

SCOMM

144:18

ALASKA STATE LEGISLATURE

Rep. Vic Kohring
Chair
Rep. Ralph Samuels
Vice Chair
Rep. Lesil McGuire
Rep. Norm Rokeberg
Rep. Nancy Dahlstrom
Rep. David Guttenberg
Rep. Berta Gardner



Alaska State Capitol
Juneau, Alaska 99801-1182
Room 24
(907) 465-4899
Fax (907) 465-3818
Charisse_Millett@legis.state.ak.us

HOUSE SPECIAL COMMITTEE ON OIL & GAS

STATE CAPITOL, RESOURCES ROOM # 124

Committee Agenda
House Special Committee on Oil & Gas
Tuesday, January 31, 2006
Ramona Barnes room #124 6:00pm* (delayed 1 hour)

Tuesday - January 31st 2006

+ Overview from AOGA- Alaska Oil and Gas Association. Judy Brady,
Permitting 101

+ = Bills previously heard

Presenters:

Judy Brady, Executive Director
Alaska Oil and Gas Association

Randal Buckendorf, Senior Attorney
BP Exploration (Alaska) Inc.

Pat Foley, Manager of Land, Commercial & Regulatory Affairs
Pioneer Natural Resources Alaska, Inc.

Mark Major, Senior Environmental Coordinator
ConocoPhillips Alaska, Inc.

ALASKA STATE LEGISLATURE

Rep. Vic Kohring
Chair
Rep. Ralph Samuels
Vice Chair
Rep. Lesil McGuire
Rep. Norm Rokeberg
Rep. Nancy Dahlstrom
Rep. David Guttenberg
Rep. Berta Gardner



Alaska State Capitol
Juneau, Alaska 99801-1182
Room 24
(907) 465-4899
Fax (907) 465-3818
Charisse_Millett@legis.state.ak.us

HOUSE SPECIAL COMMITTEE ON OIL & GAS

STATE CAPITOL, RESOURCES ROOM # 124

Committee Agenda
House Special Committee on Oil & Gas
Tuesday, January 31, 2006
Ramona Barnes room #124 6:00pm* (delayed 1 hour)

Tuesday - January 31st 2006

+ Overview from AOGA- Alaska Oil and Gas Association. Judy Brady,
Permitting 101

+ = Bills previously heard

Presenters:

Judy Brady, Executive Director
Alaska Oil and Gas Association

Randal Buckendorf, Senior Attorney
BP Exploration (Alaska) Inc.

Pat Foley, Manager of Land, Commercial & Regulatory Affairs
Pioneer Natural Resources Alaska, Inc.

Mark Major, Senior Environmental Coordinator
ConocoPhillips Alaska, Inc.



Alaska Oil & Gas Association

121 W. Fireweed Lane, Suite 207

Anchorage, Alaska 99503-2035

Phone: (907)272-1481 Fax: (907)279-8114

11

Overview

Permitting in Alaska

House Special Committee on Oil & Gas

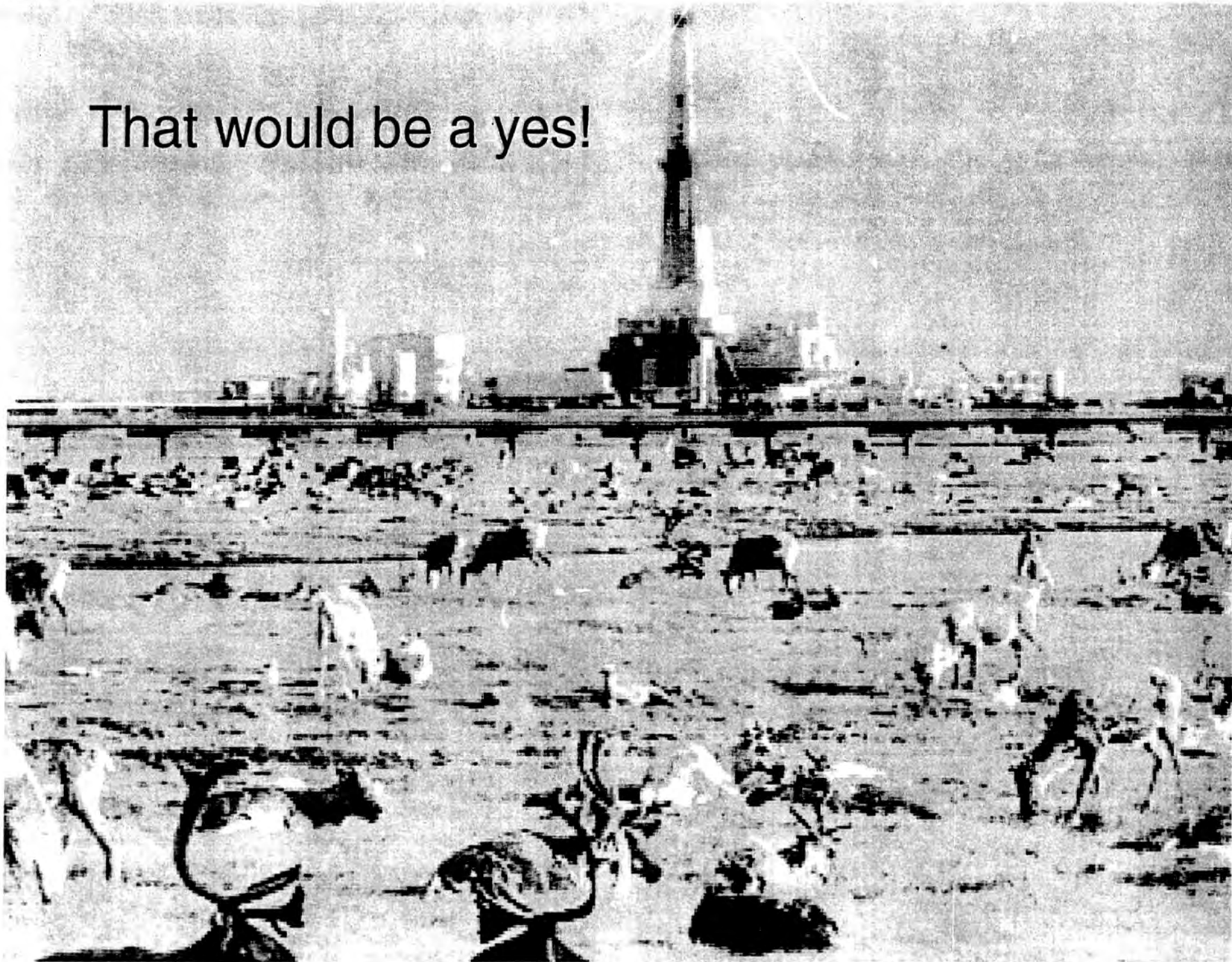
January 31, 2006

Juneau Alaska

Can oil and gas development coexist with
effective protection of sensitive
environments?



That would be a yes!



All of the oil and gas
produced in Alaska...



...is produced in
sensitive environments



The Toolbox for Oil and Gas Development in Sensitive Areas in Arctic Alaska

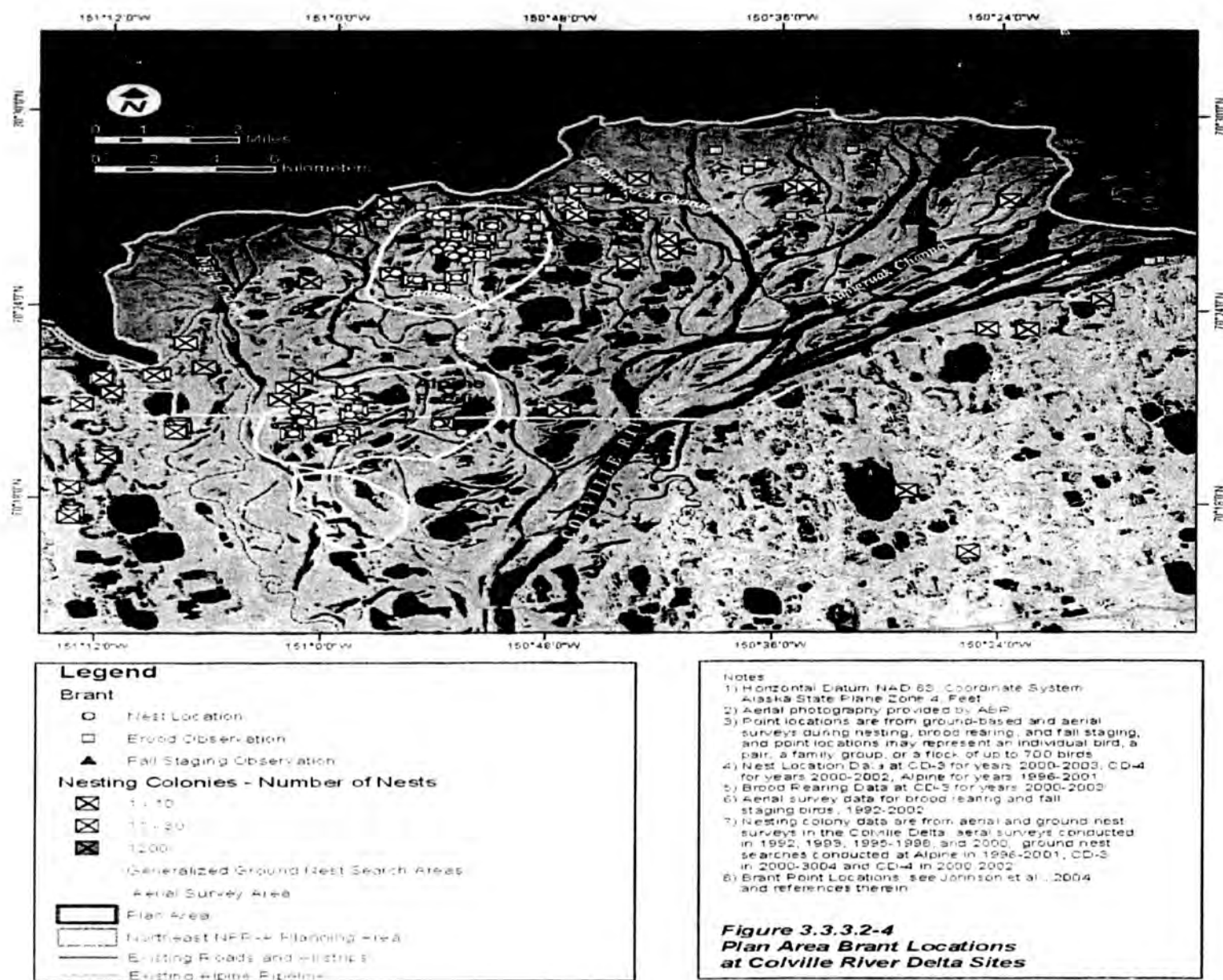
- Good Environmental Reputation
- 3-D Seismic
- Extended Reach Drilling
- Directional Drilling
- Horizontal Completions
- Wildlife and Fisheries Studies
- Roadless Development
- Predictable Permitting Systems
- Performance Accountability
- Remote Sensing
- Habitat Mapping
- Inter-Agency Cooperation
- Coiled Tubing
- Rehabilitation
- Advanced Drilling Fluids
- Air Quality Monitoring
- Modular Drilling Rigs

The Toolbox for Oil and Gas Development in Sensitive Areas in Arctic Alaska (cont.)

