SCOMM

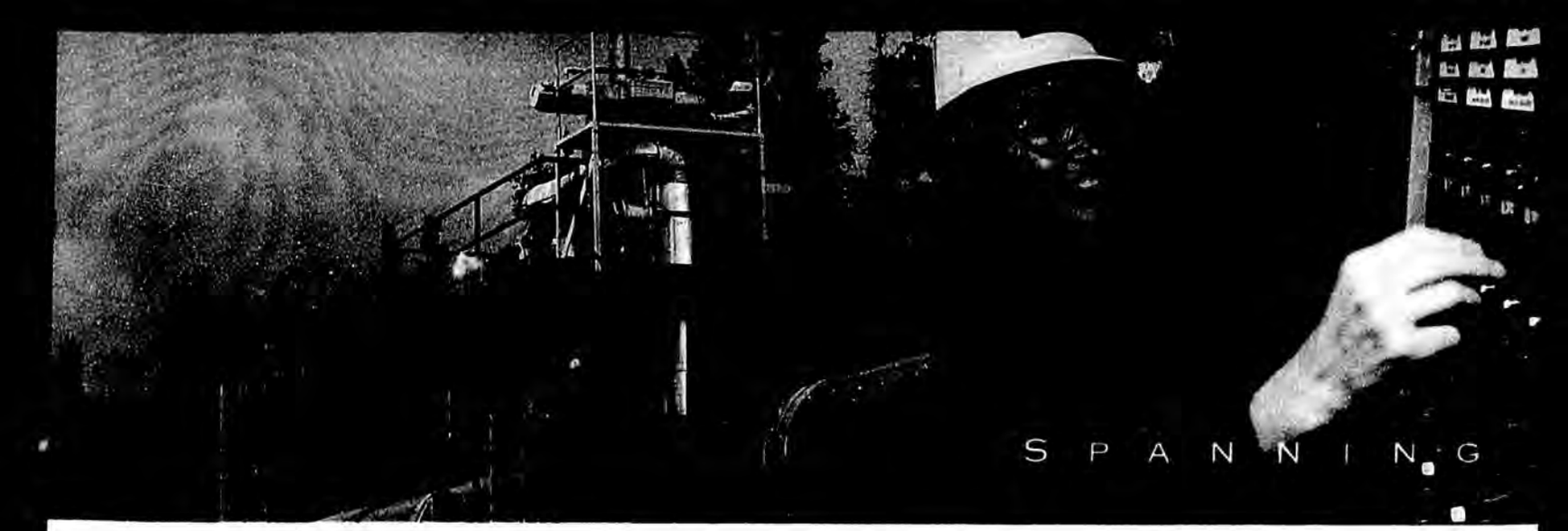
128:5

ALYESKA PIPELINE

THE TRANS

ALASKA PIPELINE

The Trans Alaska Pipeline System transports crude oil from the oil fields on Alaska's North Slope across 800 miles of tundra, rugged mountains, and rivers to Valdez — the northernmost ice free port in North America. Built from 1975 to 1977 for about $8 billion it is one of the longest pipelines in the world and one of the greatest engineering feats of our time. Engineers designed the 48 inch diameter pipeline to endure and protect Alaska's unique but harsh environment. Three mountain ranges and more than 800 rivers and streams span the pipeline route. At more than 550 locations the pipeline design allows caribou, moose, and other wildlife to easily cross the pipeline corridor.



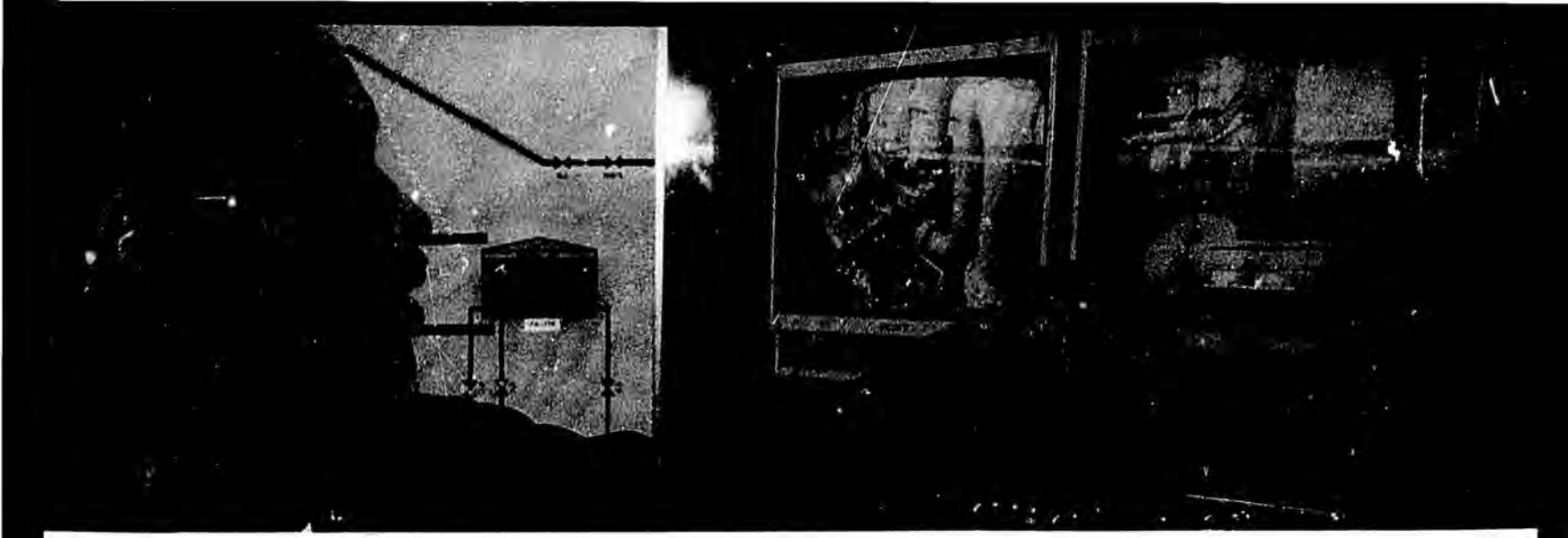
SPANNING

Approximately 380 miles of the pipeline are buried, while the rest of the line is above ground to avoid burying the pipe in permafrost — ground continuously frozen for two years or more. Because the crude oil is warm, heat from a buried pipe could warm the permafrost, making the soil in some areas unstable. In places, the pipeline is buried in permafrost, but is insulated, or even refrigerated in a few places, to keep the permafrost from thawing.

