



Foothills West Transportation Access

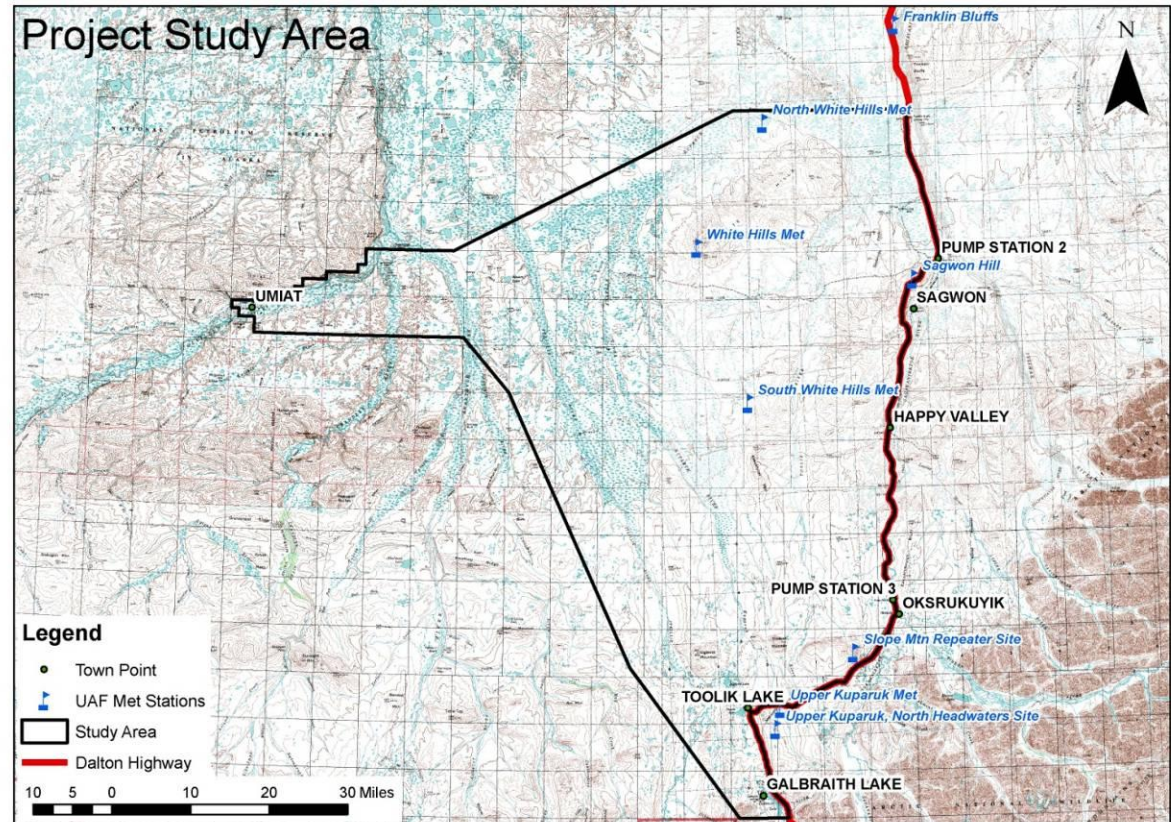
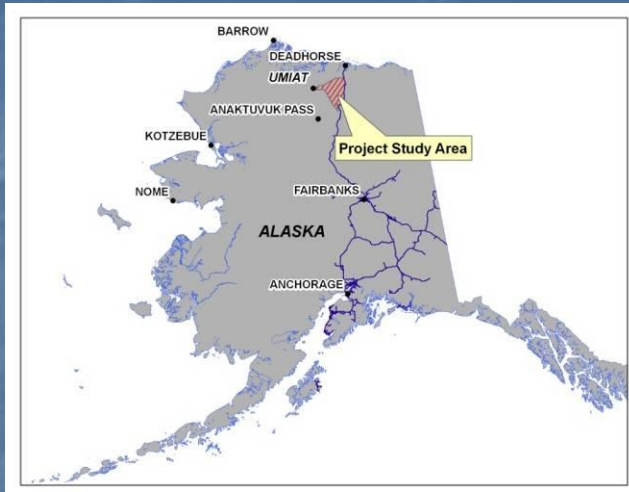
“The Road to Umiat”



