

Northstar Line Heater

Flow in the Northstar pipeline has decreased and its line heater, located next to TAPS PS1, has excess heating capacity. BPXA plans to install new piping, valves and a heater tube bundle to modify the Northstar heater to heat the oil that passes through the Endicott, Badami oil, and Northstar oil pipelines. This project was originally scheduled for late 2012, but it has been delayed until summer 2013.

FY12 Northstar Activities

BPXA added and replaced vibration dampeners on the onshore segments of Northstar Pipeline to mitigate wind-induced vibration. BPXA holds a standing work order for replacing vibration dampeners; this work is ongoing throughout the year.

April 2012:

State Fire Marshal Annual Inspection

From April 9 - 12, 2012, the SFMO liaison conducted fire and life safety inspections of facilities associated with Northstar Pipeline. He identified six minor safety hazards during the inspections, including potential fire exit obstructions and storage in mechanical rooms and other unauthorized areas. All hazards were addressed within the timeframe established by the SFMO liaison. There were no issues or hazards identified on the pipeline rights-of-way.

May 2012:

Annual Report Review

On May 2, 2012, SPCO staff issued 12 surveillances on Northstar pipelines. These surveillances were conducted in association with the 2011 Annual ADNR Surveillance and Monitoring Report. All surveillances issued in association with these documents resulted in satisfactory findings.

August 2012:

Walking Speed Survey Follow-up

In March of 2011, SPCO compliance staff traveled to the North Slope to observe the annual Northstar pipelines walking speed survey (WSS). The WSS is a component of the BPXA surveillance and monitoring program. BPXA returned to inspect areas of Northstar Pipeline that were covered in snow during the March WSS. No issues with the pipelines or rights-of-way were observed.

ConocoPhillips Alaska, Inc. Pipelines

Alpine Pipelines

SPCO and ConocoPhillips staff perform a pipeline and right-of-way inspection on Alpine Pipelines in 2012.

Alpine pipelines, each approximately 34 miles long and operated by CPAI, connect the western-most development on the North Slope to infrastructure in the Kuparuk River Unit (KRU).

The 14-inch Alpine oil pipeline transports processed crude oil from the Alpine Central Facility (ACF) to CPAI's Central Processing Facility Two (CPF-2). The Alpine diesel pipeline transports heating fuel and other petroleum products from CPF-2 to ACF. The Alpine utility pipeline transports treated seawater, used in enhanced oil recovery operations, from CPF-2 to ACF. All three pipelines are mostly above-ground; see Appendix F for detailed physical characteristics of the Alpine pipelines.

Although the Alpine utility pipeline does not transport petroleum products and therefore is not subject to the provisions of the Right-of-Way Leasing Act, the SPCO was delegated jurisdiction by the DNR Division of Mining, Land and Water and

subsequently issued the Alpine Utility Pipeline Right-of-Way Grant (ADL 415857) according to the provisions of AS 38.05, the Alaska Land Act. See Appendix D for Alpine pipelines lease information.

August 2011:
Colville River West Erosion Survey

CPAI conducts annual erosion surveys at Alpine Pipeline river crossings to confirm the integrity of the pipeline and channel morphology and to meet the intent of the erosion mitigation program, which is to monitor and mitigate the impact that the pipeline may have on the channel over time.

SPCO compliance staff observed the annual erosion survey on the west banks of the Colville River. The survey crew evaluated river bank topography and documented visual observations of the pipeline condition and of the channel.

All project surveillances were satisfactory. Details about the project can be read in the lease compliance report and nine surveillance reports (SPCO letter 11-324-AS).

Top: Colville River HDD site west (foreground) and HDD east (background)
Bottom: West banks of the Colville River

August 2011:
Oilspill Response Drill Participation

SPCO compliance staff traveled to the Alpine Development to observe the Alpine Mutual Aid Drill (AMAD). The Alpine Development Area Oil Discharge Prevention and Contingency Plan is a component of the Alpine Oil Pipelines Quality Assurance Program.

CPAI's framework for managing emergency response is based on the National Incident Management System Incident Command System (NIMS ICS). CPAI employs NIMS ICS jointly under a Unified Command to ensure that all parties involved in the response effort participate in the decision-making processes for spill response and clean-up.

Mutual aid drills underscore the necessity of establishing relationships and communication between participating groups. These exercises also demonstrate the company's ability to notify the appropriate governmental agencies that a spill has occurred. All observations documented during the August AMAD yielded satisfactory

results (SPCO letter 11- 357-AS).

January 2012:
State Fire Marshal Annual Inspection
On January 17, the SFMO liaison conducted fire and life safety inspections of facilities associated with Alpine Pipelines. He identified 13 minor safety violations during the inspections, including extension cords being used in permanent wiring, missing or improperly mounted fire extinguishers, potential fire exit obstructions and storage in stairwells and other unauthorized areas. All hazards were addressed within the timeframe established by the SFMO liaison. No hazards associated with the Alpine Pipelines rights-of-way were identified.

March 2012:
Compliance Verification - Document Review
Compliance staff analyzed elements contained in Alpine Pipelines SMP matrix to satisfy lease requirements (see page 6 for a description of the compliance monitoring process). The compliance verification project is an exercise conducted to ensure that all lease requirements are met by the lessee, including those that cannot be verified during field inspections. Among numerous other lease stipulations, SPCO compliance staff in FY12 evaluated how primary system design standards (Stipulation 3.1.2.1) are inspected and maintained by CPAI, including the thermosyphons and thermistor cables installed on the west and east sides of the Colville River. The thermosyphons and thermistor cables are designed to minimize permafrost thawing and river migration.

When additional information was required to complete the analysis, compliance staff conducted liaison agency interviews, requested information from ConocoPhillips staff and from relevant agencies, referred to documents contained in lease case files and reviewed documents and records contained in the Alpine 2010 Annual Comprehensive Report on Pipeline Activities. Results of the compliance evaluation for CY11 yielded 16 satisfactory surveillances; details are contained in SPCO letters 12-046-AS, 12-080-AS and 12-082-AS.

March 2012:
Annual Report Review
Alpine pipelines right-of-way leases require the operator to submit written analysis of pipeline operations and maintenance activities and a summary of surveillance and monitoring efforts from the previous calendar year. The SPCO received the 2011 Annual Comprehensive Report on Pipeline Activities for the Alpine Oil, Utility, and Diesel Pipeline Systems on February 9, 2012.

SPCO compliance staff reviewed the annual report in the context of requirements found in Stipulation 1.14.1 of the lease agreements, and in annual reporting requests made by SPCO in SPCO letters 04-017-WW and 10-277-AS. Three satisfactory surveillance reports were generated from SPCO compliance staff review; details of results can be found in SPCO letter 12-079-AS.

Kuparuk Pipelines

SPCO compliance staff observed multiple work sites along the Kuparuk Pipeline during 2012.

The Kuparuk oil field, discovered by Sinclair Oil in 1969, is the second-largest oil field on the North Slope. Representatives of the DNR and Kuparuk Pipeline Co. signed a right-of-way lease agreement for Kuparuk Pipeline (KPL) in September of 1980.

The original 16-inch KPL, constructed in 1981, carried processed crude oil to PS1. Kuparuk Pipeline Extension (KPE) was later constructed to connect CPF-2 to CPF-1, and comprised both 12-inch and 18-inch segments.

When the new 24-inch KPL was constructed in 1984, the original 16-inch KPL pipeline was converted to Oliktok Pipeline, which carries natural gas liquids from PS1 to CPF-1. In 2009 a 12-inch segment of KPE was replaced with 18-inch pipe, which made that portion of the pipeline accessible to pigging tools. Physical characteristics of the pipeline, including diameter and product transported, are provided in Appendix F.

This reporting period saw the first full winter's operation of the ENI Nikaitchuq tie-in to the Kuparuk pipeline and the new section of Kuparuk pipeline at PS1. There were no issues or problems with either. CPAP re-routed the terminal section of the Kuparuk pipeline within the fence of PS1. It had been difficult to inspect by ILI or other means. CPAP began planning upgrades to the Kuparuk pipeline pig launcher and receiver. Among other items, the operator will install double block-and-bleed valves for improved energy isolation.

August 2011:
Corrosion-Under-Insulation Inspection

SPCO compliance staff traveled to three work sites along the Kuparuk Pipelines to witness the process used in corrosion-under-insulation (CUI) inspections. The inspections on the Kuparuk pipeline looked specifically at the areas underneath the pipeline saddles. The operator conducts CUI inspections, an element of the pipeline corrosion program, as a proactive measure to prevent and, if necessary, mitigate external pipeline corrosion.

Technicians replace the insulation over the taped segment, in preparation for the jacket.

SPCO compliance staff accompanied CPAI staff to observe ultrasonic testing (UT). The inspection process involves stripping the insulation and jacketing off the pipeline; utilizing UT tools to measure and document pipe wall thickness; wrapping the pipe with Denso® tape, which protects pipe from moisture and air; and then replacing the pipeline insulation and jacketing. CPAI tracks potential corrosion areas and conducts follow-up inspections every two years using an in-line inspection tool. The SPCO evaluation of the CUI inspection process yielded satisfactory results (SPCO letter 11- 324-AS).

November 2011:
State Fire Marshal Annual Inspection

On November 8, 9 and 10, the SFMO liaison conducted fire and life safety inspections of facilities associated with Kuparuk Pipeline. He identified 24 minor safety hazards during the inspections. All hazards were addressed within the timeframe established by the SFMO liaison. No hazards associated with the Kuparuk pipeline right-of-way were identified.

May 2012:
Kuparuk Extension In-Line Inspection

SPCO compliance staff traveled to the North Slope in May 2012 to witness the operation of the in-line inspection tool being run through the Kuparuk Pipeline Extension. The SPCO observed the ILI launch from the newly installed launching/ receiving modules and its passage through the new pipeline segment, which crosses Drill Site 2z access road.

The ILI tool traveled from CPF-2 to CPF-1. The tool examined the internal and external conditions of the pipeline. The data the tool gathered will be interpreted by an analyst

to identify damaged areas and estimate the depth of metal loss, if any. After the analyst provides a summary, a ConocoPhillips corrosion engineer will perform a final analysis of the data gathered and make recommendations for ultrasonic or radiographic verifications. The ILI tool obtained 100% coverage of the pipeline. A summary of results will be provided in the 2012 Annual Report on Pipeline Activities for the Kuparuk Pipeline Extension. ILI inspections are required by USDOT/PHMSA and also meet the SPCO requirement that lessees establish corrosion programs that provide for early detection.

Pipeline operators use the ILI tool's powerful magnets and sensors to gather pipeline data.

March 2012:
Annual Report Review

Kuparuk pipelines right-of-way leases require the operator to submit written analysis of pipeline operations and maintenance activities and a summary of surveillance and monitoring efforts from the previous calendar year. The SPCO received the 2011 Annual Comprehensive Report on Pipeline Activities for the Kuparuk pipeline systems on February 9, 2012. SPCO compliance staff reviewed the annual report in the context of requirements found in Stipulation 1.14.1 of the lease agreements, and in annual reporting requests made by SPCO. Eight satisfactory surveillance reports were generated from SPCO compliance staff review; details of results can be found in SPCO letter 12-088-AS.

June 2012:
Compliance Verification - Document Review

Compliance staff analyzed elements contained in Kuparuk Pipelines SMP matrix to satisfy lease requirements. The compliance verification project is an exercise conducted to ensure that all lease requirements are met by the lessee, including those that cannot be verified during field inspections. Among numerous other lease stipulations, SPCO compliance staff in FY12 evaluated how the lessee minimizes erosion and sedimentation at the streams, rivers, floodplains and wetlands the pipeline crosses (Stipulation 2.3.21).

When additional information was required to complete the analysis, compliance staff conducted liaison agency interviews, requested information from ConocoPhillips staff and from relevant agencies, referred to documents contained in lease case files and reviewed documents and records contained in the Kuparuk and Kuparuk Extension 2011 Annual Comprehensive Report on Pipeline Activities. Results of the compliance evaluation for CY11 yielded 26 satisfactory surveillances; details are contained in SPCO letters 12-046-AS, 12-080-AS and 12-082-AS.

Oliktok Pipeline

SPCO compliance staff in FY12 investigated how the Oliktok Pipeline lessee operates and maintains the pipeline system in a manner that prevents or minimizes the degradation of air, land and water quality.

Oliktok Pipeline (OPL) originates near the BP-operated Skid 50, adjacent to TAPS PS1. OPL transports natural gas liquids 28 miles to support enhanced oil recovery operations at Kuparuk CPF-1. KPL and OPL share horizontal and vertical supports. Oliktok Pipeline Co. is the lessee for OPL; CPAI operates the pipeline.

OPL transported various products since it was first constructed as Kuparuk Pipeline. CPAI is preparing to convert the service again, this time to fuel gas. The lessee plans to ship gas to Kuparuk to supplement its well injection and gas lift demands. A detailed letter from the SPCO to Oliktok Pipeline Co. outlined the administrative process, timeline and requirements for authorization of a change of service. The SPCO and lessee agreed to use the KPE design basis as a format for the technical review of the pipeline conversion. The SPCO reviewed a draft of the design basis for the change of service, but the final design is still in development.

January 2012:
State Fire Marshal Annual Inspection
On January 19 the SFMO liaison conducted fire and life safety inspections of facilities associated with Oliktok Pipeline. He identified nine minor safety hazards during the inspections. All hazards were addressed within the timeframe established by the SFMO liaison. No hazards assoicated with the Oliktok Pipeline right-of-way were identified.

March 2012:
SPCO Review of the Lessee's Annual Report
The Oliktok pipeline right-of-way lease requires the operator to submit written analysis of pipeline operations and maintenance activities and a summary of surveillance and monitoring efforts from the previous calendar year. The SPCO received the Oliktok Pipelines 2011 Annual Comprehensive Report on Pipeline Activities on February 9, 2012. Four satisfactory surveillance reports were generated; details of results can be found in SPCO letter 12-089-AS.

June 2012:
Compliance Verification - Document Review
Compliance staff analyzed elements contained in Oliktok Pipeline SMP matrix to satisfy lease requirements. Among numerous other lease stipulations, SPCO compliance staff in FY12 investigated how the lessee operates and maintains the pipeline system in a manner that prevents or minimizes the degradation of air, land and water quality (Stipulation 2.2.1).

When additional information was required to complete the analysis, compliance staff conducted liaison agency interviews, requested information from ConocoPhillips staff and from relevant agencies, referred to documents contained in lease case files and reviewed documents and records contained in the Oliktok 2011 Annual Comprehensive Report on Pipeline Activities.

Results of the compliance evaluation yielded 26 satisfactory surveillances; the surveillances accompanied SPCO letter 12-250-AS.

North Slope Borough Pipelines

Nuiqsut Natural Gas Pipeline

Nuiqsut Natural Gas Pipeline shares horizontal and vertical supports with the Alpine pipelines from the production pad to the west bank of the Colville River, where it transitions below ground until it reaches the village of Nuiqsut.

The North Slope Borough (NSB) constructed the Nuiqsut Natural Gas Pipeline (NNGP) to transport natural gas from the Alpine production pad to the village of Nuiqsut, located within the Colville River Delta. The 14.4-mile pipeline shares horizontal and vertical supports with the Alpine pipelines from the production pad to the west bank of the Colville River, where it transitions below ground until it reaches Nuiqsut.

DNR issued the NNGP Right-of-Way Lease, ADL 416202, to the NSB in the spring of 1999. Construction began shortly thereafter and completed the same year; however, due to delays in finalizing gas supply contract negotiations, acquiring the necessary regulatory approvals and building the distribution facilities, NNGP did not become operational until September of 2008. By 2009, service was available to the 122 homes and 30 commercial buildings that submitted service requests to NSB. Nuiqsut is the third North Slope community (after Barrow and Deadhorse) to provide heat and electricity from natural gas.

The flow in NNGP increased in FY11, as more natural gas was consumed in Nuiqsut.

NSB introduced a program to convert heating-oil appliances to natural gas in the village. Problems with new natural-gas engines were resolved, which resulted in more electrical energy being produced from natural gas and less from diesel generators.

In August of 2010, NSB performed a corrosion assessment, coating investigation, an inspection of the cathodic protection system and ultrasonic testing of pipeline wall thickness. The cathodic protection system is on the buried portion of the pipeline. The 14.4-mile line has two segments; an 8.8-mile above-ground segment that runs from the Alpine pad to the Nechelik channel crossing of the Colville River and a 5.6-mile below-ground segment that runs under the channel to the distribution point at Nuiqsut. A number of issues involving cathodic protection and coating were recorded.

Prior to NNGP start-up, the SPCO had required a professional engineering report and a field investigation of the coating deterioration on the pipeline. The coating has visibly deteriorated in the three years since the report. USDOT/PHMSA, the agency with specific authority over pipeline integrity, is responsible for monitoring pipeline coating problems. USDOT/PHMSA has been aware of the NNGP coating deterioration since prior to start-up. The SPCO continues to share information from site inspections with USDOT/PHMSA - both agencies plan to look more closely at the situation during future inspections.

July 2011:
Summer Pipeline and Rights-of-Way Field Inspection
SPCO compliance staff traveled in July 2011 to the west side of the North Slope to follow-up on the status of multiple NNGP projects. SPCO compliance staff accompanied the NNGP operator and documented right-of-way conditions from the village of Nuiqsut to the Alpine Development, situated 14 miles north of the village.

SPCO compliance staff observed standing water in surface depressions along the pipeline centerline in much of the section where the pipeline is below ground. The depressions vary in depth and width. The greatest ponding is in an area approximately 15 inches deep and six inches wide. The gradual ponding will be monitored and does not affect the integrity of the pipeline.

SPCO compliance staff inspected the insulated casing repair on NNGP, reported by the NSB project administrator on October 20, 2010. The operator had repaired the casing and was disappointed to see the repair had failed. The operator planned to repair the casing again before winter by cutting off a section of six inches or more and resealing it with sealant and a metal cap. The operator inspected six locations for evidence of increased coating damage since the 2010 assessment. The operator then reviewed notes from the assessment and determined that four of the six locations had not been recorded as having any damage.

SPCO compliance staff recorded the condition of the right-of-way as clean and free of debris or unauthorized storage. More details are available in a lease compliance report and eight satisfactory surveillance reports (SPCO letter 11-276-AS).

July 2011:
Pipeline and Right-of-Way Field Surveillance Follow-Up
SPCO compliance staff and engineering staff traveled to Nuiqsut to conduct a follow-up inspection of the NNGP below-ground section right-of-way and Nigliq Channel bank conditions. SPCO staff accompanied an NSB employee to the Nigliq Channel and the Colville River HDD west site. From the HDD west site, the group traveled the full length of the below-grade portion of the right-of-way to assess the surface conditions.

SPCO issued a lease compliance report and five satisfactory surveillance reports noting the right-of-way conditions at the northeast side of the Nigliq Channel Crossing and along the below-grade portion of the pipeline from the HDD west site and south to the Nigliq Channel Crossing.

October 2011:
State Fire Marshal Annual Inspection
On October 25, the SFMO liaison conducted fire and life safety inspections of NNGP facilities. He identified five minor safety hazards during the inspections. All hazards were addressed with the timeframe established by the SFMO liaison. No hazards within the NNGP right-of-way were identified.

March 2012:
Winter Pipeline and Rights-of-Way Field Surveillance
SPCO compliance staff traveled to the North Slope to accompany the NNGP Operator on the biannual surveillance of the NNGP and right-of-way.

SPCO compliance staff observed the operator as he assessed the pipeline system for any signs of gas leaks at the pressure reducing module, on the pipeline or at valves. The operator inspected for pipeline damage, such as dents, gouges, cracks, hardware failures and any additional external coating damage. The operator recorded a secondary support member misalignment, which does not affect the integrity of the pipeline system and will be repaired during FY13.

The NNGP operator and an SPCO representative discovered the misaligned support member pictured above during a surveillance inspection.

The operator looked for signs of significant pipeline vibration and for areas where NNGP could come in contact with the Alpine pipelines. The operator also looked for unauthorized construction activity and storage on the leasehold, and for anything that could potentially affect the natural and human environments or the integrity of the pipeline system. NNGP was marked with pipeline markers and signs,

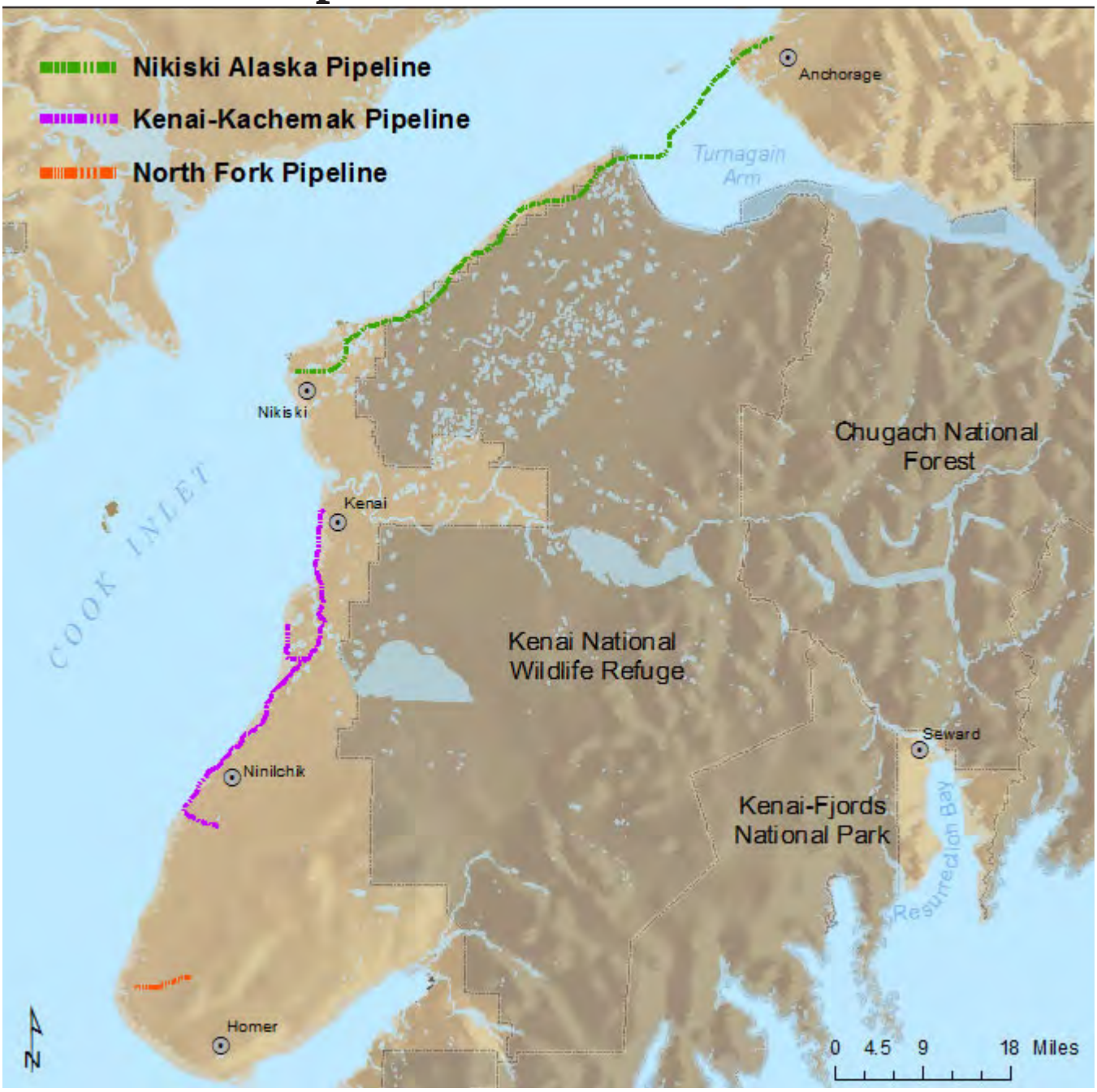
meeting the requirements of the lease, and appeared to be in good condition. SPCO staff and the NNGP operator also reviewed the 2012 plan of operation and discussed the SPCO's annual reporting expectations. The operator advised that the NNGP safety program would likely be completed and initiated by fall 2012. SPCO generated a lease compliance report and five satisfactory surveillance reports based on the field inspection (SPCO letter 12-156-AS).

March-May 2012:
SPCO Review of the Lessee's Annual Report
The NNGP right-of-way lease requires the operator to submit a written analysis of pipeline operations and maintenance activities and a summary of surveillance and monitoring efforts from the previous calendar year. The SPCO received the 2011 Annual Comprehensive Report on Pipeline Activities and the State of the Pipeline System for the NNGP on February 21, 2012.

SPCO compliance staff performed a thorough review and requested additional information, which was provided by the NNGP operator. The SPCO accepted the 2011 NNGP Annual Report on May 3. One satisfactory surveillance report was generated; details can be found in SPCO letter 12-168-AS.

June 2012:
Compliance Verification - Document Review
SPCO compliance staff analyzed elements contained in the NNGP surveillance and monitoring program to satisfy lease requirements. Among other things, the SPCO compliance staff evaluated how the lessee protects known archaeological sites during construction, operation and maintenance of the pipeline system (Stipulation 2.12.1). Results of the compliance evaluation yielded 13 satisfactory surveillances (12-244-AS).

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

KKPL has seven laterals that lead to production pads. These transport natural gas from wells into the KKPL. The photo is the Kasilof South Production Pad which is located off of S Cohoe Loop Road. The lateral from the pad to the KKPL is approximately four miles long.

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). Specific physical characteristics of the pipeline and extensions are provided in Appendix F: Physical Characteristics of SPCO Jurisdictional Pipelines.

KKPL begins at the Happy Valley production pad and ends at the Marathon Oil Company 500 Master Meter Building, running generally south to north. Seven Cook Inlet wells currently transport natural gas through KKPL. Some natural gas is distributed from KKPL for local use.

The original right-of-way lease was issued to KKPL, LLC, on November 26, 2002. The lease was amended twice and is set to expire November 25, 2032. The first amendment, executed on June 16, 2004, added 48 acres to the right-of-way to accommodate Phase 2 of construction, referred to as the Happy Valley Extension (HVE). The second amendment, executed on April 24, 2006, added 35.6 acres of State land for construction of Phase 3, referred to as the Kasilof Extension (KE).

The Right-of-Way Release of Interest was finalized in FY09, reducing the right-of-way from the construction width of 60 feet to the operational width of 20 feet.

August 9, 2011:
Right-of-Way Surveillance and Document Check

KKPL right-of-way in the foreground with the Falls Creek Pad in the background.

On August 9, 2011, SPCO compliance staff accompanied the KKPL operator on an aerial surveillance inspection of the KKPL right-of-way, beginning at the northern terminus and continuing south to the Happy Valley drill pad. The right-of-way appeared to be in a condition that satisfied lease requirements. SPCO staff documented two sites of encroachment on the right-of-way. MPL staff stated that both owners were notified that they are encroaching on the leasehold and that, if necessary, MPL would remove the vehicles.

After performing the aerial surveillance, SPCO staff drove the length of the KKPL right-of-way, which appeared to be in good condition and well-marked with pipeline markers and signs. Above-ground pipeline valves were within maintained and well-marked fenced enclosures.

SPCO staff requested the aerial surveillance report completed for the August 9 flight and the two most recent aerial surveillances. SPCO staff also requested training records for the pilot performing the surveillance and the most recent leak detection survey.

MPL provided the SPCO with all three aerial surveillance reports conducted respectively on July 26, August 3 and August 9, 2011. MPL provided the SPCO training records for the pilots performing the aerial surveillance. MPL provided the SPCO

with the two most recent leak detection surveys, which were completed on July 7 and July 11. The surveys detected no leaks in the pipeline system. The report for the leak detection survey conducted in January, 2012, is still being drafted and was unavailable to the SPCO. MPL staff stated that no leaks were found on the January survey.

SPCO compliance staff completed a lease compliance and six surveillance reports based on observations made in the field and documentation provided to SPCO staff; all reflected satisfactory conditions (SPCO letter 11-291-AS).

The KKPL right-of-way with vehicles encroaching on the leasehold at PLMP 27.

October 2011:
State Fire Marshal Annual Inspection
On October 4, the SFMO liaison conducted fire and life safety inspections of KKPL facilities. He identified two minor safety hazards during the inspections. Both hazards were addressed within the timeframe established by the SFMO liaison. No hazards associated with the KKPL right-of-way were identified.

February 6, 2012:
Right-of-Way Surveillance and Document Check
On February 6 SPCO compliance staff accompanied the KKPL operator on an aerial surveillance inspection of the KKPL right-of-way, beginning at the northern terminus and continuing south to the Happy Valley drill pad. The right-of-way appeared to be in a condition that satisfied lease requirements. SPCO staff documented two sites of encroachment where private land owners had vehicles parked in the right-of-way. SPCO staff observed these same vehicles during an August 9 aerial inspection (see image above). MPL staff stated that both owners have been notified that they are encroaching on the leasehold and that, if necessary, MPL would remove the vehicles. No additional encroachments were observed that weren't noted from previous surveillances.

The KKPL right-of-way appeared to be in good condition and was well-marked with pipeline markers and signs. Above-ground pipeline valves were within maintained and well-marked fenced enclosures.

SPCO staff requested the aerial surveillance reports completed for the November, December and January surveillances. SPCO staff also requested operator qualification records for the pilot performing the surveillance, the most recent leak detection survey, pig launch form work order associated with a recent cleaning pig run and documents associated with a recent in-line inspection.

MPL provided the SPCO with all three aerial surveillance reports conducted respectively on November 2, 2011; December 5, 2011; and January 3, 2012. MPL also provided operator qualification records for the pilots performing the aerial surveillances. The training records demonstrate that both pilots had successfully completed the required training.

The southern end of KKPL (fenced enclosure on the right) with the Happy Valley Pad in the background.

MPL performed an annual cleaning pig treatment run on June 8, 2011. The cleaning pig was launched at the southern terminus of KKPL from the Happy Valley valve station to the KKPL terminus. MPL provided the SPCO with the pig launch form. Noted during the pig run was a work order (729381) to re-order the vent cap with bleeder for the Happy Valley pig trap blow down. SPCO staff requested and received a copy of the work order indicating that the four-inch vent cap with bleeder for the Happy Valley pig blow down stack was completed on July 27, 2011.