Above-ground portions of the pipeline sit on vertical support members (VSMs). The majority of the pipeline's 78,000 VSMs are equipped with heat transfer pipes and radiators that keep the permafrost beneath the supports frozen. In addition, the VSMs allow the pipeline to move a certain amount, both vertically and horizontally, in case of earthquakes and to compensate for expansion and contraction. The zig-zag configuration of the pipeline also mitigates the effects of expansion and contraction.

Alyeska Pipeline Service Company was established to design, build, operate, and maintain the pipeline, pump stations, and Valdez Marine Terminal. Alyeska also helps assure safe tanker operations in Prince William Sound through our Ship Escort/Response Vessel System. Our personnel and contractors continually monitor and upgrade the system to ensure that oil flows safely, efficiently, and in an environmentally sound manner.

THE STATE



Pump stations strategically located along the Trans Alaska Pipeline System boost the flow of oil. Pump Station 1 is the beginning of the pipeline, where North Slope crude oil is measured and then enters the line. Each pump station houses two or three pumps driven by jet engines. Pump station control rooms are staffed by trained operators who actively monitor station operations and respond to any abnormal situation. These operators coordinate with personnel at the Operations Control Center, which controls and monitors operations for the entire pipeline system from Valdez.

Pump station operations may include adding a "drag reducing agent" to the oil to enhance the flow, inserting "pigs" that travel with the oil flow to monitor the condition of the pipe or clean it, and temporarily diverting some oil into storage tanks. Twelve pump stations were included in the original design of the pipeline. Currently, there are seven operating pump stations. Due to reduced production, four pump stations have been placed on standby status (Pump Stations 2, 6, 8 and 10). Pump Station 5 is a relief station and has no pumps. Pump Station 11 was never built.

Because many pump stations are remote, they are self-sufficient and have facilities for sleeping, recreation, dining, power generation, water, and sewage treatment. Each station has a crew of 10 to 25 people. Crews work either a two or one week shift schedule. Fire-fighting, medical, and oil spill response equipment and facilities are also found at each station.

FROM THE

The Valdez Marine Terminal, at the southern end of the Trans Alaska Pipeline System, is where crude oil is loaded into tankers for transport to refineries on the U.S. West Coast and elsewhere. The Operations Control Center at the Marine Terminal is the nerve center of the pipeline. Operating 24 hours a day, 365 days a year, the center controls and monitors almost every element that moves oil through the pipeline and uses state-of-the-art computer and communication systems.

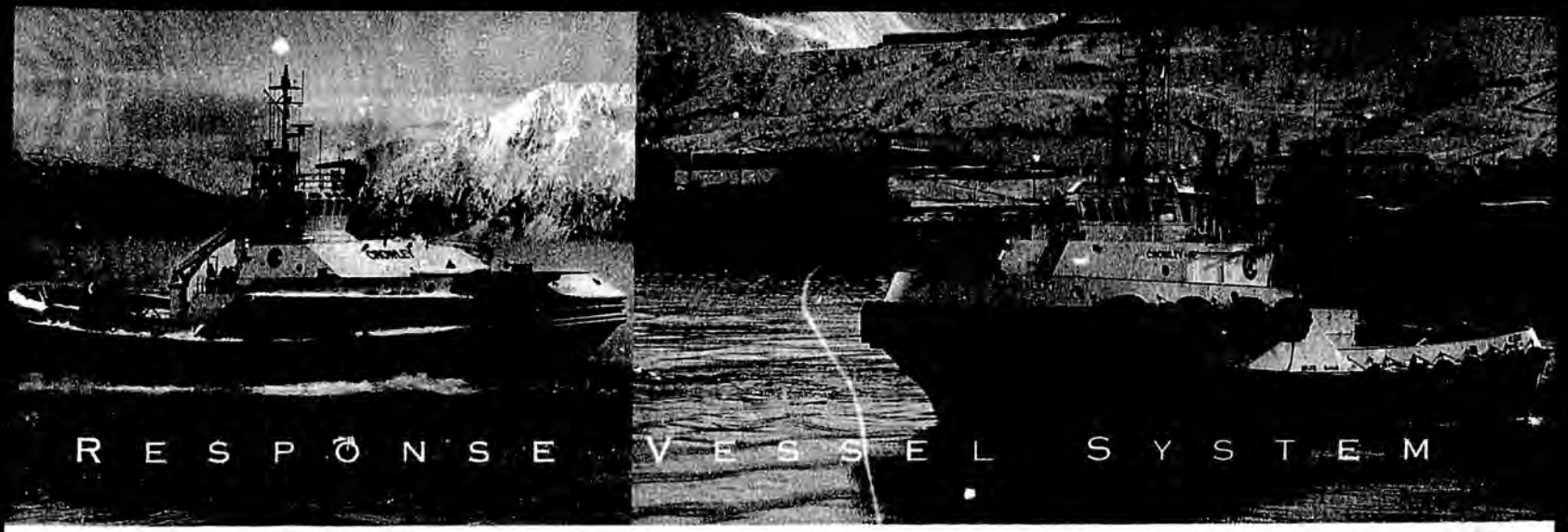
The Valdez Marine Terminal encompasses over 1,000 acres and has facilities for crude oil metering, storage, transfer, and loading. Incoming crude oil is metered and sent either to one of eighteen 510,000 barrel storage tanks or directly to a tanker. To reduce air emissions, vapor recovery systems collect crude oil vapors from storage tanks and loading arms at two berths.

Before transfer to a tanker begins, crews place an oil spill containment boom around the entire berth and the tanker. Ballast water carried by incoming tankers to control buoyancy is removed, and crude oil is loaded. The ballast water is pumped from tankers to the Ballast Water Treatment Facility where it undergoes physical and biological treatment to remove residual oil and contaminants before it is released through a diffuser at the Port of Valdez. The Ballast Water Treatment Facility operates under a permit issued by EPA and the State of Alaska. The entire transfer process from docking to departure of the tanker takes about 24 hours.