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

Ryan Anderson, P.E., Aviation Design Group Chief

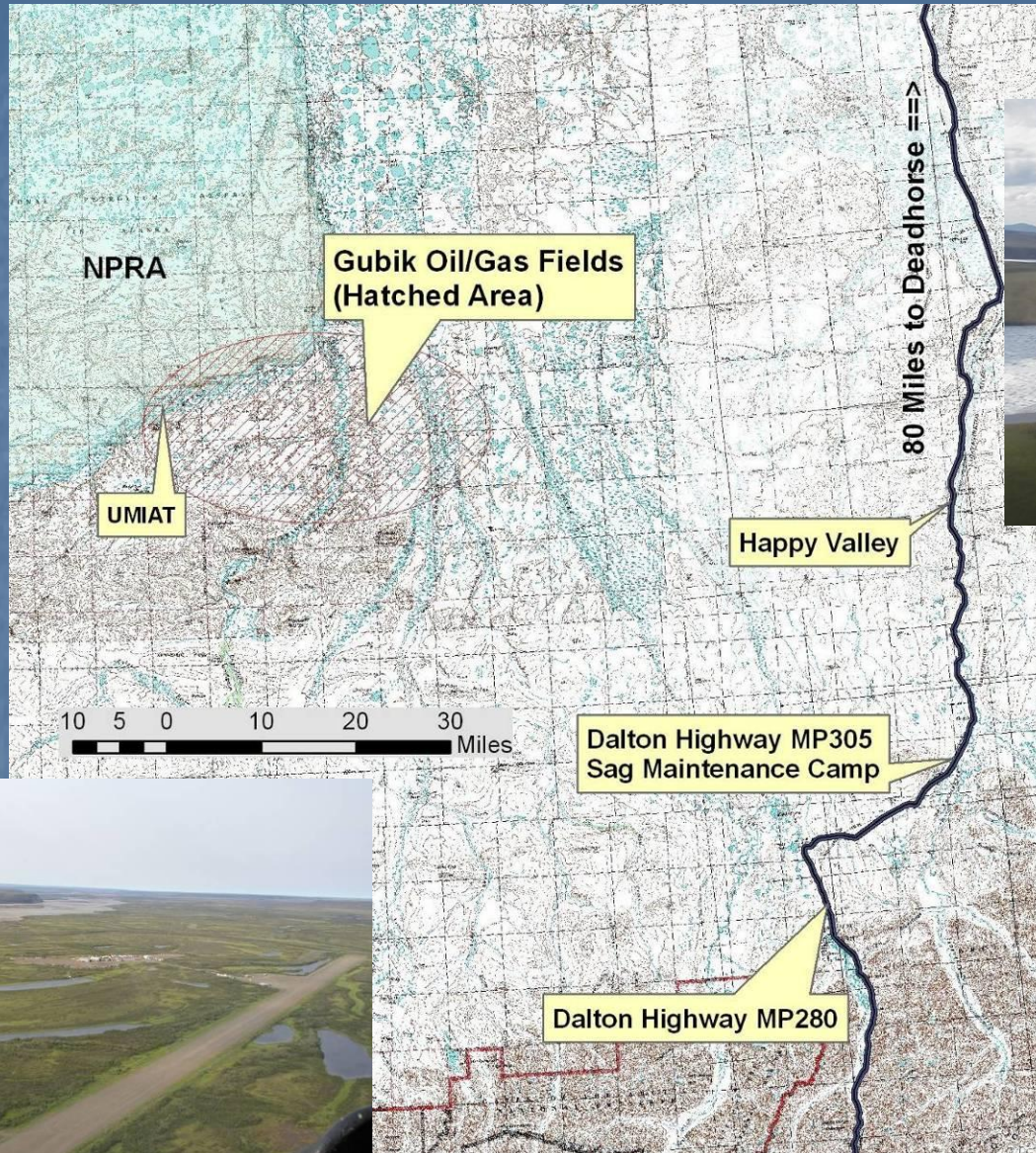
Area of Interest



Alaska Department of Transportation and Public Facilities
Foothills West Project

- Approximately 130 Miles north of the Arctic Circle
- Begins north of the Brooks Range near MP 276 Dalton Highway (Galbraith Lake)
- Extends north of Pump Station 2 (Near MP 380)
- Destination is Gubik Oil/Gas Fields and Umiat

Project Description



Foothills West Transportation Access

Modern History of the Area

- 1900-1930: First Explorers
 - USGS Survey Teams
- 1940's – WWII and the search for Oil
 - 1943: US Bureau of Mines and Army Investigate
 - 1944-1945: Navy expeditions to Barrow – Constructed Camp with Airstrip at Umiat.
 - First Drilling program – 8 oil and gas discoveries
 - Umiat, Fish Creek, South Barrow, Simpson, Meade, Wolf Creek, Gubik, Square Lake.
 - First Pipeline Study

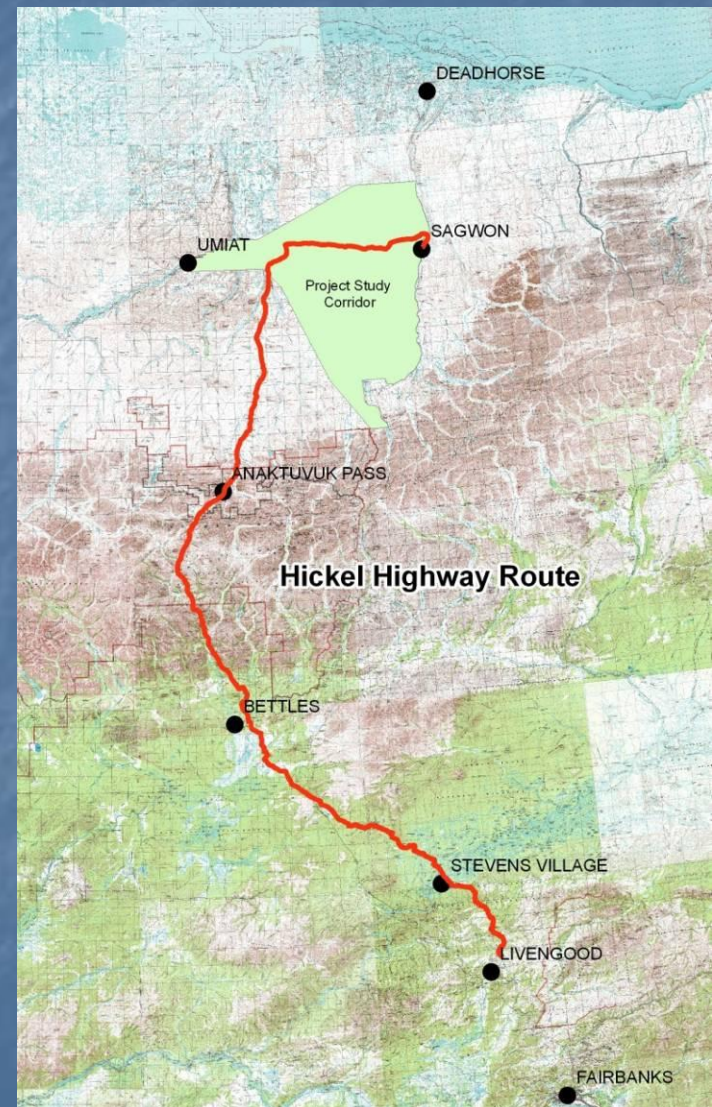


Modern History of the Area

- 1968 – Prudhoe Oil Discovery
- Hickel Highway
 - Livengood to Sagwon
 - Winter Supply Road
- 1976-81 - Final Government Exploration