- Water Quality Baseline Studies
- Good Community Relationships
- Knowledgeable Agency Staff
- Downhole Separation Technology
- Zero Tolerance for Incidental Damage from Seismic
- Grind and Inject Technology
- Ice Roads and Ice Pads
- Great Rocks
- Multilateral Completions
- Leak Detection Systems
- Rolligons
- A Little Luck

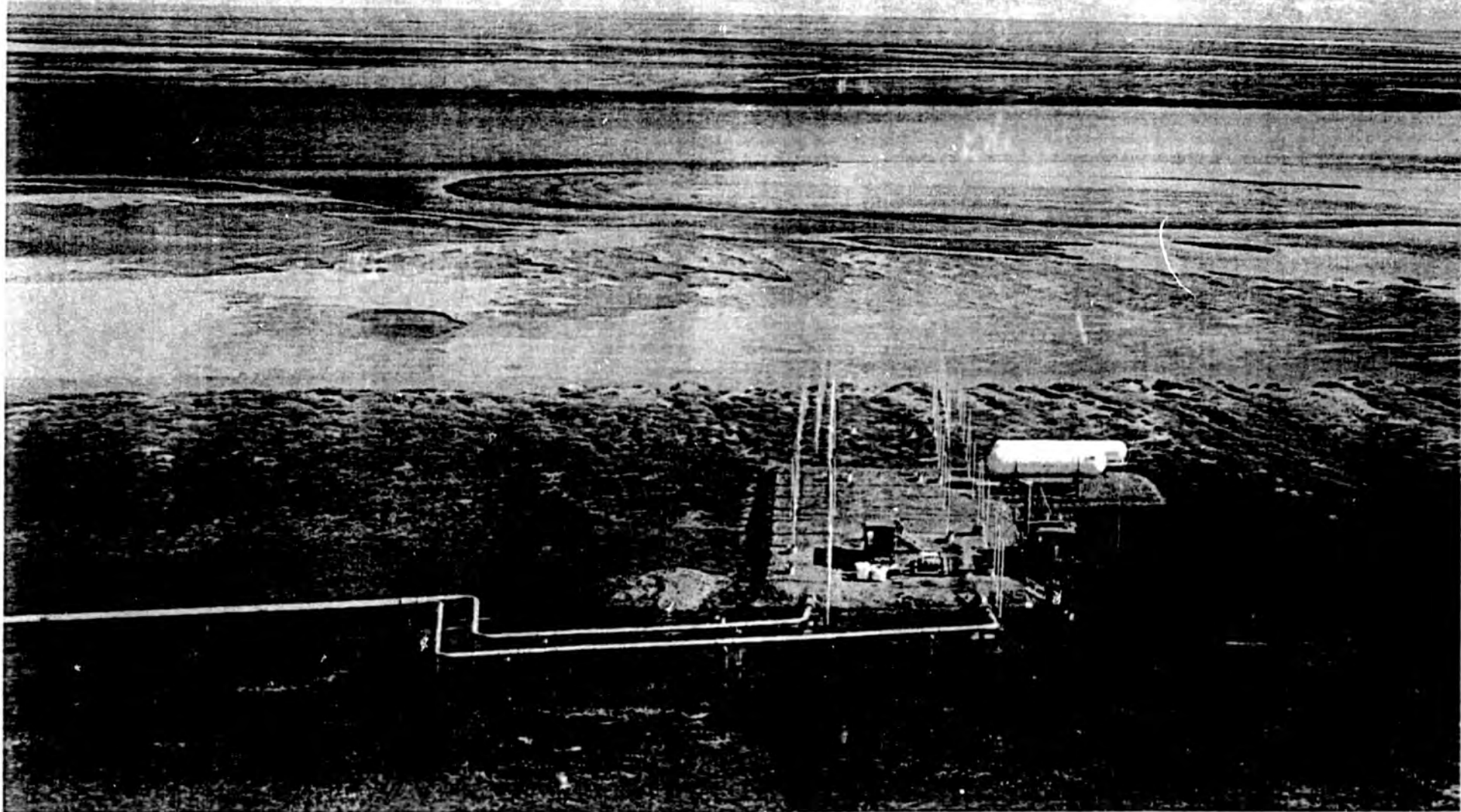
Baseline Studies

- Water quality and volume in lakes proposed for water sources
- Fish species present in lakes, streams and rivers
- Hydrology studies
- Habitat mapping for purpose of staging spill response equipment
- Caribou studies
- Subsistence surveys
- Archaeological/cultural surveys
- Bird nesting and brood rearing surveys (numerous bird species)
- Vegetation studies
- Evaluation of presence of threatened or endangered species



MACTEC Figure 2.2.2.4-00000 1501 Delta.mxd May 23, 2004

Putting the Toolbox to Work



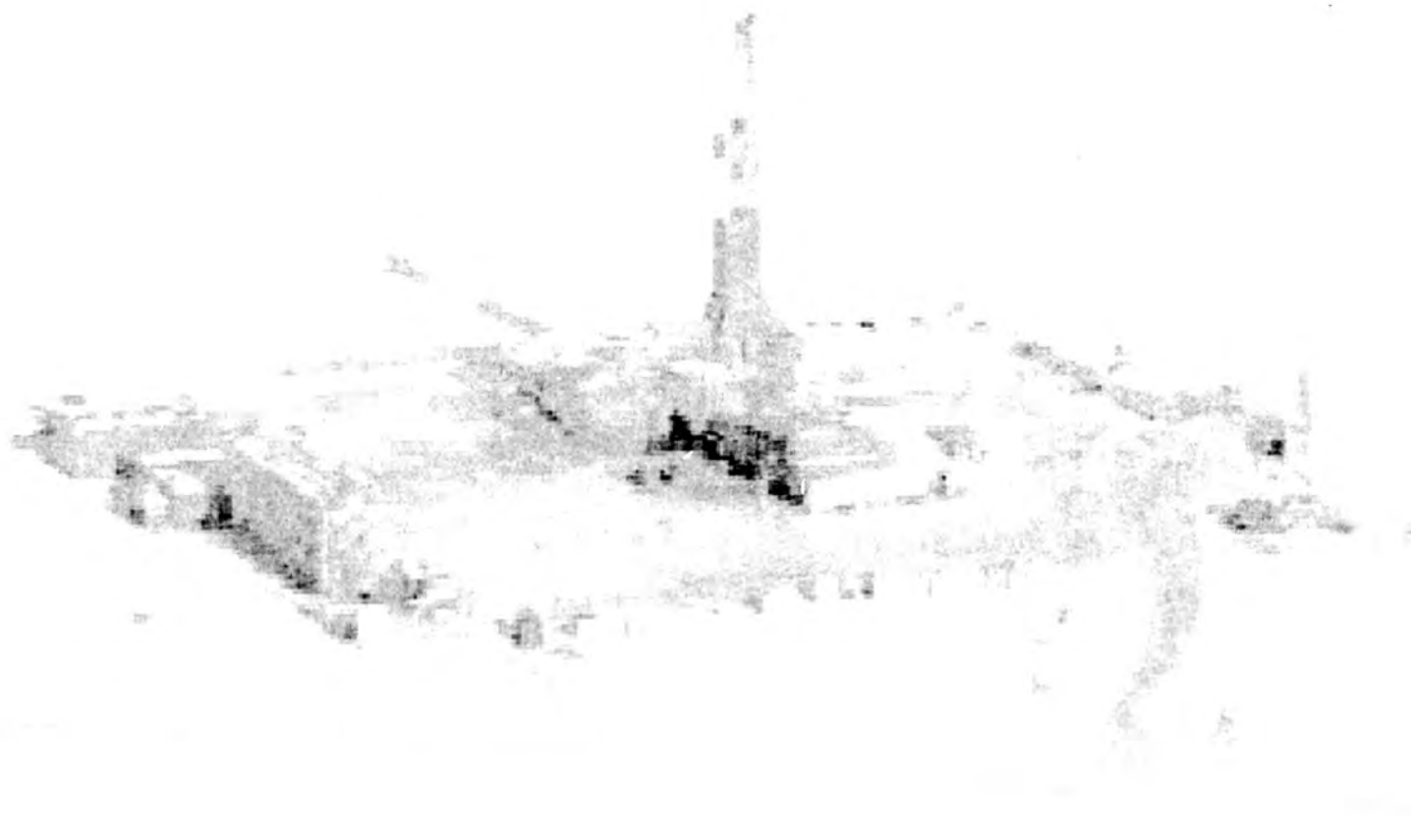
Winter Seismic Operations



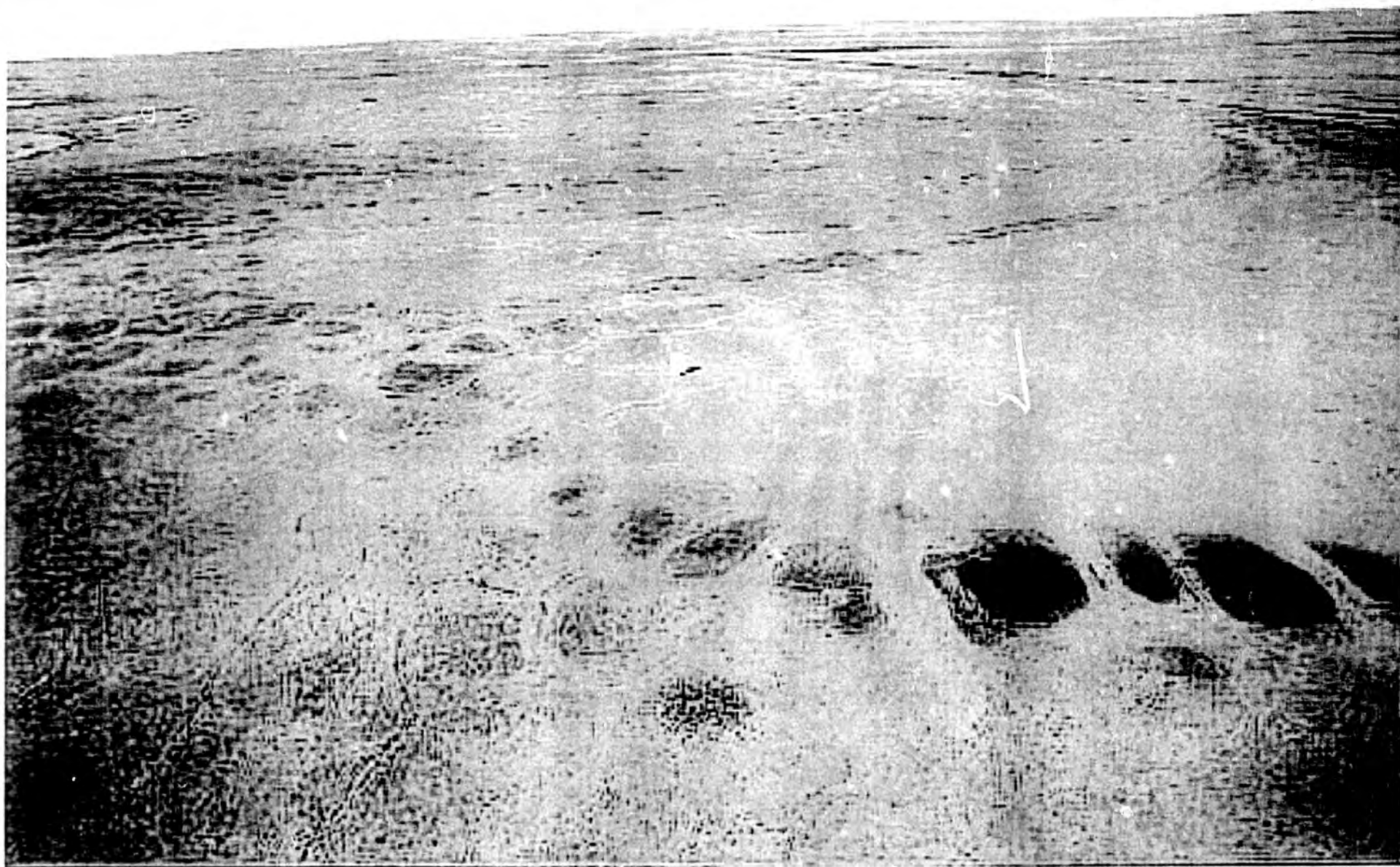
Ice Road Access



Winter Drill Rig

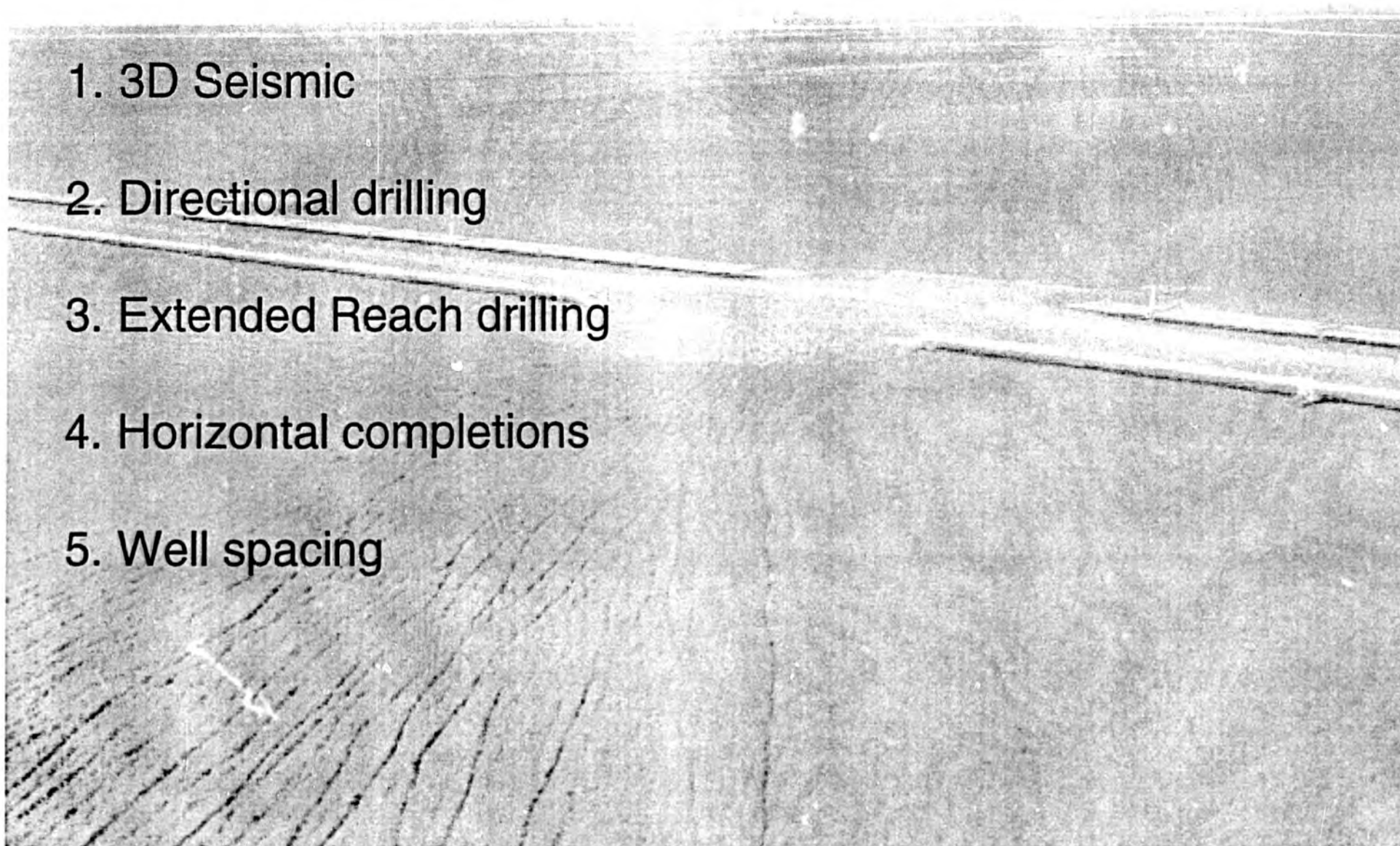


The Following Summer



Footprint Reductions through

1. 3D Seismic
2. Directional drilling
3. Extended Reach drilling
4. Horizontal completions
5. Well spacing