PIPELINE TO THE TANKERS

SHIP ESCORT /

The mission of Alyeska Pipeline Service Company's Ship Escort/Response Vessel System (SERVS) is to prevent oil spills from tankers, and to respond should a spill occur. The foundation of our prevention program is the tanker escort system designed to help tankers safely navigate the 70 miles through Prince William Sound to the Gulf of Alaska. During the trip through Port Valdez, Valdez Narrows and Valdez Arm, a powerful tug tethered to the stern of the tanker provides immediate assistance if the tanker loses power or has steering problems. A second vessel stays with the tanker in continuous, close escort as a "sentinel" during the transit of Prince William Sound.



Escort response vessels all carry spill response equipment, response barges are stationed along the tanker lanes and response centers stationed strategically throughout the sound contain additional equipment. The five fish hatcheries in the sound are also equipped with boom systems that can be immediately deployed. SERVS has the largest stockpile of oil recovery and containment equipment in the Western Hemisphere. Our highly trained staff is on duty 24 hours a day, and our inventory includes:

- Modern oil-skimming vessels
- High-capacity oil-skimming systems
- Barges for recovered oil
- Over 40 miles of oil containment boom
- Oil dispersants (for use as necessary, with approval from regulators)

Protecting the sound is a coordinated effort by SERVS, state and federal government agencies, local communities, and area residents. SERVS works closely with the communities and residents of Prince William Sound. Spill response plans rely on local fishing vessels, and Alyeska trains their crews in the use of spill response equipment. The U.S. Coast Guard operates the Vessel Traffic System for Prince William Sound and monitors each tanker's movement from the berth until it enters the Gulf of Alaska. State and federal agencies review and approve oil spill response plans and monitor the Valdez Marine Terminal and tanker operation. The Prince William Sound Regional Citizens' Advisory Council monitors tankers and Alyeska operations in the sound. All of these groups work together to safeguard the region's natural resources.

Alyeska pipeline
SERVICE COMPANY

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David Wight

President and Chief Executive Officer
Alyeska Pipeline Service Company

David Wight is the President and CEO for Alyeska Pipeline Service Company. Prior to joining Alyeska, Wight served as President of BP Amoco Energy Company of Trinidad and Tobago for eight years.

Wight graduated from Texas Tech University with a degree in Petroleum Engineering in 1964 and went to work for Amoco Production Company in Texas as a petroleum engineer. His Amoco career took him to Texas, Oklahoma, Colorado and Illinois where he quickly developed engineering, operation, production, procurement and management experience. He then moved to Egypt as Managing Director of GUPCO, a joint venture with the government of Egypt.

While in Trinidad, Wight oversaw the establishment of the first greenfield liquefied natural gas plant in Trinidad, the second LNG plant in the Western Hemisphere and the start of a two train LNG plant expansion.

Wight places a strong emphasis on his family and considers them the most important part of his life. The opportunity to serve in Alyeska Pipeline Service Company and be a part of Alaska's energy future follows closely.

Dan Hisey

Chief Operating Officer
Alyeska Pipeline Service Company

Dan Hisey is the Chief Operating Officer for Alyeska Pipeline Service Company. Prior to that, Dan served as Sr. Vice President of the Valdez Business Unit for Alyeska Pipeline Service Co. Dan returned to Alyeska on March 1, 1999. He was previously in Alaska with ARCO from 1981 to 1995. From 1991 to 1995, Dan was "on loan" to Alyeska when he served as the Southern Pipeline Business Unit Leader.

In 1995, he left Alyeska and Alaska to return to ARCO in Long Beach, CA as Vice President of Operations and Engineering for ARCO Pipeline. In late 1997, he moved into the position of Vice President of Environment, Health and Safety for ARCO in their corporate headquarters in Los Angeles. Unable to stay away from Alaska for too long, Dan was lured away from a 19 year career with ARCO to join Alyeska directly. Prior to his assignment with Alyeska in 1991, he was involved in engineering, construction, and operations with ARCO in Anchorage and Prudhoe Bay.

Dan grew up in Texas and Wisconsin, and is a graduate of the University of Texas at Arlington with a degree in mechanical engineering. He and his wife, Belinda have 3 sons ages 9, 11 and 20. Dan and Belinda were both on the Board of Directors of the Imaginarium in Anchorage and Belinda was active on the Opera Board. They are looking forward to returning to Alaska and enjoying the outdoor adventures Valdez has to offer.

Alyeska Update

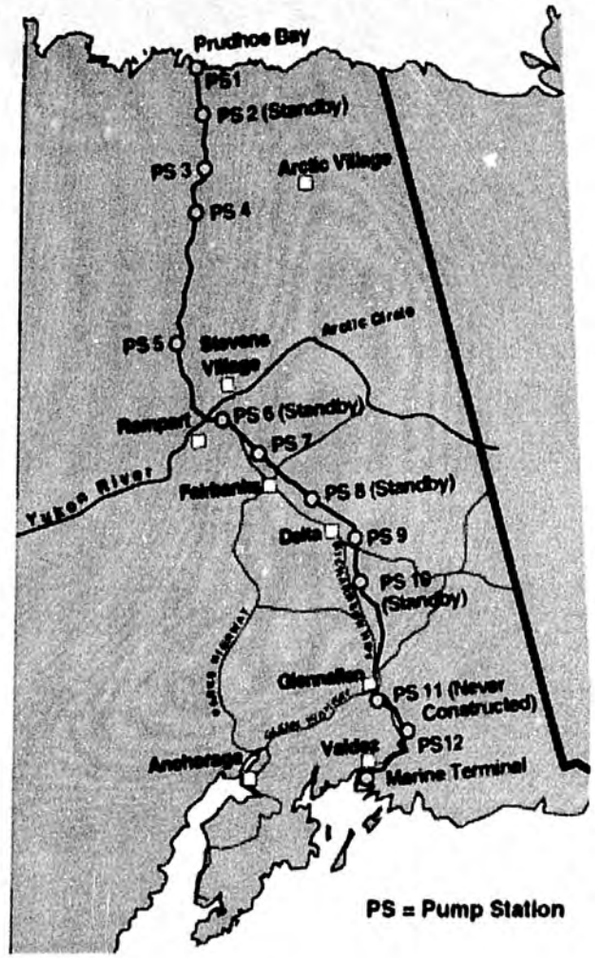
Delivered to the Alaska State Legislature
David Wight, President/CEO
Dan Hisey, COO