SPCO compliance staff completed a lease compliance and seven surveillance reports based on observations made in the field; all reflected satisfactory conditions (SPCO letter 12-069-AS).

February 2012:
SPCO Review of the Lessee's Annual Report

The Kenai Kachemak Pipeline 2011 Annual Report was submitted on February 7, 2012. The SPCO reviewed the report and found that it provided sufficient information to satisfy the lease requirement (SPCO Letter No. 12-134-AS). A summary of the KKPL annual report can be found in the lessee annual report summaries section of this report.

Nikiski Alaska Pipeline

Nikiski Alaska Pipeline right-of-way north of Captain Cook State Park.

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 Right-of-Way Lease, ADL 69354, was executed on January 30, 1976, and is scheduled to expire January 29, 2031 (see Appendix D: Acreage, Survey, and Lease Information). The lease has been amended four times. The pipeline right-of-way is typically 10 feet wide for operations and maintenance (see Appendix E). The total system length is 52.8 miles; 20 miles located on State land, occupying 64.2 total acres (see Appendix F).

The Nikiski Alaska Pipeline was constructed in 1976. The pipeline has a 10.75-inch outside diameter and transports refined petroleum products (jet fuel, gasoline and diesel) 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 (MOP) is 1,440 psig. Mainline pumps, meters, and the pig launcher are located at Tesoro's Kenai Refinery.

August 24, 2011:
Right-of-Way Surveillance

SPCO staff traveled to Point Possession to observe the NAP transition from the bluff below Turnagain Arm. The NAP descends 60 vertical feet down the bluff where it transitions below Turnagain Arm and travels for 13 miles on the ocean floor to Point Campbell. Fencing is installed on the right-of-way at the base of the bluff. The fencing has signs to warn the public of the presence of the pipeline and the motorized vehicle restriction. The right-of-way appeared to be in an acceptable condition and SPCO staff did not observe any erosion.

SPCO staff traveled south from Point Possession on the beach for approximately 10 miles to an access point up the bluff to the right-of-way. SPCO staff then traveled approximately six miles north to where the right-of-way crosses Miller Creek. This section was in good repair. The drive lane was hardened with very few areas of water and mud. Miller Creek is designated as an anadramous fish stream by the Alaska Department of Fish and Game. Tesoro has a fish habitat permit from ADF&G to cross Seven Egg, Otter, Scaup, Bishop and Miller Creeks. The permit was issued on October 21, 2010, and expires on December 31, 2015. The creek crossing appeared to be in good condition.

SPCO staff then traveled south on the right-of-way to an access point near Mainline Valve 4 (MLV 4). MLV 4 is one of nine remotely-controlled gate valves between the Nikiski refinery and the Port of Anchorage. The fencing around the valve appeared to be in working order, despite some evidence of frost heaving during the winter months. SPCO staff continued north of MLV 4 to where the right-of-way crosses Seven Egg Creek. The crossing appeared to be in good condition.

Fencing surrounding the site where the NAP operator conducted an integrity dig in June 2011.

At PLMP 31, SPCO staff observed the area where an integrity dig had occurred in June. In December 2010, Tesoro performed an in-line-inspection (ILI) of the NAP. The results of the ILI showed three anomalies in the pipeline system. The pipeline operator performed integrity digs at the sites where anomalies were recorded. The anomaly at PLMP 31 was listed as a metal loss and the dig confirmed that the ILI data was accurate. The anomaly was due to internal metal loss 1.1 inches long by 1.1 inches wide. A 16-inch sleeve was installed over the pipe. After completing work on the pipe, Tesoro backfilled the site and reseeded the area. SPCO staff observed orange fencing surrounding the site to allow for revegetation without third party disturbance.

SPCO staff returned to the beach and traveled 10 miles south to another access point to the right-of-way. SPCO staff traveled north for approximately one mile before turning around and heading south of the access point to the Leaf Creek bridge. Large segments of this section of the right-of-way were boggy and impassable.

The overall state of the right-of-way was variable. The section south of Miller Creek was dry with a consistent linear drive lane. Other sections were wet and muddy.

SPCO compliance staff completed a lease compliance and 10 surveillance reports based on observations made in the field; all reflected satisfactory conditions (SPCO letter 11-331-AS).

April 10, 2012:
Right-of-Way Surveillance
SPCO staff and the Tesoro staff in April 2012 traveled the pipeline right-of-way between Captain Cook State Park, PLMP 16 and Point Possession (PLMP 45).

The group stopped at MLV 4, one of nine remotely-controlled gate valves between the Nikiski refinery and the Port of Anchorage. The fencing surrounding the valve was in poor repair, but appeared to be in working order. The Tesoro Manager of Pipeline & Terminals confirmed that the operator is investigating solutions to the poor fence condition.

A Tesoro spill response Conex is located near PLMP 30 on land owned by the Kenai Peninsula Borough. The Conex contains first response equipment in the case of a pipeline spill and has housing for up to four individuals. Tesoro staff unlocked the Conex and showed SPCO staff the inventory of items.

SPCO staff continued north on the right-of-way to MLV 5. The fencing around MLV 5 was in good condition. SPCO staff observed that a bottle of nitrogen used to actuate the valve was on the ground outside of the fence. Tesoro staff attempted to remove the bottle, but it had frozen to the ground. Tesoro staff stated that they would return to the site to remove the bottle.

Approximately ½ mile from where the pipeline descends to Point Possession a tree had fallen across the right-of-way, which necessitated driving snowmachines off of the right-of-way to continue heading north. The fallen tree was noted by Tesoro staff and was put on a list for summer brushing crews to address.

SPCO staff traveled the remaining ½ mile to Point Possession to observe the Nikiski Alaska Pipeline transition from the bluff below Turnagain Arm. The Nikiski Alaska Pipeline descends 60 vertical feet down the bluff where it transitions below Turnagain Arm and travels for 13 miles on the ocean floor to Point Campbell. The right-of-way appeared to be in good condition and SPCO staff did not observe any erosion.

Between Captain Cook State Park and Point Possession there are six ADF&G-designated anadramous fish streams. Snow covered the creeks at all crossing sites, although SPCO staff did observe running water in some places. All creek crossings appeared to be in good condition.

MLV 5 with used nitrogen bottle on the ground (bottom left).

The right-of-way appeared to be in good condition and SPCO staff did not observe any damage to the surface. There was evidence that the right-of-way is well traveled due to the amount of vehicle tracks observed.

On May 23, 2012, SPCO staff spoke with the Tesoro Manager of the Pipeline & Terminals and confirmed that the nitrogen bottle outside of MLV 5 had been removed from the right-of-way. The Tesoro manager stated that the operator would continue to monitor the fencing around MLV 4 and perform repairs if necessary. SPCO staff also confirmed that the downed tree near Point Possession was on the right-of-way maintenance log. The Tesoro manager stated that a brushing crew would remove the tree during its summer maintenance activity.

SPCO compliance staff completed a lease compliance and five surveillance reports based on observations made in the field; all reflected satisfactory conditions (SPCO letter 12-218-AS).

February 2012:
SPCO Review of the Lessee's Annual Report
Tesoro submitted its 2011 Annual Comprehensive Report on Pipeline Activities and State of the Pipeline System for Tesoro Alaska Pipeline Company (Nikiski) Right-of-Way Lease - ADL 69354 on January 31, 2012. The SPCO reviewed the report and found that it provided sufficient information to satisfy the lease requirement. Elements of the lessee's 2011 Annual Comprehensive Report on Pipeline Activities for Tesoro Alaska Pipeline Company (Nikiski) Right-of- Way Lease - ADL 6935 are summarized in the lessee annual report summary section of this report.

April 2012:
State Fire Marshal Annual Inspection
The SFMO liaison in April 2012 conducted fire and life safety inspections of NAP facilities. He identified no safety hazards during the inspections of the three facilities.

North Fork Pipeline

SPCO staff inspect the North Fork right-of-way one year after construction.

The SPCO granted Anchor Point Energy, LLC, an AS 38.35 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.

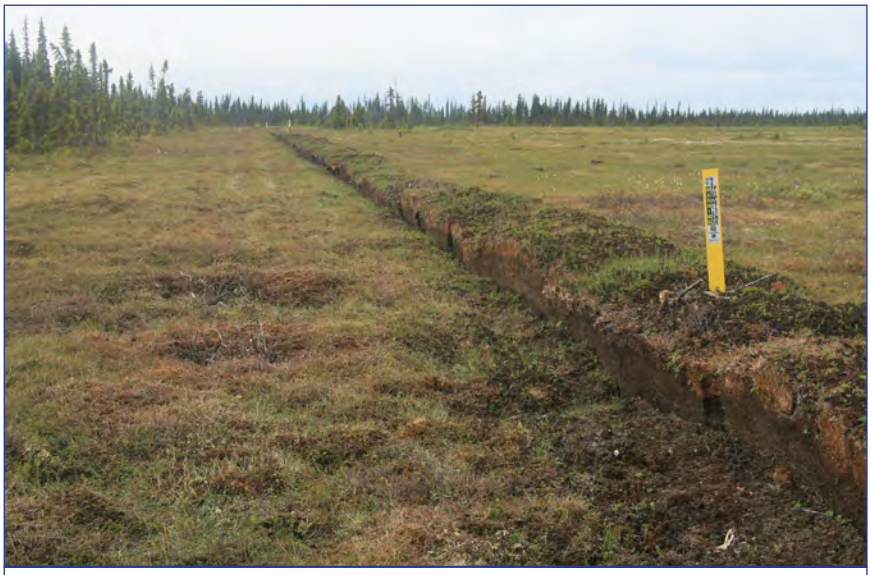
The North Fork Pipeline comprises two segments, 6.25 miles of Fiberspar Linepipe and 1.25 miles standard steel construction. The Fiberspar Linepipe is a composite pipe consisting of an inner thermoplastic pressure barrier reinforced by high-strength glass fibers embedded in an epoxy matrix. This was 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 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.

July 12, 2011:
Right-of-Way Surveillance

SPCO staff traveled to Anchor Point to conduct surveillances of the North Fork Pipeline right-of-way and discuss surveillance and monitoring activities. SPCO staff traveled the right-of-way, beginning at the North Fork Production Pad and continuing west to the transfer-of-custody pad in Anchor Point. All affected vegetation appears healthy and intact.



The North Fork Pipeline lessee used only native plants to reseed the right-of-way after construction.

The lessee seeded the right-of-way the spring after completing construction. The lessee used only native plant seeds for its seeding efforts.

The North Fork pipeline at PLMP 4 travels under Two Moose Creek, which has been designated by ADF&G as an anadromous stream. SPCO observed logs that had been placed in the creek and subsequently blocked fish passage. SPCO observed fish downstream of the logs. SPCO staff informed Anchor Point Energy personnel that the logs were blocking fish passage and needed to be removed. On July 14, 2011, Anchor Point Energy personnel emailed the SPCO photos of the log removal that occurred on July 13.

SPCO staff drove to the blowdown station where the Fiberspar Line Pipes connect with the dual steel pipelines. The valve station was not fenced, but the lessee had installed fence posts around the location. SPCO staff requested that Anchor Point Energy personnel send photo documentation when the fence installation was completed. On August 3, 2011, Anchor Point Energy personnel emailed the SPCO photos of the new fencing installed around the blowdown station.

SPCO staff completed a lease compliance report and seven surveillance reports based on observations made in the field; all reflected satisfactory conditions (SPCO letter 11-239-AS).

October 2011:
State Fire Marshal Annual Inspection

On October 6, the SFMO liaison conducted fire and life safety inspections of North Fork Pipeline facilities. He identified three minor safety hazards during the inspections. All hazards involved improper fire panel labeling and were addressed within the timeframe established by the SFMO liaison. No hazards associated with the North Fork Pipeline right-of-way were identified.

December 8, 2011
Right-of-Way Surveillance and Document Check

SPCO traveled to Anchor Point to conduct a document check and perform a surveillance of the North Fork Pipeline right-of-way. Beginning at the North Fork Production Pad, SPCO staff traveled west to where the right-of-way intersects with Two Moose Creek at PLMP 4.

The right-of-way appeared to be in an acceptable condition. A layer of snow and ice created a buffer to protect the vegetation on the right-of-way from adverse effects caused by the snowmachine travel. The vegetation appeared to have settled since SPCO staff's last visit in July 2011. One spruce tree had fallen near PLMP 3. The tree had fallen during a recent windstorm; Anchor Point Energy staff stated that it was not down during the last right-of-way surveillance. Anchor Point Energy staff stated that the tree would be removed.

SPCO staff drove the entirety of the steel segment of the pipeline. The right-of-way appeared to be in an acceptable condition. SPCO staff also observed where the North Fork Pipeline goes underneath the North Fork Anchor River. Both river banks appeared to be in an acceptable condition with no visible erosion occurring.

Anchor Point Energy supplied the SPCO staff with the right-of-way inspection report for the month of December. There were a total of three downed trees on the right-of-way. On January 5, 2012, Anchor Point Energy notified the SPCO that the trees had been removed successfully.

SPCO staff performed a document check related to Anchor Point Energy's Surveillance and Monitoring Program, Quality Assurance Program, and routine pipeline activities. Documents requested included leak surveys, aerial right-of-way inspections, Operator Qualification Records, Cathodic Protection testing records, and copies of operator manuals. SPCO staff was provided with four right-of-way inspections reports, a cathodic protection system survey report, and two leak surveys. SPCO staff also requested Operator Qualification records and operation manuals and was told that these would be provided after SPCO staff returned to the office.

On December 15, 2011, SPCO staff received an email containing the Operator Qualification records for the operator of the pipeline. On January 3, 2012, SPCO staff received a phone call from Northern Consulting Group, which handles the regulatory support for the North Fork Pipeline. The Northern Consulting Group informed SPCO staff that staff was still working on providing the SPCO with revised operator manuals. The Northern Consulting Group delivered the manuals to the SPCO office on January 18, 2012.

SPCO compliance staff completed a lease compliance and 14 surveillance reports based on observations in the field and documentation received; all reflected satisfactory conditions (SPCO letter 12-027-AS).

March 2012:
SPCO Review of the Lessee's Annual Report

The 2011 North Fork Pipeline Lessee Annual Report was submitted on March 28, 2012. The SPCO reviewed the North Fork Pipeline Annual Report and found that it provided insufficient information to satisfy the lease requirement. On April 17 Anchor Point Energy submitted an amended 2011 North Fork Pipeline Lessee Annual Report. The SPCO found that the amended report provided sufficient information to satisfy the lease requirement (SPCO Letter No. 12-169-AS). A summary of the North Fork annual report can be found in the lessee annual report summaries section of this report.

June 2012:
Fiberspar LinePipe Integrity Dig

The USDOT/PHMSA special permit (see page 92) required the North Fork Pipeline operator to bury four test sections of Fiberspar LinePipe on the pad. Natural gas flows through all four sections of pipe while the pipeline is in operation. Each section can be isolated and removed to observe closely any changes that might have occurred.

SPCO staff traveled to the North Fork pad to observe the pipeline operator remove sections of test pipe. The USDOT/PHMSA special permit requires the operator to conduct integrity tests on the pipe after one, three, five and 10 years of operation.

The PHMSA permit requires testing of the buried Fiberspar LinePipe to occur at intervals of one, three, five and 10 years. Anchor Point Energy requested, and was granted permission, to delay the first dig three months in order to perform the dig during the summer months.

The operator successfully removed sections of test pipe and will report the results of the integrity test in FY13.

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 FY12, the SPCO was in various stages of the leasing process with several potential and current applicants. See below for a brief description of theses pipeline projects.

Alaska Pipeline Project

TransCanada and ExxonMobil began working together in 2009 to develop the Alaska Pipeline Project (APP). The goal was to build and operate a pipeline system to help develop Alaska's vast North Slope natural gas resources, support Alaska's, Canada's and the U.S. economies and provide a reliable, clean supply of domestic energy for the State of Alaska and North America. The proposed pipeline route known as the "Alberta option" follows the TAPS right-of-way from Prudhoe Bay to Delta Junction, and then follows an approximate route along the Alaska Highway south into Yukon Territory, terminating in Alberta.

A letter of agreement was signed by the lead federal agency, the U.S. Federal Energy Regulatory Commission (FERC), developing the APP's Environmental Impact Statement (EIS), FERC designated the SPCO as the lead State agency. In this role, the SPCO facilitated numerous meetings with State regulators and permitters to assist the pipeline proponent meet many of the FERC's EIS requirements. Shortly after APP circulated the Draft Environmental Resource Reports for the Alberta Option, the project was suspended for Exxon to explore an alternative LNG route to tidewater.

At the request of FERC, a two-year Health Impact Analysis (HIA) for the Alberta Option was initiated and managed by the Alaska Department of Health and Social Services. A contractor collected health information from publicly available sources and, in coordination with ADF&G's Subsistence Division, from select communities along the proposed corridor. Although the project was temporarily suspended, those involved concluded that preserving the gathered health information data in a form would provide future benefit to the AGIA project and other development projects. The HIA baseline data should be available to the public by late 2012.

In addition, the Alaska Department of Fish and Game, Subsistence Division, completed the first year of a two-year study. The results of the first year will be documented in a final report issued in late 2012.

Alaska Stand Alone Pipeline Project

The Alaska Stand Alone Gas Pipeline is being planned as an in-state gas pipeline designed to provide long-term, stable supplies of natural gas from the North Slope to Fairbanks and Cook Inlet areas, as well as other communities where practicable. In March of 2010, the Alaska Legislature mandated that a group of industry professionals convene under the corporate banner of Alaska Housing Finance Corporation (AHFC)

for the specific purpose of developing, refining and producing an in-state natural gas pipeline project plan by July 1, 2011. The focus of the pipeline project is to supply gas to Southcentral Alaska by 2019 to offset the projected supply decline. Alaska Gasline Development Corporation (AGDC), a subsidiary of AHFC, submitted a revised application dated March 21, 2011, in accordance with the Alaska Right-of-Way Leasing Act, AS 38.35.050, for a proposed Alaska Stand Alone Gas Pipeline/ASAP right-of-way lease. On July 25 the SPCO issued a comprehensive right-of-way lease to AGDC. Since the issuance of the right-of-way lease, the SPCO has been working as a coordinating agency with the U.S. Army Corps of Engineers (USACE), the lead federal agency managing the EIS.

On July 25, 2011, the SPCO issued a comprehensive right-of-way lease to the Alaska Gasline Development Corporation for the Alaska Stand Alone Gas Pipeline/ASAP. Pictured above are representatives from AGDC and the SPCO, including AGDC president Dan Fauske (seated) and State Pipeline Coordinator Mike Thompson (back row, right of center).

Throughout 2012, the SPCO participated in public hearings, attended governmental coordination meetings and provided the USACE with consolidated state comments for each stage of the EIS process. The USACE is currently reviewing all comments and applicant responses regarding the Preliminary Draft Environmental Impact Statement and anticipates the Record of Decision (ROD) will be issued in October of 2012.

Point Thomson

On August 4, 2010, Point Thomson Export Pipeline LLC (PTE Pipeline LLC), a wholly-owned subsidiary of Exxon Mobil Corporation (ExxonMobil), applied to the State of Alaska for a non-exclusive Alaska Statute (AS) 38.35 Right-of-Way Lease for the purpose of constructing and operating a 22-mile oil pipeline on the Arctic Coastal Plain. The purpose of the pipeline is to export oil from the proposed facilities on the Thomson Sand Reservoir to the existing Badami Pipeline, where the oil would be transported to TAPS.

Since 2010 the SPCO has been working closely with PTEP and ExxonMobil in negotiating a right-of-way lease. During the course of the last year the SPCO has been drafting the Commissioner's Fit, Willing and Able Analysis and Preliminary Decision, which was published on September 20, 2012. In addition to analyzing the proposed pipeline and drafting the lease, the SPCO has been supporting the DNR's Office of Project Management and Permitting during all phases of the Environmental Impact Statement being drafted by USACE.

Polar LNG

On April 10, 2012, Polar LNG, LLC, submitted an amended right-of-way lease application and an updated Draft Polar LNG Feed Gas Design Basis requesting a different proposed pipeline route from the original April 13, 2012 application. The Notice of Amended Application was published on April 13, 2012. The proposed amended route begins west of Flow Station 1 and heads south across undeveloped state lands, then through existing North Slope lease tracts, across an unnamed lake (locally known as Lake McDermott) and terminates at the Fairbanks Natural Gas Pad within the Prudhoe Bay Unit in Deadhorse. The proposed pipeline right-of-way will contain one eight-inch diameter pipe. The pipeline design maximum throughput is approximately 50 million standard cubic feet per day. Planned construction timeframe is for the winter and summer 2013/2014, subject to the completion of a Commissioner's Decision and issuance of a pipeline right-of-way lease.

Dayville Road Pipeline

The SPCO received a letter dated January 10, 2012, from Petro Star requesting that the SPCO retain the Dayville Road Pipelines Project lease applications in active status and that Petro Star anticipated pursuing the project in the near future. In May 2005, Petro Star, Inc., submitted applications and proposed to construct three pipelines to transport refined petroleum products. The proposed parallel lines would originate at Petro Star's Valdez refinery, located at mile 2.5 Dayville Road in Valdez, to a proposed berthing dock located south of the refinery. The proposed dock would be located on tidelands owned by the City of Valdez. The pipelines would cross approximately 1.6 miles of state land.

Pre-application Projects

Cook Inlet Energy

Cook Inlet Energy, LLC (CIE), is engaged in an effort to link the oil pipeline networks on either side of Cook Inlet by constructing a new pipeline in the vicinity of the east and west forelands of Cook Inlet. CIE has named the project the Trans-Foreland Pipeline. The SPCO has worked with the project team during the pre-application phase to refine the project details and progress toward a complete pipeline right-of-way application. The SPCO will begin processing the application and facilitating the public process in FY13; more details on this project will be available in the 2013 annual report.

Donlin Gold

Workers collect core samples along the proposed Donlin Gold pipeline right-of-way. The pipeline would provide natural gas for the mining operations.

Donlin Gold mine proponents are investigating the practicability of a natural gas pipeline from Cook Inlet to the mine site. The 315-mile buried pipeline would stretch from Beluga to the future Donlin Gold mine site, just northwest of Georgetown, which has the potential to be one of the largest gold mines in the world. This pipeline would provide natural gas for Donlin Gold, LLC, to fuel the site.

Donlin Gold, LLC staff have taken the effort to make contact with the SPCO staff early in the process. Ongoing communication during the pre-application phase has allowed SPCO to inform Donlin Gold of the SPCO's process for analyzing an AS 38.35 common carrier pipeline right-of-way for the fit, willing and able analysis, coordinate necessary data collection, limit duplication of research between state agencies and update interested public with available information. On May 15, 2012, the SPCO issued a land use permit (LAS 28454) to Donlin Gold, LLC, for a fuel cache and helicopter parking at Puntilla Lake. Donlin Gold, LLC has primarily used the lands as a temporary fuel site for helicopters flown in support of field studies while preparing its AS 38.35 pipeline right-of-way lease application.

Spectrum LNG

The SPCO in FY12 began meeting with representatives of Spectrum Alaska, LLC - a wholly-owned subsidiary of Spectrum LNG, LLC - to discuss the company's plan to construct an 8-inch, 1,100-foot pipeline to ship liquified natural gas from a connection just south of Flow Station 3 to a new pad with a proposed LNG plant. The pipeline design maximum throughput is approximately 50 million standard cubic feet (MMscf) per day.

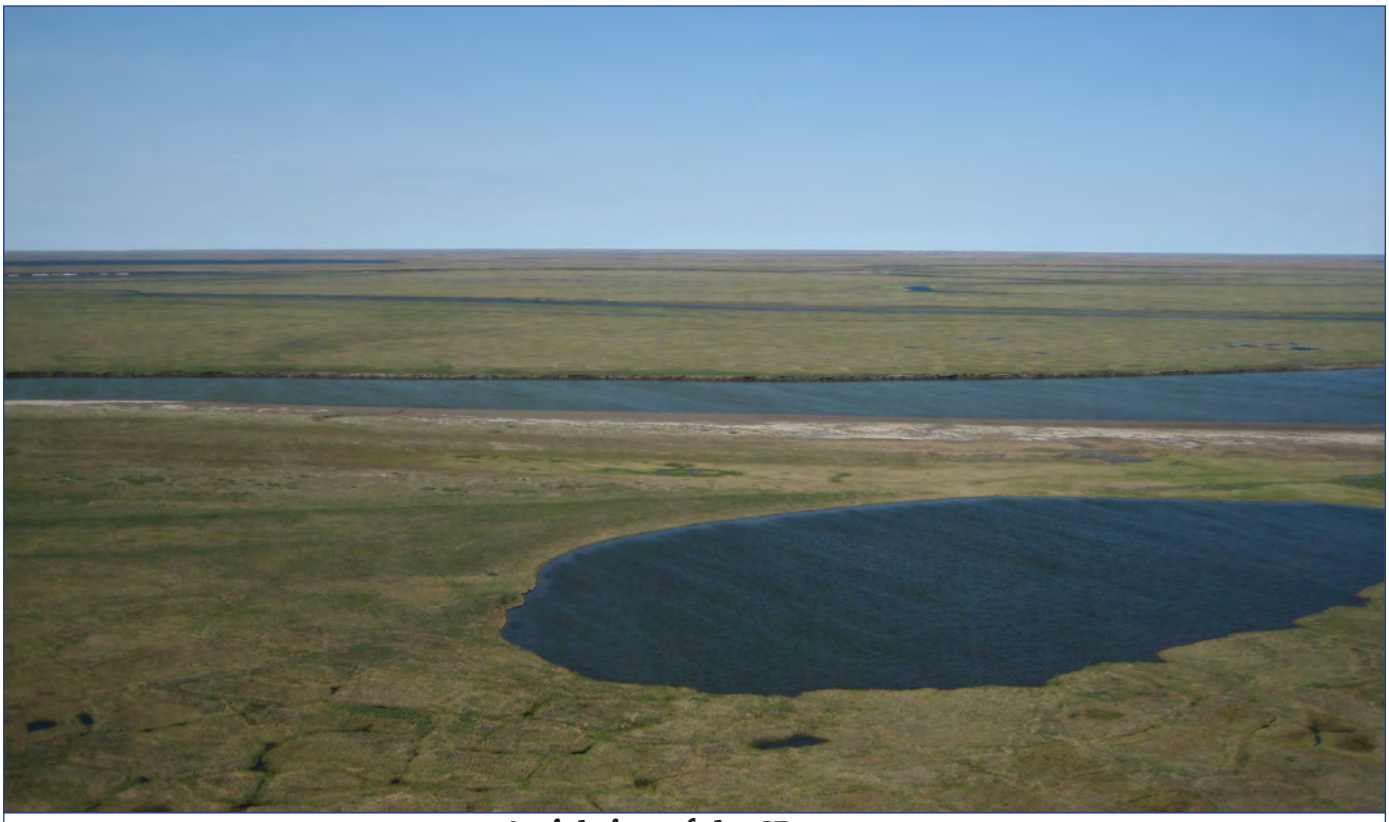
The SPCO in early FY13 received and provided public notice of a pipeline right-of-way application for the Spectrum project. The entire proposed right-of-way is on State land. Spectrum Alaska plans to begin the construction phase of the project in early FY14 - more information will be available in the 2013 annual report and on the SPCO website.

FY2013

The SPCO anticipates that several projects could advance to the right-of-way application phase in FY13; interested parties can look for detailed status updates in the 2013 SPCO annual report and online at http://dnr.alaska.gov/commis/pco.

Special Projects

Colville Delta Five (CD-5)



Aerial view of the CD-5 area

In 2004, a bridge crossing the Nigliq Channel of the Colville River was the preferred alternative in the Environmental Impact Statement (EIS) for Alpine CD-5 satellite development; however, the U.S. Army Corps of Engineers (USACE) ruled that the Least Environmentally Damaging Practicable Alternative (LEDPA) was a horizontally directionally-drilled crossing. ConocoPhillips appealed. CD-5 development without the bridge was highly uncertain.

USACE denied the permit based primarily upon objections from the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency, both of which argued that the Colville River Delta was an Aquatic Resource of National Importance (ARNI). This is a designation that can supersede local interests.

USACE remanded parts of the LEDPA decision to its Alaska office for re-evaluation. The stakes for this development were high, because the bridge could be used for subsequent developments in the National Petroleum Reserve - Alaska (NPRA) and would be a boon for local employment in the village of Nuiqsut.

In December 2011, the USACE issued a permit for CD-5 that incorporated the Nigliq Channel Bridge. ConocoPhillips appears to be proceeding ahead quickly on planning and re-estimating the project, and appears committed to building the CD-5 satellite oil development.

Along with other organizations, the SPCO played a role in providing information and engineering analysis for the permit appeal. Although CD-5 is not jurisdictional to the office, the SPCO became involved with the Corps permit because of its knowledge base on arctic pipelines. During 2010-2011, the SPCO participated in a tour of the project with federal agencies and ConocoPhillips.

The selection of a pipeline crossing mode involves site-specific evaluations of the engineering, financial, and environmental merits of the available options. The SPCO issued an engineering evaluation of the Least Environmentally Damaging Practical Alternative (LEDPA) to crossing the Nigliq Channel and concluded that an aboveground bridge crossing was preferably to the horizontal directional drilling method.