Oil & Gas Permitting on Alaska's North Slope

- Arctic Environment
- Most of the North Slope is Wetlands
- All Onshore Oil & Gas Development is inside the North Slope Borough
- The Majority of Oil Development has been on State Lands
- Recently Onshore Development has Moved to Federal Lands NPR-A
- Some Leases are on Arctic Slope Native Corporation Lands
- Offshore Development Involves Both State and Federal Lands

Key Approvals

1. Environmental Assessment (EA) or Environmental Impact Statement (EIS)
2. Wetlands Section 404
3. North Slope Borough Land Management Regulations
4. Alaska Coastal Management Program Consistency Determination
5. Department of Natural Resources
6. Department of Environmental Conservation (air/C-Plan)

Questions Oil Companies New to Alaska Want to Know

- 1) How long does it take to permit a project?
- 2) How much does it cost?
- 3) Is there a transparent permitting system?
- 4) How complicated is the permitting system?
- 5) How subjective is the permitting system?
- 6) What are the major issues driving permit approvals?
- 7) Who should I talk to?
- 8) What permits do I need?

The Complexity of the Permitting Process in Alaska

Jurisdictional Overlap

Randal G. Buckendorf
Senior Environmental Attorney
BP Exploration Alaska

Why is the Alaska Regulatory Regime Complex?

- Multiple Agency Jurisdictions – Federal, State and Local (Title 29)
- Many permits
- U.S. Environmental Laws and Regulations – generally prescriptive rather than performance driven (e.g. Clean Air Act)
- Differing levels of information required for different permits
- Different process time frames for different permits
- Multiple public comment requirements
- Permit issuance dependent upon other reviews e.g.:
 - Alaska Coastal Management Program (ACMP)
 - National Environmental Policy Act (NEPA)
 - Section 401 Certifications (water quality)
 - Endangered Species Act Consultation
- Alaska resource development often controversial

Recent State of Alaska Permitting Reforms

ACMP

- HB 191 passed by the State legislature in 2003 changed ACMP in two significant areas:
 1. All ADEC permits consistent with ACMP upon issuance (ADEC "carve out").
 2. Coastal districts can only draft enforceable policies that reflect matters of local concern and that do not duplicate matters regulated by federal and state laws and regulations.
- HB 191 deadlines:
 - July 1, 2004 new ACMP regulations implementing HB 191
 - July 1, 2005 revised coastal district programs submitted to DNR for review (amended by SB 102 to March 1, 2006)
- ACMP transferred from Division of Governmental Coordination to DNR (2003).
- ADF&G Habitat Division permitting functions transferred to DNR (2003).

State Primacy

- NPDES – SB 110 - 2005
- UIC Class I – SB 103 - 2005

Two Types of “Legal Requirements”

- Procedural

- National Environmental Policy Act (NEPA)
- National Historic Preservation Act
- Coastal Zone Management Act (CZMA)

- Substantive

- Air Quality Permits
- Water Discharges
- Endangered Species Act
- Marine Mammal Protection Act
- Water Use

Major Federal Programs

- National Environmental Policy Act (NEPA)
- U.S. Army Corps of Engineers Section 404/10
- Clean Water Act National Pollutant Discharge Elimination System (NPDES) Permitting
- Endangered Species Act
- Safe Drinking Water Act (Injection Wells)
- Marine Mammal Protection Act
- Bureau of Land Management Oil and Gas Permitting (NPRA)
- Bureau of Land Management Pipeline Right-of-Way
- Minerals Management Service OCS
- Oil Pollution Act of 1990 (OPA 90)
- Executive Orders Affecting Energy Projects
- Other Federal Authorizations and Consultations

Federally-Delegated/Approved Programs

- Clean Air Act – Air Permitting Program
 - Construction Permits
 - Operating Permits (Title V)
 - Minor Permits
- Underground Injection Control
 - Class II (oil and gas wastes from downhole)
 - Class I (non-hazardous being analyzed for Alaska assumption as a result of SB 103)
- Coastal Zone Management Act/Alaska Coastal Management Program
- Alaska Water Quality Standards (State in the process of applying for NPDES permit primacy from EPA as a result of SB 110)

Multiple State Agencies, Most with Dozens of Authorizations

ADEC

Commissioner's Office

Division of Health

Division of Air Quality

Division of Water

Division of Spill Prevention and Response

DNR

Commissioner's Office

Office of Project Management and Permitting

Office of Habitat Management and Permitting

Division of Mining, Land and Water

Division of Oil and Gas

Division of Parks and Outdoor Recreation

AOGCC

Alaska State Historic Preservation Office

ADF&G

Alaska Coastal Management Program

Summary and Issues

- Provides a mechanism to ensure responsible future development in coastal zone areas
- Provides additional input into permitting processes particularly through review of projects with respect to conformity with district enforceable policies
- Provides input to OCS activities
- ACMP has been the only mechanism to coordinate permitting of projects requiring multiple permits (now this is done through DNR/OPMP)
- Importance of A and B List (HB 191 mandated expansion)

What is the ABC List?

- The ABC List is a list of most federal and state permits and activities authorized under those permits classified according to whether a consistency review is required or not for those particular activities and the permits that authorize them.
- No consistency review for A and B List activities – expedited permitting
- A List – Categorically Consistent
- B List – General Concurrence Determination (standard stipulations)
- C List – Individual Consistency Review
- HB 191 mandates expansion of A and B (AOGA has proposal).

Alaska Coastal Management Program

A-List Examples (ADNR/DOG)

Lease Operation Approval in the **North Slope Borough** for the following activities:

1. Winter-season *cable trenchments* when the vegetative mat is replaced
2. Pipelines installed on *existing vertical support members*
3. *Gravel placements* within the inside perimeter of pads
4. Temporary (one year or less) *placements of camps* or equipment at existing pads
5. Installation and winter-season placement of *temporary snow fences*
6. *Installation of liners* inside the berm of existing, previously utilized reserve pits
7. *Clean-up activities* on existing pads
8. On-pad placement of light poles, railings, electrical towers/poles, modules and associated oil and gas buildings

Alaska Coastal Management Program

B-List Examples Applicable to the Oil Industry

- GCD-5 Equipment crossing of fish streams
- GCD-5A Low water crossings (TAPS) corridor
- GCD-7 Culvert and bridge installation
- GCD-8 Temporary and permanent water use (100,000 gpd or less)
- GCD-24 Exploration sampling, geologic reconnaissance, and/or small scale drilling
- GCD-25 Winter seismic surveys for oil and gas in the North Slope Borough
- GCD-32 Maintenance and repair activities along the trans-Alaska Pipeline System
- GCD-34 Ice road and ice pad construction in the North Slope Borough
- GCD-36 Training and temporary staging for oil spill response
- GCD-45 Storage of materials at existing pads in the North Slope Borough
- GCD-46 Installation of permanent snow fences, power transmission lines, and light poles
- GCD-47 Construction of pipelines on new VSMs and installation of pig launcher and receiving pads (note: not for major cross-country lines associated with major projects or other non-routine projects)
- GCD-48 Gravel additions of .33 acres or less in the North Slope Borough

Local Programs

- North Slope Borough (NSB) has Title 29 Planning and Zoning Authority
- Land Management Regulations under Title 19 of NSB Code (current 1990, revisions proposed)
- Zoning districts:
 - Barrow (4)
 - Village
 - Conservation (default for most of Borough)
 - Resource Development (grandfathered or rezoning required for new developments in Conservation District)
 - Transportation Corridor (e.g. TAPS)
- Rezoning – recommendation of Planning Commission, approval by Borough Assembly, applicant submits “Master Plan”
- Zoning defines use, activities requiring permits, type of permits required
 - Local authorization required for nearly all activities, even if already approved by State or Federal Government

Permitting for New Resource Development Projects

Identification of Permits Required

Identification of required permits:

- Land owner/manager and jurisdictions
- Location – onshore or offshore, in the coastal zone or outside, wetlands or uplands
- Conceptual scope of the project in terms of potential impacts to media: land, air, water and biota
- Conceptual scope of project in terms of project resource needs (e.g. water and gravel)
- Conceptual scope of the project with respect to site access and transportation needs
- Questionnaire to organization initiating project (similar to CPQ) to identify permit requirements

Examples of Permitting Timeframes*

Small Projects (2 - 4 weeks)	• New modules/skids • VSMs • Cable trenching • In-field ice road
Medium Projects (3 - 6 months)	• Gravel pad expansion • Small, new pads • Pipelines (non-common carrier) • Exploration well • New water source • New gravel source • Contaminated site rehab • Solid waste storage facility
Large Projects (3 - 36 months or more) Note: If an EIS involved, 18-36 months)	• Multiple new pads • New developments • Modification or new emissions (air permit)

* Timeframes are from the submittal of complete application



PIONEER

NATURAL RESOURCES ALASKA

Oooguruk Project

***House Oil & Gas
Special Committee***

Juneau, Alaska

January 31, 2006





Preferred Project Description & Overview

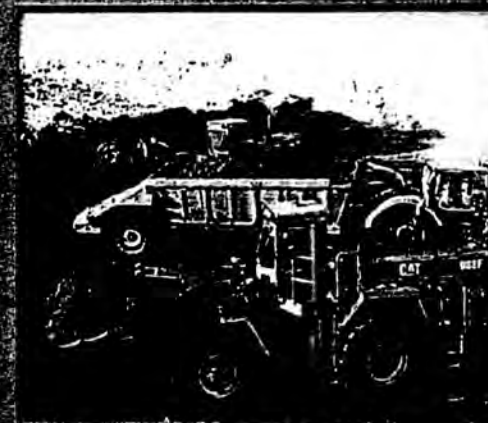
- **Kuparuk & Nuiqsut Reservoir Development**
 - 15,000 to 20,000 bopd peak rate
 - Production processing by KRU in existing facilities
 - Un-manned operation - 24/7 remote control & monitoring
- **Single Offshore Drillsite**
 - 6 Acres in 4.5ft water
 - 40 to 60 Production Wells within Wellhead Modules
- **Subsea 3-Phase "Pipe in Pipe" Flowline**
- **Onshore 7' VSM Flowlines**
- **2 Ac. DS-3H Pad Expansion**
- **Material Source is Mine Site "E" Expansion**



Major Project Construction Components

■ Winter 2006

- Gravel Mining @ Mine Site E
- Ice Road Construction to Support Gravel Haul
- Gravel Placement - Drillsite & DS-3H Expansion



■ Winter 2007

- Ice Road Construction to Support Flowline Installation
- Sea Ice / Floor Trenching
- Flowline Bundle Installation
- Onshore VSM Installation
- Offshore Facility & Equipment Installation