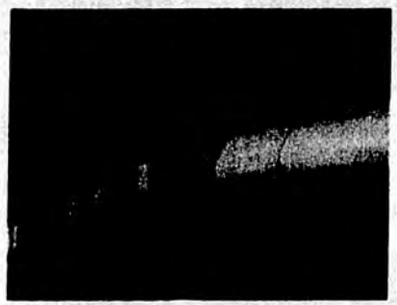
February 14 & 15, 2001

Alyeska pipeline
SERVICE COMPANY

Introduction

- 800 mile system
- Transport oil from Prudhoe to Valdez
- Escort Tankers out of Prince William Sound
- Over 13 billion barrels transported through TAPS
- Current throughput = 1 million barrels per day
- Nearly 20% of domestic production
- 6 Owners





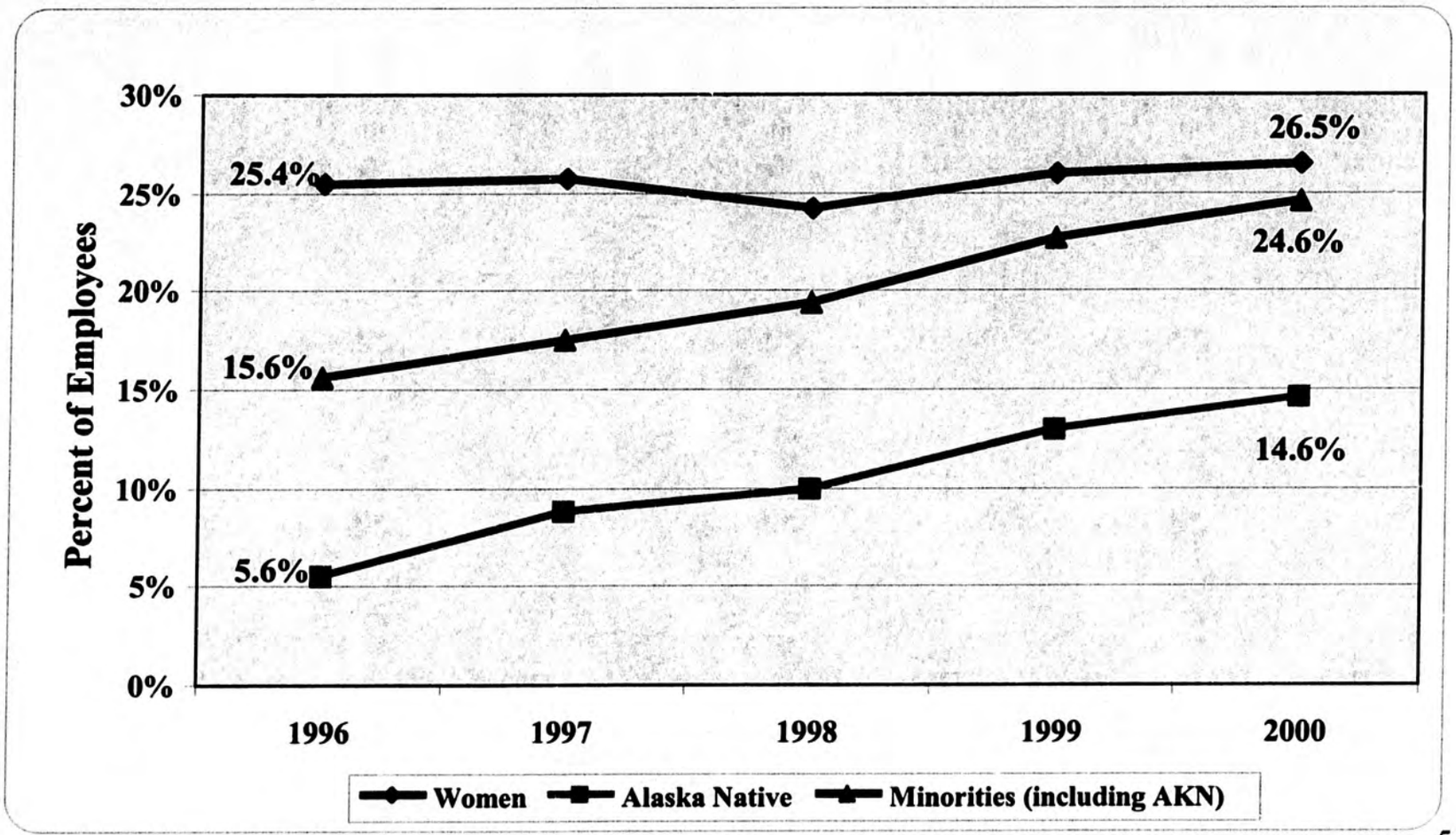
Trans Alaska Pipeline (TAPS) System

- North Slope Oil is the Economic lifeline for the State of Alaska
- Oversight - 21 local, state & federal regulators
- Prince William Sound Regional Citizens Advisory Council
- Over 2000 employees and contractors
- People are major operational element