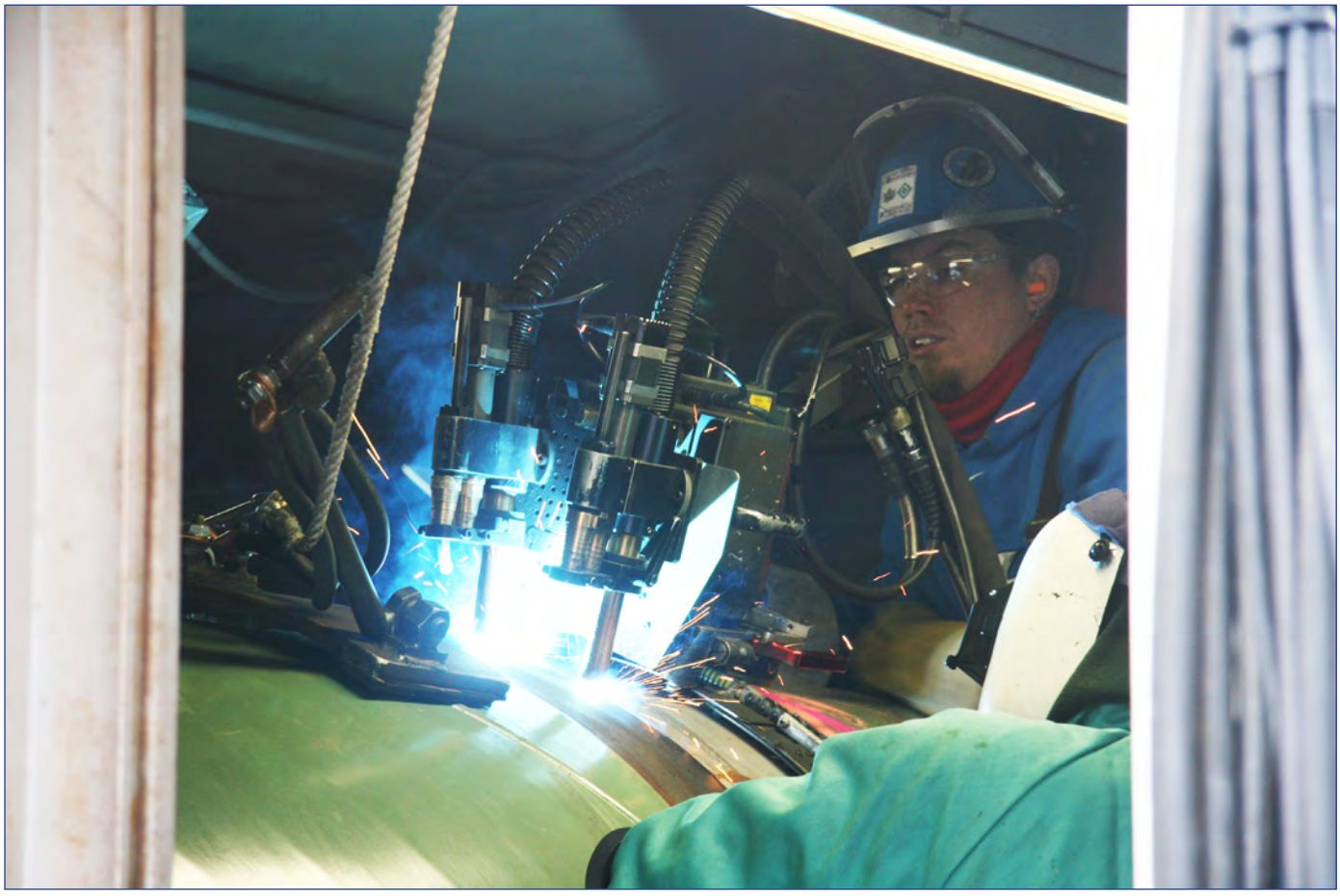
The full text of the evaluation can be viewed online at the following URL: http://dnr.alaska.gov/commis/pco/documents/louis_cd5_paper.pdf.

The evaluation emphasizes the environmental considerations and the importance of selecting the LEDPA and focuses on the prevention of oil spills over the lifetime of the crossing.

Transcanada Pipeline Construction: Alberta, Canada

In February 2012 TransCanada invited regulators from the U.S. and Canada to travel to Calgary and Manning, Alberta. Three SPCO employees participated in the trip, which began with a tour of the TransCanada Operations Control Center and Winchell Lake Compressor Station, located Northwest of Calgary.

The trip culminated with a flight to Manning to witness winter construction of a 48-inch gas pipeline, similar to the Alaska Pipeline Project, near Tanghe Creek. SPCO staff gained a broad understanding of how TransCanada conducts field activities and observed numerous construction activities, including ROW clearing and marking, pipe bending, internal and external welding, weld coating, trenching, anchoring and burial.



2012 ANNUAL REPORT

LESSEE ANNUAL REPORT SUMMARIES

Lessee Annual Reports

The lessee annual reports play an important role in SPCO lease compliance oversight. The SPCO compliance section carefully reviews each report to ensure the lessee met all applicable lease requirements and the expectations of the State Pipeline Coordinator.

A lessee is required, per lease stipulation, to provide the following information in its annual report:

- Surveillance and monitoring program results, including annual and cumulative changes in facilities and operations

- The effects of changes on the pipeline system and the proposed actions to be taken as a result of the changes

- A list, by quarter, of all surveillances, audits, self-assessments or other internal evaluations

- A summary of findings, actions items and other observations identified in the listed evaluations

- Descriptions of corrective and preventative actions planned or implemented

- The state of, changes to and results from the risk management, quality assurance and internal and external safety programs

- Specific efforts made to comply with the right-of-way lease and stipulations

- Information on construction, operations, maintenance and termination activities necessary to provide a complete and accurate representation of the lessee's activities and the state of the pipeline system

- A summary of all events, incidents and issues which had the potential to, or actually did, adversely affect pipeline system integrity, the environment or the safety of workers or the public

- A summary of the lessee's response to the items mentioned in the previous bullet

- A summary of all oil and hazardous substance discharges, including the incident date; a description of the substance; the cause, volume and location of the discharge and subsequent clean-up actions.

The State Pipeline Coordinator may request additional information of the lessee, if necessary. After the SPCO reviews the lessee annual reports, the compliance section summarizes the information for inclusion in the SPCO annual report and compliance section field activities are reassessed to account for planned activities and events. As a result of the inconsistent reporting outlines employed by the different lessees, the summary format may vary between sections.

BP Annual Report Review and Summary

Introduction to the Lease and Reporting Requirements

The 2011 annual report from BP Transportation Inc. (owner and leaseholder) covers a broad range of risk management programs aimed at managing safety, pipeline integrity and environmental risks. The report emphasizes preventive and corrective maintenance programs and environmentally sound operations and providing consistent direction to all employees and contractors working at every level in support of BPTA pipelines.

Programs range from those required by USDOT/PHMSA, aimed primarily at pipeline integrity, to corrosion management, quality assurance, contractor oversight, lease and permit compliance monitoring and numerous other programs designed to increase public and worker awareness. These programs apply to all BPTA pipeline operations on the North Slope. The State of Alaska, through the pipeline right-of-way leases, requires each lessee to submit a comprehensive annual report on the results of its surveillance and monitoring programs; changes to the pipeline system; results from the various quality assurance programs; information on any new construction, operations, or maintenance activities; all incidents and issues that had the potential to affect the pipeline system; and a summary of any hazardous discharges and subsequent clean-up. The BPTA annual report is available for public review.

The following sections summarize key information submitted by BPTA.

- Pipeline Integrity and Risk Management
- Personal Safety
- Maintenance
- Surveillance and Monitoring
- Right-of-Way Events/Incidents/Issues
- Oil and Hazardous Discharges
- Special Projects
- Future Plans

Pipeline Integrity and Risk Management Programs

Quality Assurance Program (QAP)

The BPTA QAP provides a structure based on the BP Exploration (Alaska) Inc. (BPXA, the pipeline operator under contract with BPTA) Operating Management System to ensure compliance with all lease stipulations and other BP or regulatory requirements. The QAP provides continuity of processes, training and standards (operating, safety and environmental) across all seven BPTA AS 38.35 pipeline leases. Also falling under the QAP is BPXA's environmental management program certified to ISO 14001 with annual audits by DetNorske Veritas , an IS0 14001 Registered firm.

USDOT/PHMSA Risk Management Programs

BPXA has numerous risk management programs in place to meet the comprehensive DOT/PHMSA pipeline integrity monitoring requirements. Some of these are summarized below.

Formal Risk Assessments (FRA) are conducted periodically for each BPTA pipeline under SPCO jurisdiction and other field lines not under SPCO authority (approximately 111 miles of pipeline on the North Slope annually). BPXA's FRA process includes operations management, corrosion specialists and North Slope team members who collectively examine data from all available sources and assess potential threats to pipeline integrity, the likelihood of any given mode of failure, the consequences of such a failure and the effectiveness of the numerous preventative measures in place. This process is also used to develop mitigation measures and action items and to evaluate any preventative measures taken the previous year. BPXA conducted one FRA in 2011 and underwent an USDOT/PHMSA IMP audit in August 2011. USDOT/PHMSA audits these risk assessments regularly and has had no "findings" in the last several audits of BPXA's FRA.

The **Operator Qualification (OC)** program ensures that all workers, whether they are BPXA employees or contractors, are properly trained and that required skill certificates are current. The OC utilizes a secure internet-based management database to retain and manage all training records. In 2011 BPXA added more employee evaluations to the OQ and developed 10 new study guides that employees will began using in 2012. BPXA consistently exceeds the OQ requirements in USDOT/PHMSA regulations.

The goal of the **Public Awareness/Damage Prevention Program** is to increase accident awareness in people who live and work near pipelines in an effort to increase their awareness of the potential for accidents. The program provides information on the different types of accidents and how to respond.

BPXA has a **Drug and Alcohol Program** in place, which includes employee and contractor testing. Efforts are aimed at eliminating substance abuse and providing a healthful, productive and safe working environment. The program is driven by federal regulatory requirements, and BPXA exceeds the USDOT/PHMSA requirements for drug testing its employees and contractors. In 2011 BPXA conducted more than 250 drug tests with all negative results.

BPXA implements the **USDOT/PHMSA Control Room Management** rules that focus on mitigating human risks. Elements of the program include fatigue risk management, alarm rationalization and control room management. This USDOT/PHMSA-mandated rule will be fully implemented by year-end 2012.

BPXA Corrosion Management Programs

There are numerous corrosion management programs in place so that threats of corrosion can be identified early and mitigated effectively. The multi-faceted approach is part of a strategy to look for and manage problems from many different angles in order not to miss a hard-to-detect problem. The following is a summary of the key corrosion programs implemented by BPXA.

The **Internal Corrosion Monitoring Program** relies on electrical resistance (ER) measurements and weight loss coupons (WLC) as indicators of corrosion. ER coupons are monitored remotely and WLC coupons are removed and analyzed for any evidence of corrosion at regular intervals.

In 2011 no coupons on any of the BPTA pipelines exceeded the limits of general two mpy (milli-inches /year), or pitting of 20 mpy. There are four non-piggable segments on the Badami utility line and two on the Milne pipeline that will be examined with a guided wave ultrasonic inspection tool in 2012. The Northstar line had two non-piggable sections that were inspected with guided wave ultrasound in 2010 and no corrosion was noted. The same area is scheduled to be reexamined in 2015.

The **Comprehensive Integrity Program (CIP)** focuses on identifying new corrosion mechanisms and assessing the extent of degradation at locations previously noted. Thirty-nine inspections were performed this last year, of which 38 showed no change. One location on the Milne pipeline did show an increase in wall loss and is scheduled for reexamination during the 2012 annual survey.

The **Corrosion Rate Monitoring (CRM) Program** is a corrosion program intended to supplement other corrosion monitoring data. Areas susceptible to corrosion are visually inspected at regular intervals. BPTA's USDOT/PHMSA pipelines are not formally included in this program because they carry products that meet sales quality specs; however, BPTA has chosen to monitor them under this program as a proactive measure. No locations inspected in 2011 exhibited any increased corrosion risk.

The Frequent Inspection Program (FIP) is aimed at managing areas already identified with significant corrosion with frequent inspections scheduled until an area is repaired, derated, taken out of service or corrosion rates are reduced to an acceptable level. None of the BPTA AS 38.35 pipelines (Badami, Northstar, Milne and Endicott) have levels of corrosion that would qualify them for this program.

The **In-Line Inspection (ILI) Program** utilizes pigs built with sophisticated instrumentation that can assess and record minute anomalies in a pipe wall as they travel the length of a pipe. The data assists corrosion engineers in their assessment of the condition of the equipment, the effectiveness mitigative efforts and, when evaluated against historic ILI data, can show them when corrosiveness of the environment is changing.

ILI runs must be scheduled once every five years at a minimum; BPXA's contractor inspects every three years. ILI will be run on the Northstar oil, sales and gas lines in 2012. The Badami sales line ILI is scheduled for 2013. Endicott and Milne sales lines are scheduled for ILI analysis in 2014. A final report was issued on the 2010 Badami ILI run confirming no immediate integrity concerns. Field follow-up was scheduled to look at 35 anomalous conditions.

The final Endicott ILI report found no integrity concerns. There were 83 anomalies that BP will follow-up with field checks during 2012.

The final Milne Point ILI report found no integrity threat. After internal evaluation, BP identified 140 anomalies for field follow-up, most of them external.

No anomalies were found on the Northstar gas pipeline. At the sea-air interface on the island two anomalies were found. They had been reported previously and were mitigated in 2008.

The **Below Grade Piping Program** focuses on the primary threat to below grade pipe: external corrosion. Excavation is performed where ILI data indicates potential corrosion or in areas where the ILI tool cannot inspect. This allows direct inspection and ensures that the pipe is fit for service. No significant corrosion was identified in any of the below grade BPTA pipelines.

The **Corrosion Under Insulation Program (CUI)** facilitates regular inspections of insulated pipe susceptible to corrosion from moisture.

The **Cathodic Protection Program** focuses on buried and submerged pipe on the Badami and Northstar pipelines. These pipe segments are protected by cathodic protection systems and are inspected annually. On the Milne Point pipeline, isolation flanges have been installed to ensure electrical isolation between the stainless steel and carbon steel section. They are also checked regularly and do not affect the cathodic protection system.

No corrosion coupons examined on any of the pipelines had a metal loss that exceeded the USDOT/PHMSA-regulated limit. New access fitting for coupons were installed on the Badami oil line and the Milne Point Pipeline.

BPXA conducts **Atmospheric Corrosion Monitoring** on bare pipe located onshore a minimum of once every three years (not to exceed 39 months), while offshore it is inspected once a year (not to exceed 15 months). Comprehensive visual inspections of the Endicott pipeline and the above ground Northstar oil pipeline, including pig launchers and access vaults, were conducted in May 2011. Several recommendations followed these inspections.

For Northstar, inspectors recommended removing wet insulation from the pig receiver barrel before any sign of corrosion and considering an approved coating in lieu of replacing the insulation. This work is scheduled for 2012.

Recommendations for the Endicott line included re-coating the launcher and receiver barrels to prevent further external corrosion and to recoat all valves exhibiting rust to stop the external corrosion found there. Recommended work on the Endicott line was completed in 2011.

BPXA's Personal Safety Program

The BPXA personal safety program applies to all work activities on BPXA premises. Formally referred to as Control of Work (CoW), it emphasizes accountability, training, competence, planning and scheduling, task-based risk assessments and a Permit-to-Work process that is standard across all operating areas. Implementation of the personal safety program involves the permit-to-work system, crew toolbox meetings and work site inspections. It also involves program implementation audits, lesson learned exercises and, most importantly, an emphasis on stop work efforts at every staff level to prevent potential problems.

At every BPXA facility, employees assume ownership of a program and actively monitor each other's safety. The internal safety program is behavior based. The focus is to increase employee awareness of safety processes and operating risks and their involvement in accident prevention. Statistics show that the program has been very effective. This past year there were no recordable accidents at any BPTA pipelines.

Contractor safety is integrally tied to BPXA's CoW and internal safety program. Contractors must comply with all aspects of both programs; BP supervisors observe and actively engage with contractors through these programs. Prior to issuing a permit-to-work, BPXA meets with the contractor to assess job risks and mitigations. For non-routine work BP requires contractors to use the Authority to Proceed (ATP) process and the Task Hazard Analysis process. Work is analyzed for ways to protect employees and the environment.

Maintenance

USDOT/PHMSA has extensive jurisdiction over pipeline integrity, including equipment requirements, design standards, maintenance, monitoring and inspections. To track compliance with USDOT/PHMSA requirements, BPXA has a computerized system for every facility. The system is used to track regularly scheduled preventive maintenance, including required inspections and non-routine maintenance. The system is used to generate work orders and status reports.

In addition to scheduled maintenance, BPXA operators found two pipelines that had settled on top of the Endicott oil pipeline during 2010. The sagging lines were shimmed back to design grade in 2010 and permanent VSM's were installed in 2012. There was no damage to the pipe casing, insulation or pipelines.

Pipeline Surveillance and Monitoring

Surveillance and monitoring activities are performed routinely by BPXA, on behalf of the lessee, to both meet state and federal regulations and to contribute to company goals, which in some cases go beyond regulatory requirements. Surveillances can be accomplished by flying, driving or walking. USDOT/PHMSA requires surface conditions on or adjacent to each pipeline be inspected for indication of leaks or other problems at intervals not exceeding three weeks and at least 26 times a year.

Endicott and Milne Point pipelines are road accessible and have drive-by surveys. Northstar and Badami have aerial inspections. Some of the aerial surveys include FLIR (forward-looking infrared) assessments that will delineate between warmer and colder temperatures, thus making it easier to detect small leaks. There were 75 aerial DOT inspections of Badami, and 50 aerial inspections of Northstar. Endicott had 52 drive-by inspections and Milne Point had 26 drive-by inspections.

In addition to USDOT/PHMSA required inspections, BPXA conducts visual inspections on all above-ground pipe with walking speed surveys. Given the restrictions associated with each season, different components are sometimes inspected in both winter and snow-free conditions.

Surveillance and Monitoring Results - Summary
Of the 75 aerial inspections conducted on **Badami pipelines**, 33 employed FLIR assessments. No pipeline issues were identified during the 2011 USDOT/PHMSA surveys. The primary walking speed survey for both Badami pipelines were conducted in March; snow-covered areas were revisited in September and October. Very little of note was found during the Badami WSS. Some of the minor things identified were one jacked VSM, one bent flange between the pipe and saddle, several missing or misaligned vibration dampeners, damage to the pipe coating on the utility line, several slipped saddles, a misthreaded connection on the pig launcher for the utility line and areas of Ethafoam deterioration and/or jacketing deterioration. There was no evidence of actionable erosion, no evidence of vandalism or unauthorized entry, no sloping cross-

beams, no tilted saddles, no indication of pipeline vibration, no damaged pipeline insulation at the risers, no pressure ridges or ground cracking parallel to the pipe axis, no ground cracking warranting action, no flooding that threatened pipeline integrity, no areas of fish blockage, revegetated areas establishing as intended and no active brown bear or polar bear dens noted in the right-of-way.

Only a few minor issues were identified for the **Endicott Pipeline** during the 52 routine drive-by surveys, USDOT/PHMSA inspections and WSS conducted in August/September and December. The minor issues included one saddle not bearing weight, 15 anchors needing seals, numerous small sheet metal and insulation issues, some missing or damaged vibration dampeners and seasonal drainage problems between the casing and the pipe at several locations. Minor issues observed are scheduled for repair. There was no actionable bank or pad erosion, no evidence of wildlife blockage, no vandalism or sabotage, no jacked or tilted VSMs, no sloping crossbeams, no gaps between the pipe and saddles, no pipeline vibration, no significant indentation, no cracks or missing foam insulation at the risers, no pressure ridges developing parallel to the pipeline or ground cracking near the pipe and no brown bear or polar bear dens found along the right-of-way.

In addition to the 26 drive-by surveillances conducted on **Milne Point pipelines** to meet USDOT/PHSMA requirements, surveys were conducted at the request of the facility operators to look for any issue concerning unexplained leak detection alarms. The drive-by surveys only reported a few minor issues; missing or damaged harmonic devices and an unfastened sheet metal band are scheduled for repair. The findings from the WSS included three VSM misalignments, numerous tilted or misaligned saddles, one gap between the saddle and pipe (products line), 57 dampener issues, areas with insulation problems and missing or broken straps at welds and seasonal drainage issues between the casing and pipe in several areas. There was no erosion that required action, no evidence or reports of wildlife blockage, no vandalism or sabatoge, no problems with crossbeams, no failed anchors, no problems with pipeline vibration, no pressure ridges or swales parallel to the pipeline, no ground cracking within 10 feet of the centerline, no fish blockage and no evidence of brown bear or polar bear dens in the right-of-way.

Of the 50 USDOT/PHMSA aerial surveillances made of the **Northstar pipeline** route, three included FLIR assessments. None of the surveys found any pipeline or right-of-way issues. WSS of the above-ground pipe were conducted in March. Areas covered by snow were reexamined in August. Few issues were identified, but they included one VSM settlement issue (gasline), one saddle suspended abouve the crossbeam (gasline) and several missing or misaligned vibration dampeners on both lines. Matting placed in areas where erosion has been an issue in the past was noted to be effective. There was no evidence or reports of wildlife blockage, no evidence of vandalism or sabotage, no crossbeam issue, no saddles suspended over crossbeams, to failed anchors, no gaps between the pipes or their saddles, no vibration issues, no damaged pipeline insulation issues at the risers, no scour issues associated with the Putuligyyuk River piles, no pressure ridges parallel to the pipe, no ground cracking within 10 feet of the pipe,

no exposed pipe, no deterioration of the gravel riser pad, no damage at the risers, no flooding or ersion that reduced the pieline setback, no river channel obstruction, no settlement or ponding over the pipe, no changes preventing fish passage and no brown bear or polar dens reported in the right-of-way.

Right-of-Way Events/Incidents/Issues

No BPTA pipeline received a USDOT/PHMSA Notice of Probable Violation, Warning Letter or Notice of Amendment (related to plans and procedures). There were a number of USDOT/PHMSA reportable abnormal operating conditions.

Badami reported two abnormal operating conditions. One was the loss of a communication link with the Badami facility in January, caused by an empty propane tank. The other was an unexpected closing of an emergency shutdown valve in November, caused by a switch in the hydraulic system which kept it running continuously. thereby draining the batteries. The hydraulic system was repaired and the pipeline returned to normal operations.

Milne Point had an unintended shutdown in September. It was the result of an exercise with CPAI to modify communications between the Milne Point and Kuparuk control systems. Following a reset on the controls, there were no problems.

Northstar had an abnormal operating condition during a planned shutdown in September when the UPS power system tripped and the main power was shut off. The UPS system was repaired and work resumed.

Oil and Hazardous Discharges

There were three reportable spills in BPTA rights-of-way during 2011. In January, four gallons of radiator fluid were released when a Tucker overheated on the Northstar right-of-way. In March 0.25 gallons of hydraulic fluid leaked from a steering system on a Tucker in the Badami right-of-way. In April, a Tucker axle broke in the Badami right-of way and 0.75 gallons of lube oil was released. In all three cases contaminated snow was removed and either stored for future recycling or sent for Class 1 disposal. There were also several small non-reportable spills during 2011.

Special Projects

Badami Weir

The Badami Weir was constructed on the west bank of the eastern Sagavanirktok River channel to manage periodic high water flows and control erosion where a trench used during construction of the Badami pipeline intersected an abandoned oxbow. The weir is functioning as designed. Seeded areas that showed significant new growth in August 2010 were reported to be well established in 2011.

East Shaviovik River Crossing
The Badami pipeline was buried at three river crossings to eliminate the potential for damage to the pipeline from spring ice flows. After the area was trenched for pipeline burial, backfill material and overburden was mounded 4-5 feet above grade to provide for future settling.

In 1999 the backfill near the shoreline of the East Shaviovik River Crossing was reported to be subsiding. Photographic documentation was collected and subsequent environmental assessments were completed in 2001 and 2007. Photographs from all three years were compared and indicate that the area is stable. Site conditions show that the area is well-drained, has no standing water and native plant species are well established. Most significantly, the 2010 ILI survey shows that the pipe is stable and there has been no significant movement and there are no associated integrity concerns. Importing additional soil could alter the stable thermal regime, increasing the potential for thermokarst and soil erosion; no further work is planned to eliminate the depression formed by the subsidence. Environmental monitoring and pipeline integrity monitoring will continue at regular intervals.

Coastal Stability at Northstar Crossing
Historical data show the rate of coastal erosion in the vicinity of the Northstar pipeline above ground transition has averaged about 1.7 ft./yr. Since 1996 BP has conducted a coastal monitoring program documenting shoreline changes near the Northstar transition, especially where backfill has been placed over the buried pipe.

This past year, shoreline erosion averaged only 0.3 feet, and no change was noted in the bluff where it was trenched for pipe burial. Jute fabric placed on the bluff to prevent erosion of the backfill had been damaged by a storm in 2008 and was reinstalled in 2009. The recent inspection showed it to be in good condition and functioning well. The toe of the pipeline pad is approximately 70 feet landward of the bank where the pipeline is buried, and the gravel berm that protects the pipeline riser is 125 feet landward. Given the excellent vegetative growth in the rehabilitated area of backfill and the pad, current pipeline setbacks and the slow rate of coastal erosion, it was determined that no new mitigation measures were necessary at this time.

Northstar Subsea Pipeline Route Monitoring
The subsea pipeline monitoring program evaluates bathymetric data, documents ice gouges on the sea floor and looks for strudel drainage features to determine locations of strudel scour in the vicinity of the pipeline. The work is conducted in two phases with a helicopter reconnaissance in May, and a vessel based open-water survey, using several kinds of sonar technology, in late July. With minor exceptions related to ice wallowing or fill placement, the bathymetric profile along the pipeline route was very similar to the one made in 2010. The section between Stump Island and the shore crossing is not only similar to 2010, but also to the pre-construction profile from 1996.

In 2010, there were 13 areas of subsidence identified. By contrast, only two areas found in 2011. One was new, and the other an expansion of a location identified in

2010. Both were approximately one foot in depth. Subsidence has occurred annually since oil began flowing and has been noted along half the pipeline route between Northstar Production Island and Stump Island. The area of subsidence detected in 2011 was the smallest since 2005. In 2011,BPXA placed approximately 500cy of material over two previously identified depressions that did not meet the minimum required six feet of cover over the pipe.

The amount of ice gouging found on the sea floor in 2011 was far greater than in the past, with 130 new features and three previously noted ones documented. By contrast, the greatest number noted in past years was 54. Thirty of the gouges crossed the pipeline alignment, but none took the backfill below the required six-foot minimum.

Ice wallows differ from gouges and are formed when the keel of an ice flow is grounded and the movement of water around the keel (from currents, waves or other action) creates a larger depression. Ice wallows are not common but were detected in the area of the pipeline for the fourth time since pipeline construction. Eighteen wallows were found this year,but only three were located over the pipeline, and none were deep enough to violate the required six-foot minimum cover. The increased number of gouges and wallows were likely caused by a major east-wind storm in October at a time when there was significant drift ice in the area.

Oversight of the subsea pipeline includes monitoring of the Kuparuk river overflood, which can extend well past the barrier islands, as it did in 2011 when it flowed north past Stump Island to an area above the pipeline that is only 12,000 feet south of the Northstar Production Island. Overflooding was comparatively mild over the three previous years. A sonar search for strudel scours in the sea floor, which can result from overflooding, found six new depressions, all circular. None of the depressions found were in the area of backfill over the pipeline.

Proposed 2012 Plans

All BPTA pipelines will continue to follow the USDOT/PHMSA schedule for aerial or drive-by inspections approximately every two weeks. All pipelines have scheduled USDOT/PHMSA preventive maintenance programs and corrosion monitoring programs. The USDOT/PHMSA Integrity Management Program Formal Risk Assessment will be conducted for all BPTA pipelines in fourth quarter 2012. BPXA is also going to implement new Operator Qualification Study Guides to the appropriate employees working on each pipeline.

The Badami walking speed survey will be conducted during second quarter. The Sagavanirktok River Weir monitoring and the associated rehabilitation inspection is scheduled for third quarter along with the Cathodic Protection Survey.

Endicott has plans to install permanent VSMs in the right-of-way near Flow Station 2 during third quarter. The Endicott walking speed survey is scheduled for the fourth quarter.

Milne Point plans to conduct the primary walking speed survey during second quarter, and revisit areas inaccessible due to snow during fourth quarter. Also scheduled for second quarter is the field verification that the stainless steel pipe is cathodically isolated from the carbon steel pipe.

Northstar has scheduled Phase 1 of the walking speed survey for second quarter and Phase 2 for third quarter. During second quarter BPXA will also make repairs noted in the 2011 walking speed survey, and conduct the cathodic protection survey. During third quarter there will be an ILI run and the annual test of the LEOS leak detection system. The pipeline route monitoring for subsea changes due to ice and currents will be conducted in third quarter, along with the coastal stability monitoring and the examination of the rehabilitation effort at the Northstar pipeline landfall.

As a way to mitigate the dropping crude oil temperature in the Endicott oil pipeline, BPXA plans to install new piping, valves and a heater tube bundle to modify the Northstar heater to heat the oil that passes through the Endicott, Badami oil and Northstar oil pipelines. This project was originally scheduled for late 2012, but it has been delayed until summer 2013.

Table 6: BPTA Pipelines 2011 Throughput Information

Pipeline System	2011 Throughput
Badami Sales Oil	450,203 barrels
Badami Utility	34,453 Mscf
Endicott	3,602,713 barrels
Milne Point Oil	8,061,856 barrels
Milne Point Product	N/A
Northstar Oil	5,248,646 barrels
Northstar Gas	8,442,917 Mscf

ConocoPhillips Annual Report Review and Summary

Introduction to the Lease and Reporting Requirements

The 2012 Annual Reports from ConocoPhillips Alaska Pipelines (CPAP) cover a broad range of quality assurance and risk management programs. To maintain public confidence and ensure operations are compatible with both the economic and environmental needs of communities where it operates, CPAI has a quality program in place that represents a commitment to meet all design and engineering standards and to complying with all applicable laws and regulations.

Specific programs range from those required by USDOT/PHMSA, aimed primarily at pipeline integrity and corrosion management, to others, including a comprehensive quality assurance program, contractor oversight, lease and permit compliance monitoring and numerous programs to increase public and worker awareness. These programs apply to all CPAI pipeline operations on the North Slope. The State of Alaska, through the pipeline right-of-way leases, requires each lessee to submit a comprehensive report annually on the results of surveillance and monitoring programs; changes to the pipeline system; results from the various quality assurance programs; information on any new construction, operations, or maintenance activities; a summary of all incidents and issues that had the potential to affect the pipeline system; and a summary of any hazardous discharges and subsequent clean-up. The annual reports are available for public review.

The following sections summarize key information submitted by CPAI:

- Pipeline Integrity and Risk Management
- Personal Safety
- Maintenance
- Surveillance and Monitoring
- Right-of-Way Events/Incidents/Issues
- Oil and Hazardous Discharges
- Special Projects

Pipeline Integrity and Risk Management

Quality Assurance Program (QAP)

CPAI implements a Health Safety and Environmental Management System Standard (HSEMSS) to ensure all parameters of the QAP are met. Programs that fall under the QAP cover a broad spectrum, including personnel training, operations and maintenance, information documentation, management of change and emergency response. CPAP implemented the Operations Compliance Management System to ensure that operations are in compliance with all applicable laws, regulations and lease requirements. A program, IMPACT, is used to track all findings and follow-up.