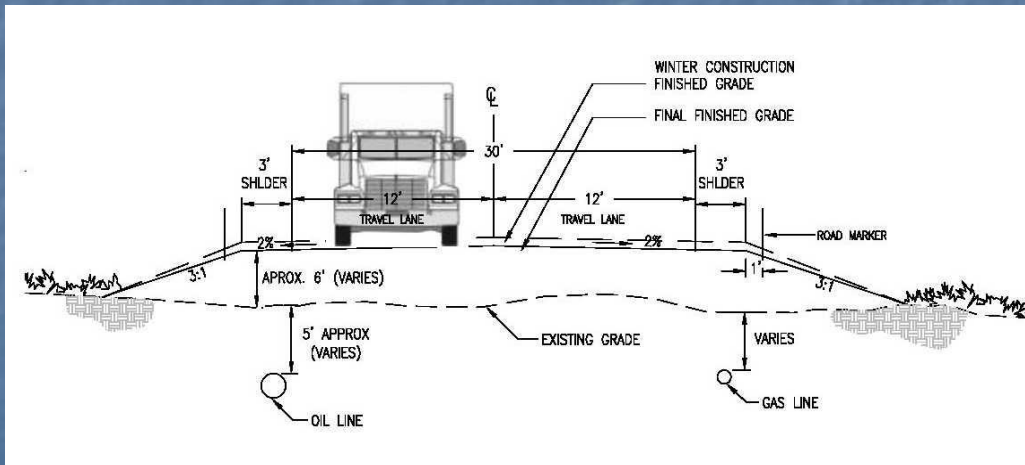


Photo Credit: Harold Tilleson - Jerry Luebke (left) from Glennallen and Harry "Feruck" Loev from Fairbanks (right) putting up the first and only sign on the winter ice road. The Umiat - Sagwon sign was put up at the only intersection on the road, where the trail from Umiat connected into the Hickel Highway. It was used to direct truckers to head northeast to Sagwon, and not northwest to Umiat. (http://jukebox.uaf.edu/haul_road/htm/img_tilleson_18.htm)



Project Description

- Develop a transportation corridor from the Dalton Highway to Umiat that includes:
 - All Season Road
 - Oil and Gas Pipelines and associated facilities
 - Material Sites

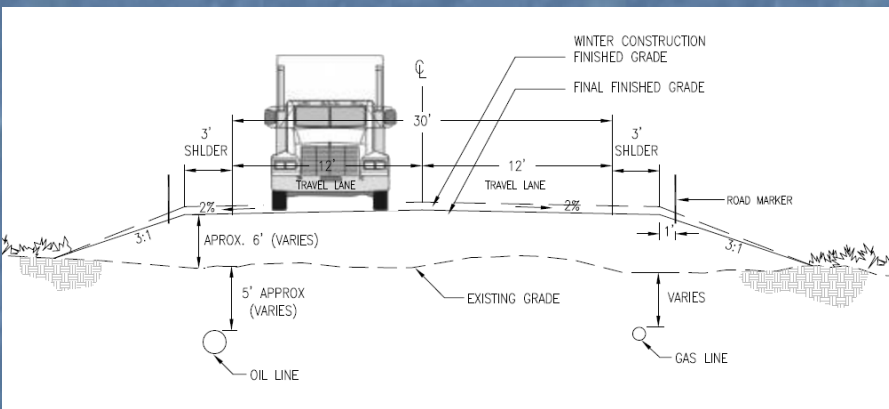


Photographer: [Steve McCutcheon](#), 1975? (Steve McCutcheon Trans Alaska Pipeline System Construction Collection, Alaska Digital Archives)

Project Description

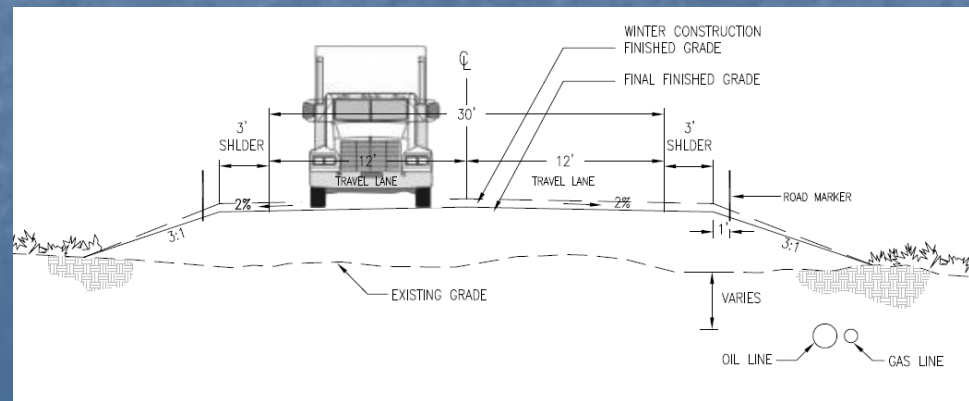
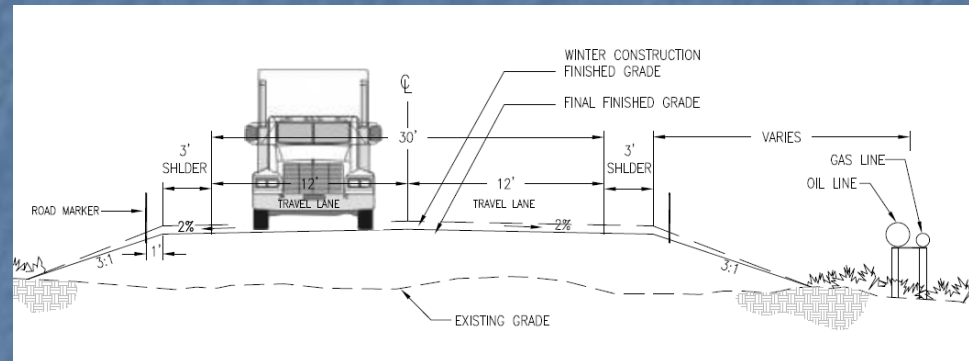
- Road:

- 30' wide, gravel surface
- Turnouts every 5 miles
- Design Speeds of 50mph
- Bridges and Pipes
- Road Maintenance Facilities



- Oil and Gas Pipelines

- Oil Pipelines up to 16" in Diameter
- Gas Pipelines up to 24" in Diameter
- Staging Pads for ice road development
- Associated Communications Infrastructure



Pipeline Analysis

- Both Gas and Oil
- Industry / ASAP / JPO has provided guidance
- PHMSA Design Standards

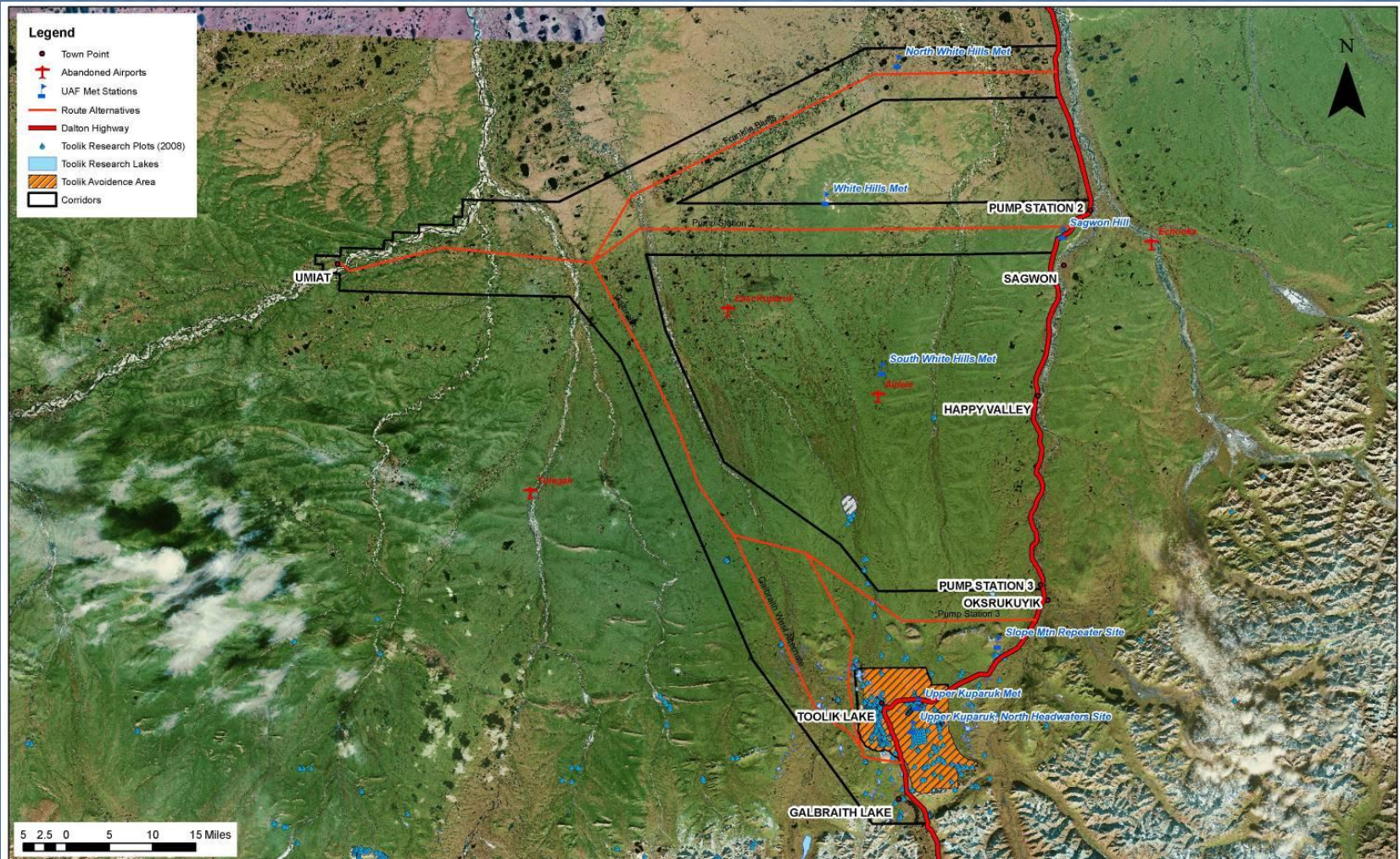
Project Description

- Material Sites
 - 1 material site every 10 miles
 - 1,000,000 cubic yards of material per site
 - Material sites for maintenance purposes



Project Corridor Selection

Selected five reasonable corridors based on topography and discussions with government experts and industry





Galbraith Corridor

■ Corridor Description:

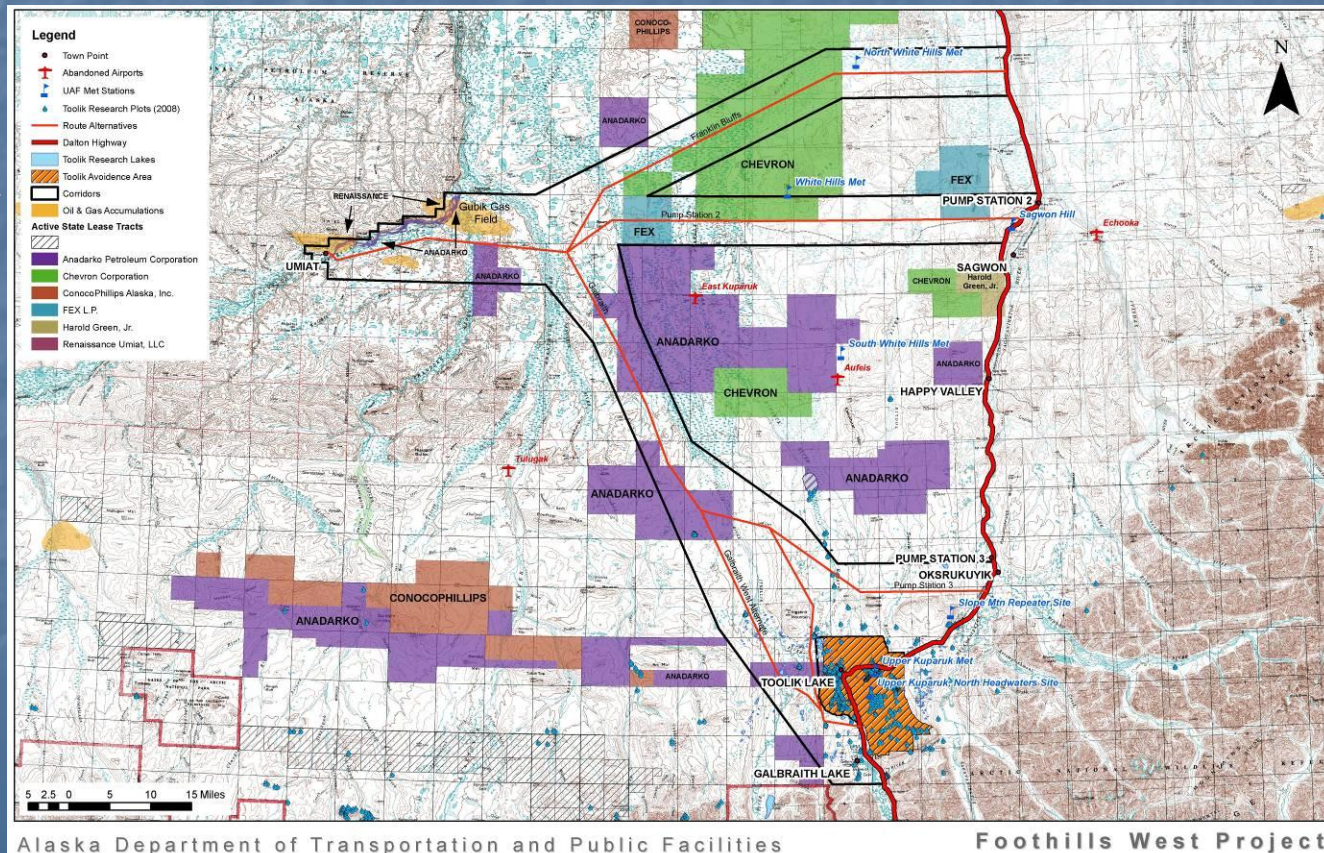
- Approximately 6 miles wide
- Approximately 90 miles long to Umiat (75 miles to the Gubik Gas Fields)
- Starts in the vicinity of Galbraith Lake near Dalton Highway MP 278

Why the Route from Galbraith Lake to Umiat?