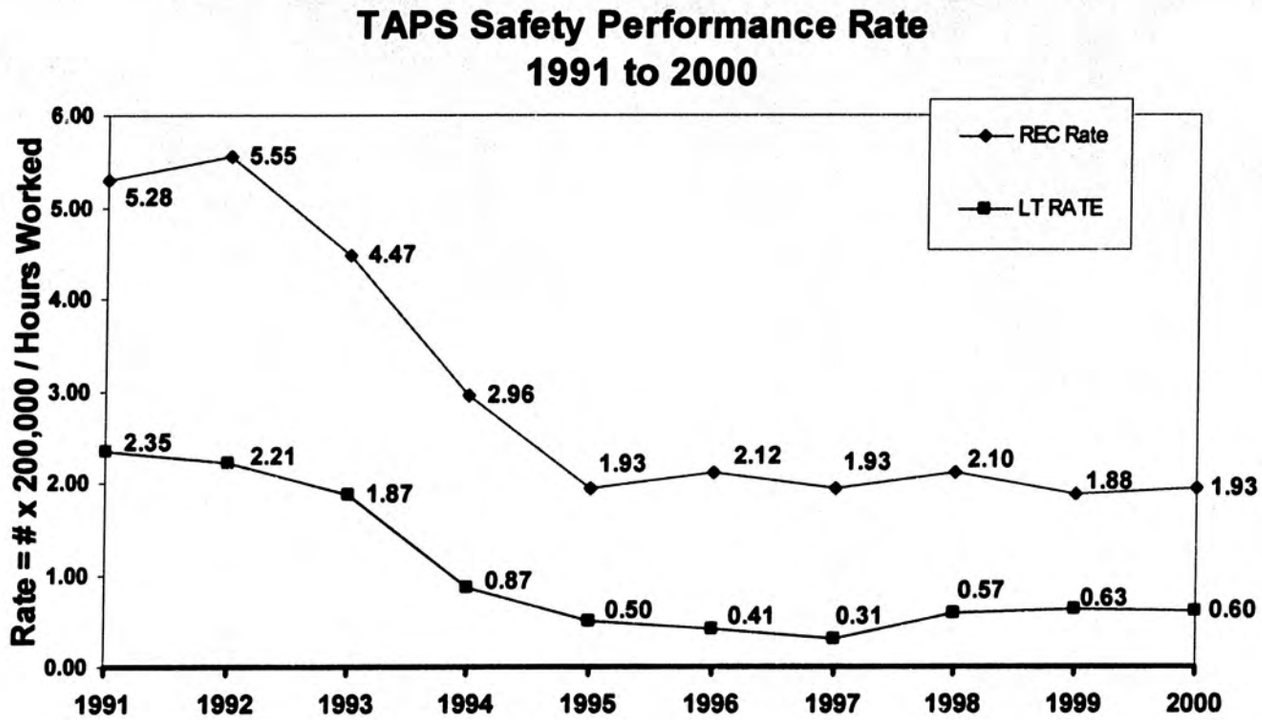
Corporate Culture

- **Open Work Environment**
- **Employee Concerns Program**
- **Building Foundations of Excellence Program (BFEP) Internship**
- **Work Force Diversity/Section 28 & 29 Issues**

Work Force Diversity



Safety Performance

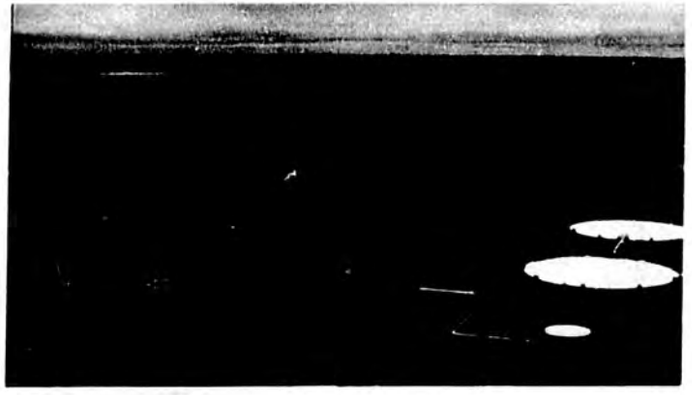


TAPS - One of the Largest Systems in the World

- 800 miles long, 48 - inch diameter
  - 420 miles above ground
  - 380 miles below ground
- Crosses three mountain ranges
- River and stream crossings
  - 34 Major
  - 800 others
- Construction:
  - Work Force Peaked at 28,000
  - Cost = $ 8 billion

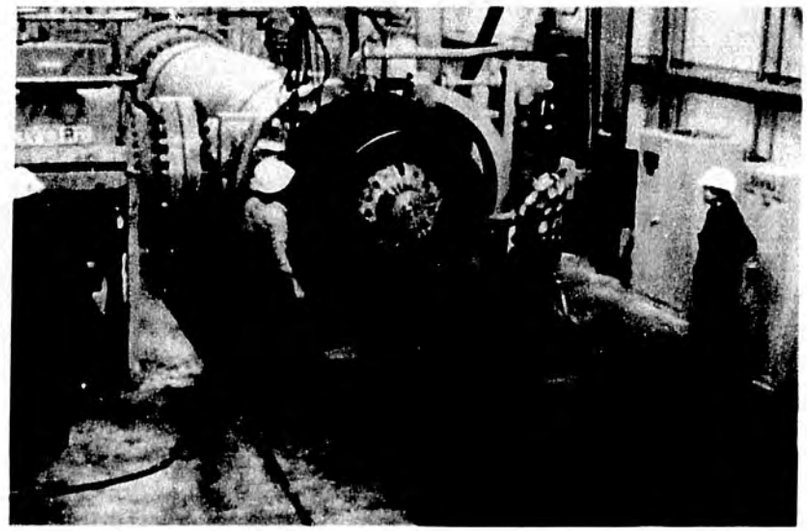
Pump Stations

- 11 Pump Stations
  - 1 relief station
  - 4 stations in standby
- Self-sufficient
- 10-25 person crew/Pump Station
- 3 Mainline Pumps at 18,000 horse power at each pump station



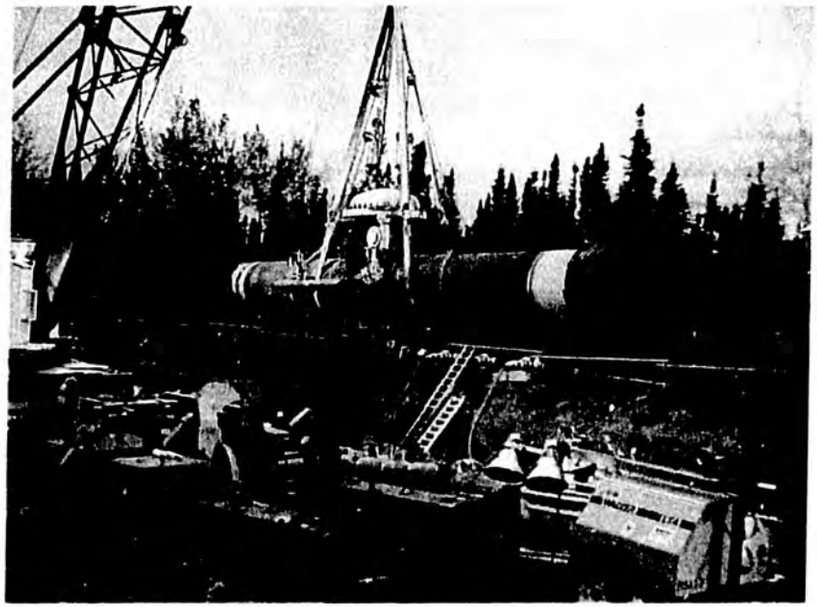
Pipeline Maintenance

- **Indefinite pipeline life if properly maintained**
- **Pipeline Inspecting and Monitoring, Testing, Repairing, and Preventative Maintenance Programs**