USDOT/PHMSA Risk Management Programs

With its **Integrity Management Program**, CPAI takes a comprehensive approach to risk management in an effort to identify potential hazards, minimize any operational problems and decrease the potential for any health, safety or environmental problems. CPAI risk management programs meet federal pipeline integrity monitoring requirements. In February and April 2011, USDOT/PHMSA representatives performed an inspection following established integrity management protocols and found no significant issues.

The program requirements fall under the following general headings: high consequence area identification, risk assessment, inspection plan, inspection remediation, preventative and mitigative measures, personnel qualifications, quality assurance, management of change, documentation and communication and overall program review. Some of the CPAI USDOT/PHMSA risk-related programs are summarized below:

CPAI conducts a **Process Hazard Analysis** using established protocols and technical standards when there is work to be performed on new or existing facilities. Workflow and responsibilities are evaluated to determine risk and required protection.

When there is a facility design change or an operations change, the **Management of Change** program provides a framework to review proposed work and confirm that it will not create unanticipated hazards or safety risks. The program also ensures that safety and environmental information is updated to cover the changes in facilities or processes.

CPAI implemented in June 2011 an updated version of its **Operator Qualification** program. The purpose of this program is to ensure that the workforce is well qualified, reducing the potential for human error and increasing the ability to respond quickly and effectively to any upset conditions will be responded to quickly and effectively.

CPAI continues to maintain a **Public Awareness** program as required by USDOT/PHMSA. In June 2011 USDOT/PHMSA inspected CPAI's protocols and found no deficiencies. By increasing public understanding of North Slope pipelines, what they transport, how they work, and increasing awareness of the pipeline system, CPAI intends to decrease risk.

CPAI implements a **Drug and Alcohol** program, which includes testing, aimed at eliminating substance abuse in the workplace while providing a safe, healthy and productive work environment.

CPAI, as part of its **Environmental Management** program and in partnership with BPXA, ENI, EMDC and Pioneer, produced the North Slope Environmental Field Handbook, reissued in June 2011. The handbook calls for sound environmental practices, including applicable permit requirements, spill prevention practices, environmental restrictions, management of hazardous materials, waste management plans, vehicle maintenance, use of portable liners for all fluid transfers and spill reporting.

CPAI has chosen 12 management elements of the HSE management system on which to base its **Contractor HSE Management System Audits**. Each element was graded by the traffic light system - green, yellow or red. All contractors audited received green or yellow marks, which means they do not need a variance to continue working, but must prepare a corrective action plan for any elements receiving a yellow mark.

CPAI Corrosion Control Programs
There are numerous elements to CPAI's corrosion control efforts. The key corrosion control programs include the following:

Maintenance Pigging: Maintenance pigs are designed to ensure the pipeline is free of solids, deposits and any water that has collected. A routine maintenance pig was run through Alpine Oil Pipeline, Kuparuk Pipeline and Kuparuk Extension approximately once a month. Alpine Utility Pipeline (treated seawater) was pigged 3-4 times a month. A maintenance pig was sent through the ADP approximately once every three months.

In-Line Inspection (ILI) Program: This program employs a variety of smart, or instrumented, pigs. Smart pigs schedules are regularly assessed and tool runs occur on a two or three year interval. Presently they are run every two years on the Alpine oil and Kuparuk pipelines.

2011 Results: Both a geometry pig and a magnetic flux pig were run through the Alpine oil pipeline in 2011. A smart pig was used to inspect the Kuparuk Pipeline. The Kuparuk Extension pipeline is scheduled for smart pigging in 2012. ILI for the Alpine

oil pipeline confirmed current pipeline integrity, but identified a few specific sites for future follow-up. ILI on the Kuparuk Pipeline showed one external corrosion location that has been monitored and twice checked and refurbished over the past 12 years before becoming an imminent threat. The pipe was sleeved in 2011 at this location to ensure pipeline integrity. An area of Kuparuk Extension was sleeved in 2011 based on the findings of the 2010 ILI run.

External Inspection of Unpiggable Sections: Where the pipeline cannot be pigged, external inspections occur every three years for the Kuparuk and Oliktok pipelines.

2011 Results: Eight elbows on Alpine Oil Pipeline were inspected and several locations will be reinspected with spot radiography. Seven elbows on Alpine Utility Pipeline were inspected with spot radiography. One elbow with previously identified wall loss showed no change, but has been put on the list for corrosion rate monitoring (see following paragraph). A previously inspected area on the OPL – an unpiggable 12-inch section of the KPL at CPF1 - was inspected with no integrity issues reported.

Corrosion Rate Monitoring (CRM): This is an inspection program intended to supplement other corrosion monitoring data in areas where internal corrosion has been previously identified.

2011 Results: Inspections were completed on areas of previous wall loss that have been placed in this program. No increases in wall loss were noted at the CRM sites.

Below Grade Casing Inspection: Inspection of cased road crossings on all the CPAI AS 38.35 pipelines occurs annually to ensure the casing is free from obstruction that could increase the potential for external corrosion.

2011 Results: All casings were inspected and the few obstructions found were cleaned.

Corrosion Coupons: Corrosion coupons are used to determine the need for corrosion inhibitors and the potential extent of any corrosion. They are assessed every six months on CPAI pipelines.

2011 Results: Corrossion inhibitor will be added to Alpine Utility Pipeline as a result of the coupon indicators. No coupons on any of the other lines indicated the need for action.

Cathodic Protection (CP) System Evaluation of the cathodic protection system includes rectifier checks (to ensure casing isolation) every two months, and a system Inspection Depolarization test annually.

2011 Results: Monitoring and tests showed that all the CP systems were functioning properly.

CPAI's Personal Safety Program

CPAI, as part of its **Internal Safety Program** and in partnership with other North Slope operators, issued the Alaska Safety Handbook (ASH) which outlines uniform safety procedures to be followed when performing pipeline related work. It also outlines individual responsibilities. Understanding and following the ASH is a condition of employment.

CPAI has implemented a **Voluntary Protection Program (VPP)** in each operating area to increase employee commitment to occupational safety. Through the VPP, employee feedback is obtained concerning various processes and procedures and each operating area's commitment to safety. The VPP program was reviewed by Alaska OSHA in 2007 and was rated at at the high quality star level, qualifying CPAI for OSHA reassessment once very five years, the longest term allowed.

2011 Results: In 2011 Alpine pipelines had one reportable lost time incident and one incident requiring medical treatment. The Kuparuk and Oliktok pipelines had no OSHA reportable or incidents requiring medical treatment.

In addition to ASH and participation in the VPP, CPAI contractors, as part of the **Contractor Safety** program, implement their own plans and set their own safety objectives and procedures.

Maintenance

Preventive Maintenance: USDOT/PHMSA has extensive jurisdiction over pipeline integrity, including equipment requirements, design standards, maintenance, monitoring and inspections. CPAI has a maintenance schedule for different components and systems, including launchers and receivers and leak detection systems that meet USDOT/PHMSA requirements.

Corrective Maintenance: There were no major corrective actions on the Alpine pipelines. Minor repairs were made to repair survey reportable conditions, such as survey monuments, VSMs, optic cable and insulation blankets. On Kuparuk Pipeline the communication component of the leak detection system was upgraded. Minor repairs were made to VSMs, saddles and insulation and the Kuparuk and Oliktok pipelines.

Pipeline Surveillance and Monitoring

Surveillance and monitoring activities are performed routinely by the lessee. Surveillances can be accomplished by flying, driving or walking. USDOT/PHMSA requires surface conditions on or adjacent to each pipeline to be inspected for indication of leaks or other problems at intervals not exceeding three weeks and at least 26 times a year. In addition to USDOT/PHMSA-required inspections, CPAI conducts visual inspections on all above-ground pipelines with annual ground surveys.

Surveillance and Monitoring Results – Summary

Of the 95 aerial inspections conducted on Alpine pipeline, 47 employed FLIR assessments. No immediate threats to pipeline integrity were identified during the 2011 USDOT/PHMSA surveys. The annual ground surveys found no significant changes that posed a threat to pipeline integrity. There were some minor issues noted for correction with VSMs, saddles, u-bolts, missing pipeline vibration dampeners and required anchor modifications. Most structures examined were in good shape, including no sloping crossbeams, no tilted saddles, no failed anchors, no gaps between pipe and saddles and no excessive pipeline vibration.

The ground survey also examined road crossings and survey monuments. The Alpine pipelines cross three major rivers. The HDD crossing of the Colville River East Channel is monitored annually. This year's monitoring showed only minimal erosion, no significant scour, no erosion of the gravel pad and no evidence of any impact to pipeline integrity. Based on previous annual survey results, surveys of the above ground crossings of the Kachemach River and the Miluveach River are conducted every five years. The next scheduled survey is 2012, although visual inspection of the VSMs and pipeline show no significant erosion or scour and no impact on pipeline integrity.

In addition to the drive-by surveys of the Kuparuk and Oliktok pipelines, 96 aerial surveys were flown between CPF1 and PS1, 53 of which included FLIR assessments. Between CPF1 and CPF2, 98 aerial surveys were flown with 52 employing FLIR evaluations. No immediate pipeline threats were identified during the USDOT/PHMSA surveys. Only a few minor issues were identified during the annual ground inspection. The minor issues include a few jacked VSMs, some locations where the ground clearance was less than the required five feet and are scheduled for repair or modification. Overall, no threats to pipeline integrity were identified. Most structures examined were in good repair. There was no evidence of pipeline movement or VSM tilting.

Right-of-Way Events/Incidents/Issues

There were no unintended shutdowns or slowdowns due to operations at the Alpine, Kuparuk and Oliktok pipelines. There were a few unintended slowdowns associated with operations elsewhere and TAPS proration events. The CPAI FLIR equipment was called out by APSC during an unscheduled shutdown of TAPS and was not available for routine Alpine, Kuparuk or Oliktok over flights from January 11-19, 2011.

Flow rates through Alpine Utility Pipeline were affected at various times due to operational issues at the seawater treatment plant.

There were a number of vehicle related incidents in the Kuparuk and Oliktok rights-of-way. None of them were major or caused large spills. All small spills were cleaned up. None of the vehicle incidents involved a vehicle operated by CPAI personnel, and none made contact with any pipeline.

Oil and Hazardous Discharges

There were no oil or hazardous discharges in the Alpine right-of-way in 2011.

A loose bleed port on the module AU01 Kuparuk Pipeline pig launcher leaked approximately ½ c. of oil before it was tightened and cleaned up. In the Kuparuk/Oliktok right-of-way, a vehicle incident leaked three quarts of hydraulic fluid to gravel, which was cleaned up. Another vehicle incident leaked one c. of hydraulic fluid to snow on the ice pad, and one leaked ½ c. of hydraulic fluid to snow on the tundra. Both were cleaned up. A vehicle incident in the Kuparuk Pipeline right-of-way leaked two gallons of transmission fluid onto Spine Road, which was cleaned up.

Special Projects

Alpine Caribou Surveys

CPAI submitted caribou survey reports for 2010 and 2011. The reports combine data from calving and post calving aerial surveys and ongoing telemetry. Looking at the results in conjunction with previous surveys, pre- and post-construction, all indications are that caribou cross the Alpine pipelines frequently and without delay. During insect season they may cross multiple times in a day. The distribution pattern during calving correlates closely with data from other researchers showing that caribou densities are lower in the area 2-4 km from an active road or facility. The reports confirm that there is no indication of displacement from infrastructure where there is no human activity during the calving period.

Alpine Spectacled Eider Survey

Aerial and road (Kuparuk) surveys for Spectacled Eiders have been conducted since 2004 from CPF-2 along the Alpine Pipeline route to the CD-1 facility in the Colville River delta. The survey area is dominated by drier habitat, not commonly used by Spectacled Eiders, so the number of birds within the focused survey area is always small. While no Spectacled Eiders were found within the drier "could affect" survey area in 2011, record numbers were just beyond that area - 10 pairs, five males without females, and a group of two males and one female, totaling 28 birds. In 2010 only one pair of Spectacled Eiders was seen in the same area.

Table 7: CPAP 2011 Throughput Information

Pipeline System	2011 Throughput
Alpine Diesel	3, 534, 169 gal.
Alpine Oil	29, 031, 614 barrels
Alpine Utility	39, 129, 809
Kuparuk	89, 953, 520
Kuparuk Extension	53, 730, 649
Oliktok	7, 665, 862

Kenai Kachemak Pipeline Annual Report Summary

The Kenai Kachemak Pipeline 2011 Annual Report was submitted on February 7, 2012. The SPCO reviewed the Kenai Kachemak Pipeline 2011 Annual Report and found that it provided sufficient information to satisfy the lease requirement (SPCO letter No. 12-134-AS).

The annual report is required by Stipulation 1.14 of the Lease and is intended to provide a clear picture of the state of the pipeline and the pipeline system. Because of its ties to lease requirements and the importance of the information presented, the report is thoroughly reviewed by the SPCO every year. The KKPL annual report is available for public review.

The summary below highlights just a few of the more significant KKPL activities, including One-Call program participation, corrosion-associated inspections, cathodic protection inspections and documentation of the regularly conducted aerial patrols.

Lessee Performance under the Lease

Throughout 2011, Marathon PipeLine Company, LLC (MPL), upheld the terms of the Kenai Kachemak Pipeline Right-of-Way Lease, ADL 228162. All lease reservations, conditions and limitations were adhered to, which includes right-of-way stipulations.

Pipeline Surveillance and Monitoring

Aerial and Ground Surveillance

There were 35 aerial surveillance flights of the KKPL right-of-way in 2011. During those flights and other drive-by inspections, personnel routinely checked the pipeline and the right-of-way for encroachments, construction activities and any unauthorized activities or change in condition. Aerial surveillance flights are done weekly, weather permitting, during the months of April, May, June, July, August, September and October. During the months of January, February, March, November and December aerial surveillance flights are conducted monthly due to inclement weather and reduced potential for third party damage. There were no conditions observed that were detrimental to the pipeline or the right-of-way in 2011.

In addition to aerial surveillance flights, MPL employees monitored the KKPL right-of-way during routine operations and maintenance activity. For example, during the leakage surveys personnel are trained to observe right-of-way conditions such as erosion, pipeline markers, etc.

Risk Management Programs

Corrosion Protection

To minimize the potential for internal corrosion, the operator regularly sampled gas for quality. Tests were performed to determine hydrogen sulfide (H2S) and water content. The operator monitors to the requirements of 49 CFR 192.475 and 49 CFR 192.477. The

SPCO received data from the sampling efforts in the 2011 annual report. Data collected from the pipeline's origin, gas production pads and at the terminus indicate that corrosive gas is not being transported by KKPL. The gas content was reported as consistently greater than 99% methane. Hydrogen sulfide is minimal and ranged from 0-0.7 parts per million.

Cathodic Protection
The operator inspects rectifiers a minimum of six times annually, with intervals not exceeding two and one-half months. The two rectifiers for KKPL were inspected 13 times in 2011. As part of the CP program, a pipe-to-soil survey is completed annually, with intervals not exceeding fifteen months. A pipe-to-soil survey was completed in July 2011 with 137 pipe-to-soil tests performed during the survey. Of the 137 pipe-to-soil tests conducted, none yielded a reading outside of the range of acceptability.

Valve Inspection and Maintenance
Inspection and any required maintenance of KKPL mainline valves was conducted by MPL personnel in June and July 2011. These inspections were performed pursuant to 49 CFR Part 192, Subpart M – Maintenance. The inspections were to ensure that the valves were accessible and operable in the event of an emergency requiring the line to shutdown. Valve records are kept on file at Marathon Pipe Line's Kenai office.

Pressure Relief Devices and Regulating Stations
Inspection and testing of KKPL relief devices and pressure regulating stations, per 49 CFR Part 192, Subpart M – Maintenance, were conducted by MPL personnel on June 28 and July 18, 2011. One relief device at the Falls Creek Pad failed to reseat properly, but did not present a hazard as it fully opened at a pressure less than the pipeline's maximum allowable operating pressure. The valve was repaired and re-tested September 16, 2011. Relief device and pressure regulating station records are kept on file at Marathon Pipe Line's Kenai office.

Leak Surveys
On-ground leakage surveys of the KKPL pipeline using leak detector equipment were conducted in January and again in July 2011. One leak was found during the January survey, near the pig trap at the KKPL terminus. No leaks were detected during the July survey. The leak found in January did not present a hazard to the public, property or environment.

Safety Programs

MPL employee and contractor safety performance for 2011 resulted in zero OSHA recordable injuries and zero preventable motor vehicle accidents. Contractor services were used in 2011 to support KKPL operations. There were no known injuries experienced by contract personnel during the year. There were no known injuries to the public associated with the KKPL system in 2011.

In June of 2010, the MPL president announced a new strategic vision built around the theme "We Deliver by Being BEST" with BEST serving as an acronym representing:

Business Focused, Excellent Operations, Safety Always, and Team. The initiative was furthered in 2011 by the introduction of Safety 1, a safety leadership philosophy promoting that all employees are responsible for not only their own safety but for that of others, employees and contractors.

As part of its public safety efforts, MPL participates in the Alaska Dig Line Inc. one-call damage prevention program. The One-Call program is important to the community for the prevention of third-party pipeline damage that could threaten public safety. There were 150 locate requests in 2011, which resulted in 18 onsite locates and 17 high-pressure standbys. In contrast to 2010, DigLine Notifications were down nearly 27 percent in 2011; On-Site Locates were down nearly 25 percent; and High-Pressure Standbys were up by 54 percent.

Throughput and Pigging

KKPL, LLC, reported pipeline throughput and pigging activities in its 2011 annual report. This information is summarized in the table below. Total throughput for KKPL had a 26 percent increase from the 2010 total throughput. Throughput for all of the SPCO jurisdictional pipelines can be found in Appendix I.

Table 8: KKPL Throughput Information

Pipeline System	2011 Throughput	Maximum Operating Pressure	Maintenance Pigging	Pipeline Operator
KKPL	17,870 Mmcf (17.9 Bcf)	1,480 psig	No regular schedule	Marathon Pipe Line

Hazardous Substances Discharge

There were no discharges of oil or other hazardous substances on the KKPL right-of-way during 2011.

Nikiski Alaska Pipeline Annual Report Summary

Tesoro submitted its 2011 Annual Comprehensive Report on Pipeline Activities and State of the Pipeline System for Tesoro Alaska Pipeline Company (Nikiski) Right-of- Way Lease, ADL 69354, on January 31, 2012.

The annual report is required by Section 6 and Stipulation 1.15.3 of the lease and is intended to provide a clear picture of the state of the pipeline and the pipeline system. Because of its ties to lease requirements and the importance of the information presented, the SPCO thoroughly reviews the report every year. Tesoro's annual report is available for public review. Elements of the lessee's 2011 Annual Comprehensive Report on Pipeline Activities are summarized below.

Lessee Performance under the Lease

Throughout 2011, Tesoro upheld the terms of the Nikiski Alaska Right-of-Way Lease, ADL 69354. All lease reservations, conditions and limitations were adhered to, which includes right-of-way stipulations.

Surveillance and Monitoring

Brushing

Brushing activities were conducted within five feet of the Nikiski Alaska Pipeline centerline. This results in a total clearing distance of 10 feet around to the pipeline right-of-way. Right-of-Way sections cleared in calendar year 2011 on the Kenai side were from station numbers 857+43 to 905+00 and 1621+70 to 2377+89. On the Anchorage side clearing was performed from station numbers 3261+88 to 3268+22, 3270+26 to 3280+59, 3480+67 to 3483+83, and 3490+92 to 3494+09.

Right-of-Way Inspections

Tesoro performs a pipeline right-of-way inspection at least 26 times each calendar year, not exceeding three weeks between inspections. Inspections are performed by aerial surveillance of the pipeline, driving segments of the right-of-way, and walking portions of the right-of-way from the Tesoro Refinery to the Port of Anchorage. In addition, if work is occurring at a given location, the section of right-of-way near that particular work site may be inspected in conjunction with that project. Tesoro reported that employees performed 26 aerial right-of-way inspections and 45 ground patrols in 2011. No deficiencies were noted during these surveillances.

Inspections of Crossings under Navigable Waters

Tesoro inspects the sub-sea pipeline crossing under Turnagain Arm every five years. The inspection is performed by a company that specializes in this type of procedure. The side-scan sonar survey shows hazard conditions near the pipe. The most recent side-scan sonar survey of the underwater pipeline was performed in August, 2011. The survey data was reviewed by an engineering firm who made recommendations, which were received by Tesoro in November, 2011. The Tesoro Area Engineer is generating a plan to address these recommendations throughout 2012.

Risk Management Programs

Operations and Maintenance Manual

Tesoro is required to have a written operations and maintenance manual and to review it once each calendar year, not to exceed 15 months. Based on this review, there may or may not be any revisions required. The last review and binder revision occurred on August 11, 2011.

Integrity Management Program

Tesoro's Integrity Management Program (IMP) specifies actions that Tesoro commits to take to insure pipeline integrity. Pursuant to the IMP, the last In-Line Inspection (ILI) was conducted on the Nikiski Alaska Pipeline in December of 2010.

Tesoro's IMP was audited by USDOT/PHMSA in October of 2010. This IMP audit concluded with no open issues or findings.

In-Line Inspection Information

All required actions resulting from the most recent (12/2010) ILI were completed in 2011.

Corrosion Management

Tesoro monitors corrosion by performing ILIs, as required by its Integrity Management Program. Tesoro takes all the anomaly information resulting from the ILIs and compares it to previous years to monitor corrosion.

Cathodic Protection

The underground portions of the Tesoro pipeline are protected from external corrosion by an impressed current CP system. The CP system is inspected and tested annually to determine whether the level of cathodic protection is adequate per 49 CFR 195.573(a)(1). Tesoro recorded rectifier readings monthly. The 2011 Annual Cathodic Protection Survey was completed during June-July of 2011. The survey consisted of field testing, minor test station repairs, and visual examinations. The 2011 Annual Cathodic Protection Survey contained seven recommendations for adjustments and maintenance.

1. **Recommendation·** To assist in the interruption of all rectifiers while performing annual surveys, install permanent GPS synchronized current interrupters in all existing rectifiers.

Action· This recommendation was noted; however, GPS current interrupters are not required. GPS interrupters are installed in replacement equipment on a case-by-case basis.

2. **Recommendation·** Repair the shorted isolation flange at the pressure bypass valve to achieve isolation between the ASIG lateral and the ASIG Tank Farm.

Action· Will be completed prior to the 2012 annual CP survey.

3. **Recommendation•** Perform additional testing at TS-52B, TS-52C, and TS-53 along Northern Lights Boulevard to investigate the cause of the depressed potentials in this area.

Action• Testing is ongoing at this location. Per the annual survey report, cathodic protection coupon potentials are adequate, but depressed.

4. **Recommendation•** Replace TS-56 with a coupon test station.

Action• Will be completed prior to 2012 annual CP survey.

5. **Recommendation•** Initiate planning for performing a future cathodic protection survey across Cook Inlet on the submerged portion of the pipeline between the Anchorage and Kenai sides.

Action• A CP survey is planned for early FY13.

6. **Recommendation•** Continue performing and recording monthly rectifier readings.

Action• Ongoing.

7. **Recommendation•** Continue performing and recording annual cathodic protection suveys.

Action• Ongoing.

2011 CP Actions

A replacement groundbed, rectifier, and new coupon test station (TS-15A) were installed and commissioned near Captain Cook State Park. Test Station 33 (TS-33) was repaired by Tesoro subsequent to the completion of the annual survey.

Impacts/Responses to Integrity, Environment, Safety

Abnormal Operating Conditions

USDOT 49 CFR 195.402(d) defines abnormal operating conditions as events that exceed design limits, such as unintended valve closures, system shutdown, pressures or flow rates outside normal operating limits, loss of communications, or operation of a safety device. Tesoro experienced 18 Abnormal Operating Conditions in 2011. Every Abnormal Operating Condition event was investigated and identified as a routine equipment switch error with no operating limits being exceeded. Tesoro is actively pursuing a resolution to this problem.

One-Call Notifications

Tesoro participates in the One-Call damage prevention program through Alaska Digline. Notifications of excavation work being performed near the pipeline were sent to Tesoro for evaluation. There were 344 one-calls regarding dig activities in the vicinity of the Nikiski Alaska Pipeline in 2011; 147 originated in the Anchorage area and 197 originated in the Kenai area. There was no outside force damage to the pipeline in 2011.

Valve Maintenance

Tesoro inspects and maintains the nine mainline block valves twice each calendar year, not exceeding 7.5 months between inspections. These inspections insure that valves are in working order and functioning properly. All the valves were inspected at least two times in 2011, none of which required maintenance.

Throughput, Reliability, and Pigging

The Nikiski Alaska Pipeline transports a number of different products, including aircraft fuel (Jet-A), unleaded gasoline, premium unleaded gasoline and two types of ultra low-sulfur diesel. The table below itemizes the throughput of each product transported in 2011. The products are transported to the Port of Anchorage, where they are used at Elmendorf Air Force Base, Ted Stevens Anchorage International Airport or transported for use at gas stations. The products are transported through the pipe in batches to prevent cross contamination. Tesoro reported reliability for the pipeline at 98.56% for 2011.

Table 9: NAP Throughput Information

Product	2011 Throughput
Jet-A	5,387,786 barrels
Unleaded Gasoline	3,452,124 barrels
Premium Unleaded Gasoline	519,265 barrels
Ultra-Low-Sulfur Diesel (ULSD)#1	1,609,527 barrels
ULSD #2	545,120 barrels
Total	**11,513,804 barrels**

Batch pigs are used to separate batches of different products transported through the pipeline. Maintenance pigs are not routinely used. The table below provides total throughput, reliability and pigging information for 2011.

Table 10: NAP Reliability and Pigging Information

Pipeline System	2011 Throughput	Reliability	Maintenance Pigging	Last Smart Pig Run
Nikiski Alaska	11,513,804 barrels	98.56%	No regular schedule	December 2010

Summary of Discharges

Tesoro records all oil and hazardous substance discharges within the Logistics Incident Database. An incident report is compiled to document the release date, substance, quantity, location, cause, and cleanup actions. No oil or hazardous substance discharges occurred along the Nikiski Alaska Pipeline right-of-way in 2011.

North Fork Pipeline Annual Report Summary

The 2011 North Fork Pipeline Lessee Annual Report was submitted on March 28, 2012. The SPCO reviewed the North Fork Pipeline Annual Report and found that it provided insufficient information to satisfy the lease requirement. On April 17 Anchor Point Energy submitted an amended 2011 North Fork Pipeline Lessee Annual Report. The SPCO found that the amended report provided sufficient information to satisfy the lease requirement (SPCO letter No. 12-169-AS).

The annual report is required by stipulation 1.13 of the Lease and is intended to provide a clear picture of the state of the pipeline and the pipeline system. Because of it's ties to lease requirements and the importance of the information presented, the report is thoroughly reviewed by the SPCO every year.

The summary below highlights just a few of the more significant North Fork Pipeline activities including right-of-way surveillances, leakage surveys, cathodic protection surveys, the quality assurance program, and the surveillance and monitoring program.

Lessee Performance under the Lease

Throughout calendar year 2011, Anchor Point Energy, LLC upheld the terms of the North Fork Pipeline Right-of-Way Lease, ADL 230928. All lease reservations, conditions and limitations were adhered to, which includes right-of-way stipulations.

Surveillance and Monitoring

Aerial and Ground Surveillance

There were 10 surveillances of the North Fork right-of-way in 2011. Portions of the right-of-way are wetlands, so during the summer aerial surveillances are conducted. Winter surveillances are conducted using snowmachines. During these surveillances personnel routinely checked the pipeline and the right-of-way for encroachments, construction activities and any unauthorized activities or change in condition. There were no conditions observed that were detrimental to the pipeline or the right-of-way in 2011.

Restoration and Revegetation

Wetland Restoration

During construction segments of the North Fork Pipeline that lie in wetlands were cut into sod blocks and placed to the side of trenching activities. After the pipeline was placed in the trench, the trench was refilled and the sod blocks were placed on top of the trench. Because soils placed in the trench were not compacted and partially frozen, the sod blocks may have stuck up to one foot above the adjacent ground surface. These sod blocks are being monitored as they settle back into the wetlands.

Stream Bank Restoration

Stream banks that were affected during construction were restored by Moore's Landscaping in May. Banks on Unnamed Tributary to North Fork Anchor River, Unnamed Tributary to Two Moose Creek, and Branson Creek were all restored.

Reseeding

In May a seed mix of native plant species was applied to the upland areas of the pipeline right-of-way.

Risk Management Programs

Cathodic Protection

An annual cathodic protection survey was performed on the North Fork Pipeline in October, 2011. The survey consisted of visual inspections and field-testing. Test results indicate that adequate levels of cathodic protection are being provided for the majority of the pipeline. A closed interval survey indicates that approximately 250 feet of the pipeline, between Test Station 27 and Test Station 28, has depressed potentials that require further testing and investigations.

Valve Inspection and Maintenance

Valves are located on the North Fork Unit Pad, the blowdown station located one mile from the west end of the pipeline, and the terminus at the Enstar metering pad. Valves and pads are inspected monthly by the Operator. The only issue with valves in 2011 was associated with the installation of fencing around the blowdown station.

Leak Surveys

On-ground leakage surveys of the North Fork Pipeline using leak detector equipment were conducted in March and again in July 2011. No leaks were found on the right-of-way in both surveys. In July a leak was found in a well house on the North Fork Unit Pad that was subsequently corrected.

Safety Programs

Anchor Point Energy, LLC, employee and contractor safety performance for 2011 resulted in zero OSHA reportable incidents associated with either construction or operations. There were no events requiring an emergency response related to pipeline operation in 2011.

As part of its public safety efforts, Anchor Point Energy, LLC, participates in the Alaska Dig Line Inc. one-call damage prevention program. The One-Call program is important to the community for the prevention of third-party pipeline damage that could threaten public safety. There were five locate requests in 2011, these activities had no impact to the North Fork Pipeline or facilities.

Throughput and Pigging

Anchor Point Energy, LLC, reported pipeline throughput and pigging activities in its 2011 annual report. This information is summarized in the table below. The North Fork Pipeline commenced operation on April 1,2011; total throughput is from April to December 2011. Throughput for all of the SPCO jurisdictional pipelines can be found in Appendix I.