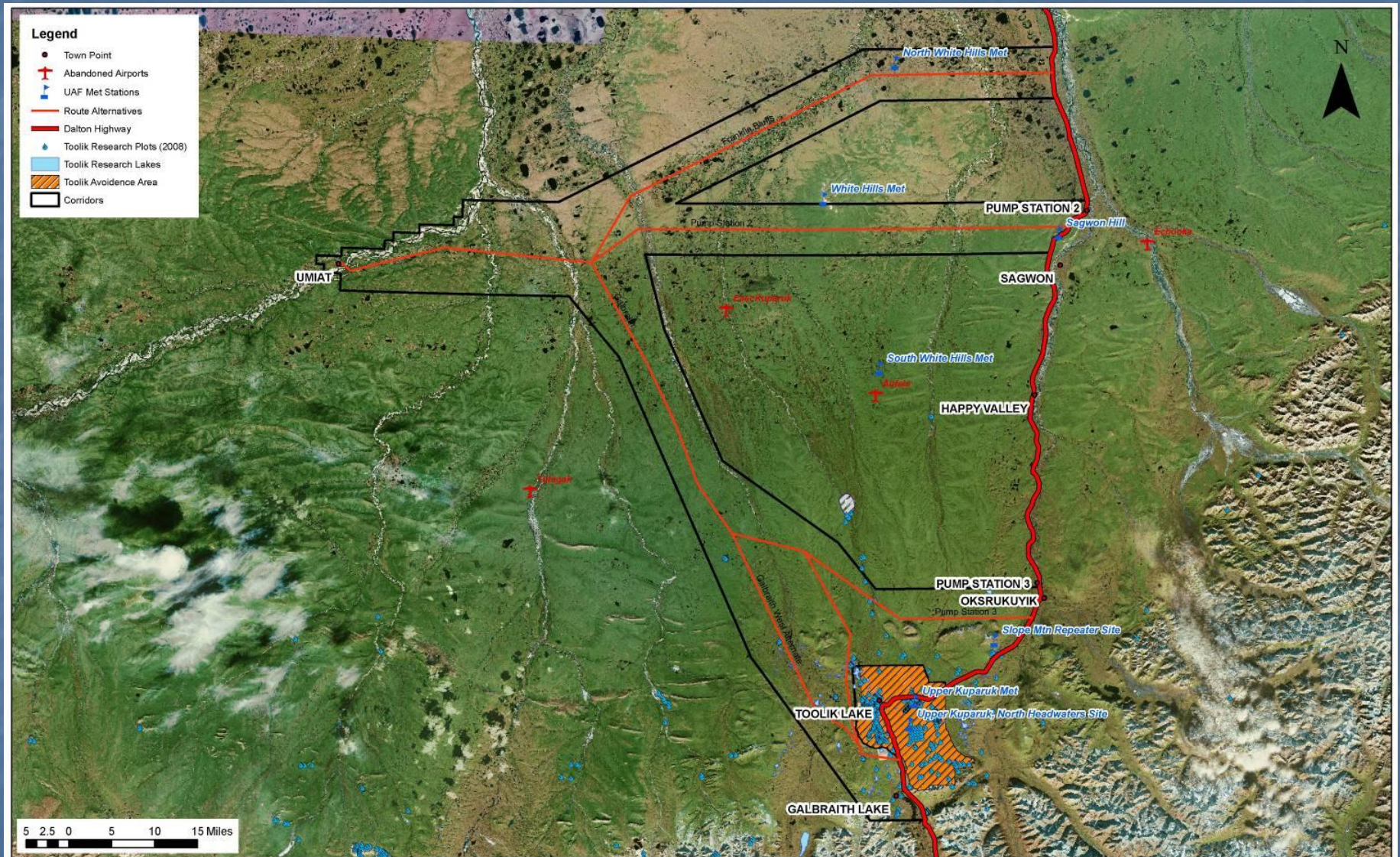
Exploration Potential

- State Oil/Gas Lease Maps
- USGS 2005 Central North Slope Oil and Gas Assessment
- Geologic Resource Potential (DNR Oil and Gas)