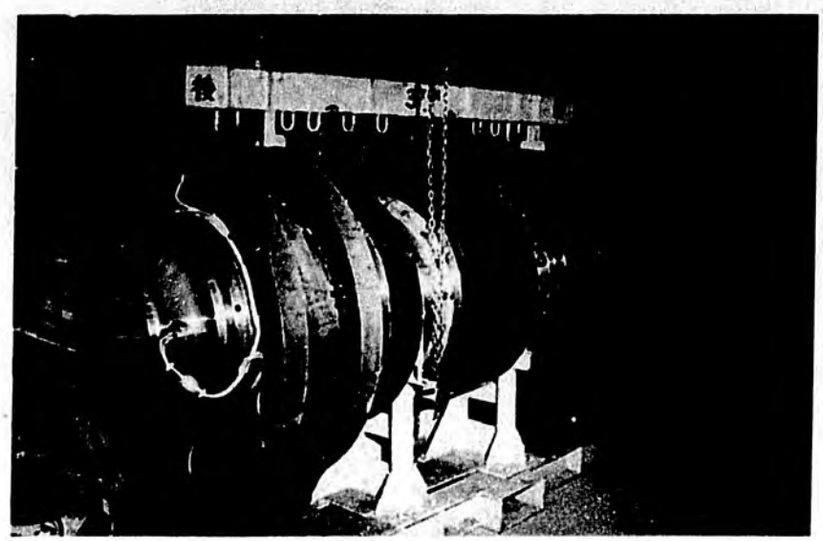
Valve Program

- **1997: Began project to test all pipeline valves**
- **3 valves have been repaired or replaced within the program**
- **The program is now part of routine, ongoing maintenance**



Pigging Programs

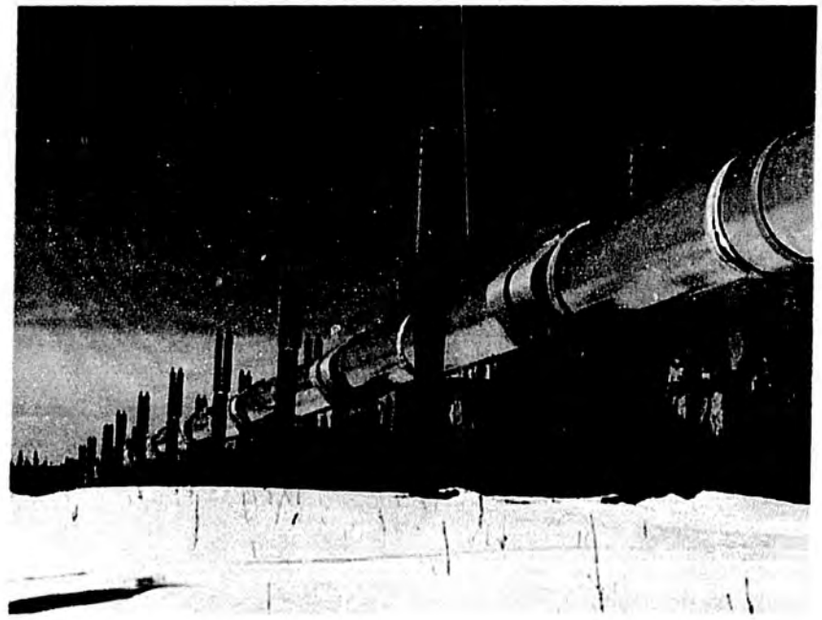
- Aggressive program to monitor integrity of pipe - inside and out
- Industry leaders
- Inspecting, cleaning and monitoring pigs
- Sensors collect critical information - analysis helps drive maintenance decisions

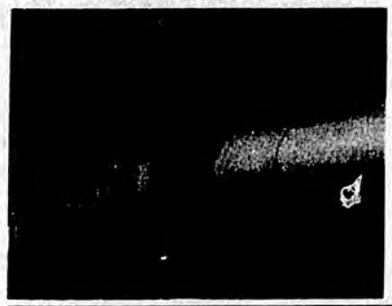


Corrosion Programs

Key to system integrity and longevity:

- **Cathodic protection**
- **Ultrasonic testing**
- **Corrosion inhibitor injection**
- **Visual inspection**
- **Industry leader in corrosion prevention, detection and repair**





Valdez Marine Terminal

Primary Functions:

Measure, store, and load oil onto tankers

- **1000 acres**
- **18 Crude storage tanks - 9 million barrel capacity**
- **4 Tanker loading berths**
- **Controls pipeline operations**
- **Ballast Water Treatment**
- **Electrical power generation**

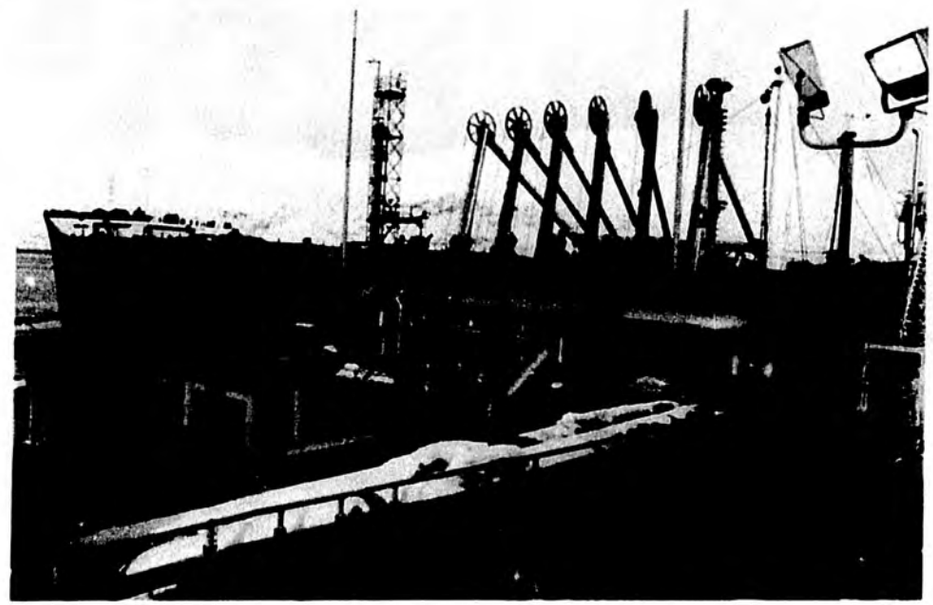
Tanker Vapor Control System

- **438 Tankers loaded in 2000**
- **403 loaded utilized Tanker Vapor Control System (TVCS)**
- **90,000 tons of emissions have been captured since 1997 using TVCS**