Table 11: North Fork Throughput Information

Pipeline System	2011 Throughput	Maximum Operating Pressure	Maintenance Pigging	Pipeline Operator
North Fork	1,182 Mmscf (17.9 Bcf)	1,328 psig	No regular schedule	Anchor Point Energy, LLC

Hazardous Substances Discharge

There were no discharges of oil or other hazardous substances by Anchor Point Energy, LLC, on the North Fork Pipeline right-of-way during 2011.

Nuiqsut Pipeline Annual Report Summary

Introduction to the Lease and Reporting Requirements

The 2012 Nuiqsut Natural Gas Pipeline (NNGP) Annual Report broad range of quality and risk management programs aimed at managing safety, pipeline integrity, environmental risks with their goal to ensure worker and community safety. There is an emphasis on preventive and corrective maintenance programs, employee and contractor training and public education. A number of programs are consistently carried out by NNGP to ensure operations and maintenance activities are in compliance with Federal, State and local laws and regulations. The State of Alaska, through the pipeline right-of-way leases, require each lessee to submit a comprehensive report annually on the results of their surveillance and monitoring programs; changes to the pipeline system; results from the various quality assurance programs; information on any new construction, operations, or maintenance activities; a summary of all incidents and issues that had the potential to affect the pipeline system; and a summary of any hazardous discharges and subsequent clean-up. The NNGP annual report and its supplemental information are available for public review. The following sections summarize key information included in the NNGP annual report to the SPCO.

Pipeline Integrity and Risk Management

Quality Assurance Program (QAP)

The NNGP QAP provides a structure to ensure that all management goals are met and that all federal, state and local laws, as well as state lease terms are followed. The primary elements of the QAP are company organization and leadership, risk management, personnel and training, design and construction, operations and safety for employees and contractors, emergency preparedness, incident investigation and the management of change. In 2011 a new division manager was appointed to NNGP by the NSB. A new training program was developed and implemented for new employees. A safety list was developed and environmental briefing implemented for all contractors to ensure that they understood lease requirement and NSB commitments. THE NSB reviews the NNGP QAP and other programs annually to confirm that operational changes made in the past year still ensure pipeline integrity and worker and public safety.

Risk Management Programs

NNGP has numerous risk management programs in place to meet the comprehensive DOT/PHMSA pipeline integrity monitoring requirements as well as the terms of the state lease. Some of the major elements of the NSB risk management program for the NNGP include established normal operating practices, emergency response plan, incident reporting, routine maintenance, repairs and monitoring, reporting (monitoring reports and safety related issues), NNGP safety program, public education and erosion mitigation.

Routine maintenance repairs and surveillance. NNGP maintenance and surveillances were conducted as required and in accordance with the maintenance schedule. NNGP will be expanding the detail of their reporting on these elements next year.

Corrosion Control and Monitoring. NNGP was listed inspected visually and with ultrasound in 2010. Work to remove damaged coating on the pipeline and monitor the results is scheduled for 2012. The next cathodic protection survey is scheduled for summer 2012.

Reporting of Safety Conditions. There were unsafe conditions related to the operation of NNGP to report in 2011.

Public Education Program. The education program was reviewed and modified to include language that describes how to detect natural gas leaks that are odorless on the pipeline.

NNGP Safety Program. A new safety program is under development and will be implemented late 2012.

Erosion Mitigation Program. An erosion mitigation survey was completed in 2011. It was difficult to analyze the results meaningfully without more data. NNGP has decided to conduct the survey annually until there is enough data to confirm the effectiveness of the erosion mitigation now in place.

Pipeline Surveillance and Monitoring

The surveillance and monitoring program involves visual inspections of the pipe and the surrounding area to look for any equipment damage, or improper disturbance to adjacent habitat or are wildlife. Inspections occur in summer and winter. Items on the inspection list include failed pipe anchors, any unauthorized construction within the right-of-way, VSM alignment, ubolt condition, coating damage, survey monuments, pipeline vibration dampeners, any damage to the pipeline (dents, vandalism, or other structural damage), condition of the above/below ground transitions, presence of fire hazards, condition of vegetation, subsidence or heaving associated with buried pipe, bank erosion, fish blockage, improper waste disposal, or any damage to associated facilities.

Right-of-Way Events/Incidents/issues and Hazardous Discharges

There were no unplanned events, incidents or discharge of hazardous substances in 2011.

Special Projects

Increasing levels of Hydrogen Sulfide (H2S) has been detected. Corrective action is underway to remove the H2S from the gas stream. A temporary solution utilizing a dry bed H2S scavenging system is operational and shares existing Mole Sieve Vessels with the dehydration system. The long term plan to keep H2S below the maximum allow-

able level of 10ppm is to install a dry bed system in the existing gas conditioning module located at the Alpine Development. The system will use the same method for H2S removal as the interim solution, but will have Mole Sieve Vessels dedicated specifically to the H2S removal.

Proposed 2012 Plans

As a result of program reviews and monitoring of the pipeline system, the NNGP Operator submitted the NNGP 2012 plan of operations. Anticipated work for 2012 includes further river bank mitigation, signage upgrades, pipe coating and ultrasound inspection, repairs at the pipeline transition, service of the mainline valves, placement of markers denoting below ground pipe, leak inspection, cathodic protection inspection, repairs to the transmission line test stations, and continued monitoring of the abandoned pipe in the Nigliq Channel.

TAPS Annual Reports Summaries

APSC submitted the TAPS 2011 Integrity Management Program Annual Reports during the summer of 2012. Commonly referred to as the MP-166 reports, the integrity managements reports are:

- Mainline Aboveground Support Systems and Bridges Monitoring Program Report
- Fuel Gas Line Monitoring Report
- Mainline Integrity Monitoring Report
- Rivers, Floodplains, and Glacier Monitoring Program
- Right-of-Way and Facilities Civil Monitoring Program
- Aboveground Storage and Tank Monitoring Program
- Valve Monitoring Report

The MP-166 reports are produced to provide an annual update of the state of the pipeline and pipeline system. The SPCO reviews each report. Brief summaries of the reports can be found in the following section.

Mainline Aboveground Support System and Bridge Report Summary

This report covers the Mainline Aboveground Support System and Bridges Program and slope-stability portion of the Right-of-Way and Facilities Civil Monitoring Program. After reviewing the actions taken during 2011, APSC concluded that:

1. The overall performance of the TAPS mainline support system and bridges is satisfactory based on current data and methods of measurement.

2. The majority of the aboveground pipeline system, 45 of the 46 vehicle bridges, and 12 pipeline bridges remain in good to excellent condition.

3. The few pipeline supports, bridge or slope items that require corrective maintenance are still performing their basic functions.

4. All routine monitoring and maintenance recommended by Right-of-Way Integrity in the 2010 annual report were performed in 2011.

Heat pipes are passive devices that transfer heat from soil to cold air. They are essential for maintaining the structural strength of permafrost. APSC monitors the performance of the heat pipes primarily with infrared analysis. Over the past four decades, some of these heat pipes have accumulated non-condensable gas in their radiator sections, which reduces the efficiency of the heat pipes; however, the system has redundant heat pipes so that a loss of efficiency does not affect pipe integrity. In 2007, APSC initiated a continuous three-year cycle of analyzing all heat pipes. This year the company analyzed infrared film of 40,048 heat pipes.

In 2011, 3,332 heat pipes were converted from anhydrous ammonia to carbon dioxide to address blockage of the radiator sections. Another 30 heat pipes were recharged. Approximately 23,600 heat pipes have been converted to carbon dioxide since 2001.

The infrared analysis done on the heat pipes also recorded soil temperatures around 861 VSMs. The data shows the "number of VSMs with desirable below-freezing soil temperatures increased from 486 in 2007 to 592 in 2008. Generally, soil temperatures are improving as severely blocked heat pipe radiators are being purged and their functionality restored."

Mainline Support System Monitoring

APSC conducted an aboveground assessment on more than 10,000 bents, anchors and other supports, as well as 504 free-standing heat pipes, and found no serious problems. APSC monitors anchor movement (typically the result of hydraulic events) and found no anchors with significant movement in 2011. The report noted that one anchor in the middle of the Yukon River bridge remains slightly offset to the north (downhill). Although the displacement is not considered actionable at this time, APSC reported that it will develop an action plan for re-centering this anchor.

Site-specific Geotechnical and Structural Analysis
APSC focuses on regular monitoring eight locations for signs of slope stability and any subsequent VSM tilt:

1. PLMP 392.06 to 392.55: Lost Creek
2. PLMP 441.28 to 442.18: Treasure Creek
3. PLMP 685.81 to 685.91: GRB Hill, historically known as Pump Station 11 Hill
4. PLMP 687.26 to 687.44: Tazlina River Hill
5. PLMP 698.02 to 698.25: Klutina River Hill
6. PLMP 716.83 to 717.27: Squirrel Creek Hill - north slope
7. PLMP 717.29 to 717.54: Squirrel Creek Hill - south slope
8. PLMP 408.17 to 408.57: Slate Creek

APSC concluded that "the analyses generally show trends within historic ranges; no significant changes… that could affect slope stability or pipeline integrity in the near future." Laser scan surveys to track VSM movement were performed at these sites to track the ground survey benchmarks. APSC also performs a linewide aerial surveillance of 55 slopes of potential concern along the right-of-way every two years.

Remote Gate Valve (RGV) 118 avalanche diversion structure continues to show displacement. APSC conducted another laser scan of the structure in 2011 and will contrast the information with similar scans from 2009 and 2010. APSC is also evaluating during 2012 several options that could be employed to repair the structure.

Pipeline and Vehicle Bridges
The Alaska Department of Transportation & Public Facilities (DOT&PF) maintains the major bridges that have public access, such as the Dalton Highway Bridges. APSC's program covers pipeline-only bridges or access bridges that exist only for emergency access or maintenance and construction on the right-of-way.

An engineering-level inspection was conducted on the Yukon River bridge pipe rack. The inspection report concluded that "the overall condition of the Yukon River pipe rack and the Tanana Bridge were "found to be generally good. No serious structural defects were noted." DOT&PF performed a fracture-critical and special inspection of the primary bridge structure.

A contractor also performed an engineering-level inspection of the Tanana River suspension bridge in 2011. APSC concluded that "the overall condition of the bridge was found to be generally good." APSC also produced recommendations, including tensioning and testing the tension of the cables. APSC conducted engineering-level and internal maintenance reviews of several other bridges and noted minor deficiencies.

APSC placed riprap on the stream banks adjacent to the bridge abutments at three locations. No progress was made with the design package for the guardrail upgrades at numerous vehicle bridges or on the Acrow Bridge Paint Rehabilitation Plan. No action occurred to develop a plan to address the deteriorating paint on the Acrow bridges. Fifteen other vehicle bridges had an engineering level inspection in 2011, with two

bridges requiring further evaluation. The Little Tonsina River #3 Bridge has a scour hole in the river that is encroaching on one of the abutments. The hole will be monitored under the Rivers & Floodplains program. Solomon Creek Bridge has localized deterioration of the truss panel and deck substructure. The posted load for the bridge was reduced until the necessary maintenance can be performed. Deteriorated running planks on the PLMP 439 Vault Creek access road bridge were replaced in 2011. The west abutment at Phelan Creek #1 access road bridge was also repaired. All bridges not receiving an engineering level inspection had an annual inspection by the area P&CMs.

Split-ring Surveys, Load Testing and Adjustment

Split-ring adjustments were performed at 31 bents. Shims were installed on another 87 shoe bases to maintain threaded riser stability and facilitate load balancing. Split ring adjustments are performed when vertical adjustment of the shoe assembly is no longer possible using the adjustable components of the system.

Other maintenance and repair associated with the above ground support system in 2011:

- **Shoe replacement, repair and re-centering:** APSC found more fatigue cracking of shoe bases downstream of Atigun Pass, from PLMP 169.1 to 170.6, but fewer than in the past. APSC concluded that "slightly lower crude oil throughput rates than in 2010 resulted in less pressure induced shuddering at the slack line to pack line interface." APSC made repairs to or replaced 22 shoes.

- **Anchor re-centering, re-leveling and repair:** No tripped anchors were discovered in 2011. One anchor frame was found out of level and is scheduled to be re-leveled in 2012.

- **Teflon Slide Plate Replacement:** APSC maintenance strategy was changed from replacing side plates systematically bent-by-bent to replacing them where damage exceeds the MR-48 criteria. There are 83 reports of damaged slide plate in 2011 of which 72 were repaired.

- **VSM caps and weep holes:** A pilot program was started in 2010 to determine the functionality of weep holes in the VSMs. Analysis is continuing to be done to determine if the blocked weep holes are a problem and when they are or are not needed.

- **Mainline insulation system maintenance (linewide):** In 2011 APSC completed a project to install module flange caps and expansion band covers. 99.6% of the aboveground pipeline has been upgraded, leaving only small sections not completed due to access issues.

- **Pipeline Insulation Evaluation:** APSC monitors the pipe insulation along TAPS routinely to assess the moisture content and its physical condition. The insulation continues to degrade at an unknown rate. In order to assess the degradation rate, two instrumented test sites were established. One test site is at Shaw Creek PLMPs 517.46, 523.10 and 530.68. Another test site was established at the Glennallen PLMPs 653.87, 669.54 and 684.21.

- **Pipeline Bridge Maintenance:** No notable bridge maintenance was performed by the 2011 Aboveground Maintenance Program.

Integrity Team Recommendations for 2012 Aboveground Support System Program

- Perform a comprehensive linewalk of the aboveground segments of TAPS
- Perform a FLIR analysis along approximately 140 miles of aboveground pipe
- Complete a visual inspection of the shoe bases south of Atigun pass
- Install four new VSMs and two new bents at Squirrel Creek
- Repair no less than 3,800 heat pipes
- Replace, repair, or re-center shoes as conditions warrant
- Perform prioritized maintenance to re-center, re-level and repair anchors
- Replace Teflon slide plates as priorities warrant
- Continue weep hole remediation on approximately 17,400 VSMs
- Install module flange and expansion band covers to improve TAPS insulation system
- Initiate an RGV 118 assessment to evaluate for future repairs or rehabilitation
- Complete the backlog of maintenance tasks identified for pipeline and vehicle bridges
- Develop a plan to address the failing paint coatings of 20 Acrow bridges
- Perform routine monitoring of aboveground pipeline support system components such as split ring elevations, heat pipe performance, load distribution, and anchor displacement
- Perform pump station relief line load balancing
- The replacement of Bents 196 and 197 at Squirrel Creek

TAPS Fuel Gas Line Report Summary

The TAPS FGL provides fuel gas to PS1, PS3 and PS4. The FGL is buried in permafrost for nearly all of its length. In October 2011, APSC ran a smart pig through the FGL, which identified four dents requiring investigation. Two of the dents are scheduled to be investigated in 2012, and two others will be inspected in 2013.

Depth of cover restoration was completed at 48 locations in 2011 and will be performed annually to maintain the depth of cover over the FGL. One corrosion investigation was completed and analyzed at MP 18 along with LiDAR and geometry/deformation ILI surveys.

Work to be completed in 2012 will consist of analyzing the surveys and continuing the depth of cover restorations.

Mainline Integrity Monitoring Program Report Summary

APSC's Mainline Integrity Monitoring Program Report describes the Mainline Integrity Program activities in two sections.

1. Belowground Monitoring
2. Mainline Integrity

Belowground Monitoring

Since construction of the pipeline APSC has monitored 380 miles of belowground pipe as part of the belowground stability monitoring program. Belowground stability monitoring requires analyzing the belowground pipe elevation and thermal state of the surrounding soils in areas where pipe instability has been documented. This is

done by surveying monitoring rods, measuring soil temperature and periodically running a geopig. The objective of these analyses is to identify changes in pipe curvature that may result in conditions detrimental to the belowground pipe integrity. This is achieved through ILI runs, annual elevation monitoring, thermal data collection and trend analysis.

According to APSC's Mainline Integrity Report, 222 monitoring rods at eight locations were monitoring the elevation of TAPS. Little to no movement was confirmed at the monitoring rod sites surveyed in 2011. Thermistor strings were used to monitor belowground temperature at several sites; the sites monitored showed stable temperature readings as well as movement within acceptable limits. Thermistor string data for Mainline Refrigeration unit (MLR) 1 and MLR 2 indicated that the soil was frozen beneath the pipe to the total depth of the string. APSC concluded that no sites required intervention and annual monitoring should continue.

Mainline Integrity Investigations
APSC reports that the 2011 integrity program resulted in eight belowground investigations; all eight were related to girth welds and or longitudinal welds. After investigation of the sites it was determined that none of the areas required sleeves. Future recommendations will be based primarily on the 2009 ILI Rosen survey. A new ILI survey will be completed in 2012 to aid in future investigations.

Rivers, Floodplains, and Glacier Monitoring Program Report Summary

The 2011 Rivers, Floodplains, and Glacier Monitoring Program Report provided a summary of APSC's annual monitoring of rivers and floodplains, major drainage structures, and glaciers. Spring break up on the Sagavanirktok (Sag) River created flooding and damaged three spur dikes at PLMP 47. The spur dikes were repaired and reinforced with riprap to help mitigate flood damage in the future. No damage to the pipeline or the drive lane occurred during this event. The Rivers and Floodplains Report indicated that annual monitoring in 2011 produced no other findings that threatened TAPS integrity. The Rivers and Floodplains Program is based on right-of-way lease stipulations.

Rivers and floodplains monitoring includes an APSC Pipeline & Civil Maintenance (P&CM) Supervisor's biweekly aerial surveillance of the right-of-way in order to observe changes in river and floodplain environments that may affect TAPS. Unusual conditions noted along rivers and floodplains during the aerial surveillances prompt an on-the-ground visit and are reported according to the APSC Surveillance and Monitoring Manual, MS-31.

Rivers and floodplains monitoring also includes annual surveillances performed by the APSC engineering department. Annual monitoring incorporates both aerial and ground surveillances performed by engineers in order to observe river, floodplain, and glacier environments, as well as glaciers that may affect TAPS.

According to the 2011 Rivers and Floodplains Report, the engineering monitoring surveillance noted that the spring breakup and aufeis floods along TAPS were severe to mild along the entire length of the pipeline, with spur dikes six, seven, and eight at PLMP 47 sustaining the most damage. This damage was due to an above average snow pack that winter and an unseasonably warm spring causing the water to overtop the dikes. APSC baseline crews quickly stabilized the dikes. During the summer the damaged dikes were permanently repaired and the reinforced with riprap.

Summer floods were normal along the Sagavanirktok River area. There was no significant bank erosion with the exception of PLMP 19.1. The bank at PLMP 19.1 continues to erode after spring flooding destabilized the banks and aided in the erosion towards the pipeline. Repairs at this site will be completed in the summer of 2012 with buried sills to prevent additional erosion.

In the Dietrich and Koyukuk Rivers Drainage Basin there was no significant flood damage caused by summer or fall rains. Repairs are scheduled for 2012 to restore the depth of cover at French Creek II (PLMP 477.3) and III (PLMP 476.8). The depth of cover no longer meets the minimums set in the Original Design Basis.

The Delta River Drainage Basin had no significant flood events in 2011. Permanent repairs to Darling Creek (PLMP 574) from the flood event in 2010 were completed in 2011 and similar flood control structures were installed at Whistler (PLMP 581.7) and Flood Creeks (PLMP 583.8) will be completed in early FY13.

No significant damage to TAPS occurred in the Copper River Drainage Basin in 2010. Several rivers in the basin are still being monitored in the field from the 2006 flood event.

Occasional high water events in the Lowe River Drainage Basin and the Valdez Marine Terminal due to summer precipitation resulted in minor erosion of TAPS infrastructure. The embankment of Unnamed Creek workpad bridge at PLMP 787.8 experienced some erosion, but posed no immediate threat to the bridge.

Black Rapids, Castner, Fels, Canwell, and Worthington glaciers were monitored in 2010. No reportable conditions posing a threat to TAPS were found. Aerial imagery is taken of the glaciers on a five-year cycle to ensure they do not pose a threat to the mainline pipe.

Right-of-Way and Civil Monitoring Report Summary

APSC's Civil Monitoring program consists of four primary areas.

1. Seismic Fault Monitoring

No major seismic events occurred during the reporting period. APSC performed no monument surveys during 2011 because the surveys are performed biennially, on even years.

2. Mainline Slope-Stability Monitoring
Annual monitoring of eight instrumented slopes with stability concerns. APSC stated, "Analysis of the 2011 slope monitoring data, and comparison of the data with historic information, does not indicate a significant change in the stability of the monitored slopes that would affect the near-term integrity of the pipeline."

3. Valdez Marine Terminal Slope-Stability Monitoring
APSC concluded that at the VMT "there is no immediate threat to static slope stability, secondary containment, or tank foundations from groundwater levels." It also reported that it performed VMT surface drainage inspection, performed drainage maintenance work, and removed loose rock.

4. Facility Monitoring
APSC performed survey monitoring at the VMT Biological Treatment Tanks (BTTs) facilities at PS1, PS3, PS5, PS6, PS8 and PS10. Some of these locations are surveyed for vertical movement and some for both vertical and horizontal. For all monitored sites, APSC concluded that no corrective action is required and, for all surveyed locations, movement is within acceptable limits.

This MP166 program monitors the movement of several hundred data points at locations where movement may happen and where it might eventually create a problem. Most of these points have been monitored for long periods and trended. None of the survey points appear to be changing quickly. Movement has occurred, but it has followed long-term trends. With one minor exception, all of the goals for the surveys were met. The VMT program includes maintenance, such as removal of debris from weep holes, a simple but necessary task to avoid possible landslides. The report indicated that all scheduled maintenance of this type was accomplished.

Aboveground Storage Tank Monitoring Report Summary

APSC performs two categories of inspections for oil or hydrocarbon storage tanks:

1. External inspections at monthly intervals for tanks with volumes more than 10,000 gallons and annually for tanks with volumes less than 10,000 gallons. ADEC monitors tanks larger than 10,000 gallons.

2. Internal inspections at ADEC-approved intervals for tanks with volumes more than 10,000 gallons. Typically this is performed at 10-year intervals. APSC may modify this schedule after consultation with regulatory agencies.
Major tank work during the reporting period included:

- Tank 157 (diesel tank) at PS5, inspected. No repairs needed during this inspection.

- Tank 190 (crude oil break-out) at PS9 inspected, isolated, new cathodic protection system and new floor installed and returned to service. Repairs were mandated by USDOT/PHMSA after the 2010 overflow event. APSC replaced the floor in the tank as well as the CP system beneath the tank. The tank went back into service in January of 2012.

• Tank 9 (crude oil storage) at the VMT inspected, repaired and not returned to service. The tank was inspected and found to have several corrosion issues. These were repaired and coated, but the tank was not put back into service at the request of the TAPS Owners.

• Tank 11 (crude oil storage) at the VMT inspected, repaired and returned to service. Repairs to the tank included minor mechanical repairs to the floor and sleeves were installed on the fire foam piping system as significant corrosion lead to holes in the piping. With all repairs completed and tested the tank was returned to service.

• Tank 94 (ballast water) at the VMT inspected, repaired and returned to service. The tank was inspected and found that nine columns had through wall corrosion located at the center of the channel support webbing. Patch pates repairs were completed before returning the tank to service.

Valves Monitoring Report Summary

APSC's valve maintenance program comprises 176 mainline valves that affect flow in the 48-inch line. Primarily, these are gate valves, check valves, or valves associated with bypass lines. The primary mode of proving the function and condition of the valves are:

1. The motorized remote gate valves are moved part-way on command. This proves most of the communications, signaling, control and part of the mechanical action of the valve. This does not require throughput loss. This type of testing primarily comes from PHMSA regulations.
2. A percentage of the valves are tested for leak-through and sealing capabilities. This type of testing primarily comes from JPO agreement involving several JPO agencies, such as ADEC, BLM, DNR, and USDOT/PHMSA.

The movement test is performed on both block valves (RGVs) and check valves on a biannual basis. Tests during this past year showed little out of the normal maintenance. The percentage of valves that indicate a clapper shaft leak have followed a general upward tend for the past decade, from approximately 2.5% in 2001 to 5% in 2011. Over the past year the percentage of valves that indicated a clapper shaft leak has dropped to its lowest at 0%. Maintenance and preventative measures will continue. There is a matrix of regulatory requirements which define which valves require maintenance and testing on TAPS. These requirements include various DEC statues and administrative codes and include the following:

• State and Federal Stipulation 3.2.2.1 of the Agreement and Grant of the Right-of-Way for the Trans-Alaska Pipeline, Pipeline Systems Standards —Valves.
• USC 49 CFR, §195.420, Valve Maintenance.
• USC 49 CFR, § 192.745, Valve Maintenance: Transmission Lines.
• Valve Consent Agreement between the Department of Transportation Pipeline and Hazardous Materials Safety Administration and APSC, signed 2006.

The major valve projects performed during the past fiscal year were:

1. Following the PS1 shutdown in January, booster pump discharge valves were reconfigured above ground and outside the booster pump building. Two addition manual isolation valves have been temporarily installed; these will be removed after all below ground piping have been relocated above ground.

2. PS9 discharge valve was replaced due to excessive leak-through and leak-by rates.

3. The installation of straight piping through PS11 has decommissioned a number of valves.

4. Two ball valves, utilized during pigging operations at PS4, have been replaced due to excessive leak-through.

5. Stem indicators were installed on all bypass valves of mainline valves.

6. During pipeline shutdown a stem seal was replaced.

7. Isolation valves were installed at buttonhead fittings to prevent backflow if buttonhead fittings fail to reseal after injection activities.

8. At VMT, a valve was rebuilt and reinstalled.

9. Check valves vaults were externally insulated to diminish damage to small boring piping due water freezing.

10. Corroded valves and other components associated with the sea water fire hydrant system at VMT were replaced.

11. Continued work on identification of spare parts and bills of materials for SR/EA valves.

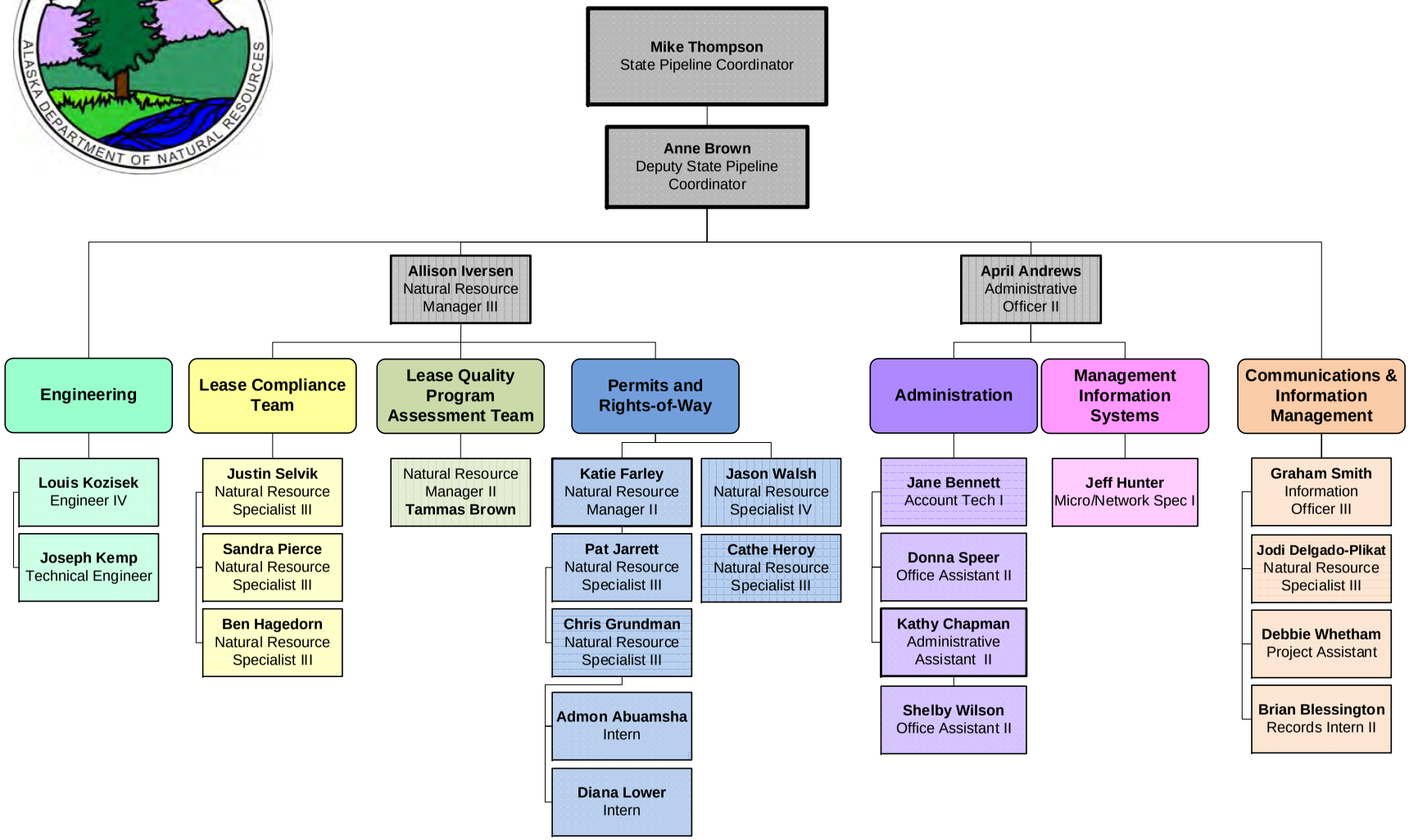
A total of 51 valve-related maintenance procedures were revised and seven new procedures were published this year. Two valve maintenance and operating procedures were canceled and replaced with newer and more relevant procedures.