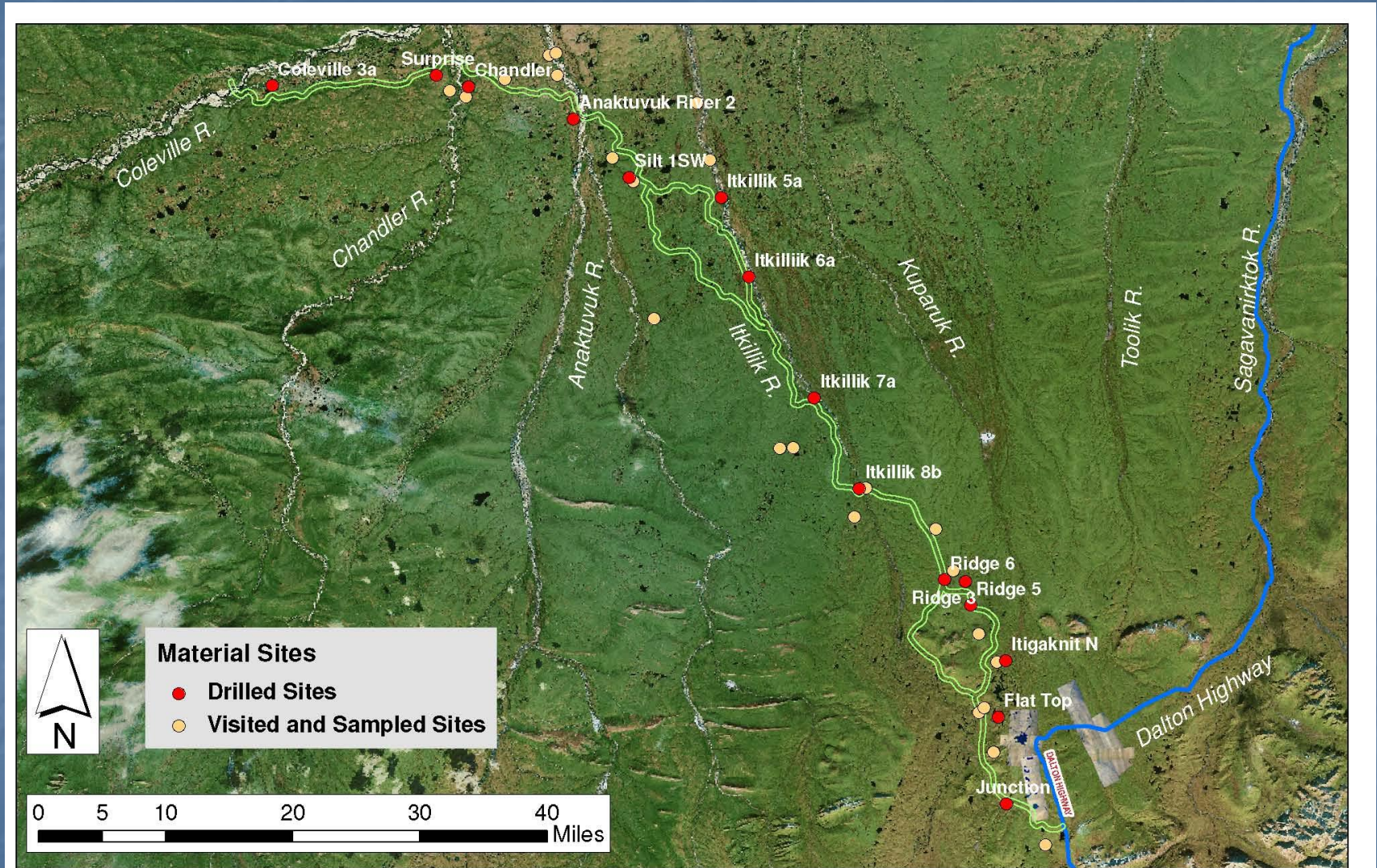
*25 Mile
"Area of influence"*



Why the Route from Galbraith Lake to Umiat? - Minimize river crossings

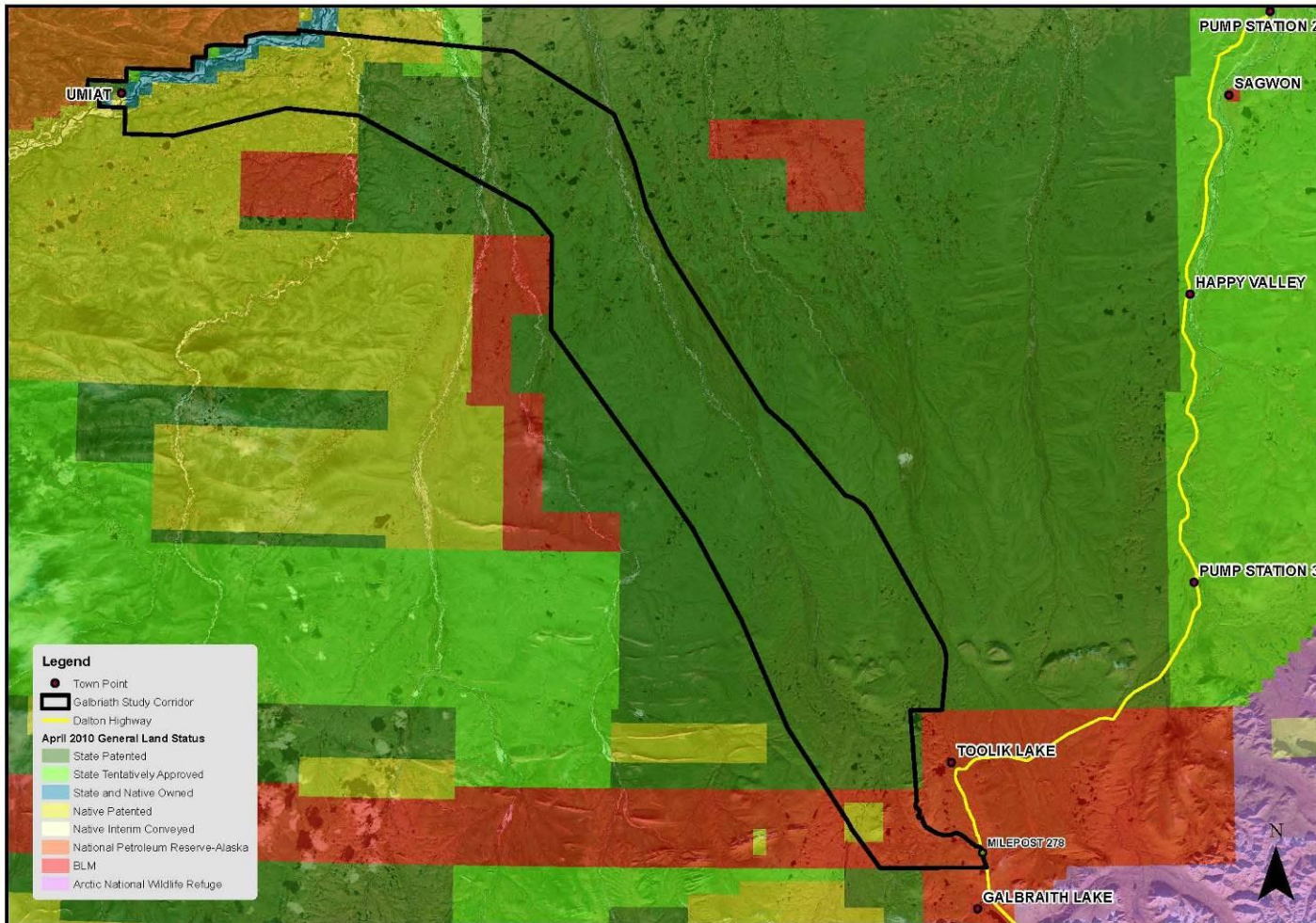


Why the Route from Galbraith Lake to Umiat? - Material Sites and Geology



Galbraith Corridor

Why the Route from Galbraith Lake to Umiat?
- Land Ownership



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0 5 10 20 30
Miles

Galbraith Corridor 2010 Field Season Effort

Goal:

Collect the engineering and environmental baseline studies needed for the environmental documentation required by Federal and State Agencies, and for permitting.

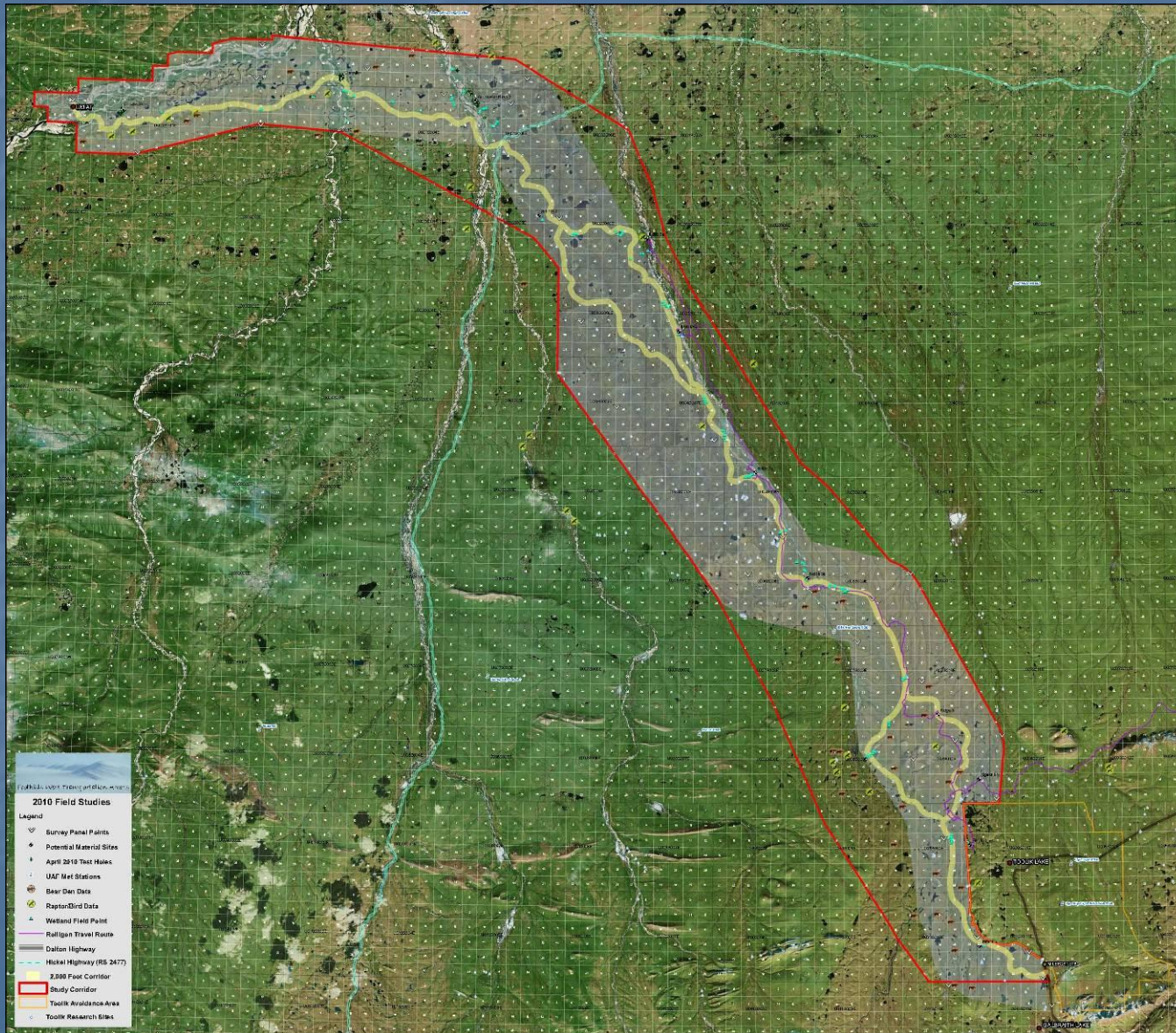
During the 2010 Field Season – staged out of Camps from both Umiat and the Dalton Highway