Berth Rebuild Projects

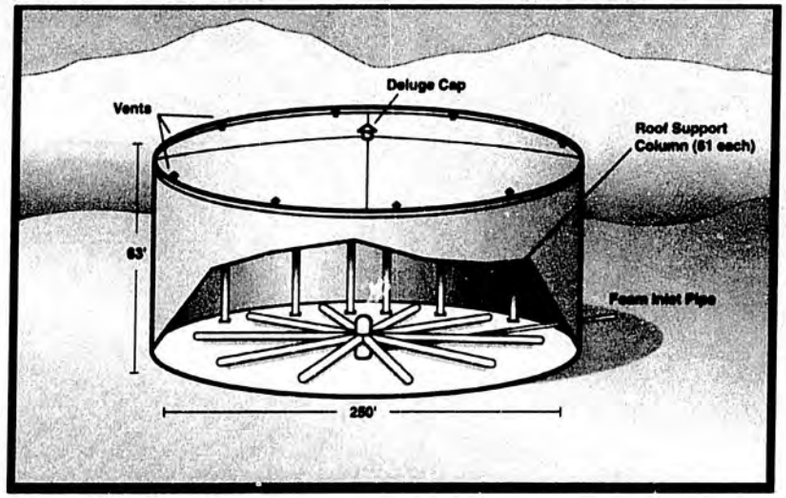
Berth Projects:

- **Goal = Maintain High Reliability:**
  - **Crude loading arms**
  - **Vapor recovery arms**
  - **Control valve replacement**
  - **Ballast water piping**



Crude Oil Tank Fire Suppression System

- Subsurface foam system issues (tank sediments) identified internally in November, 1999
- 16 of 18 tank sediment levels above "spider piping" fire foam system
- Cause of accumulation was predominately paraffin precipitate, due to decreasing crude temperatures
- Levels of accumulations successfully measured using infrared thermography



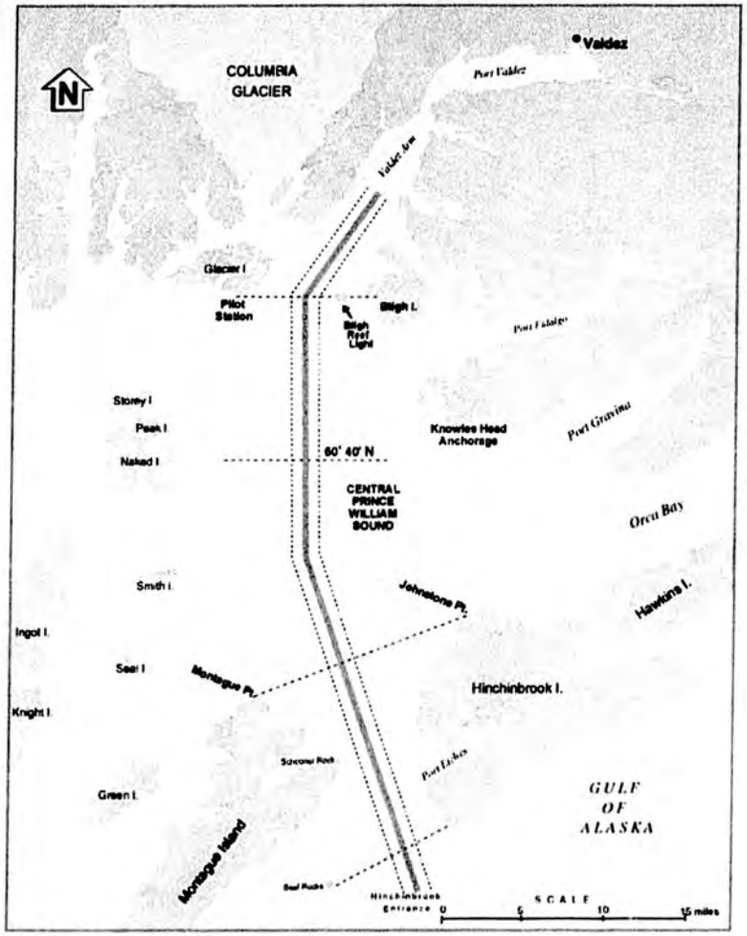
- All 18 tanks were modified to allow flushing of fire foam pipes

Ship Escort Response Vessel System (SERVS)

- **Largest oil spill response organization in the world**
- **Spill prevention**
- **All laden tankers escorted by 2 SERVS vessels**
  - **Escort tankers 70 miles**
  - **Assist tankers in emergencies**
  - **Provide initial oil spill response**
- **Employs:**