Appendix A: Acronyms and Abbreviations

ACF	Alpine Central Facility
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
AGDC	Alaska Gasline Development Corporation
AHFC	Alaska Housing Finance Corporation
ANGDA	Alaska Natural Gas Development Authority
APDES	Alaska Pollutant Discharge Elimination System
APSC	Alyeska Pipeline Service Company
AS	Alaska Statute
BEST	Behavior Enhanced Safety Techniques
BLM	Bureau of Land Management
bopd	barrels of oil per day
BPTA	BP Transportation (Alaska) Inc.
BPXA	BP Exploration (Alaska) Inc.
BWT	Ballast Water Treatment
CFP	Central Facilities Pad
CFR	Code of Federal Regulations
CIC	Corrosion, Inspection, and Chemical
CP	Cathodic Protection
CPAI	ConocoPhillips Alaska, Inc.
CPF	Central Processing Facility
C-Plan	Oil Discharge Prevention and Contingency Plan
DEIS	Draft Environmental Impact Statement
DNR	Alaska Department of Natural Resources
DOLWD	Alaska Department of Labor and Workforce Development
DOT&PF	Alaska Department of Transportation and Public Facilities
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FGL	Fuel Gas Line (TAPS)
FLIR	Forward Looking Infrared
FY	Fiscal Year
GIS	Geographic Information System
GRB	Glennallen Response Base
H2S	Hydrogen Sulfide
HDD	Horizontal Directional Drilling
HSE	Health, Safety, and Environment
IFC	Issued for Construction
ILI	In-Line Inspection
IMP	Integrity Management Program
IMT	Incident Management Team
JPO	Joint Pipeline Office
KKPL	Kenai Kachemak Pipeline
KPE	Kuparuk Pipeline Extension
KPL	Kuparuk Pipeline
KRU	Kuparuk River Unit
LAS	Land Administration System
LEFM	Leading Edge Flow Meter
LiDAR	Light Detection and Ranging
MFL	Magnetic Flux Leakage
MOC	Management of Change
MP-166	APSC Monitoring Program
MPI	Main Production Island
NEC	National Electric Code
NNGP	Nuiqsut Natural Gas Pipeline
NOV	Notice of Violation
NPDES	Nation Pollutant Discharge Elimination System
NRM	Natural Resource Manager
NSB	North Slope Borough
OCC	Operations Control Center
OM&OQ	Operations, Maintenance and Operator Qualifications Manual
OPL	Oliktok Pipeline
OQ	Operator Qualification
OSHA	Occupational Safety and Health Administration
P&CM	Pipeline and Civil Maintenance Coordinator
PHA	Process Hazard Analysis
PHMSA	Pipeline and Hazardous Materials Safety Administration
PLMP	Pipeline Milepost

PLQ	Permanent Living Quarters
PPE	Personal Protective Equipment
PS	Pump Station
PSIO	Petroleum Systems Integrity Office
PTEP	Point Thomson Export Pipeline
QAP	Quality Assurance Program
RGV	Remote Gate Valve
ROW	Right-of-Way
RTU	Remote Terminal Unit
SDI	Satellite Drilling Island
SERVS	Ship Escort Response Vessel System
SFMO	State Fire Marshal's Office
SPCO	State Pipeline Coordinator's Office
SR	Strategic Reconfiguration
SWD	Solid Waste Disposal
TAPS	Trans-Alaska Pipeline System
TG	Turbine Generator
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation
VMT	Valdez Marine Terminal
VSM	Vertical Support Member
WWS	Walking Speed Survey

State Pipeline Coordinators Office Staff Resources



State Agency Liaisons						
Lee McKinley ADF&G Habitat Liaison	John Cawthon ADPS Fire Marshal Liaison	Dan O'Barr DOL&WD Electrical Liaison	Ray Elleven DOL&WD Safety Liaison	Graham Wood ADEC Oil Spill Response Liaison	Bill Haese ADEC Oil Spill Response Liaison	Ron Doyel ADEC Liaison

Appendix C: Major Source Documents

1. **Alyeska Pipeline Service Company**. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Mainline Aboveground Support System and Bridges Program. Anchorage: Alyeska Pipeline Service Company, 2012.
2. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Fuel Gas Line Monitoring Program. Anchorage: Alyeska Pipeline Service Company, 2012.
3. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Mainline Integrity Monitoring. Anchorage: Alyeska Pipeline Service Company, 2012.
4. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Pipeline and Valdez Marine Terminal Facilities Corrosion Monitoring. Anchorage: Alyeska Pipeline Service Company, 2012.
5. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Aboveground Storage and Tank Monitoring Program. Anchorage: Alyeska Pipeline Service Company, 2012.
6. Trans Alaska Pipeline System (TAPS) 2011Integrity Management Annual Reports: Rivers, Floodplains, and Glacier Monitoring Program. Anchorage: Alyeska Pipeline Service Company, 2012.
7. Trans Alaska Pipeline System (TAPS) 2011 Integrity Management Annual Reports: Right-of-Way and Civil Monitoring Program. Anchorage: Alyeska Pipeline Service Company, 2012.
8. **BP Transportation (Alaska) Inc**. Badami Pipelines Rights-of-Way: 2011Annual ADNR Surveillance and Monitoring Report. Anchorage: BP Transportation (Alaska) Inc., 2012.
9. **BP Transportation (Alaska) Inc.** Milne Point Pipelines Rights-of-Way: 2011Annual ADNR Surveillance and Monitoring Report. Anchorage: BP Transportation (Alaska) Inc., 2012.
10. **Kuparuk Transportation Company**. 2011 Annual Comprehensive Report on Pipeline Activities for the Kuparuk Pipelines: ADL 402294, and ADL 409027. Anchorage: Kuparuk Transportation Company, 2012.
11. **BP Transportation (Alaska) Inc**. Endicott Pipeline Right-of-Way: 2012 Annual ADNR Surveillance and Monitoring Report. Anchorage: BP Transportation (Alaska) Inc., 2012.
12. **Northstar Pipelines.** Rights-of-Way: 2012 Annual ADNR Surveillance and Monitoring Report. Anchorage: BP Transportation (Alaska) Inc., 2012.
13. **ConocoPhillips**. 2012 Annual Comprehensive Report on Pipeline Activities for the Alpine Pipelines: ADL 414701, ADL 415932, and ADL 415857. Anchorage: ConocoPhillips, 2012.
14. **Marathon Pipe Line Company, LLC**. Kenai Kachemak Pipeline 2012 Annual Report. Kenai: Marathon Pipe Line Company, LLC, 2012.
15. **North Slope Borough**. Nuiqsut Natural Gas Pipeline: Annual Comprehensive Report on Pipeline Activities and the State of the Pipeline System. Anchorage: North Slope Borough, 2012.
16. **Oliktok Pipeline Company**. 2012 Annual Comprehensive Report on Pipeline Activities: Oliktok Pipeline ADL 411731. Anchorage: Oliktok Pipeline Company, 2012.
17. **Tesoro Alaska Pipeline Company**. 2012 Annual Comprehensive Report on Pipeline Activities and State of the Pipeline System for Tesoro Alaska Pipeline Company (Nikiski) Right -of- Way Lease - ADL 69354. San Antonio: Tesoro Refining & Marketing Company, 2012.

Appendix D· Acreage, Survey and Lease Information

ADL #	Pipeline Name	Lease Effective	Lease Expiration	Lessee	Acres on State Land	Survey Number
418997	**Alaska Stand Alone Gas Pipeline**	7/25/2011	7/25/2041	Alaska Gasline Development Corporation	4933[1]	NA
415932	**Alpine Diesel Pipeline**	12/15/1998	12/14/2018	ConocoPhillips Co.	148.45	EPF 2002-40A[2]
415701	**Alpine Oil Pipeline**	12/15/1998	12/14/2018	ConocoPhillips Co.	148.59	EPF 2002-40A[2]
415857[3]	**Alpine Utility Pipeline**	01/06/1999	01/05/2019	ConocoPhillips Co.	148.57	EPF 2002-40A[2]
415472	**Badami Sales Oil Pipeline**	12/15/1997	12/14/2022	BP Transportation (Alaska) Inc.	1240[4]	EPF 2002-18 EPF 2008-09
415965	**Badami Utility Pipeline**	12/15/1997	12/14/2022	BP Transportation (Alaska) Inc.	352.1[4]	EPF 2002-18, 2008-09 & EPF 2008-06 (Pending)
410562	**Endicott Pipeline**	08/05/1986	05/02/2034	Endicott Pipeline Co.	1073.816	ASLS 84-96 EPF 2008-40
228162	**Kenai Kachemak Pipeline**	11/26/2002	11/25/2032	Kenai-Kachemak Pipeline, LLC	104.556	KKPL - EPF 2004-45 HVE - EPF 2005-41 KE - EPF 2007-04
402294	**Kuparuk Pipeline**	08/26/1980	05/02/2034	Kuparuk Transportation Co.	485.64	Tr. A, ASLS 87-15 (Amended) ASLS 2005-35 (0.06 acres)
409027	**Kuparuk Pipeline Extension**	04/18/1983	05/02/2034	Kuparuk Transportation Co.	159.13	Tr. D, ASLS 87-15 (Amended) EPF 2011-12 (Pending, 0.0435 acres.)
410221	**Milne Point Pipeline**	01/15/1985	05/02/2034	Milne Point Pipeline, LLC	186.92	ASLS 84-114
416172	**Milne Point Products Pipeline**	12/05/2000	12/04/2030	Milne Point Pipeline, LLC	186.96[5]	EPF 2007-57
69354	**Nikiski Alaska Pipeline**	01/30/1976	01/29/2031	Tesoro Alaska Pipeline Co.	72.4[6]	ASLS 76-215 EPF 2006-01 (Pending)
230928	**North Fork Pipeline**	09/28/2010	09/27/2040	Anchor Point Energy, LLC	23.06[7]	EPF 2011-37 (Pending)
415975	**Northstar Gas Pipeline**	10/01/1999	09/30/2019	Northstar Pipeline Company, LLC	405.51	EPF 2002-17
415700	**Northstar Oil Pipeline**	10/01/1999	09/30/2019	Northstar Pipeline Company, LLC	419.13	EPF 2002-17
416202	**Nuiqsut Natural Gas Pipeline**	03/15/1999	03/14/2019	North Slope Borough	17.67	As-built Survey approved by DNR on 12/17/2003.
411731	**Oliktok Pipeline**	06/01/1986	05/02/2034	Oliktok Pipeline Co.	485.58	Tr. A , ASLS 87-15 (Amended)
63574	**Trans-Alaska Pipeline System**	05/03/1974	05/02/2034	TAPS Pipeline Owners[8]	6021.87[9]	Multiple Surveys[10]

[1] Alaska Stand Alone Gas Pipeline (ASAP) lease issued in 2011, construction acreage is an estimate; Lease construction width will be 100 ft., operation right-of-way width will be 30 ft.
[2] Acreage for Alpine pipelines taken from amended survey approved February 18, 2011.
[3] ADL 415857 is a right-of-way grant, not a lease.
[4] Acreage based on construction right-of-way acreage from lease, pending release of interest.
[5] Release of interest executed September 20, 2011. Acreage reflected is operational right-of-way.
[6] Encompasses other landowner acreage.
[7] Acreage based on construction right-of-way acreage from lease, pending approval of survey and release of interest.
[8] Owners: BP Pipelines Alaska Inc. (46.93%), Conoco Phillips Alaska Transportation Inc. (28.29%), Exxon/Mobil Pipeline Co. (20.34%), Unocal Pipeline Company (1.36%), Koch Alaska Pipeline Co, LLC (3.08%). Trans-Alaska Pipeline System ownership interest changes will occur during fiscal year 2013
[9] Per Appraisal 3165, DNR Summary of Appraisal dated 7/21/2006, and Memorandum of May 17, 2007, from Review Appraiser to the SPCO to add fuel gas line acreage.
[10] Includes Trans-Alaska Pipeline System centerline survey, surveys of pump stations on State land, and as-built surveys for right-of-way amendments.

Appendix E: Pipeline Right-of-Way Lease Appraisal Information

Pipeline	ADL #	ROW Status	Appraisal Acres	Rental Paid in FY12	Appraisal Annual Rental	Next Appraisal Date
Alpine Diesel[1]	415932	Operations	148.51	$77,629.00	$77,629.00	12/15/2013
Alpine Oil[1]	415701	Operations	148.67	$77,713.00	$77,713.00	12/15/2013
Alpine Utility[1]	415857	Operations	148.65	$77,703.00	$77,703.00	1/6/2014
Badami Sales Oil	415472	Construction	1240	$540,144.00	$540,144.00	12/15/2012
Badami Utility	415965	Construction	352.1	$181,122.00	$181,122.00	12/15/2012
Endicott	410562	Operations	1072.64	$736,655.00	$735,627.00	8/5/2013
Kenai Kachemak	228162	Operations	104.56	$29,709.00	$29,709.00	11/26/2012
Kuparuk (Oil)[2]	402294	Operations	485.58	$84,516.00	$370,347.00	8/26/2013
Kuparuk Extension[2]	409027	Operations	159.09	$31,818.00	$138,599.00	4/18/2013
Milne Point (Oil)	410221	Operations	186.92	$162,845.00	$162,845.00	1/15/2013
Milne Point Products[3]	416172	Operations	186.92	$553,672.00	$553,672.00	12/5/2015
Nikiski Alaska	69354	Operations Construction	64.021 8.375	$53,731.75	$53,731.75	1/30/2014
North Fork	230928	Construction	23.06	$2,194.00	$2194.00	9/28/2015
Northstar Gas	415975	Operations	405.51	$252,429.00	$252,429.00	10/1/2014
Northstar Oil	415700	Operations	419.13	$317,456.00	$317,456.00	10/1/2014
Nuiqsut Natural Gas	416202	Operations	17.67	$11,120.00	$11,120.00	3/15/2014
Oliktok[2]	411731	Operations	485.58	$84,516.00	$370,347.00	1/1/2013
TAPS[2]	63574	Operations	6021.87	$220,956.00	$220,956.00	***
ASAP	318997	Construction	NA	NA	NA	7/25/2012

[1] Current appraisal under appeal. Lessee paying rent for current appraisal pending resolution of appeal and will pay based on acreage in EPF 2002-40A survey during next appraisal period.
[2] Current appraisal under appeal. Lessee paying previously approved rental fees until resolution of appeal.
[3] Release of interest in the construction ROW executed 9-20-2011.

Appendix F: Physical Characteristics of SPCO Jurisdictional Pipelines

Pipeline System	Diameter (Inches)	Normal Wall Thickness (Inches)	Product	Year Constructed	System Length/ Length on State Lands (miles)	Status
Alpine Diesel	2.375	0.156	Product	1998–1999	34.2 / 23.7	Active
Alpine Oil	14	0.312 0.438 @ Colville River	Crude Oil	1998–1999	34.2 / 23.7	Active
Alpine Utility	12.75	0.330	Sea Water	1998–1999	34.2 / 23.7	Active
Badami Sales Oil	12.75[1]	0.281 above ground 0.500 buried	Crude Oil	1998	25.1/ All	Active
Badami Utility	6.625[1]	0.375 above ground 0.432 river crossings	Natural Gas & Product	1998	31 / All	Active
Endicott	16[1]	0.372	Crude Oil	1987	26.1 / All	Active
Kenai Kachemak	12.75[1]	0.330 0.500 @ wetlands	Natural gas	2003–2004	46.2/ 37.3	Active
Kenai Kachemak (Kasilof Extension)	6.625[1]	0.280 0.432 @ HDD	Natural gas	2006	4.2 / 4.1	Active
Kuparuk Pipeline	24 (28 miles) 16 (0.03 miles)	0.406 (28 miles) 0.375 (0.03 miles)	Crude Oil	1984	28 / All	Active
Kuparuk Extension	18	0.375 (5 miles) 0.438 (4 miles)[2]	Crude Oil	1983	9 / All	Active
Milne Point (Oil)	14[1]	0.312	Crude Oil	1984–1985	10.7 / All	Active
Milne Point Product	8[1]	0.277	Natural Gas Liquids	2000	10.4 / All	Suspended[3]
Nikiski Alaska	10.75	0.188 to 0.625	Refined Liquid Petroleum Products	1976	52.5 / 21.5	Active
North Fork	4.5 dual composite (6.3 miles) 4 steel (1.1 miles)	0.61	Natural Gas	2010–2011	7.4 / 6.6	Active
Northstar Gas	10.15[1]	0.307 or 0.274 On Shore 0.594 Subsea	Natural Gas	2000–2001	16.4 / All	Active
Northstar Oil	10.75[1]	0.307 or 0.279 On Shore 0.594 Subsea	Crude Oil	2000–2001	17.4 / All	Active
Nuiqsut Natural Gas	3.5[1]	0.203 0.216 @ Colville Channel Crossing	Natural Gas	1998–1999	14.4 / 2.4	Active
Oliktok	16	0.342 0.75 @ Kuparuk River	Natural Gas	1980–1981	28 / All	Active
Trans-Alaska Pipeline System	48	0.462 (366 miles) 0.562 (334 miles)	Crude Oil	1975–1977	800 / 343 (376 Federal, 80 Private)	Active

[1] Outer diameter

[2] Kuparuk Pipeline Extension – Original construction with wall thickness of 0.375 inches. 12-inch diameter pipe segment replaced with 18-inch diameter pipeline in 2009 with wall thickness of 0.438 inches.

[3] Temporarily discontinued service and disconnected from pipeline system in 2006.