■ 2008 – 2011

- 38 Well Drilling Program

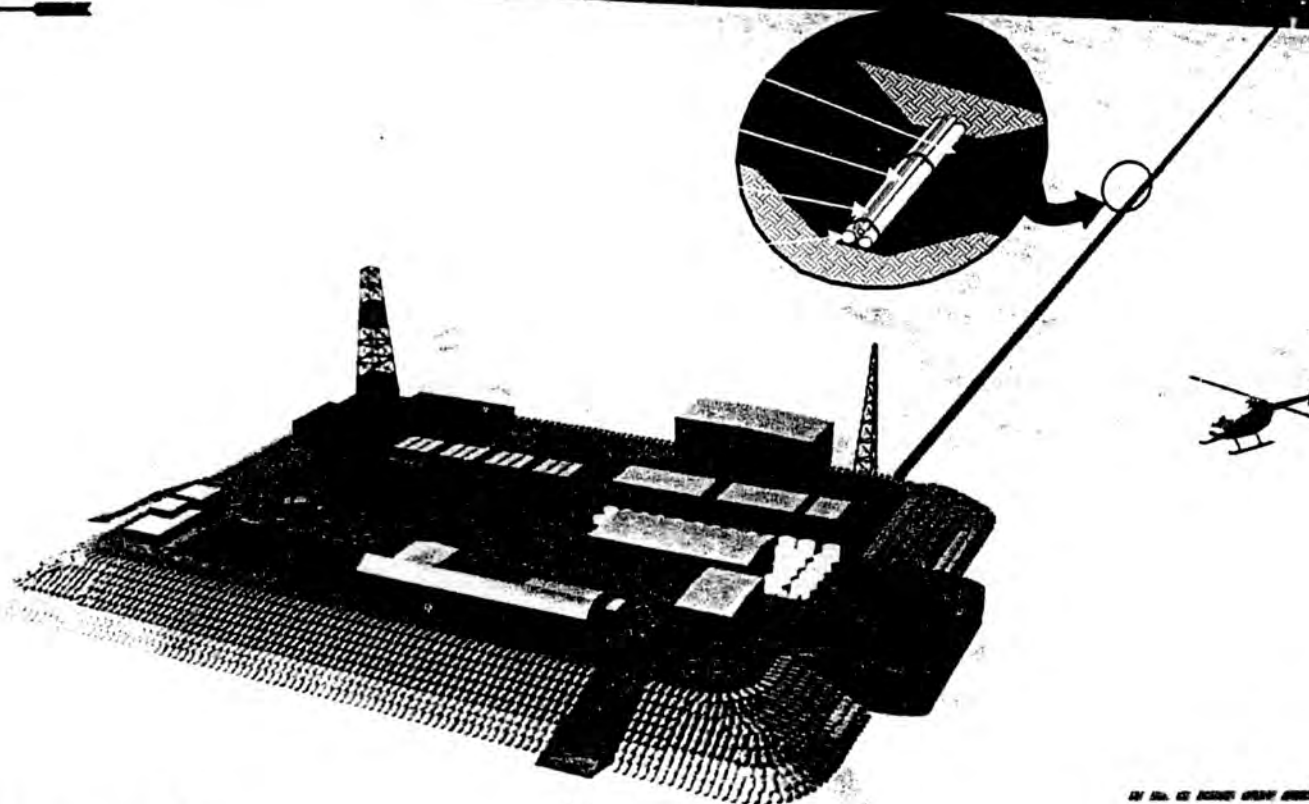


Facility Artist Rendition



OOOGURUK FIELD DEVELOPMENT

TO CONOCOPHILLIPS
DS-3H FLOWLINE



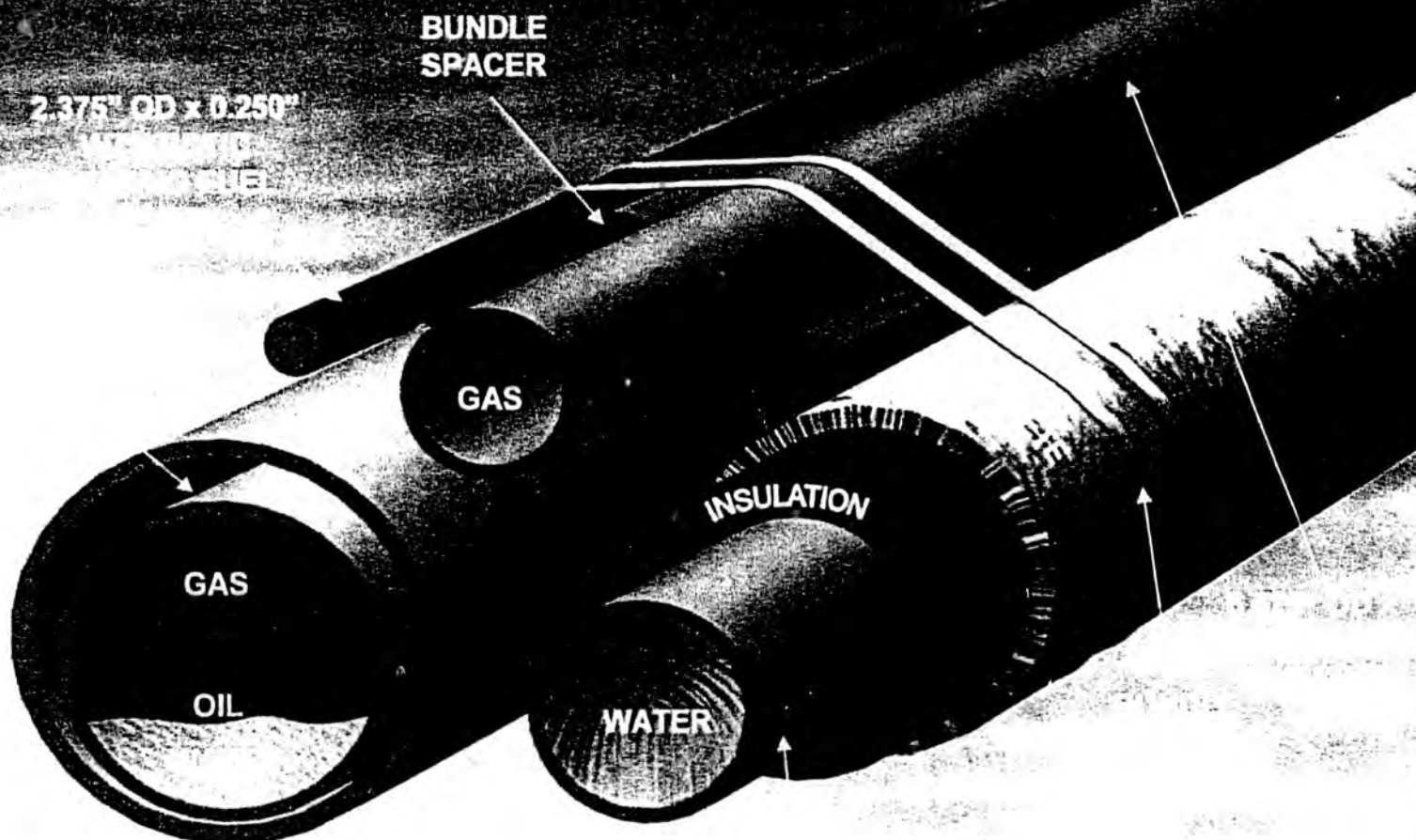
11187602-001 November 14, 2005

FOR THE USE OF THE CLIENT ONLY

ENGINEERING

PIONEER NATURAL RESOURCES

FLOWLINE BUNDLE CONFIGURATION

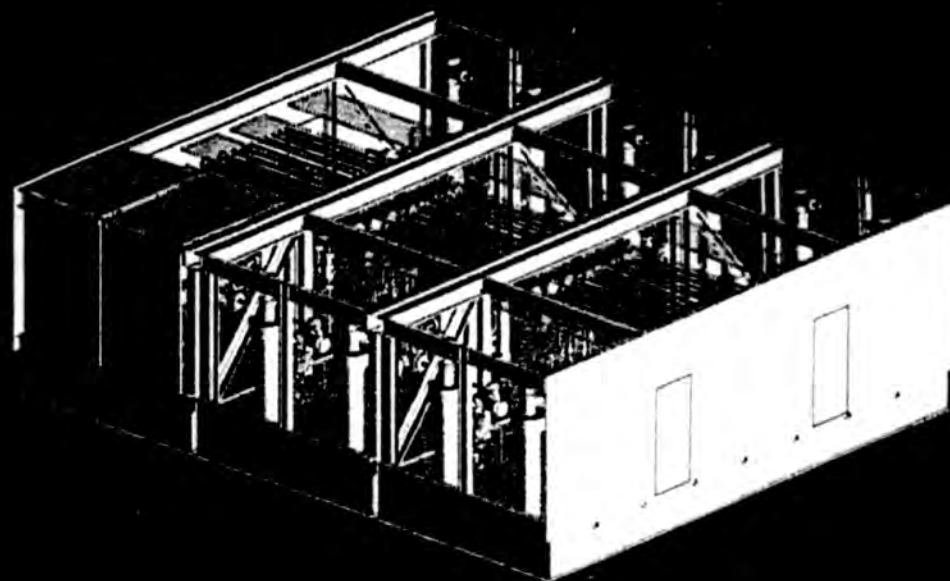
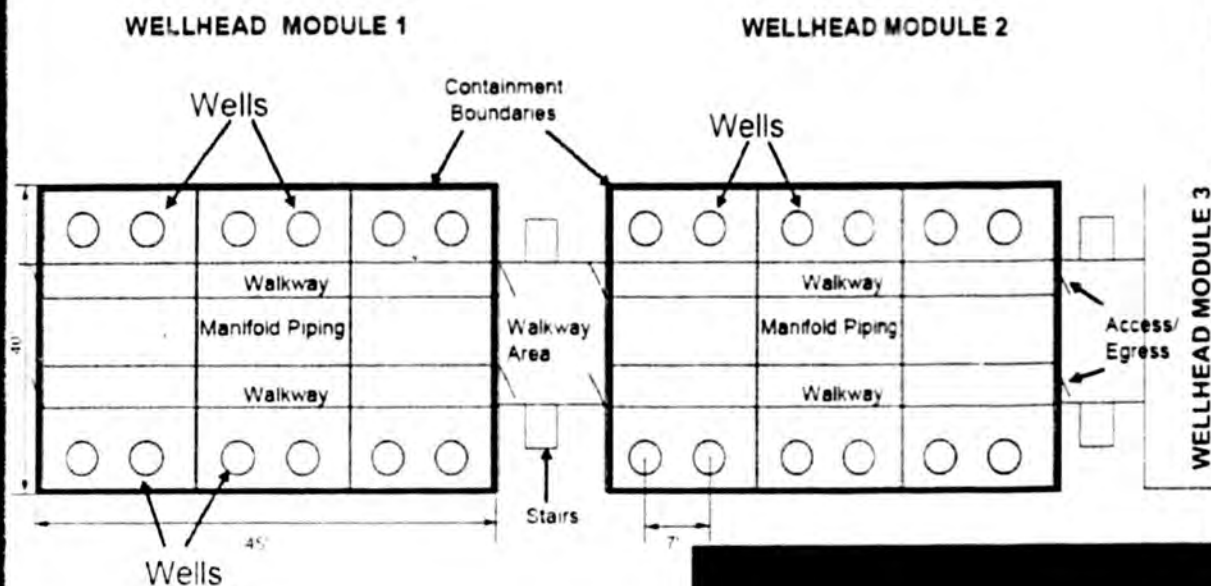


ENGINEERING

11187602-02 November 16, 2005

PIONEER NATURAL RESOURCES

Well Bay Modules (Fluid Containment)