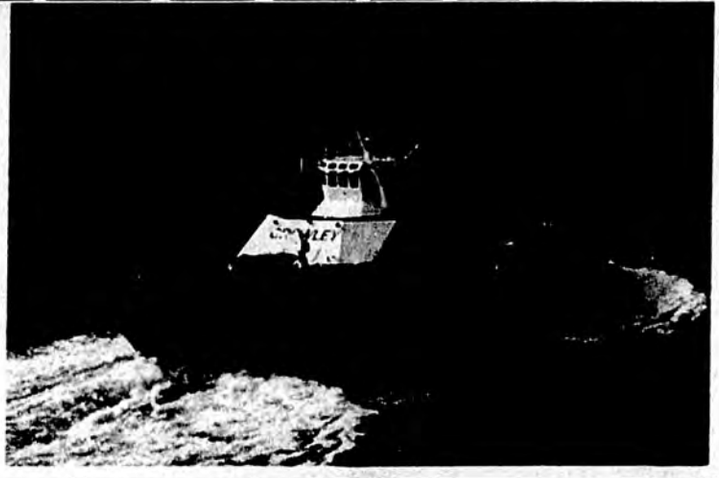
  Alyeska - 34

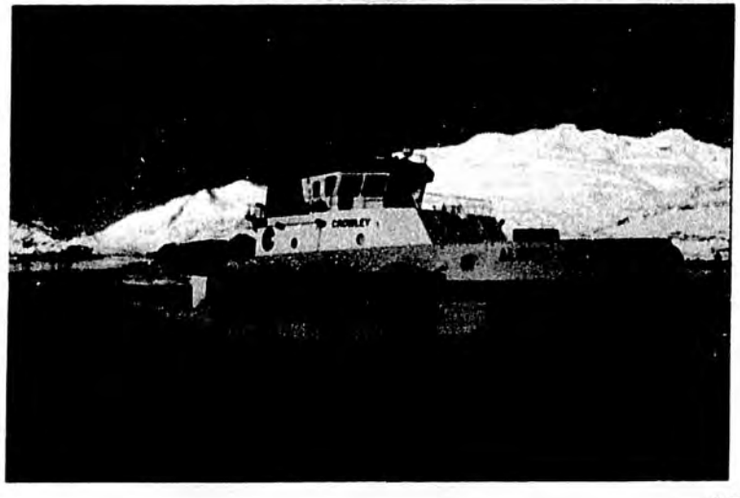
  Contractor - 101



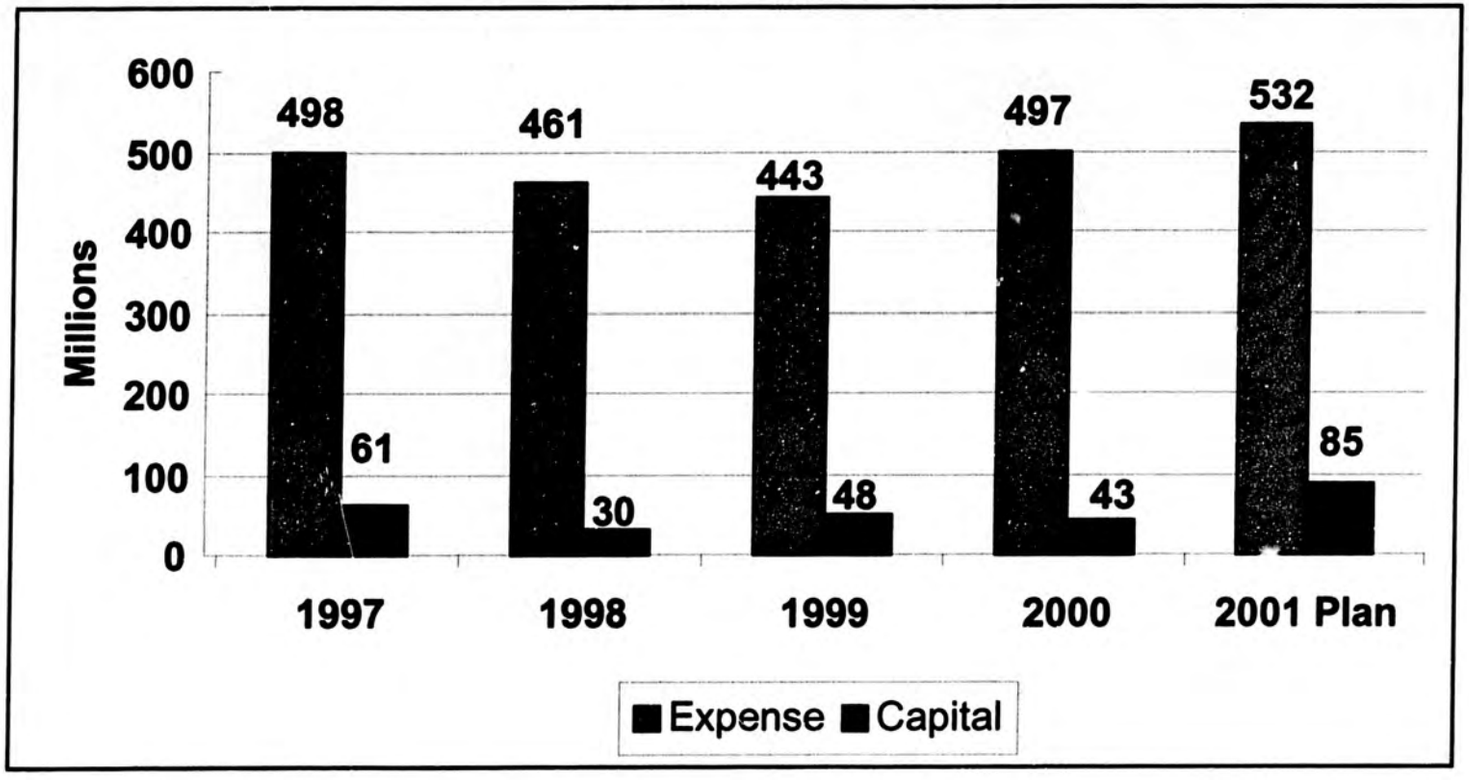
SERVS Equipment

- 2 Enhanced Tractor Tugs (EET)
- 3 Prevention/Response Tugs (PRT)
- 7 response barges
- 3 conventional assist tugs
- 2 line boats
- 1 utility vessel
- 35 miles of containment boom
- 60 skimming systems
- Equipment pre-staged at hatcheries and in Prince William Sound
- 350 fishing vessels on contract

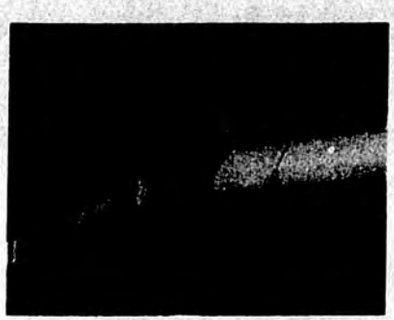




Alyeska Operating Costs



Excludes Owners Costs



TAPS Strategy

- **Maintain high operational reliability**
- **Strategic reconfiguration**
- **Major upgrade of control systems**
- **Pump Station 2 removal - 2001**
- **Improve and streamline management systems**

Right-of-Way Renewal

- **30-Year Grant and Lease expires 2004**
  - **Federal Grant - January 2004**
  - **State Lease - May 2004**

- **National Environmental Policy Act (NEPA) process = critical path**