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
11-SPCO-S-193	415932	Alpine Diesel	Stipulation	1.4	Quality Assurance	SAT
11-SPCO-S-194	415932	Alpine Diesel	Stipulation	1.6	Surveillance and Monitoring	SAT
11-SPCO-S-195	415932	Alpine Diesel	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-033	415932	Alpine Diesel	Stipulation	1.9	Fire Prevention and Suppression	SAT
12-SPCO-S-034	415932	Alpine Diesel	Stipulation	1.12	Use of Existing Facilities	SAT
12-SPCO-S-035	415932	Alpine Diesel	Stipulation	2.1	Environmental Briefings	SAT
12-SPCO-S-036	415932	Alpine Diesel	Stipulation	2.2	Thermal Pollution	SAT
12-SPCO-S-037	415932	Alpine Diesel	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-038	415932	Alpine Diesel	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-039	415932	Alpine Diesel	Stipulation	2.5	Zones of Restricted Activities	SAT
12-SPCO-S-040	415932	Alpine Diesel	Stipulation	2.6	Big Game Movements	SAT
12-SPCO-S-041	415932	Alpine Diesel	Stipulation	2.7	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-042	415932	Alpine Diesel	Stipulation	2.1	Lessee Shall Stabilize, Revegetate and Restore Disturbed Areas	SAT
12-SPCO-S-043	415932	Alpine Diesel	Stipulation	2.11	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-044	415932	Alpine Diesel	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-045	415932	Alpine Diesel	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-046	415932	Alpine Diesel	Stipulation	2.14	Waste Removal	SAT
12-SPCO-S-047	415932	Alpine Diesel	Stipulation	3.1	Pipeline Systems Standards	SAT
12-SPCO-S-048	415932	Alpine Diesel	Stipulation	3.2	Pipeline Corrosion	SAT
12-SPCO-S-070	415932	Alpine Diesel	Stipulation	1.14	Reporting	SAT
11-SPCO-S-173	415701	Alpine Oil	Stipulation	1.2.1	Communications	SAT
11-SPCO-S-174	415701	Alpine Oil	Stipulation	1.4.1	Quality Assurance	SAT
11-SPCO-S-187	415701	Alpine Oil	Stipulation	1.4	Quality Assurance	SAT
11-SPCO-S-188	415701	Alpine Oil	Stipulation	1.6	Surveillance and Monitoring	SAT
11-SPCO-S-189	415701	Alpine Oil	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-001	415701	Alpine Oil	Stipulation	1.9	Fire Prevention and Suppression	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-002	415701	Alpine Oil	Stipulation	1.12	Use of Existing Facilities	SAT
12-SPCO-S-003	415701	Alpine Oil	Stipulation	2.1	Environmental Briefings	SAT
12-SPCO-S-004	415701	Alpine Oil	Stipulation	2.2	Thermal Pollution	SAT
12-SPCO-S-005	415701	Alpine Oil	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-006	415701	Alpine Oil	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-007	415701	Alpine Oil	Stipulation	2.5	Zones of Restricted Activities	SAT
12-SPCO-S-008	415701	Alpine Oil	Stipulation	2.6	Big Game Movements	SAT
12-SPCO-S-009	415701	Alpine Oil	Stipulation	2.7	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-010	415701	Alpine Oil	Stipulation	2.1	Lessee Shall Stabilize, Revegetate and Restore Disturbed Areas	SAT
12-SPCO-S-011	415701	Alpine Oil	Stipulation	2.11	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-012	415701	Alpine Oil	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-013	415701	Alpine Oil	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-014	415701	Alpine Oil	Stipulation	2.14	Waste Removal	SAT
12-SPCO-S-015	415701	Alpine Oil	Stipulation	3.1	Pipeline Systems Standards	SAT
12-SPCO-S-016	415701	Alpine Oil	Stipulation	3.2	Pipeline Corrosion	SAT
12-SPCO-S-071	415701	Alpine Oil	Stipulation	1.14	Reporting	SAT
11-SPCO-S-190	415857	Alpine Utility	Stipulation	1.4	Quality Assurance	SAT
11-SPCO-S-191	415857	Alpine Utility	Stipulation	1.6	Surveillance and Monitoring	SAT
11-SPCO-S-192	415857	Alpine Utility	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-072	415857	Alpine Utility	Stipulation	1.14	Reporting	SAT
12-SPCO-S-017	415867	Alpine Utility	Stipulation	1.9	Fire Prevention and Suppression	SAT
12-SPCO-S-018	415867	Alpine Utility	Stipulation	1.12	Use of Existing Facilities	SAT
12-SPCO-S-019	415867	Alpine Utility	Stipulation	2.1	Environmental Briefings	SAT
12-SPCO-S-020	415867	Alpine Utility	Stipulation	2.2	Thermal Pollution	SAT
12-SPCO-S-021	415867	Alpine Utility	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-022	415867	Alpine Utility	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-023	415867	Alpine Utility	Stipulation	2.5	Zones of Restricted Activities	SAT
12-SPCO-S-024	415867	Alpine Utility	Stipulation	2.6	Big Game Movements	SAT
12-SPCO-S-025	415867	Alpine Utility	Stipulation	2.7	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-026	415867	Alpine Utility	Stipulation	2.1	Grantee Shall Stabilize, Revegetate and Restore Disturbed Areas	SAT
12-SPCO-S-027	415867	Alpine Utility	Stipulation	2.11	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-028	415867	Alpine Utility	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-029	415867	Alpine Utility	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-030	415867	Alpine Utility	Stipulation	2.14	Waste Removal	SAT
12-SPCO-S-031	415867	Alpine Utility	Stipulation	3.1	Pipeline Systems Standards	SAT
12-SPCO-S-032	415867	Alpine Utility	Stipulation	3.2	Pipeline Corrosion	SAT
12-SPCO-S-095	415742	Badami Oil	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-096	415742	Badami Oil	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-097	415742	Badami Oil	Section	18(b)	Orders by the Commissioner	SAT
12-SPCO-S-098	415742	Badami Oil	Section	28	Local Hire	SAT
12-SPCO-S-099	415742	Badami Oil	Section	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-100	415965	Badami Utility	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-101	415965	Badami Utility	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-102	415965	Badami Utility	Section	18(b)	Orders by the Commissioner	SAT
12-SPCO-S-103	415965	Badami Utility	Section	28	Local Hire	SAT
12-SPCO-S-104	415965	Badami Utility	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-105	410562	Endicott	Section	4(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-106	410562	Endicott	Section	10(a)	Duty of Lessee to Prevent or Abate	SAT
12-SPCO-S-107	410562	Endicott	Stipulation	1.3	Responsibilities	SAT
12-SPCO-S-108	410562	Endicott	Stipulation	1.1	Surveillance and Monitoring	SAT
11-SPCO-S-181	228162	KKPL	Section	6(a)	Reservation of Certain Rights to the State	SAT
11-SPCO-S-182	228162	KKPL	Section	8(c)(d)(h	Covenants of the Lessee	SAT
11-SPCO-S-183	228162	KKPL	Section	15(b)	Conduct of Operations	SAT
11-SPCO-S-184	228162	KKPL	Section	20	Information	SAT
11-SPCO-S-185	228162	KKPL	Stipulation	1.6	Surveillance and Monitoring	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
11-SPCO-S-186	228162	KKPL	Stipulation	1.11	Regulation of Access	SAT
12-SPCO-S-063	228162	KKPL	Section	6(a)	Reservation of Certain Rights to the State	SAT
12-SPCO-S-064	228162	KKPL	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-065	228162	KKPL	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-066	228162	KKPL	Section	20	Information	SAT
12-SPCO-S-067	228162	KKPL	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-068	228162	KKPL	Stipulation	1.11	Regulation of Access	SAT
12-SPCO-S-069	228162	KKPL	Stipulation	2.4	Big Game Movements	SAT
12-SPCO-S-090	228162	KKPL	Section	8(c)(d)	Covenants of Lessee	SAT
12-SPCO-S-091	228162	KKPL	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-092	228162	KKPL	Section	20	Information	SAT
12-SPCO-S-093	228162	KKPL	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-094	228162	KKPL	Stipulation	1.13	Regulation of Access	SAT
12-SPCO-S-078	402294	Kuparuk	Section	4(c)	Covenants by lessee	SAT
12-SPCO-S-079	402294	Kuparuk	Stipulation	1.3.3	Responsibilities	SAT
12-SPCO-S-080	402294	Kuparuk	Stipulation	1.8.3	Quality Assurance and Control	SAT
12-SPCO-S-081	402294	Kuparuk	Stipulation	1.10.1	Surveillance and Monitoring	SAT
11-SPCO-S-196	402294	Kuparuk	Section	10	Duty of Lessee to Prevent or Abate	SAT
11-SPCO-S-197	402294	Kuparuk	Stipulation	1.8	Quality Assurance and Control	SAT
11-SPCO-S-198	402294	Kuparuk	Stipulation	1.1	Surveillance and Monitoring	SAT
11-SPCO-S-199	402294	Kuparuk	Stipulation	1.11	Health and Safety	SAT
11-SPCO-S-200	402294	Kuparuk	Stipulation	3.4	Pipeline Corrosion	SAT
12-SPCO-S-074	409027	Kuparuk Extension	Section	4(c)	Covenants by lessee	SAT
12-SPCO-S-075	409027	Kuparuk Extension	Stipulation	1.3.3	Responsibilities	SAT
12-SPCO-S-076	409027	Kuparuk Extension	Stipulation	1.8.3	Quality Assurance and Control	SAT
12-SPCO-S-077	409027	Kuparuk Extension	Stipulation	1.10.1	Surveillance and Monitoring	SAT
12-SPCO-S-174	409027	Kuparuk Extension	Stipulation	1.2	Applicability	SAT
12-SPCO-S-175	409027	Kuparuk Extension	Stipulation	1.12	Public and Private Improvements	SAT
12-SPCO-S-176	409027	Kuparuk Extension	Stipulation	1.13	Survey Monuments	SAT
12-SPCO-S-177	409027	Kuparuk Extension	Stipulation	1.15	Electronically Operated Devices	SAT
12-SPCO-S-178	409027	Kuparuk Extension	Stipulation	1.18	Use of Existing Facilities	SAT
12-SPCO-S-179	409027	Kuparuk Extension	Stipulation	2.1	Environmental Briefings	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-180	409027	Kuparuk Extension	Stipulation	2.2	Pollution Control	SAT
12-SPCO-S-181	409027	Kuparuk Extension	Stipulation	2.2.2	Water and Land Pollution	SAT
12-SPCO-S-182	409027	Kuparuk Extension	Stipulation	2.2.3	Sanitation and Waste Disposal	SAT
12-SPCO-S-183	409027	Kuparuk Extension	Stipulation	2.2.4	Ice Fog	SAT
12-SPCO-S-184	409027	Kuparuk Extension	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-185	409027	Kuparuk Extension	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-186	409027	Kuparuk Extension	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-187	409027	Kuparuk Extension	Stipulation	2.4.5	Zones of Restricted Activities	SAT
12-SPCO-S-188	409027	Kuparuk Extension	Stipulation	2.4.6	Big Game Movements	SAT
12-SPCO-S-189	409027	Kuparuk Extension	Stipulation	2.6	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-190	409027	Kuparuk Extension	Stipulation	2.10	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-191	409027	Kuparuk Extension	Stipulation	2.11	Pipeline Operating Contingency Plan	SAT
12-SPCO-S-192	409027	Kuparuk Extension	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-193	409027	Kuparuk Extension	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-194	409027	Kuparuk Extension	Stipulation	3.1	Pipeline System Standards - General	SAT
12-SPCO-S-195	409027	Kuparuk Extension	Stipulation	3.1.2	Specific Standards	SAT
12-SPCO-S-196	409027	Kuparuk Extension	Stipulation	3.1.3	Standards for Roads	SAT
12-SPCO-S-197	409027	Kuparuk Extension	Stipulation	3.2	Work Pad	SAT
12-SPCO-S-198	409027	Kuparuk Extension	Stipulation	3.3	Stream and Flood Plain Crossing	SAT
12-SPCO-S-199	409027	Kuparuk Extension	Stipulation	3.3.2	Culverts and Bridges	SAT
12-SPCO-S-239	409027	Kuparuk Extension	Section	10	Duty of Lessee to Prevent or Abate	SAT
12-SPCO-S-240	409027	Kuparuk Extension	Stipulation	1.4	Communications	SAT
12-SPCO-S-241	409027	Kuparuk Extension	Stipulation	1.8	Quality Assurance and Control	SAT
12-SPCO-S-242	409027	Kuparuk Extension	Stipulation	1.9	Conduct of Operations	SAT
12-SPCO-S-243	409027	Kuparuk Extension	Stipulation	1.1	Surveillance and Monitoring	SAT
12-SPCO-S-244	409027	Kuparuk Extension	Stipulation	1.11	Health and Safety	SAT
12-SPCO-S-245	409027	Kuparuk Extension	Stipulation	1.15	Electronically Operated Devices	SAT
12-SPCO-S-245	409027	Kuparuk Extension	Stipulation	1.17	Regulation of Access	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-246	409027	Kuparuk Extension	Stipulation	3.4	Pipeline Corrosion	SAT
12-SPCO-S-148	402294	Kuparuk Pipeline	Stipulation	1.2	Applicability	SAT
12-SPCO-S-149	402294	Kuparuk Pipeline	Stipulation	1.12	Public and Private Improvements	SAT
12-SPCO-S-150	402294	Kuparuk Pipeline	Stipulation	1.13	Survey Monuments	SAT
12-SPCO-S-151	402294	Kuparuk Pipeline	Stipulation	1.15	Electronically Operated Devices	SAT
12-SPCO-S-152	402294	Kuparuk Pipeline	Stipulation	1.18	Use of Existing Facilities	SAT
12-SPCO-S-153	402294	Kuparuk Pipeline	Stipulation	2.1	Environmental Briefings	SAT
12-SPCO-S-154	402294	Kuparuk Pipeline	Stipulation	2.2	Pollution Control	SAT
12-SPCO-S-155	402294	Kuparuk Pipeline	Stipulation	2.2.2	Water and Land Pollution	SAT
12-SPCO-S-156	402294	Kuparuk Pipeline	Stipulation	2.2.3	Sanitation and Waste Disposal	SAT
12-SPCO-S-157	402294	Kuparuk Pipeline	Stipulation	2.2.4	Ice Fog	SAT
12-SPCO-S-158	402294	Kuparuk Pipeline	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-159	402294	Kuparuk Pipeline	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-160	402294	Kuparuk Pipeline	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-161	402294	Kuparuk Pipeline	Stipulation	2.4.5	Zones of Restricted Activities	SAT
12-SPCO-S-162	402294	Kuparuk Pipeline	Stipulation	2.4.6	Big Game Movements	SAT
12-SPCO-S-163	402294	Kuparuk Pipeline	Stipulation	2.6	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-164	402294	Kuparuk Pipeline	Stipulation	2.10	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-165	402294	Kuparuk Pipeline	Stipulation	2.11	Pipeline Operating Contingency Plan	SAT
12-SPCO-S-166	402294	Kuparuk Pipeline	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-167	402294	Kuparuk Pipeline	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-168	402294	Kuparuk Pipeline	Stipulation	3.1	Pipeline Systems Standards - General	SAT
12-SPCO-S-169	402294	Kuparuk Pipeline	Stipulation	3.1.2	Specific Standards	SAT
12-SPCO-S-170	402294	Kuparuk Pipeline	Stipulation	3.1.3	Standards for Roads	SAT
12-SPCO-S-171	402294	Kuparuk Pipeline	Stipulation	3.2	Work Pad	SAT
12-SPCO-S-172	402294	Kuparuk Pipeline	Stipulation	3.3	Stream and Flood Plain Crossing	SAT
12-SPCO-S-173	402294	Kuparuk Pipeline	Stipulation	3.3.2	Culverts and Bridges	SAT
12-SPCO-S-109	410221	Milne Oil	Section	4(c)(d)(h	Covenants of Lessee	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-110	410221	Milne Oil	Section	10 (a)	Duty of Lessee to Prevent or Abate	SAT
12-SPCO-S-111	410221	Milne Oil	Stipulation	1.3	Responsibilities	SAT
12-SPCO-S-112	410221	Milne Oil	Stipulation	1.1	Surveillance and Monitoring	SAT
12-SPCO-S-113	416172	Milne Products	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-114	416172	Milne Products	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-115	416172	Milne Products	Section	20	Information	SAT
12-SPCO-S-116	416172	Milne Products	Section	32	Local Hire	SAT
12-SPCO-S-117	416172	Milne Products	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-118	416172	Milne Products	Stipulation	1.13	Reporting	SAT
11-SPCO-S-201	69354	Nikiski	Section	6	Books, Accounts and Records; Access to Property and Records	SAT
11-SPCO-S-202	69354	Nikiski	Section	9	Damage or Destruction of Leasehold or Other Property	SAT
11-SPCO-S-203	69354	Nikiski	Section	17(a)	Reservation of Certain Rights to the State	SAT
11-SPCO-S-204	69354	Nikiski	Section	19(a)	Duty of Lessee to Prevent or Abate	SAT
11-SPCO-S-205	69354	Nikiski	Stipulation	1.15	Surveillance and Monitoring	SAT
11-SPCO-S-206	69354	Nikiski	Stipulation	1.16	Conduct of Operations	SAT
11-SPCO-S-207	69354	Nikiski	Stipulation	2.2.1.1	Erosion Control	SAT
11-SPCO-S-208	69354	Nikiski	Stipulation	2.2.3.1	Stream, River and Inlet Crossings	SAT
11-SPCO-S-209	69354	Nikiski	Stipulation	2.2.4.1	Seeding	SAT
11-SPCO-S-210	69354	Nikiski	Stipulation	2.5	Restoration	SAT
12-SPCO-S-073	69354	Nikiski	Section	6	Reservation of Certain Rights to the State	SAT
12-SPCO-S-086	69354	Nikiski	Section	19	Duty of Lessee to Prevent or Abate	SAT
12-SPCO-S-087	69354	Nikiski	Stipulation	1.3	Commissioner	SAT
12-SPCO-S-088	69354	Nikiski	Stipulation	1.15	Surveillance and Monitoring	SAT
12-SPCO-S-089	69354	Nikiski	Stipulation	3.3	Earthquakes	SAT
12-SPCO-S-143	69354	Nikiski	Section	9	Damage or Destruction of Leasehold or Other Property	SAT
12-SPCO-S-144	69354	Nikiski	Section	17	Reservation of Certain Rights to the State	SAT
12-SPCO-S-145	69354	Nikiski	Stipulation	1.12	Regulation of Public Access	SAT
12-SPCO-S-146	69354	Nikiski	Stipulation	1.15	Surveillance and Monitoring	SAT
12-SPCO-S-147	69354	Nikiski	Stipulation	1.16	Conduct of Operations	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
11-SPCO-S-160	230928	North Fork	Section	6(a)	Reservation of Certain Rights to the State	SAT
11-SPCO-S-161	230928	North Fork	Section	8(d)(h)	Covenants of the Lessee	SAT
11-SPCO-S-162	230928	North Fork	Section	32	Local Hire	SAT
11-SPCO-S-163	230928	North Fork	Stipulation	1.11.2	Regulation of Access	SAT
11-SPCO-S-164	230928	North Fork	Stipulation	1.13.2	Reporting	SAT
11-SPCO-S-165	230928	North Fork	Stipulation	2.3.2	Fish and Wildlife Protection	SAT
11-SPCO-S-166	230928	North Fork	Stipulation	2.6.2	Lessee Shall Stabilize, Revegetate and Restore Disturbed Areas	SAT
12-SPCO-S-049	230928	North Fork	Section	6(a)	Reservation of Certain Rights to the State	SAT
12-SPCO-S-050	230928	North Fork	Section	7(a)	Access to Navigable and Public Waters	SAT
12-SPCO-S-051	230928	North Fork	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-052	230928	North Fork	Section	14(d)	Plans and Permitting	SAT
12-SPCO-S-053	230928	North Fork	Section	15(a)(c)	Conduct of Operations	SAT
12-SPCO-S-054	230928	North Fork	Section	20	Information	SAT
12-SPCO-S-055	230928	North Fork	Section	32	Local Hire	SAT
12-SPCO-S-056	230928	North Fork	Section	40	Compliance	SAT
12-SPCO-S-057	230928	North Fork	Stipulation	1.2	Communication	SAT
12-SPCO-S-058	230928	North Fork	Stipulation	1.4	Quality Assurance	SAT
12-SPCO-S-059	230928	North Fork	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-060	230928	North Fork	Stipulation	1.11	Regulation of Access	SAT
12-SPCO-S-061	230928	North Fork	Stipulation	2.2	Erosion and Sedimentation Control	SAT
12-SPCO-S-062	230928	North Fork	Stipulation	2.3	Fish and Wildlife Protection	SAT
12-SPCO-S-137	230928	North Fork	Section	8(c)(d)(h	Covenants of Lessee	SAT
12-SPCO-S-138	230928	North Fork	Section	15(c)	Conduct of Operations	SAT
12-SPCO-S-139	230928	North Fork	Section	16(a)	Environmental Compliance	SAT
12-SPCO-S-140	230928	North Fork	Section	20	Information	SAT
12-SPCO-S-141	230928	North Fork	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-142	230928	North Fork	Stipulation	1.13	Reporting	SAT
12-SPCO-S-119	415975	Northstar Gas	Section	8(c)	Covenants of Lessee	SAT
12-SPCO-S-120	415975	Northstar Gas	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-121	415975	Northstar Gas	Section	20	Information	SAT
12-SPCO-S-122	415975	Northstar Gas	Section	32	Local Hire	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-123	415975	Northstar Gas	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-124	415975	Northstar Gas	Stipulation	1.14	Reporting	SAT
12-SPCO-S-125	415700	Northstar Oil	Section	8(c)	Covenants of Lessee	SAT
12-SPCO-S-126	415700	Northstar Oil	Section	15(b)	Conduct of Operations	SAT
12-SPCO-S-127	415700	Northstar Oil	Section	20	Information	SAT
12-SPCO-S-128	415700	Northstar Oil	Section	32	Local Hire	SAT
12-SPCO-S-129	415700	Northstar Oil	Stipulation	1.6	Surveillance and Monitoring	SAT
12-SPCO-S-130	415700	Northstar Oil	Stipulation	1.14	Reporting	SAT
12-SPCO-S-238	416202	Nuiqsut	Stipulation	3.1.2	Specific Standards	SAT
11-SPCO-S-167	416202	Nuiqsut	Section	14(d)	Plans and Permitting	SAT
11-SPCO-S-168	416202	Nuiqsut	Section	15(b)	Conduct of Operations	SAT
11-SPCO-S-169	416202	Nuiqsut	Stipulation	1.6.1	Surveillance and Monitoring	SAT
11-SPCO-S-170	416202	Nuiqsut	Stipulation	1.13.2	Storage	SAT
11-SPCO-S-171	416202	Nuiqsut	Stipulation	2.3.1.1 &	Erosion and Sedimentation Control	SAT
11-SPCO-S-172	416202	Nuiqsut	Stipulation	2.8.1	Right-of-Way Traffic	SAT
11-SPCO-S-175	416202	Nuiqsut	Section	15	Conduct of Operations	SAT
11-SPCO-S-178	416202	Nuiqsut	Stipulation	1.13	Storage	SAT
11-SPCO-S-179	416202	Nuiqsut	Stipulation	2.3	Erosion and Sedimentation Control	SAT
11-SPCO-S-180	416202	Nuiqsut	Stipulation	2.8.1	Right-of-Way Traffic	SAT
12-SPCO-S-131	416202	Nuiqsut	Section	14(d)	Plans and Permitting	SAT
12-SPCO-S-132	416202	Nuiqsut	Stipulation	1.4.1	Quality Assurance	SAT
12-SPCO-S-133	416202	Nuiqsut	Stipulation	1.6.1	Surveillance and Monitoring	SAT
12-SPCO-S-134	416202	Nuiqsut	Stipulation	1.13.1	Storage	SAT
12-SPCO-S-135	416202	Nuiqsut	Stipulation	2.8.1	Right-of-Way Traffic	SAT
12-SPCO-S-136	416202	Nuiqsut	Stipulation	1.14.1	Reporting	SAT
12-SPCO-S-226	416202	Nuiqsut	Stipulation	1.8	Survey Monuments	SAT
12-SPCO-S-227	416202	Nuiqsut	Stipulation	1.12	Use of Existing Facilities	SAT
12-SPCO-S-228	416202	Nuiqsut	Stipulation	2.2	Thermal Pollution	SAT
12-SPCO-S-229	416202	Nuiqsut	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-230	416202	Nuiqsut	Stipulation	2.4	Fish and Wildlife Protection	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-231	416202	Nuiqsut	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-232	416202	Nuiqsut	Stipulation	2.5	Zones of Restricted Activities	SAT
12-SPCO-S-233	416202	Nuiqsut	Stipulation	2.6	Big Game Movements	SAT
12-SPCO-S-234	416202	Nuiqsut	Stipulation	2.7	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-235	416202	Nuiqsut	Stipulation	2.12	Cultural Resources	SAT
12-SPCO-S-236	416202	Nuiqsut	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-237	416202	Nuiqsut	Stipulation	3.1	Pipeline System Standards	SAT
12-SPCO-S-200	411731	Oliktok Pipeline	Stipulation	1.2	Applicability	SAT
12-SPCO-S-201	411731	Oliktok Pipeline	Stipulation	1.12	Public and Private Improvements	SAT
12-SPCO-S-202	411731	Oliktok Pipeline	Stipulation	1.13	Survey Monuments	SAT
12-SPCO-S-203	411731	Oliktok Pipeline	Stipulation	1.15	Electronically Operated Devices	SAT
12-SPCO-S-204	411731	Oliktok Pipeline	Stipulation	1.18	Use of Existing Facilities	SAT
12-SPCO-S-205	411731	Oliktok Pipeline	Stipulation	2.1	Environmental Briefings	SAT
12-SPCO-S-206	411731	Oliktok Pipeline	Stipulation	2.2	Pollution Control	SAT
12-SPCO-S-207	411731	Oliktok Pipeline	Stipulation	2.2.2	Water and Land Pollution	SAT
12-SPCO-S-208	411731	Oliktok Pipeline	Stipulation	2.2.3	Sanitation and Waste Disposal	SAT
12-SPCO-S-209	411731	Oliktok Pipeline	Stipulation	2.2.4	Ice Fog	SAT
12-SPCO-S-210	411731	Oliktok Pipeline	Stipulation	2.3.2	Crossings of Streams, Rivers, Flood Plains and Wetlands	SAT
12-SPCO-S-211	411731	Oliktok Pipeline	Stipulation	2.4	Fish and Wildlife Protection	SAT
12-SPCO-S-212	411731	Oliktok Pipeline	Stipulation	2.4.4	Fish Spawning Beds, Fish Rearing Areas, and Overwintering Areas	SAT
12-SPCO-S-213	411731	Oliktok Pipeline	Stipulation	2.4.5	Zones of Restricted Activities	SAT
12-SPCO-S-214	411731	Oliktok Pipeline	Stipulation	2.4.6	Big Game Movements	SAT
12-SPCO-S-215	411731	Oliktok Pipeline	Stipulation	2.6	Disturbance or Use of Natural Waters	SAT
12-SPCO-S-216	411731	Oliktok Pipeline	Stipulation	2.10	Reporting, Prevention, Control, Cleanup, and Disposal of Oil and Hazardous Substance Discharges	SAT
12-SPCO-S-217	411731	Oliktok Pipeline	Stipulation	2.11	Pipeline Operating Contingency Plan	SAT
12-SPCO-S-218	411731	Oliktok Pipeline	Stipulation	2.12	Cultural Resources	SAT

SPCO/DNR FY12 Surveillance Reports (by pipeline)

Surveillance Number	ADL	Pipeline (PLMP #)	Section/Stipulation	#	Title	Observation
12-SPCO-S-219	411731	Oliktok Pipeline	Stipulation	2.13	Hunting, Fishing, and Trapping	SAT
12-SPCO-S-220	411731	Oliktok Pipeline	Stipulation	3.1	Pipeline Systems Standards - General	SAT
12-SPCO-S-221	411731	Oliktok Pipeline	Stipulation	3.1.2	Specific Standards	SAT
12-SPCO-S-222	411731	Oliktok Pipeline	Stipulation	3.1.3	Standards for Roads	SAT
12-SPCO-S-223	411731	Oliktok Pipeline	Stipulation	3.2	Work Pad	SAT
12-SPCO-S-224	411731	Oliktok Pipeline	Stipulation	3.3	Stream and Flood Plain Crossing	SAT
12-SPCO-S-225	411731	Oliktok Pipeline	Stipulation	3.3.2	Culverts and Bridges	SAT
12-SPCO-S-082	411731	Oliktok Pipeline	Section	4(c)	Covenants by lessee	SAT
12-SPCO-S-083	411731	Oliktok Pipeline	Stipulation	1.3.3	Responsibilities	SAT
12-SPCO-S-084	411731	Oliktok Pipeline	Stipulation	1.8.3	Quality Assurance and Control	SAT
12-SPCO-S-085	411731	Oliktok Pipeline	Stipulation	1.10.1	Surveillance and Monitoring	SAT

SPCO/DNR FY12 Compliance Reports and Assessments (by pipeline)

Report/Assessment Number	Pipeline System	Topic	Signed Date
11-SPCO-A-001	TAPS	An Assessment of APSC Maintenance Work Prioritization Process	9/2/2011
11-SPCO-R-021	TAPS	TAPS PS 1-9	8/5/2011
11-SPCO-R-022	North Fork	North Fork ROW Surveillance	8/4/2011
11-SPCO-R-023	Nuiqsut	Nuiqsut	9/2/2011
11-SPCO-R-024	Nuiqsut	Nuiqsut Follow-up	10/20/2011
11-SPCO-R-025	Kenai Kachemak Pipeline	KKPL Aerial Surveillance	9/9/2011
11-SPCO-R-026	TAPS	TAPS July Shutdown PS 01	9/12/2011
11-SPCO-R-027	Alpine & Kuparuk	Alpine & Kuparuk Pipelines	10/5/2011
11-SPCO-R-028	TAPS	TAPS Tags at PS3	10/21/2011
11-SPCO-R-029	TAPS	TAPS Vents Excavation Surveillance	9/29/2011
11-SPCO-R-030	Tesoro	Tesoro ROW Surveillance	10/3/2011
11-SPCO-R-031	Alpine	Alpine Mutual Aid Drill	10/28/2011
11-SPCO-R-032	TAPS	TAPS PS7 Project Work	12/7/2011
11-SPCO-R-033	TAPS	TAPS CP project work	12/7/2011
11-SPCO-R-034	TAPS	TAPS ROW report	1/31/2012
12-SPCO-A-001	TAPS	2011 ROW Surveillance Conditions refernce with ROMIS	6/20/2012
12-SPCO-R-001	North Fork	North Fork	1/25/2012
12-SPCO-R-002	Kenai Kachemak Pipeline	Kenai Kachemak	3/5/2012
12-SPCO-R-003	TAPS	TAPS Integrity Dig Sag River	4/17/2012
12-SPCO-R-004	Nuiqsut	Nuiqsut Field Visit	4/30/2012
12-SPCO-R-005	Nikiski Alaska Pipeline	Nikiski Alaska Pipeline	6/11/2012
12-SPCO-R-006	TAPS	TAPS PS05 Bypass	6/29/2012
12-SPCO-R-007	TAPS	TAPS ROW Surveillance	6/28/2012
12-SPCO-R-008	Kuparuk Pipeline Extension	KPE In Line Inspection	7/5/2012
12-SPCO-R-009	TAPS	TAPS PS 1 shutdown and valve removal	7/27/2012
12-SPCO-R-010	TAPS	TAPS ROW & Squirrel Creek VSM	8/3/2012

SPCO/DNR FY12 Engineering Opinions and Reports

Report/Assessment Number	ADL	Pipeline	Title
11-SPCO-E-007		Kuparuk	Kuparuk Spring Breakup Trip Report
11-SPCO-E-008	n/a	Prudhoe Bay Pipelir	Prudhoe Bay
12-SPCO-E-001	63574	TAPS	Pump stations 5, 7, 9, 12, and GRB Cold Weather Operations and Cold Restart Report
12-SPCO-E-002	63574	TAPS	Alpine Trip Report

SPCO/DNR 12 TAPS Surveillance Reports

Surveillance Number	ADL	Section/Stipulation	#	Title	Observation
11-TAPS-S-026	63574	Section	1(c)	Grant of Right of Way	SAT
11-TAPS-S-050	63574	Section	17(a)	Reservation of Certain Rights to the State	SAT
11-TAPS-S-070	63574	Section	22(a)	Duty of Lessees to Prevate or Abate	SAT
11-TAPS-S-071	63574	Stipulation	1.21.1	Conduct of Operations	SAT
11-TAPS-S-073	63574	Section	6(a)	Books, Accounts and Records; Access to Property and Records	SAT
11-TAPS-S-074	63574	Stipulation	3.2.1.1	General Standards	SAT
11-TAPS-S-132	ADL 418015	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-133	ADL 418032	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-134	ADL 418015, LAS 26926	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-135	LAS 27194	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-136	LAS 28031	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-137	LAS 28031	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-142	LAS 27195	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-146	ADL 418605	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-147	ADL 418666	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-148	ADL 418665	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-149	ADL 418278	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-150	ADL 418013	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-151	ADL 418664	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-152	N/A	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-153	ADL 418012	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-154	418676	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-155	LAS 27192	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-156	ADL 230398	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-157	ADL 230047, LAS 26031	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-158	ADL 230711, LAS 26031	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-159	ADL 230560, LAS 25565	Stipulation	2.6	Material Sales	SAT

SPCO/DNR 12 TAPS Surveillance Reports

Surveillance Number	ADL	Section/Stipulation	#	Title	Observation
11-TAPS-S-160	ADL 230710	Stipulation	2.6	Material Sales	SAT
11-TAPS-S-184	63574	Section	6	Books, Accounts and Records	SAT
11-TAPS-S-185	63574	Section	17	Reservation of Certain Rights to the State	SAT
11-TAPS-S-186	63574	Section	22	Duty of Lessees to Prevate or Abate	SAT
11-TAPS-S-187	63574	Stipulation	1.21	Conduct of Operations	SAT
11-TAPS-S-219	63574	Section	22a	Duty of Lessees to Prevate or Abate	SAT
11-TAPS-S-220	63574	Stipulation	2.2.2.2	Water and Land Pollution	SAT
11-TAPS-S-221	63574	Section	16(c)	Construction Plans and Quality Assurance	SAT
11-TAPS-S-222	63574	Section	10(a)	Damage or Destruction of Leashold or Other Property	SAT
11-TAPS-S-223	63574	Section	16(c)	Construction Plans and Quality Assurance	SAT
11-TAPS-S-224	63574	Stipulation	1.11.1	Public Improvements	SAT
11-TAPS-S-225	63574	Stipulation	1.12.3	Regulation of Public Access	SAT
11-TAPS-S-226	63574	Stipulation	1.18.1	Surveillance and Maintenance	SAT
11-TAPS-S-227	63574	Stipulation	2.2.2.2	Water and Land Pollution	SAT
11-TAPS-S-228	63574	Stipulation	2.4.1.1	Erosion Control	SAT
11-TAPS-S-229	63574	Stipulation	2.4.1.3	Erosion Control	SAT
11-TAPS-S-230	63574	Stipulation	2.4.2.2	Stablization	SAT
11-TAPS-S-231	63574	Stipulation	2.5.4.1	Big Game Movement	SAT
11-TAPS-S-232	63574	Stipulation	2.8.1	Disturbance of Natural Water	SAT
12-TAPS-S-019	63574	Stipulation	1.2.3	Responsibilities	SAT
12-TAPS-S-020	63574	Stipulation	2.4.3.1	Crossings of Streams, Rivers or Flood Plains	SAT
12-TAPS-S-021	63574	Stipulation	2.13.1	Reporting of Oil Product Discharge	SAT
12-TAPS-S-022	63574	Stipulation	2.13.2	Reporting of Oil Product Discharge	SAT
12-TAPS-S-041	63574	Section	16c	Construction Plans and Quality Assurance	SAT
12-TAPS-S-042	63574	Section	22a	Duty of Lessees to Prevate or Abate	SAT
12-TAPS-S-043	63574	Stipulation	1.21.1	Conduct of Operations	SAT

SPCO/DNR 12 TAPS Surveillance Reports

Surveillance Number	ADL	Section/Stipulation	#	Title	Observation
12-TAPS-S-044	63574	Section	10(a)	Damage or Destruction of Leashold or Other Property	SAT
12-TAPS-S-045	63574	Stipulation	1.21	Conduct of Operations	SAT

SPCO/ADF&G FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-053	63574	PLMP 679.9	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841, and Fish Habitat Permit FH 10-SPO-0018	SAT
11-TAPS-S-054	63574	PLMP 680.1	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-055	63574	PLMP 672.49	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-056	63574	PLMP 659.69	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-057	63574	PLMP 642.48	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-058	63574	PLMP 485.7	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-059	63574	PLMP 485.5	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-060	63574	PLMP 485.3	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-061	63574	PLMP 484.93	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-062	FF12505	PLMP 480.7	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-063	FF12505	PLMP 449.83	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-064	63574	PLMP 437.36	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-075	FF12505	PLMP 293.25	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-076	FF12505	PLMP 312.13	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-077	FF12505	PLMP 312.98	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-078	FF12505	PLMP 314.81	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF&G FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-079	FF12505	PLMP 315.24	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-080	FF12505	PLMP 325.25	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-081	FF12505	PLMP 344.96	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-082	FF12505	PLMP 362.72	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-083	63574	PLMP 417.00	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-084	63574	PLMP 424.45	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-085	63574	PLMP 423.68	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-086	63574	PLMP 421.70	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-087	63574	PLMP 420.70	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-088	63574	PLMP 420.63	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-089	FF12505	PLMP 186	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-098	FF12505	PLMP 206.9	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-099	FF12505	PLMP 206.53	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-100	FF12505	PLMP 205.74	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-101	FF12505	PLMP 216.3	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-102	FF12505	PLMP 216.59	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF&G FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-103	FF12505	PLMP 217.49	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-104	FF12505	PLMP 219.08	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-105	FF12505	PLMP 224.23	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-106	63574	PLMP 233.38	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-107	63574	PLMP 233.54	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-108	63574	PLMP 234.29	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-109	63574	PLMP 237.04	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-110	63574	PLMP 239.75	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-111	FF12505	PLMP 240.13	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-112	FF12505	PLMP 240.26	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-113	FF12505	PLMP 240.37	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-114	FF12505	PLMP 240.66	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-115	FF12505	PLMP 240.80	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-116	FF12505	PLMP 242.80	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-117	63574	PLMP 496.16	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-118	63574	PLMP 496.06	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF&G FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-119	63574	PLMP 507.00	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-120	63574	PLMP 508.79	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-121	63574	PLMP 508.84	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-122	63574	PLMP 509.19	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-123	63574	PLMP 509.72	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-124	63574	PLMP 509.84	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-125	63574	PLMP 510.32	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-126	63574	PLMP 510.54	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-127	63574	PLMP 511.45	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-128	63574	PLMP 511.68	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-129	63574	PLMP 518.89	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-130	63574	PLMP 520.08	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-161	AA05847	PLMP 732.41	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-162	AA05847	PLMP 731.95	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-163	AA05847	PLMP 731.78	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-164	AA05847	PLMP 731.69	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF&G FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-165	AA05847	PLMP 731.44	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-166	AA05847	PLMP 731.34	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-167	AA05847	PLMP 731.26	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-168	AA05847	PLMP 731.16	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-169	AA05847	PLMP 731.01	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-170	AA05847	PLMP 730.85	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-171	AA05847	PLMP 730.72	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-172	AA05847	PLMP 730.47	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-173	AA05847	PLMP 730.25	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-174	AA05847	PLMP 730.17	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-175	AA05847	PLMP 635.17	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-176	AA05847	PLMP 634.67	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-177	63574	PLMP 606.70	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-178	63574	PLMP 606.83	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-179	63574	PLMP 607.05	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-180	63574	PLMP 607.30	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-181	63574	PLMP 606.38	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-182	63574	PLMP 606.36	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-183	AA05847	PLMP 570.18	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-188	63574	PLMP .18	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-189	63574	PLMP .99	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-190	63574	PLMP 3.9	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-191	63574	PLMP 4.12	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-192	63574	PLMP 6.36	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-193	63574	PLMP 7.17	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-194	63574	PLMP 8.44	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-195	63574	PLMP 11.08	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-196	63574	PLMP 17.99	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-197	63574	PLMP 69.71	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-198	63574	PLMP 70.81	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-199	63574	PLMP 86.94	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-200	63574	PLMP 91.93	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-201	63574	PLMP 92.36	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	UNSAT
11-TAPS-S-202	63574	PLMP 92.96	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-203	63574	PLMP 95.79	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-204	63574	PLMP 96.12	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-205	63574	PLMP 99.07	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-206	63574	PLMP 99.99	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-207	63574	PLMP 100.31	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Culvert Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-208	63574	PLMP 100.81	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-209	63574	PLMP 100.89	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-210	FF12505	PLMP 135.11	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-211	FF12505	PLMP 134.85	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-212	FF12505	PLMP 134.33	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	UNSAT
11-TAPS-S-213	FF12505	PLMP 134.01	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-214	FF12505	PLMP 133.48	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-215	FF12505	PLMP 132.95	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-216	FF12505	PLMP 128.62	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/ADF FY12 TAPS Surveillance Reports

Report Number	ADL	TAPS PLMP	Stipulation(s)	Title	Observation
11-TAPS-S-217	FF12505	PLMP 127.17	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
11-TAPS-S-218	FF12505	PLMP 127.04	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-001	AA05847	PLMP 731.95	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-002	AA05847	PLMP 730.85	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-003	AA05847	PLMP 741.06	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	UNSAT
12-TAPS-S-004	AA05847	PLMP 739.26	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-005	AA05847	PLMP 748.07	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-006	63574	PLMP 774.20	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT
12-TAPS-S-007	63574	PLMP 790.90	2.5.1.1, 2.4.3.1, 2.4.4.1, 2.12.1	Low Water Crossing Inspection & Compliance with AS 16.05.841	SAT

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
11-TAPS-S-032	SERVS	1.20	Work Site Safety Inspection	Contrary to this Requirement, the eye bottle in first floor janitor's closet expired 1/2011. This discrepancy has been corrected.
11-TAPS-S-033	TCC	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-034	ERB/LAB	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-035	Upper Area 19	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-036	Lower Area 19	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-037	Materials Warehouse	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-038	Equipment Shop	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-039	Maintenance	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-040	GRB	1.20	Work Site Safety Inspection	Contrary to this requirement, the rear step to the guard shack near the gate exceeded seven (7) inches. This discrepancy has been corrected. Also, contrary to this requirement, the eye wash bottles throughout the facility had expired. This discrepancy has been corrected.
11-TAPS-S-041	PS12	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-042	Power Vapor Control	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-043	BWT	1.20	Work Site Safety Inspection	Contrary to this requirement, the north east step to PDC 14 exceeded 14 inches
11-TAPS-S-044	VTO	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-045	Operations Office Building	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-046	Operations OM&S	1.20	Work Site Safety Inspection	Contrary to this requirement, the following PDCs did not having a landing: East Side of PDC 6A and PDC 6B located near East Metering. East side of PDC 13 and PDC 14 located near West Metering. This discrepancy has been corrected.