Evaluation Studies & Reports



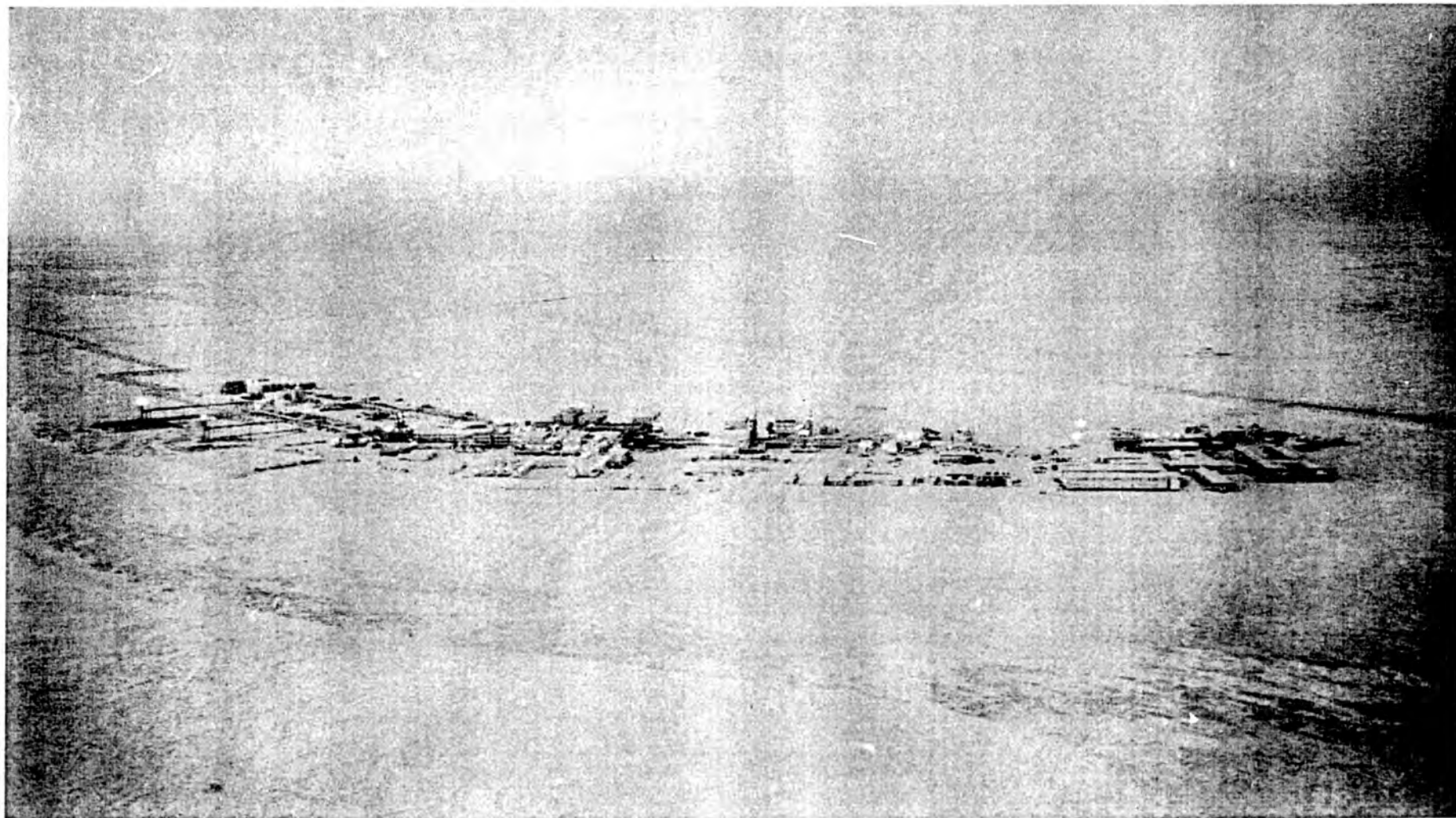
- | | |
|-------------------------------|-----------------------------------|
| 1. Geotechnical | 14. Logistics & Transportation |
| 2. Bathymetric | 15. Avian Avoidance |
| 3. Hydrology | 16. Air Quality & Emissions |
| 4. Wetland, Wildlife, Habitat | 17. Lake Water Source |
| 5. Offshore Habitat | 18. Polar Bear Avoidance |
| 6. Wind & Waves | 19. Drilling Alternatives |
| 7. Coastal Erosion | 20. Slope Protection Design |
| 8. Ice Encroachment | 21. Cumulative Impacts |
| 9. Ice Floe Analysis | 22. Cultural Resources |
| 10. Ice Conditions | 23. Mine Site Rehabilitation |
| 11. Oceanographic Conditions | 24. Endangered Species Assessment |
| 12. Wave Tank Simulation | 25. Spill Analysis |
| 13. Lighting Plan | 26. Traditional Knowledge |
| | 27. C-Plan |

Alpine Satellite Development Project

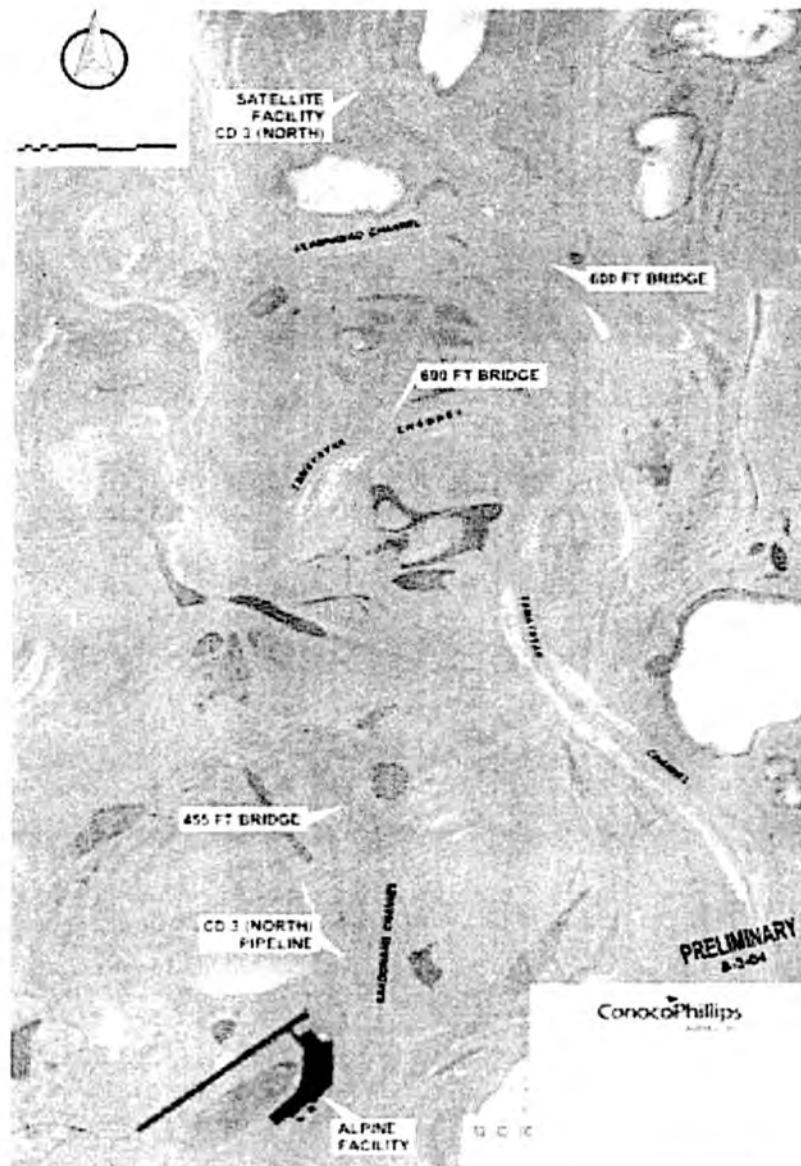


ConocoPhillips

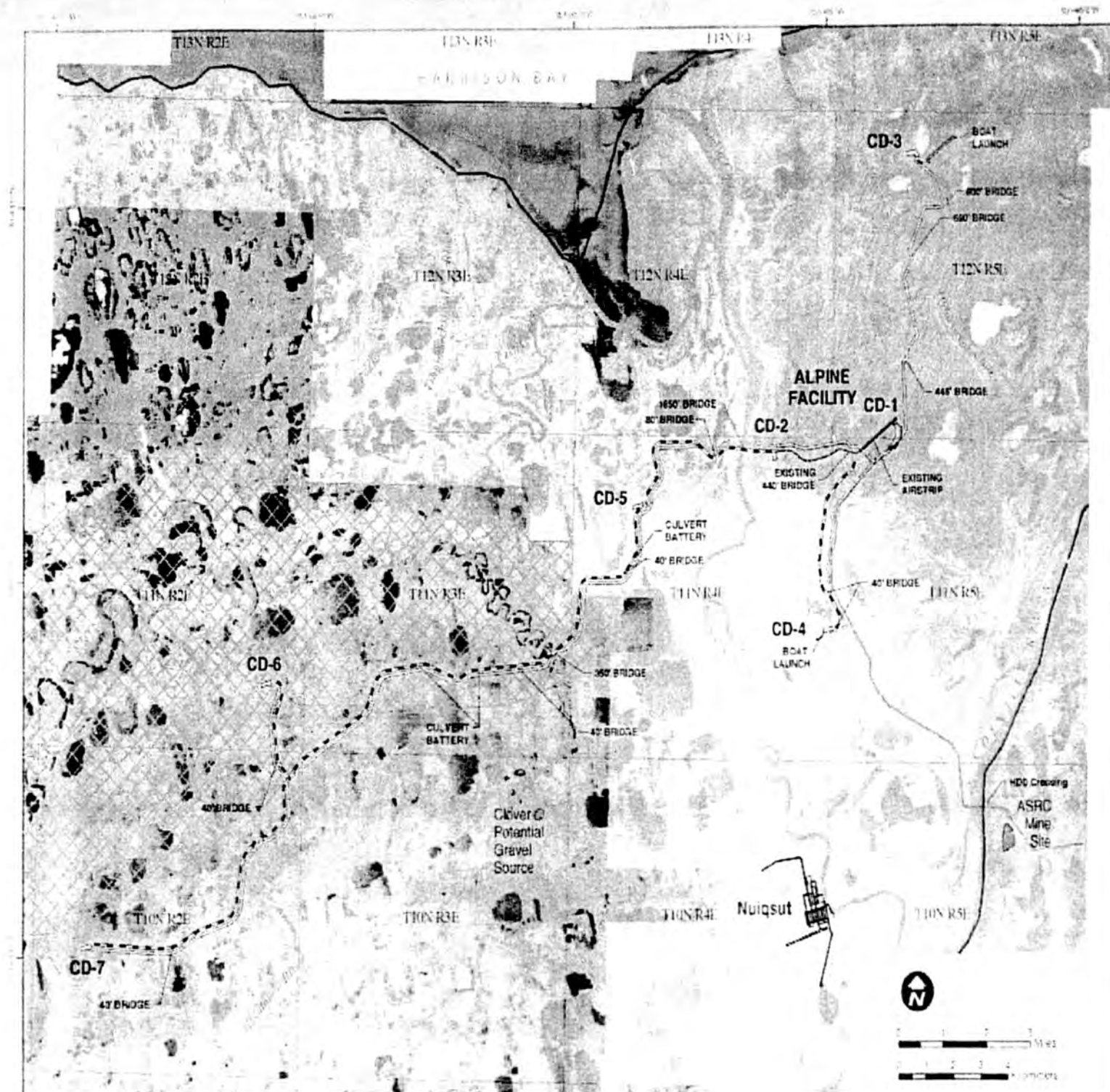
Existing Alpine Facilities (prior to Satellite Development)



Alpine Oilfield and Satellites: CD 3 Overview



- 11.8 acre gravel pad
- Gravel access road between pad and airstrip
- 9.7 acre airstrip
- Minimum 7 foot high aboveground pipelines
- Spill response equipment at drill site and pre-staged at strategic response locations



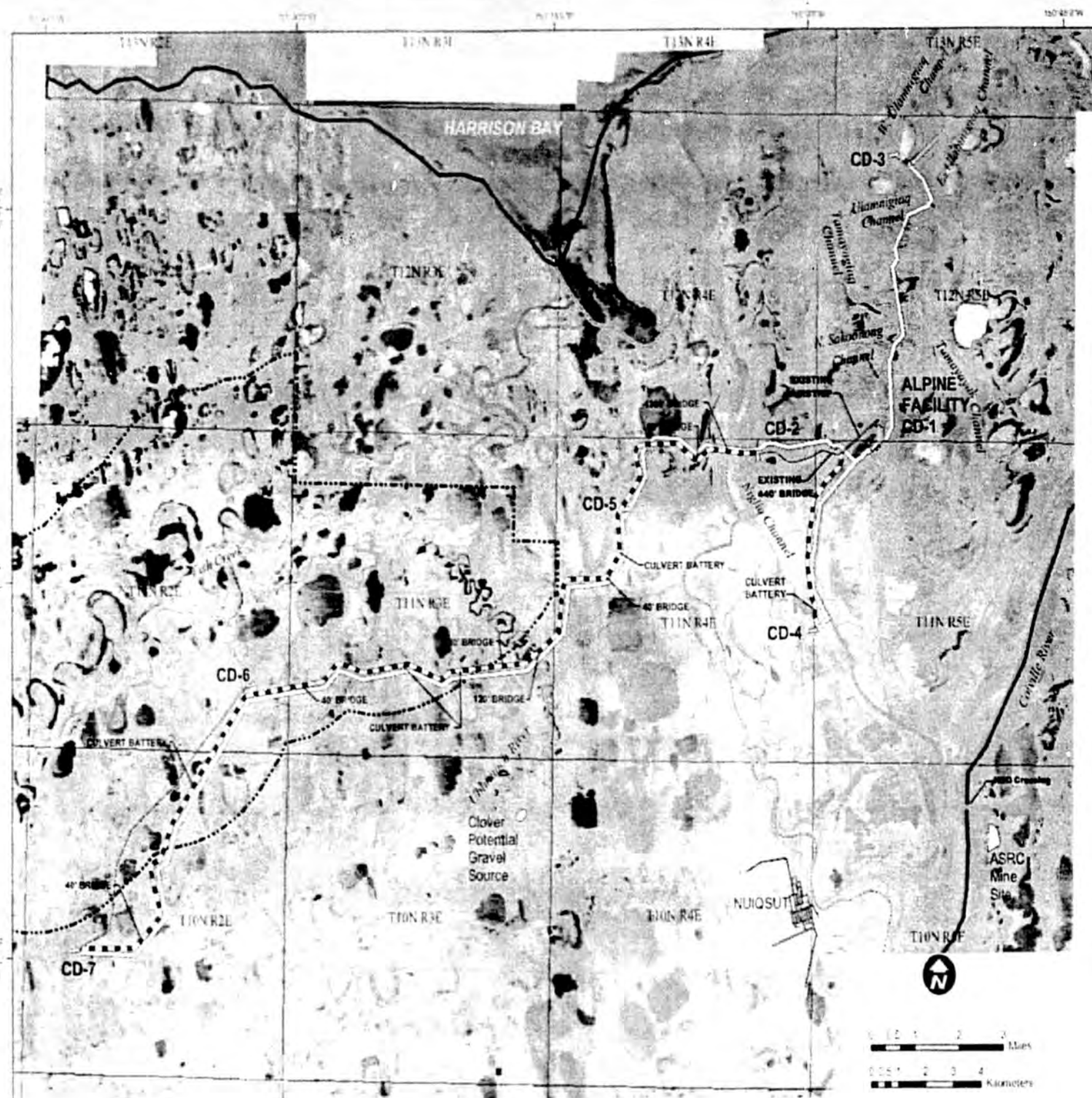
Legend

- Proposed Road
- Proposed Access Road
- Proposed Pipeline Right-of-Way
- Proposed Airfield
- Existing Road
- Existing Infrastructure
- Existing Airfield
- 5-Mile Fish Creek Buffer
- Gravel Source
- Plan Area
- Northeast NPS A Planning Area
- State Land
- Native Land

Notes

1. Locations of facilities and proposed roads and pipelines are approximate.
2. Proposed roads and pipelines are shown larger than actual footprint for visual representation.
3. Right-of-way boundaries are shown 7 feet above the terrain.
4. Horizontal Datum: NAD 83, Coordinate System: Alaska State Plane, Zone 4, Feet.
5. Source: Base map generated from coverage provided by DPA and the NPS.
6. Road and pipeline information from NPS, DPA, and other sources.