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
11-TAPS-S-047	Operations Marine	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-048	PS1	1.20	Work Site Safety Inspection	Contrary to this requirement, a fire extinguisher in the HCC electric shop was blocked with tools and not readily accessible. This hazard has been corrected. Also, contary to this requirement, the step to the porta-potty exceeded 7 inches. This hazard has been corrected.
11-TAPS-S-049	PS4	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of construction activities. No discrepancies noted.
11-TAPS-S-051	PS 11 GRB	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of pre-shutdown activities. One discrepancy noted: The bottom step of the stairs leading to north stopple work platform was not uniform with the ground. This discrepancy has been corrected.
11-TAPS-S-052	PS 4	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of pre-shutdown activities. No discrepancies noted.
11-TAPS-S-066	PS9	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of a fabrication crew building stairs for the walking working surface project. The crew consisted of two welders and two labors. No discrepancies noted.
11-TAPS-S-067	PS 9 GRB	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of post shutdown activities. One crew was cleaning main line pipe that was removed. No discrepancies noted.
11-TAPS-S-068	VMT OMS Marine	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of the valve replacement excavation near East Fire Water. No discrepences noted.
11-TAPS-S-069	VMT BWT	1.20	Work Site Safety Inspection	Conducted a work site safety inspection of the BWT upgrade project. Dunkin Bush was sand blasting one of the DAF Cells preparing it for coating. No discrepances noted.
11-TAPS-S-072	PS 9	1.20	Work Site Safety Inspection	Observed a crew of eight from TANCO Engineering, Inc. preparing the floor of Tank 190 for removal. They were cutting the floor with grinders and a cutting torch. No discrepances noted.

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
11-TAPS-S-090	PS 7	1.20	Work Site Safety Inspection	Observed crew installing piping and pump for Crude Oil Recirculation Project F650. No discrepancies noted.
11-TAPS-S-091	PS 6, Yukon Response Base	1.20	Work Site Safety Inspection	The crew at Yukon Response Base has maintained excellent housekeeping. Contrary to this requirement, a portable fire extinguisher was not provided in the Sewage Treatment Plant of PS6. This discrepancy has been corrected.
11-TAPS-S-092	PS 5	1.20	Work Site Safety Inspection	Portable eyewash bottles in the Flammable Storage Building had exceeded their manufacutred recommended expiration dates for safe use. The eyewash bottles should be replaced. This discrepancy has been corrected.
11-TAPS-S-093	PS 4	1.20	Work Site Safety Inspection	Several Portable eyewash bottles had exceeded their manufatured recommended expiration dates for safe use. The eyewash bottles should be replaced or since there is no requirement for an eye wash in either location the eyewash stations should be removed. This discrepancy has been corrected. Contrary to this requirement, a bulb in an emergency lighting unit in the fly camp was inoperative. This discrepancy has been corrected. Contrary to this requirement, the abrasive wheel osurface of the Pedestal Grinding in Shop was not flat and required dressing. This discrepency has been corrected. Contrary to this requirement, the tool rest of the Pedestal Grinder in the Shop was out of adjustment. This discrepancy has been corrected. Contrary to this requirement, the step to the Equipment Shop porta-potty exceeded 7 inches. This discrepancy has been corrected.
11-TAPS-S-094	Galbreath Airport	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-095	PS 3	1.20	Work Site Safety Inspection	The exterior floor surface of the north exit of the gas building was not level. Materials for spill control and neutralization were not available Backup Generator Skid. These discrepencies have been corrected.
11-TAPS-S-096	PS 2	1.20	Work Site Safety Inspection	No Discrepancies Noted
11-TAPS-S-097	PS 1	1.20	Work Site Safety Inspection	No Discrepancies Noted

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
11-TAPS-S-131	PS 9	1.20	Work Site Safety Inspection	The crew replacing the floor of Tank 190 were using open flames to heat the metal floors in preparation for the welders and fire extinguishers were not available. Fire extinguishers were provided and this discrepancy was corrected.
12-TAPS-S-008	PS 7	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-009	Rotating Equipment Shop	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-010	Fairbanks Fabrication Shop	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-011	Fairbanks Materials Warehouse	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-012	Van Horn Facility	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-013	Nordale Yard	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-014	North Pole Metering	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-015	PS 8	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-016	PS 10	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-017	PS 9	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-018	Fairbanks Equipment Shop	1.20	Work Site Safety Inspection	No Discrepancies Noted

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
12-TAPS-S-023	PS 5	1.20	Work Site Safety Inspection	Conducted Work Site Safety inspection of Project F806, Removal of Cleaning Pig from Disharge Relief Piping. No project disrepancies were noted, however there was one discrepancy in one of the Fly Camps. The television cable in Room 501 was routed up the wall, across the cieling, to the center of the room, dropped to the floor, across the floor to the telvision, creating a tripping hazard. The cable needs to be secured to the wall. All Fly Camps should be inspected to ensure this condition does not exist in other rooms. This discrepancy has been repaired.
12-TAPS-S-024	PS 1	1.20	Work Site Safety Inspection	Conducted work site safety inspection of Project S120, Electrification & automations. No discrepancies were noted.
12-TAPS-S-025	SERVS	1.20	Work Site Safety Inspection	Eye Wash bottle in Loop Road Warehouse expired 11-2011. This discrepancy has been corrected.
12-TAPS-S-026	TCC Oil Spill Building	1.20	Work Site Safety Inspection	The pedestal grinder work rest in the VMT Oil Spill Building exceeded 1/8 inch opening. This discrepancy has been corrected.
12-TAPS-S-027	Terminal Maintenance	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-028	Materials Warehouse	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-029	Equipment Shop	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-030	Upper Area 19	1.20	Work Site Safety Inspection	The flammable storage cabinet in the Base Line Shop would not latch. This discrepancy has been corrected.
12-TAPS-S-031	Lower Area 19	1.20	Work Site Safety Inspection	The abrasive wheel on a pedestal grinder in the FAB Shop was grooved in the Fabrication Shop. This discrepancy has been corrected.
12-TAPS-S-032	VTO	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-033	Utilities - Power Vapor Control	1.20	Work Site Safety Inspection	There was water on the floor of the Compressor Building creating a slip and fall hazard. This discrepancy has been corrected.

SPCO/DOLWD FY12 TAPS Safety Surveillance Report

Report Number	Location	Stipulation(s)	Type	Observation
12-TAPS-S-034	Utilities - BWT	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-035	Operations Building	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-036	Operations - OM&S	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-037	Operations - Marine	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-038	ERB & Laboratory	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-039	GRB	1.20	Work Site Safety Inspection	No Discrepancies Noted
12-TAPS-S-040	PS 12	1.20	Work Site Safety Inspection	No Discrepancies Noted

SPCO/DOLWD FY12 Electrical Inspection Reports

Inspection Report Number	TAPS Location	Inspection Description	Inspection Date(s)
DO072611-1	Pump Station 2	Power re-feed project	7/26/2011
DO072611-2	Pump Station 2	Project F782 inspection	7/26/2011
DO072611-3	Pump Station 2	COF Check	7/26/2011
DO072611-5	Pump Station 3	Weather Station Inspection	7/26/2011
DO072611-6	Pump Station 4	Black Start Generator Project F605	7/26/2011
DO072711-1	Pump Station 1	Electrification and Automation Project S120	7/27/2011
DO072711-2	Pump Station 1	Project F636 inspection	7/27/2011
DO0102611-1	Pump Station 9	Tank 190 Inspection	10/26/2011
DO0102611-2	Pump Station 9	Office and Shop Fire Alarm Upgrades	10/26/2011
DO0102611-3	Pump Station 9	Security Upgrades	10/26/2011
DO0102611-4	Pump Station 9	Pipeline Integrity Team (PIT) Project X611	10/26/2011
DO0102511-1	North Pole Metering	Upgrades to SCADA, Comms, and Security inspection	10/25/2011
DO0102511-2	Pump Station 8	Security and Comms Inspection	10/25/2011
DO0102511-3	Pump Station 8	Weather Station Inspection	10/25/2011
DO0102411-1	Pump Station 7	Project F807 Inspection	10/24/2011
DO032812-1	GRB	Security and Comms Inspection	3/28/2012
DO032812-2	Pump Station 12	Security and Comms Inspection	3/28/2012
DO032912-1	VMT	Inspection Delayed	3/29/2012
DO052112-1	Pump Station 8	Security and Comms Inspection	5/21/2012
DO052212-1	Pump Station 9	Tank 190 Inspection	5/22/2012
DO052212-2	Pump Station 9	Security Upgrades Inspection	5/22/2012
DO052112-3	Pump Station 10	UPS system Inspection	5/22/2012
DO052212-4	GRB	Courtesy Inspection	5/22/2012
DO052212-5	GRB	COF Check	5/22/2012
DO052312-1	Pump Station 12	Preliminary Cold Restart Project Inspection	5/23/2012
DO052312-2	VMT	Project Z533 Inspection	5/23/2012
DO052312-3	VMT	Project Z559 Inspection	5/23/2012
DO061212-1	Pump Station 5	Bypass and Valve Repair Project Inspection	6/12/2012
DO061212-2	Pump Station 5 Heat Trace	Heat Trace Inspection	6/12/2012
DO061212-3	Pump Station 5 Flycamp 500	Courtesy Inspection	6/12/2012
DO061212-4	Pump Station 5	COF Check	6/12/2012
DO061212-5	DRA Mile 238	Courtesy Inspection	6/12/2012
DO061312-1	Yukon Response Base/PS-6 Generators	Project Inspection	6/13/2012
DO061312-2	Yukon Response Base/PS-6 Manifold Building	Project Inspection	6/13/2012

SPCO/DOLWD FY12 Electrical Inspection Reports

Inspection Report Number	TAPS Location	Inspection Description	Inspection Date(s)
DO061312-3	Yukon Reponse Base/PS-6	COF Check	6/13/2012
D0061312-4	Pump Station 7	Valve Project Inspection	6/13/2012

SPCO/SFMO FY12 Fire and Life Safety Inspection Reports (by pipeline)

Pipeline System	Description	Inspection Date(s)	Letter Date
Alpine	Annual Inspection of Alpine Facilities	1/17/2012	2/24/2012
Endicott	Annual Inspection of Endicott Facilities	11/3/2011	12/30/2011
KKPL-Marathon	Annual Inspection of Marathon Facilities	10/4/2011	12/30/2011
Kuparuk	Annual Inspection of Kuparuk Facilities	11/8-10/11	1/6/2012
Kuparuk Extention	Annual Inspection of KOC PAD	1/18/2012	3/2/2012
Milne Point	FY 2012 Annual Inspection of Milne Point Facilities	4/9-11/2012	5/26/2012
North Fork	Annual Inspection of North Fork Facilities	10/6/2011	12/30/2011
Northstar	FY 2012 Annual Inspection of Northstar Facilities	4/9-11/2012	5/26/2012
Nuiqsut	Annual Inspection of Nuiqsut Gas Pipeline Facilities	10/25/2011	12/30/2011
Oliktok	Annual Inspection of Oliktok Pipeline	1/19/2012	2/26/2012
TAPS	Annual Inspection Pump Stations 1-4	3/13-16/2012	4/19/2012
TAPS	Annual Inspection Pump Station 6	4/23-25/2012	6/2/2012
TAPS	Annual Inspection Pump Station 7	4/23-25/2012	6/2/2012
TAPS	Annual Inspection Pump Station 5	4/23-25/2012	6/2/2012
TAPS	Valdez Marine Terminal to GRB	5/14-16/2012	6/22/2012
TAPS	Fairbanks Area	6/11-13/2012	7/21/2012

Appendix H· Authorizations, Rights-of-Way, and Permits Issued (FY12)

Permit/ADL	Date	Location	Description
TWUP P2011-2	7/1/2011	SE4SW4, Sec. 7, T3N, R1W, Copper River Meridian (CRM); SE4NE4 & NE4SE4, Sec. 36, T5N, R2W, CRM; W2SW4, Sec. 6, T7N, R1W, CRM; NE4NW4, Sec. 25, T9N, R2W, CRM.	Temporary water use permit (TWUP) issued to Alyeska Pipeline Service Company (APSC) for appropriation of up to 35,000 gallons per day (GPD) for dust abatement, soil compaction, and miscellaneous pad maintenance activities in the Glennallen Response Base area. Amended on July 21, 2011 to relinquish one water source and to alter another water source. Expires October 31, 2015.
ADL 419243	7/1/2011	SW4, Sec. 14, & NW4, Sec. 23, T3N, R14E, Umiat Meridian (UM).	Material sale contract issued to APSC for extraction of 40,000 cubic yards of alluvial gravel and cobbles from material site OMS 130-1 for repairs and rehabilitation of TAPS Spur Dikes 6, 7, and 8. Expired December 21, 2012.
LAS 28135	8/5/2011	SW4SW4, Sec. 14, T3N, R14E, UM.	Land use permit (LUP) issued to APSC for continued use of the approximately 240' long road segment near Trans-Alaska Pipeline System (TAPS) pipeline milepost (PLMP) 47 built during the emergency flood response from May 22-24, 2011, for spur dike repairs, based on verbal approval from the State Pipeline Coordinator. LUP (LAS 28135) was closed after ADL 419305 (Right-of-Way) for TAPS Access Road 130 APL-1A was issued on June 14, 2012.
ADL 419245	8/5/2011	SE4SW4, Sec. 9, T8N, R6W, FM.	Material sale contract issued to APSC for extraction of 5,000 cubic yards of gravel from material site OMS 71-8 for TAPS maintenance and operations. Expires December 31, 2015.
TWUP P2011-3	8/10/2011	N2N2, Sec. 24, T9S, R7W, CRM.	TWUP issued APSC for appropriation of up to 225,000 GPD for dust abatement, tank cleaning, and miscellaneous construction activities in Valdez Marine Terminal area. Expires October 31, 2015.
LAS 28072	8/20/2011	SE4, Sec. 14, SW4, Sec. 23, & NE4, Sec. 31, T9S, R4W, CRM; SW4, Sec. 17 & NW4, NE4, Sec. 21, T9S, R6W, CRM.	LUP issued to APSC to excavate six sites along Trans-Alaska Pipeline System (TAPS) to investigate and remediate small-bore vent connections under project F673. (Associated work outside the coastal zone was permitted under LAS 28033). Expires August 29, 2012.
LAS 28033 (Amended)	8/26/2011	NW4, Sec. 17, T11N, R9W, FM (PLMP 363.90); SW4, Sec. 32, T11N, R8W, FM (PLMP 371.34); SW4, Sec. 33, T10N, R7W, FM (PLMP 380.93); S2, Sec. 30, T 7N, R4W, FM (PLMP 405.94); SW4, Sec. 33 T3N, R1W, FM (PLMP 439.85); W2, Sec. 23, T8S, R3W, CRM (PLMP 772.33).	Amended of LUP LAS 28033 issued to APSC to replace drawings associated with permit. New drawings: F673-2011 Mainline Vents and Drains Remediation Temporary Land Use, A-00-PERF673-SK2, dated July 29, 2011. Original permit issued for six sites, all but one located at pipeline milepost (PLMP) 772.33 were completed within the Right-of-Way before this amendment. APSC to investigate and remediate small-bore vent connections under project F673 under this permit. Permit covered an aggregate of approximately 0.66 acres. Expired June 1, 2012.

LAS 28239	9/13/2011	W2NW4, Sec. 2, & NE4NE4, Sec. 3, T14S, R7W, Fairbanks Meridian (FM).	LUP issued to Alaska Gasline Development Corporation (AGDC) for brushing of ten 50' diameter areas to allow for boreholes related to geotechnical work and installation of thermistors along the Alaska Stand Alone Gas Pipeline Project (ADL 418997), within the Denali National Park Bypass. Work to include brushing of a 100' diameter area was to for use as a helicopter landing site. Expires December 31, 2013.
ADL 419244	9/15/2011	N2, Sec. 30, T14S, R10E, FM.	Material sale contract issued to APSC for the extraction of 2,000 cubic yards of rip rap from Alaska Department of Transportation and Public Facilities Material Site 71-0-005-2 for use in TAPS maintenance and operation. Expires December 31, 2012.
LAS 28262	10/5/2011	NW4SE4, Sec. 36, T9S, R5W, CRM.	LUP to APSC to add new cathodic protection components along buried portion of the TAPS at the Unnamed Creek crossing near PLMP 787.7. Expires October 4, 2012.
LAS 28268	10/31/2011	NW4, Sec. 12, T2N, R14E, Umiat Meridian (UM); SE4, Sec. 35, T3N, R14E, UM; NE4, Sec. 28, T4N, R14E, UM.	LUP issued to APSC to retrieve outwash gravels downstream of three TAPS access roads to prevent blockage to fish passage. Expires October 30, 2012.
LAS 28280	11/9/2011	SW4, Sec. 8, T2S, R6W, FM.	LUP issued to AGDC to construct and temporarily locate a meteorological monitoring station in support of the Alaska Stand Alone Gas Pipeline Air Monitoring. Work to include clearing of an 800-foot diameter area totaling 11.54 acres, more or less. Expires November 8, 2013.
LAS 28332	1/19/2012	NE4 & S2NW4, Sec. 7, T8S, R2W, CRM.	LUP issued to APSC to store mined material and non-hazardous material and equipment at TAPS material site OMS 7-1M. Expires December 31, 2016.
LAS 28334	1/19/2012	Multiple	Renewal of LUP issued to APSC for 19 oil spill containment sites (Containment Sites 1-0 through 2-8) between Prudhoe Bay and PLMP 104, containing a combined acreage of approximately 18.0 acres. Expires December 31, 2016.
LAS 28335	1/19/2012	Multiple	Renewal of LUP issued to APSC for nine oil spill containment sites (Containment Sites 3-2 through 4-2) located between PLMP 109-174, containing a combined acreage of approximately 9.0 acres. Expires December 31, 2016.
LAS 28336	1/19/2012	Multiple	Renewal of LUP issued to APSC for 44 oil spill containment sites (Containment Sites 5-29 through 7-25) between Yukon River and Fairbanks (PLMP 353-450), containing a combined acreage of approximately 44.0 acres. Expires December 31, 2016.
LAS 28337	1/19/2012	Multiple	Renewal of LUP issued to APSC for 20 containment sites (Containment Sites 8-2 through 12-5, containing an aggregate acreage of approximately 20.0 acres. Expires December 31, 2016.

LAS 28338	1/19/2012	Multiple	Renewal of LUP issued to APSC for three oil spill containment sites (Containment Sites 12-6 through 12-8), two sites containing approximately 2.0 acres of state land. Containment Site 12-8 is not on state land. Expires December 31, 2016.
LAS 28333	2/14/2012	NW4, Sec. 9, T3S, R14E, UM; NE4, Sec. 29, T3S, R14E, UM; SE4, Sec. 30, T3S, R14E, UM.	Two land use areas for mainline integrity investigations at PLMP 77.62 and 80.51, and one land use area for a staging area on the south gravel pad of the Happy Valley airstrip under one permit issued to APSC, containing an aggregate acreage of approximately 9.2 acres. Expires January 31, 2013.
TWUP P2012-1	2/20/2012	NW4SW4, Sec. 3, T2S, R14E, UM; SE4 NW4, Sec. 21, T2S, R14E, UM; SW4NW4, Sec. 33, T2S, R14E, UM; SE4SE4, Sec. 29, T3S, R14E, UM.	TWUP issued to APSC for withdrawal of 90,000 GPD from check valve vaults 16, 17, 18 and ADOTPF material site pit at PLMP 73.2 to support TAPS maintenance program between PLMP 61 and 85. Permit issued February 20, 2012, and amended March 16, 2012, to specify requirement for screened intake for the pond only, and visual inspections of vaults before water withdrawals. Expires December 31, 2016.
TWUP P2010-7 (Amended)	4/30/2012	NE4SE4, Sec. 17, T23N, R14W, FM.	Amendment 1 of TWUP P2010-7 issued to APSC to allow for additional uses for water extracted at seasonal pond at Pump Station (PS) 5, PLMP 275. Expires October, 31, 2014.
TWUP P2012-2	5/1/2012	NE4, Sec. 8, T12S, R12E, UM.	TWUP issued to APSC for an existing PS 4 well at Tea Lake near TAPS milepost 144 to withdraw 30,000 GPD of lake water for potable water consumption and various industrial uses. Expires April 30, 2017.
TWUP P2012-3	5/4/2012	SE4NW4, Sec. 18, T23N, R14W, FM.	TWUP issued to APSC to appropriate a total of 20,000 GPD from existing well at PS 5 at PLMP 274.7. Expires April 30, 2017.
ADL 419383	5/11/2012	N2, Sec. 30, T14S, R10E, FM.	Material sale contract issued to APSC to mine 5,500 cubic yards of rip rap for TAPS maintenance and operations. Material sale within OMS 41-3, Donnelly Pit. Expires December 31, 2014.
LAS 28454	5/15/2012	NW4, Sec. 14, & NE4, Sec. 15, T23N, R19W, Seward Meridian.	LUP issued to Donlin Gold, LLC for a fuel cache and helicopter parking at Puntilla Lake for approximately 0.17 acres. Expires May 14, 2014.
ADL 419346	5/16/2012	E2W2 & W2E2, Sec. 8, T8S, R14E, UM.	Material sale contract issued to APSC to mine 25,000 cubic yards of material from material site OMS 119-4. Expires December 31, 2016.
ADL 419347	5/16/2012	S2, Sec. 14, E2, Sec. 22 & Sec. 23, T11N, R14E, UM.	Material sale contract issued to APSC to mine 25,000 cubic yards of material from material site Put 23 Mine Site (aka Oxbow Pit). Expires December 31, 2016.
LAS 28476	6/5/2012	N2N2 & N2S2, Sec. 17, T21S, R12E, FM.	LUP issued to APSC for 2012 TAPS project X512, mainline integrity investigations at three sites, PLMP 612.71, 612.72, and 613.29, encompassing approximately 1.1 combined acres. Expires 6/5/13
ADL 419305	6/14/2012	SW4SW4, Sec. 14, T3N, R14E, UM.	Right-of-way authorization issued to APSC for access road (130 APL-1A) right-of-way running 476.5 feet from Dalton Highway for access to Spur Dike 8, containing approximately 1.09 acres. Associated land use permit (LAS 28135) closed when ADL 419305 was issued.

ADL 419391	6/14/2012	SE4, Sec. 23, & NE4, Sec. 26, T3N, R14E, UM.	Material sale contract issued to APSC to mine 15,000 cubic yards of gravel from gravel bar within Sagavanirktok River flood plain at PLMP 47.2 (OMS 130-1a) to elevate spur dikes 3, 4, 5. Expires June 30, 2013.
ADL 63574	6/14/2012	W2NW4, Sec. 4, T7N, R14E, UM; E2NE4, Sec. 5, T7N, R14E, UM.	Amendment to the TAPS lease to add approximately 5.5 acres to construct and maintain a field of eleven buried sills located between a side channel of the Sagavanirktok River and the buried pipeline located approximately at PLMP 19.1.
ADL 63574	06/25/2012	E2, Sec. 36, T7N, R13E, UM; SW4, Sec. 31, T7N, R14E, UM.	Amendment to the TAPS lease to add approximately 4.0 acres to construct and maintain cathodic protection upgrades adjacent to access road 133 APL/AMS-4 located at approximately PLMP 25 and extending across the Dalton Highway at Dalton Highway milepost 392 to the fuel gas line.
ADL 419384	6/26/2012	N2SW4, Sec. 14, T3N, R1W, FM.	Material sale contract issued to APSC to remove 6,000 cubic yards of gravel from OMS 63-2, Chatanika Pit for TAPS maintenance and operations. Expires December 31, 2016.
ADL 419400	6/26/2012	SW4, Sec. 33, T3N, R1W, FM.	Material sale contract issued to APSC to remove 4,000 cubic yards of weathered bedrock from OMS 63-1 to support TAPS maintenance and operations (PLMP 439.9). Expires December 31, 2012.
ADL 419401	6/26/2012	SE4, Sec. 23, T7N, R5W, FM.	Material sale contract issued to APSC to remove weathered bedrock from OMS 69-1R to support TAPS maintenance and operations. Expires December 31, 2016.
ADL 419402	6/26/2012	E2SW4, Sec. 35, T29N, R12W, FM; NE4NW4, Sec. 3, T28N, R12W, FM.	Material sales contract issued to APSC to remove 5,000 cubic yards of sandy gravel within silt and cobbles from OMS 98-3.1 for TAPS maintenance and operations. Expires December 31, 2016.

Appendix I: 2011 Throughput for SPCO Jurisdictional Pipelines

Alpine Diesel Pipeline	3,534,169 gal
Alpine Oil Pipeline	2,9031,614 bbl
Alpine Utility Pipeline	39,129,809 bbl
Badami Sales Oil Pipeline	450,203 gross bbl
Badami Utility Pipeline	34,453 Mscf
Endicott Pipeline	3,602,713 gross bbl
Kenai Kachemak Pipeline (KKPL)	17,870 MMcf
Kenai Kachemak Pipeline (HV)	
Kenai Kachemak Pipeline (KE)	
Kuparuk Pipeline	89,953,520 bbl
Kuparuk Pipeline Extension	53,730,649 bbl
Milne Point Pipeline	8,061,856 gross bbl
Milne Point Products Pipeline	none
Nikiski Alaska Pipeline	11,513,804 bbl
Northstar Gas Pipeline	8,442,917 Mscf
Northstar Oil Pipeline	5,248,646 gross bbl
Nuiqsut Natural Gas Pipeline	95,806,000 scf
Oliktok Pipeline	7,665,862 bbl
Trans-Alaska Pipeline System	212,756,749 bbl

Mscf = thousands of standard cubic feet
MMcf = millions of standard cubic feet
scf = Standard Cubic Feet

Appendix J· Lease Required Contact Information

Pipeline	Registered Agent	Authorized Representative	Field Representative
Alaska Stand Alone	Joe Dubler Vice President & Chief Financial Officer Alaska Gasline Development Corp. 3301 C Street, Ste. 100 Anchorage, AK 99503	Dan Fauske President Alaska Gasline Development Corp. 3301 C Street, Ste. 100 Anchorage, AK 99503	Ken Vassar / Felice Schilling Alaska Gasline Development Corp. 3301 C Street, Ste. 100 Anchorage, AK 99503
Alpine Pipelines	William A. Sargent Engineering & Operations Manager ConocoPhillips Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	William A. Sargent Engineering & Operations Manager Conoco Phillips Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	David Todd / Larry Baker CPF-3 Operations Superintendent ConocoPhillips Alaska, Inc. P.O. Box 196105 NSK 22 Anchorage, AK 99519-6105
Badami Pipelines	CT Corporation System Re: BP Transportation (Alaska) Inc. 9360 Glacier Highway, Ste. 202 Juneau, AK 99801	Don Turner Vice President BP Transportation (Alaska) Inc. P.O. Box 190848 Anchorage, AK 99519-0848	Bruce W. Robinson / T.J. Barnes BP Exploration (Alaska) Inc. Mail Stop END 900 E. Benson Blvd. Anchorage, AK 99508
Endicott	CT Corporation System Re: BP Transportation (Alaska) Inc. 9360 Glacier Highway, Ste. 202 Juneau, AK 99801	Don Turner Vice President BP Transportation (Alaska) Inc. P.O. Box 190848 Anchorage, AK 99519-0848	Bruce W. Robinson / T.J. Barnes BP Exploration (Alaska) Inc. Mail Stop END 900 E. Benson Blvd. Anchorage, AK 99508
Kenai Kachemak	Jaci Stasak Marathon Pipe Line, LLC P.O. Box 2399 Kenai, AK 99611	Daniel Riemer President Kenai Kachemak Pipeline, LLC 5555 San Felipe Road Houston, TX 77056	Pamela J. Locke Area Manager Marathon Pipe Lines, LLC P.O. Box 2399 Kenai, AK 99611
Kuparuk Kuparuk Extension	William A. Sargent Engineering & Operations Manager Kuparuk Transportation Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	William A. Sargent Engineering & Operations Manager Kuparuk Transportation Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	David Todd / Larry Baker CPF-3 Operations Superintendent ConocoPhillips Alaska, Inc. P.O. Box 196105 NSK 22 Anchorage, AK 99519-6105

Milne Point Pipelines	CT Corporation System Re: BP Transportation (Alaska) Inc. 9360 Glacier Highway, Ste. 202 Juneau, AK 99801	Don Turner Vice President BP Transportation (Alaska) Inc. P.O. Box 190848 Anchorage, AK 99519-0848	Jeff Michels / Kenton Schoch BP Exploration (Alaska) Inc. Mail Stop MPU 900 E. Benson Blvd. Anchorage AK 99508
Nikiski Alaska	Shawn Brown Tesoro Alaska Pipeline Company P.O. Box 3369 Kenai, AK 99611	Ralph Grimmer Tesoro Refining & Marketing Co. 19100 Ridgewood Parkway San Antonio, TX 78259	Shawn Brown Tesoro Alaska Pipeline Company P.O. Box 3369 Kenai, AK 99611
North Fork	Ed Kerr Anchor Point Energy, LLC 1421 Blake Street Denver, CO 80202	Ed Teng Vice President of Engineering Anchor Point Energy, LLC 1421 Blake Street Denver, CO 80202	Chuck Johnson Armstrong Operations North Fork Facility Anchor Point, AK
Northstar Pipelines	CT Corporation System Re: BP Transportation (Alaska) Inc. 9360 Glacier Highway, Ste. 202 Juneau, AK 99801	Don Turner Vice President BP Transportation (Alaska) Inc. P.O. Box 190848 Anchorage, AK 99519-0848	Wayne Kuykendall / Gary Herring BP Exploration (Alaska) Inc. Mail Stop Northstar 900 E. Benson Blvd. Anchorage, AK 99508
Nuiqsut Natural Gas	Charlotte E. Brower Mayor North Slope Borough P.O. Box 69 Barrow, AK 99723	Charlotte E. Brower Mayor North Slope Borough P.O. Box 69 Barrow, AK 99723	James Judkins P.O. Box 89328 Nuiqsut, AK 99789
Oliktok	William A. Sargent Engineering & Operations Manager Oliktok Pipeline Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	William A. Sargent Engineering & Operations Manager Oliktok Pipeline Company P.O. Box 100360, ATO 908 Anchorage, AK 99510-0360	David Todd / Larry Baker CPF-3 Operations Superintendent ConocoPhillips Alaska, Inc. P.O. Box 196105, NSK 22 Anchorage, AK 99519-6105
Trans-Alaska Pipeline System	Thomas J. Barrett President Alyeska Pipeline Service Company P.O. Box 196660 Anchorage, AK 99519-6660	Joseph Robertson Director of Regulatory Affairs Alyeska Pipeline Service Company P.O. Box 196660, MS 502 Anchorage, AK 99519-6660	NA

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
   411 W. 4th Avenue
   Anchorage, AK 99501

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 and in the next print edition.