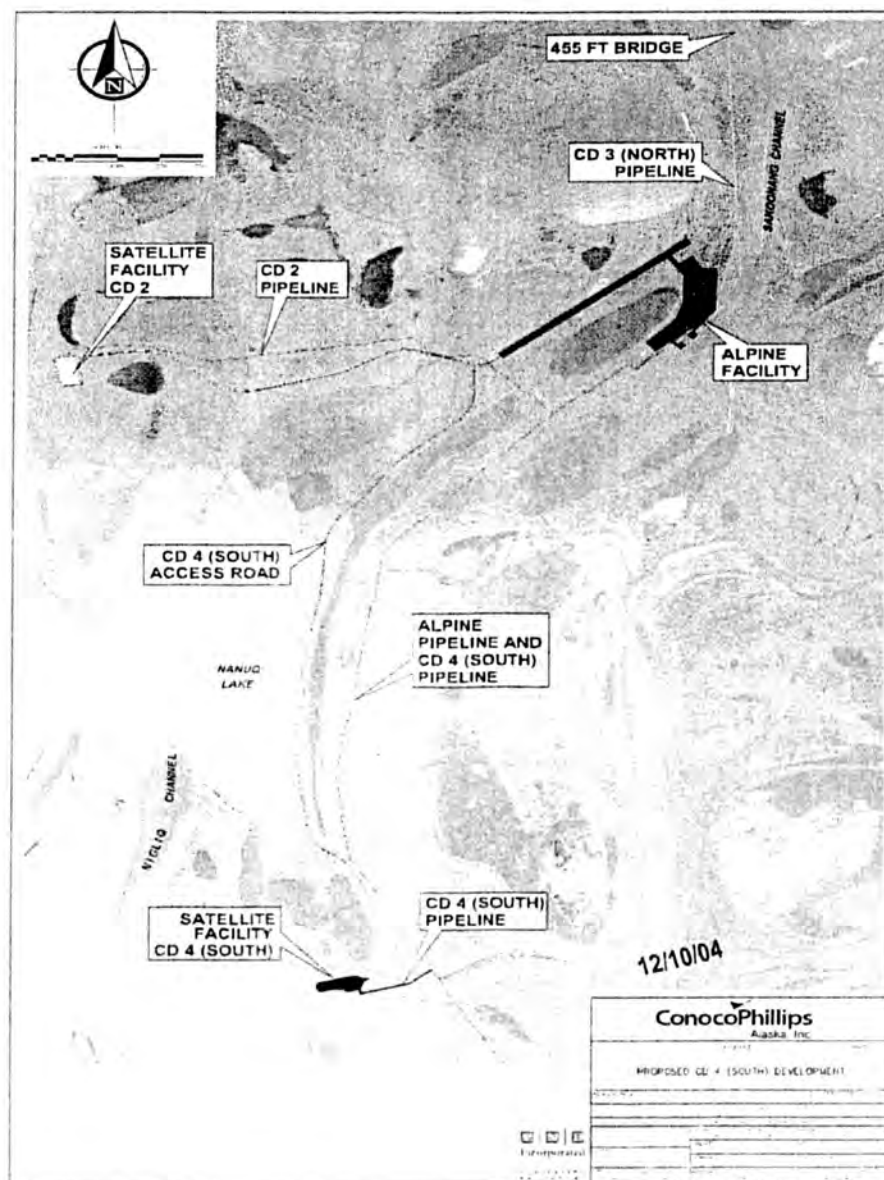
Figure 2-4-6-1
Alternative B (Pipeline) Plan Site Map
Bath to Development Plan Site Map



Notes

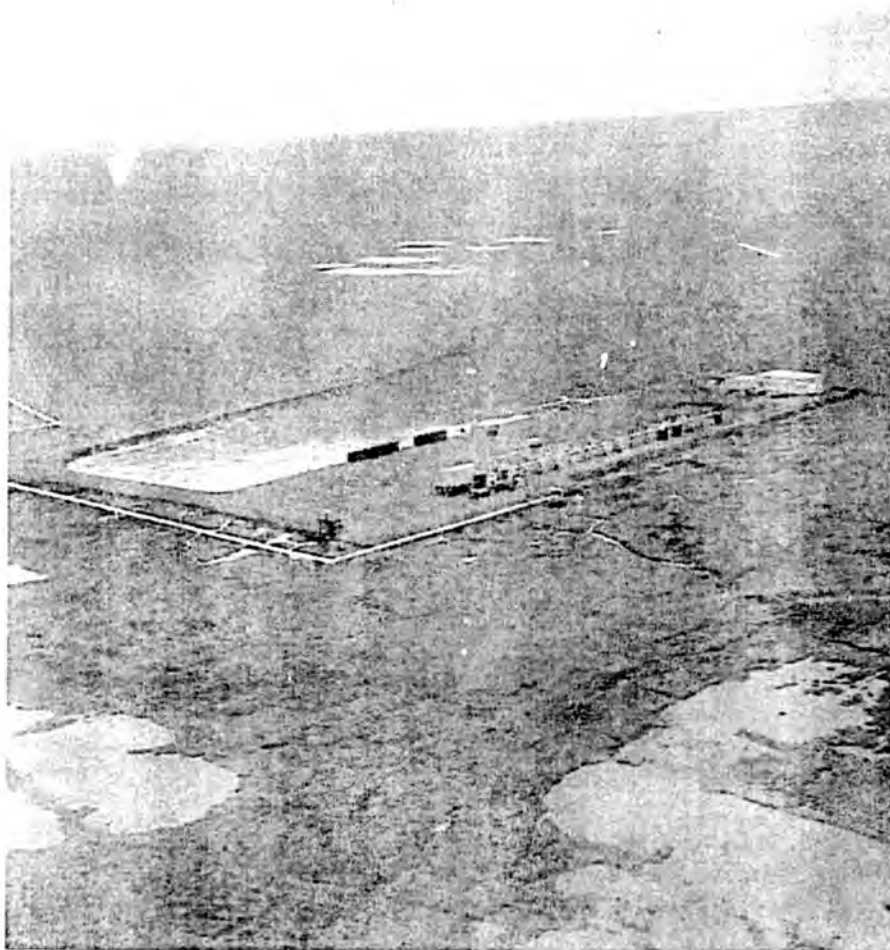
- 1) Locations of localities and routing of roads and pipelines are approximate
- 2) Horizontal Datum NAD 83, Coordinate System Alaska State Plane, Zone 4 Feet
- 3) Source: Basemap generated from coverages provided by CPAI and BLM

Alpine Oilfield and Satellites: CD 4 Overview



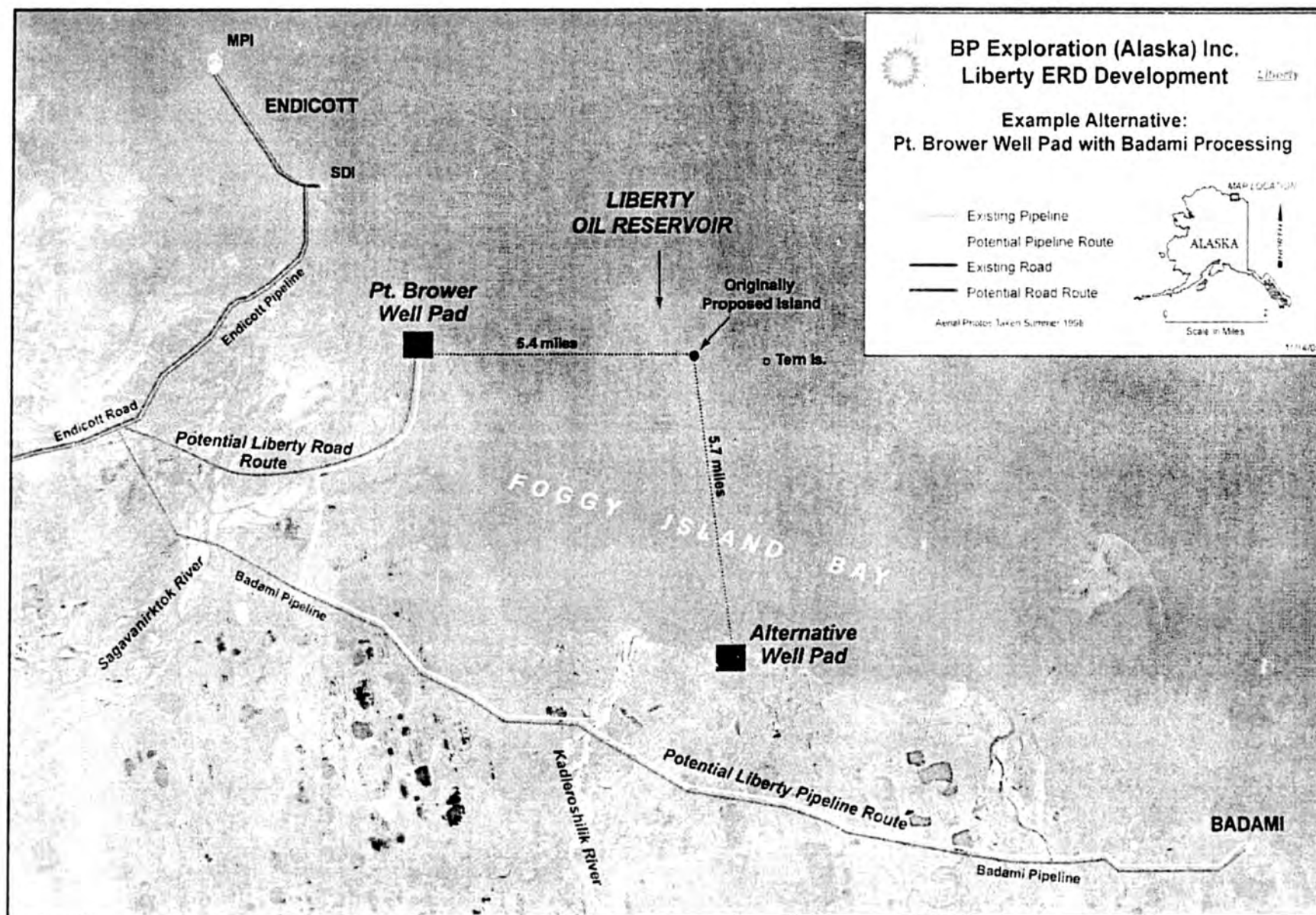
- 10.0 acre gravel pad
- 3.6 miles of gravel road with culverts connecting back to CD-1
- Minimum 7 foot high aboveground pipelines
- Spill response equipment at drill site and pre-staged at strategic response locations

Alpine Oilfield and Satellites: Proposed CD5, CD6, and CD7 Drill Sites



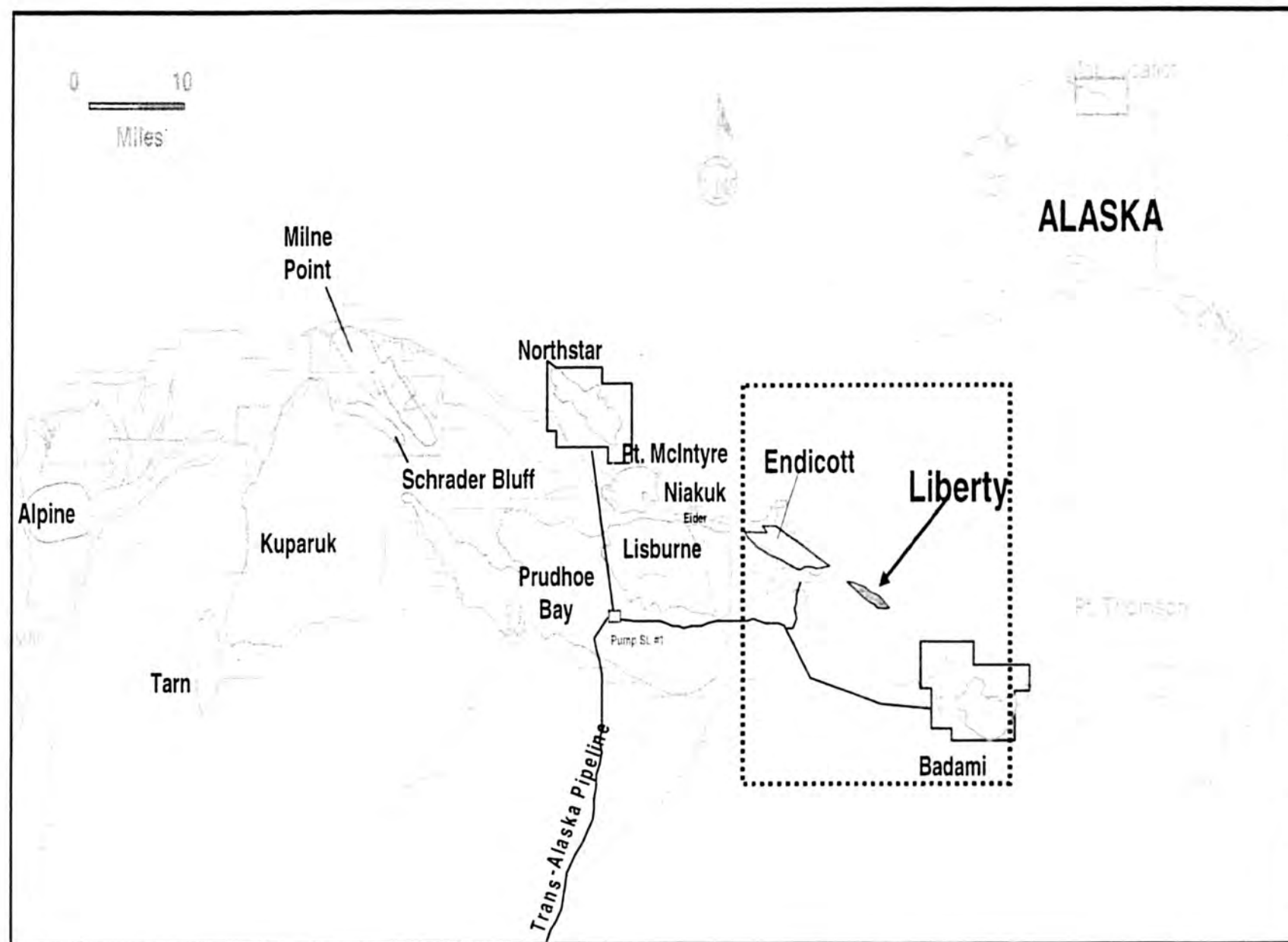
- About 9 – 10 acre pad sizes
- Designed to meet thermal criteria for tundra protection (5.0 feet thick with 2:1 fill slopes)
- Oriented parallel to prevailing wind direction to minimize snow drift
- Produced fluids will be transported to Alpine for processing
- Minimum 7 foot high aboveground pipelines (at VSM)

Status of Liberty Project



Background

- BP Liberty #1 appraisal well success (1997)
- Original concept to “twin” Northstar development
 - Project cancelled in 2002
- Alternate development concepts assessed 2002-2004
- Aug-05 decision to progress as onshore development using Extended Reach Drilling technology – “... it’s the right thing for BP to do at Liberty”



Liberty Project Status

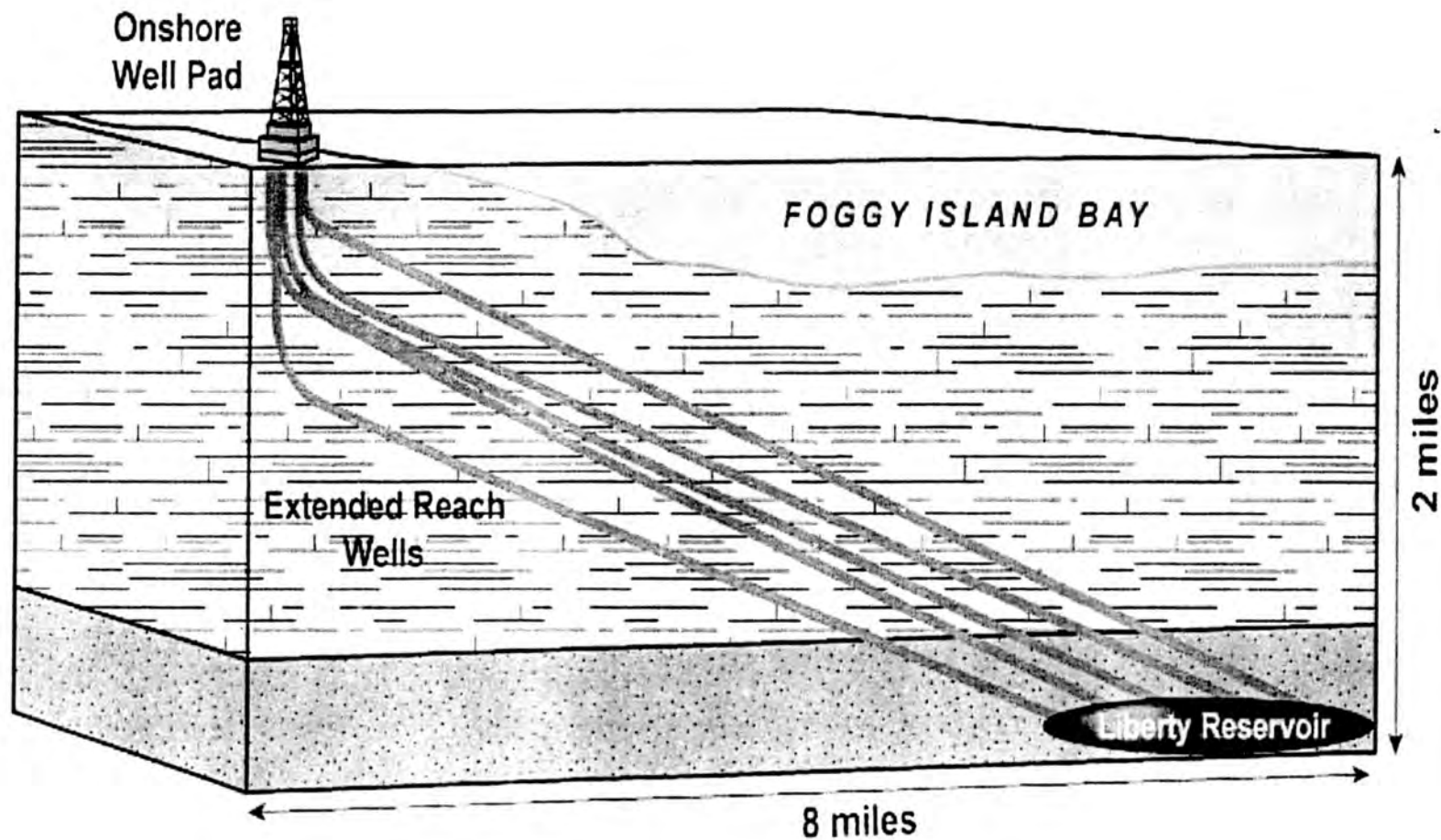
- 2006 Select Phase of MPCP=Conceptual Engineering
- Evaluation of Alternatives and Selection of Development Option
- Design Basis of Selected Development Option
- Permitting Plan
- Pre-application phase – stakeholder consultations, input to design, issues resolution
- 2Q 2007 Supplemental EIS and Submittal of Major Permit Applications

Liberty Project Base Case (Conceptual Engineering)

- Onshore Drilling Pad
- 10-15 production and injection wells (ERD)
- Processing Badami (host facility)
- Three-phase flow pipeline to Badami
- Road to Drilling Pad from Prudhoe Bay Road System
- Oil production exported through existing Badami pipeline



Liberty ERD



Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federal Reviews, Permits or Authorizations
(Liberty Example)

- “Significant federal action” = EIS (Supplemental for Liberty)
- OCS = MMS Development and Production Plan, Permits to Drill
- Civil works – pad, road, bridge, mine site, VSM’s in wetlands and waters of the U.S. = Corps Sec. 404
- Civil works in navigable waters = Corps Sec. 10, USCG Sec. 9 (Bridge)
- Wastewater discharge, construction runoff, pipeline hydrotesting = EPA NPDES permit (General and/or individual)
- Endangered species in project area (e.g bowhead whale, spectacled eider) = USFWS and NMFS Sec. 7 consultation, Biological Opinion, Jeopardy Determination

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federal Reviews, Permits or Authorizations
(Liberty) - 2

- Marine traffic, surveys = NMFS IHA
- Polar bears in project area = USFWS LOA
- Indigenous people in project area = Federal agency consultations with tribal governments
- Non-exempt, non-hazardous disposal well = EPA Class I Industrial well permit (UIC)
- Fuel storage, transfer, pipelines = MMS/EPA/DOT/USCG Spill plan(s)

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federally-delegated Reviews, Permits or
Authorizations (Liberty)

- Major stationary emission sources new or modifications (turbines, heaters, drill rig etc.) = ADEC PSD Construction Permit and Title V Operating Permit
- Project location in coastal zone (North Slope Borough) = ADNR/OPMP ACMP Consistency Review
- Exempt waste disposal wells = AOGCC Class IID UIC/Area Injection Order
- Wastewater disposal, discharge of fill wetlands/navigable waters = ADEC Sec. 401 Water Quality Certification

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
State Reviews, Permits or Authorizations (Liberty)

- Construction and operations on State lands = DNR land use permit or lease
- Tundra and other off-road travel, ice roads, temporary camps, miscellaneous activities = ADNR/DMLW Miscellaneous Land Use Permit
- Gravel mining and use = ADNR/DMLW Material Sales Contract
- Water use = ADNR/DMLW Temporary Water Use Permit and Water Rights
- Construction and other activities affecting fish streams = ADNR/OHMP Title 41 Permit
- Fuel storage, transfer, pipelines = ADEC Oil Discharge Prevention and Contingency Plan

Putting the Permitting Puzzle Together
Activities or Project Components Triggering Local
(North Slope Borough)
Reviews, Permits or Authorizations
(North Slope Oil and Gas) - 2

- Construction and Operations in North Slope Borough = NSB Rezoning and Master Plan (Title 19 Land Management Regulations)

Questions Oil Companies New to Alaska Want to Know

- 1) How long does it take to permit a project?
- 2) How much does it cost?
- 3) Is there a transparent permitting system?
- 4) How complicated is the permitting system?
- 5) How subjective is the permitting system?
- 6) What are the major issues driving permit approvals?
- 7) Who should I talk to?
- 8) What permits do I need?



Alaska Oil & Gas Association

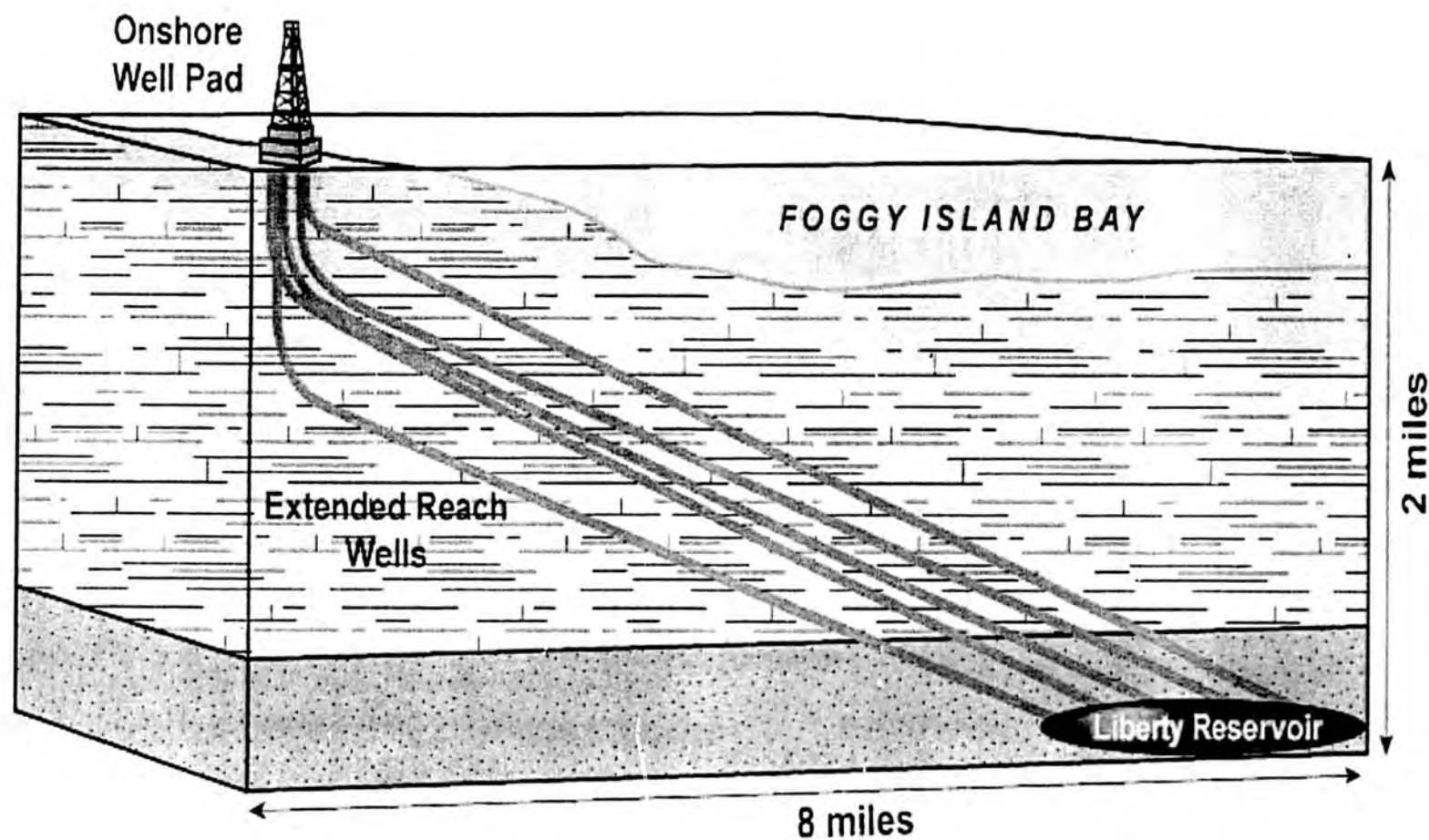
121 W. Fireweed Lane, Suite 207

Anchorage, Alaska 99503-2035

Phone: (907)272-1481 Fax: (907)279-8114



Liberty ERD



Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federal Reviews, Permits or Authorizations
(Liberty Example)

- “Significant federal action” = EIS (Supplemental for Liberty)
- OCS = MMS Development and Production Plan, Permits to Drill
- Civil works – pad, road, bridge, mine site, VSM’s in wetlands and waters of the U.S. = Corps Sec. 404
- Civil works in navigable waters = Corps Sec. 10, USCG Sec. 9 (Bridge)
- Wastewater discharge, construction runoff, pipeline hydrotesting = EPA NPDES permit (General and/or individual)
- Endangered species in project area (e.g bowhead whale, spectacled eider) = USFWS and NMFS Sec. 7 consultation, Biological Opinion, Jeopardy Determination

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federal Reviews, Permits or Authorizations
(Liberty) - 2

- Marine traffic, surveys = NMFS IHA
- Polar bears in project area = USFWS LOA
- Indigenous people in project area = Federal agency consultations with tribal governments
- Non-exempt, non-hazardous disposal well = EPA Class I Industrial well permit (UIC)
- Fuel storage, transfer, pipelines = MMS/EPA/DOT/USCG Spill plan(s)

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
Federally-delegated Reviews, Permits or
Authorizations (Liberty)

- Major stationary emission sources new or modifications (turbines, heaters, drill rig etc.) = ADEC PSD Construction Permit and Title V Operating Permit
- Project location in coastal zone (North Slope Borough) = ADNR/OPMP ACMP Consistency Review
- Exempt waste disposal wells = AOGCC Class IID UIC/Area Injection Order
- Wastewater disposal, discharge of fill wetlands/navigable waters = ADEC Sec. 401 Water Quality Certification

Putting the Permitting Puzzle Together
Activities or Project Components Triggering
State Reviews, Permits or Authorizations (Liberty)

- Construction and operations on State lands = DNR land use permit or lease
- Tundra and other off-road travel, ice roads, temporary camps, miscellaneous activities = ADNR/DMLW Miscellaneous Land Use Permit
- Gravel mining and use = ADNR/DMLW Material Sales Contract
- Water use = ADNR/DMLW Temporary Water Use Permit and Water Rights
- Construction and other activities affecting fish streams = ADNR/OHMP Title 41 Permit
- Fuel storage, transfer, pipelines = ADEC Oil Discharge Prevention and Contingency Plan

Putting the Permitting Puzzle Together
Activities or Project Components Triggering Local
(North Slope Borough)
Reviews, Permits or Authorizations
(North Slope Oil and Gas) - 2

- Construction and Operations in North Slope Borough = NSB Rezoning and Master Plan (Title 19 Land Management Regulations)

Questions Oil Companies New to Alaska Want to Know

- 1) How long does it take to permit a project?
- 2) How much does it cost?
- 3) Is there a transparent permitting system?
- 4) How complicated is the permitting system?
- 5) How subjective is the permitting system?
- 6) What are the major issues driving permit approvals?
- 7) Who should I talk to?
- 8) What permits do I need?



Alaska Oil & Gas Association

121 W. Fireweed Lane, Suite 207

Anchorage, Alaska 99503-2035

Phone: (907)272-1481 Fax: (907)279-8114



Celebrating 40 Years

A Promise Kept

Alaska is a much different place since the first major oil discovery at Swanson River in 1957. That discovery was viewed by the U.S. Congress and the people of Alaska as the promise of a secure economic base – and Statehood was granted in 1959. With the discovery of Prudhoe Bay and the building of the Trans Alaska Pipeline, oil and gas development became the economic linchpin for Alaska's present and future.

The history of the oil and gas industry and the State of Alaska is the story of huge risks taken, incredible challenges met and the promise kept to provide a secure economic base for Alaska and its people.

From 1959 to today, revenues from oil and gas development continue to provide thousands of jobs; finance schools, roads, harbors and rural airports; support urban and rural community growth, health and safety; touch every Alaskan directly through the Permanent Fund dividend; and fund a secure basis for Alaska's future through the Permanent Fund itself.

The Alaska Oil and Gas Association is honored to celebrate its 40th Anniversary and share the milestones over the years as the state and industry continue our journey. Although we're forty years old, we are far from "Over the Hill" and are looking forward to new opportunities, risks, and challenges – and the continuing promise that oil and gas can provide a secure economic future for Alaska and its people.

1957 - 2006

- 1960 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1961 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1962 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1963 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1964 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1965 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1966 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1967 • **Walter Hickel (R)** elected Governor (1959-1967).

- 1968 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1969 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1970 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1971 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1972 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1973 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1974 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1975 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1976 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1977 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1978 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1979 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1980 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1981 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1982 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1983 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1984 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1985 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1986 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1987 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1988 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1989 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1990 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1991 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1992 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1993 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1994 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1995 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1996 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1997 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1998 • **Walter Hickel (R)** elected Governor (1959-1967).
- 1999 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2000 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2001 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2002 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2003 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2004 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2005 • **Walter Hickel (R)** elected Governor (1959-1967).
- 2006 • **Walter Hickel (R)** elected Governor (1959-1967).

1960 - 1969

1970 - 1979

- 1970 • **William Egan (D)** elected Governor (1970-1974).
- 1971 • **William Egan (D)** elected Governor (1970-1974).
- 1972 • **William Egan (D)** elected Governor (1970-1974).
- 1973 • **William Egan (D)** elected Governor (1970-1974).
- 1974 • **William Egan (D)** elected Governor (1970-1974).
- 1975 • **William Egan (D)** elected Governor (1970-1974).
- 1976 • **William Egan (D)** elected Governor (1970-1974).
- 1977 • **William Egan (D)** elected Governor (1970-1974).
- 1978 • **William Egan (D)** elected Governor (1970-1974).
- 1979 • **William Egan (D)** elected Governor (1970-1974).

- 1970 • **Alaskans pass constitutional amendment creating the Permanent Fund.**
- 1971 • **First federal offshore lease sale (OCS) held in Alaska (Gulf of Alaska).**
- 1972 • **TAPS complete; largest project ever constructed with total workforce of 70,000, final costs of \$8 billion.**
- 1973 • **Prudhoe Bay production begins; projected 9.6 billion total recoverable reserves.**
- 1974 • **Earth Resources Co. (now Flint Hills) refinery comes on-line in North Pole.**
- 1975 • **Governor Hammond (R) re-elected (1974-1978).**
- 1976 • **Endicott discovered; first offshore oil field in the U.S. Arctic (production begins 1987).**
- 1977 • **Iranian revolution causes second oil embargo and oil supply shortages.**
- 1978 • **Wellhead price of U.S. crude oil exceeds \$10 per barrel.**
- 1979 • **Joint Federal/State Beaufort Sea lease sale receives bids totaling more than \$1 billion.**
- 1980 • **1,000th tanker leaves Valdez.**
- 1981 • **Petroleum revenue doubles in one year (\$821 million); 73% of unrestricted general fund, which exceeds \$1 billion for first time.**

1980 - 1989

- 1980 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1981 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1982 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1983 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1984 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1985 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1986 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1987 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1988 • **Walter Hickel (R) elected Governor (1980-1994).**
- 1989 • **Walter Hickel (R) elected Governor (1980-1994).**

1990 - 1999

- 1990 • **GHX II gas handling expansion at CGF (5.2 to 7.5 bcf/d), increasing ultimate recovery by 400,000 barrels.**
- 1991 • **\$175 million investment in Kuparuk enhanced recovery project; recovery increased by 200 million barrels.**
- 1992 • **Gas production in Cook Inlet peaks at 223 bcf/year.**
- 1993 • **20th anniversary of TAPS.**
- 1994 • **Governor Knowles (D) re-elected (1994-2002).**
- 1995 • **State institutes Aleutian leasing program.**
- 1996 • **Miscible Injectants (MI) project adds to the Prudhoe Bay's gas handling capacity (7.5 to 9 bcf/d).**
- 1997 • **First BLM lease sale in National Petroleum Reserve-Alaska (NPR-A) since the 1960's.**
- 1998 • **Continued technological advancements lead to 80% reduction in environmental footprint.**
- 1999 • **Oil prices fall to \$12 per barrel; unrestricted general fund falls to 20-year low of \$1.3 billion.**
- 2000 • **Petroleum revenue drops to under \$1 billion for first time since 1979; record CBR draw of over \$1 billion to balance state budget.**

2000 - 2005

- 2000 • **Alpine begins production; largest offshore oil field discovered in North America in the past decade.**
- 2001 • **Alaska population: 626,932.**
- 2002 • **PFDF reaches all-time high of \$1,963.86.**
- 2003 • **First new platform in 15 years; Osprey installed.**
- 2004 • **25th Anniversary of the Alaska Permanent Fund.**
- 2005 • **Northstar begins production; first production from an offshore island with no road access to shore.**
- 2006 • **Kenai gas-to-liquids demonstration plant opens (\$86 million investment).**
- 2007 • **\$125 million invested by Producers Study Team to evaluate feasibility of construction of natural gas pipeline.**
- 2008 • **Natural gas prices increase almost 300% over a ten-year period to \$5.47 per Btu.**
- 2009 • **Frank Murkowski (R) elected Governor (2002-2006).**
- 2010 • **Alaska renews TAPS right of way for 30 years.**
- 2011 • **Nimrod - largest Cook Inlet gas discovery in 20 years.**

2006

Since the 1957 Swanson River discovery, the State of Alaska has collected over \$72 billion from the oil and gas industry.

More than 34,000 jobs are generated each year in Alaska by the oil and gas industry.

Since the completion of TAPS, petroleum revenues have averaged 84% of the state's unrestricted general fund. Petroleum revenues are projected to be 90% in FY 2007.

The Alaska Permanent Fund, now worth over \$33 billion, was created in 1976 to set aside a portion of oil revenues for future generations.

The oil and gas industry has invested over \$50 billion in North Slope and Cook Inlet infrastructure.

15 billion barrels of oil have been transported through the Trans Alaska Pipeline System (TAPS).

State revenues from the oil and gas industry are projected to reach a record high of \$4 billion in FY 2006.

North Slope production peaked at over 2 million barrels per day (bpd) in 1988 and has declined to about 850,000 bpd. As much as \$60 billion in new investment may be required to slow the decline and develop new fields.

In 1974, construction began on the largest construction project in the world - TAPS. Originally estimated to cost \$900 million to build, it was completed in 1977, with final costs of over \$8 billion.

At 1 million barrels per day production, state revenue increases \$70 million for every \$1 per barrel increase in the price of oil.

The proposed Alaska Natural Gas Pipeline Project, estimated to cost \$20+ billion, will be the largest pipeline project in the world.

Agrium Kenai Nitrogen Operations
 Alyeska Pipeline Service Company
 Anadarko Petroleum Corporation
 BP Exploration (Alaska) Inc.
 Chevron Corporation
 ConocoPhillips Alaska, Inc.
 ExxonMobil Production Company
 Flint Hills Resources, Alaska
 Forest Oil Corporation
 Kerr-McGee Corporation
 Marathon Oil Company
 Petro-Canada (Alaska) Inc.
 Phillips 66
 Shell Natural Resources Alaska, Inc.
 Sinclair Refining Company
 Tesoro Refining Company
 Valero Refining, Inc.

Bill Boycott
 Kevin Hostler
 Mark Hanley
 Steve Marshall
 John Zager
 Jim Bowles
 Richard Owen
 Kevin Radke
 Leonard Gurule
 Keith Jantz
 John Barnes
 Derek Ivoy
 Doug Chapados
 Ken Sheffield
 Rick Box
 Steven Hansen
 Vaughn Vennerberg