Up to 30 people in the field at any one time. Helicopter support.

Field Work Permits...

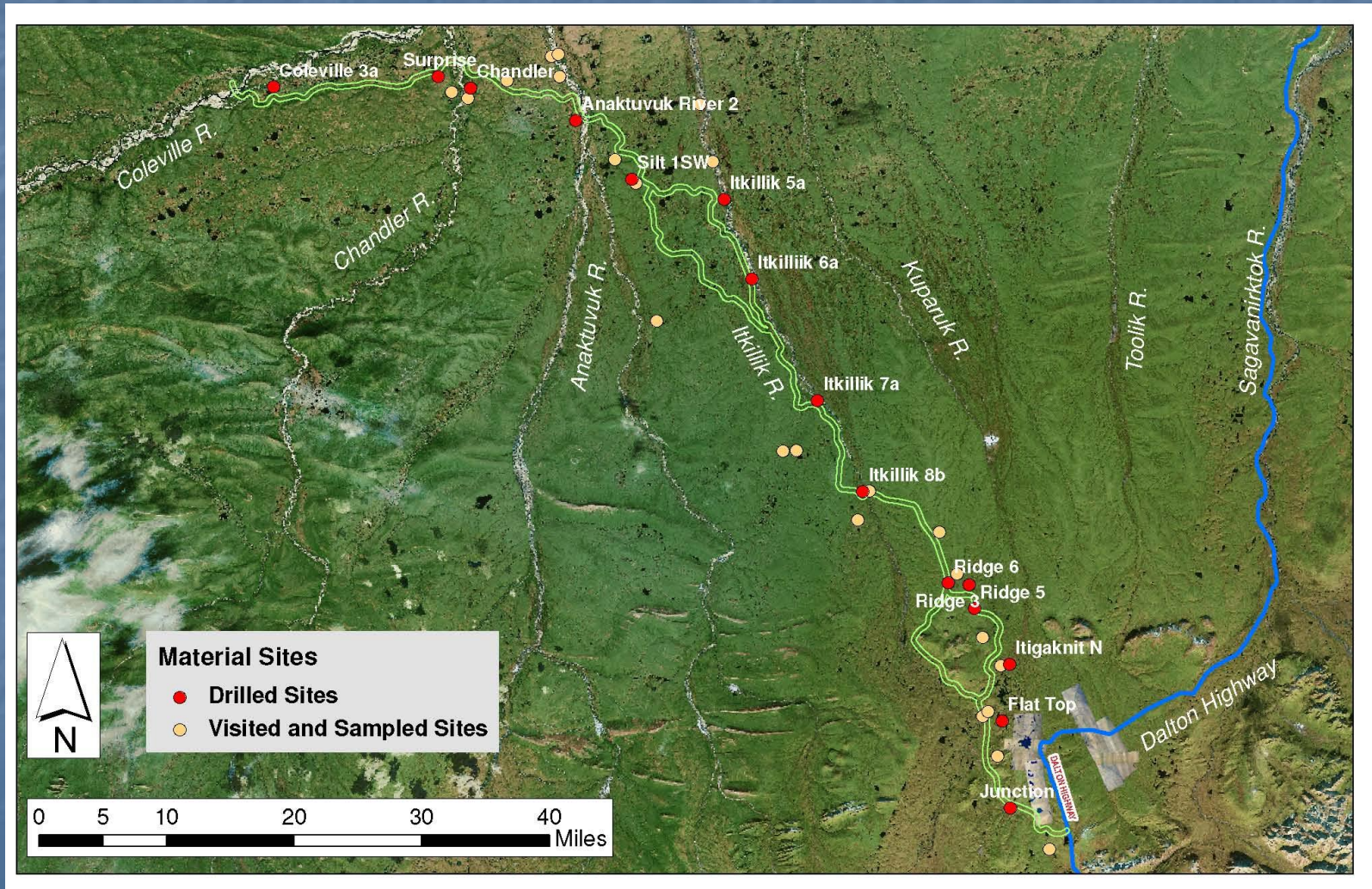
Galbraith Corridor Analysis

2010 Field Study Area



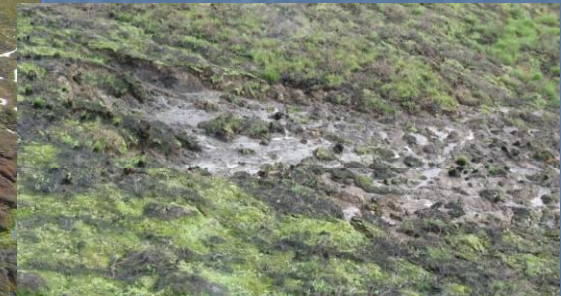
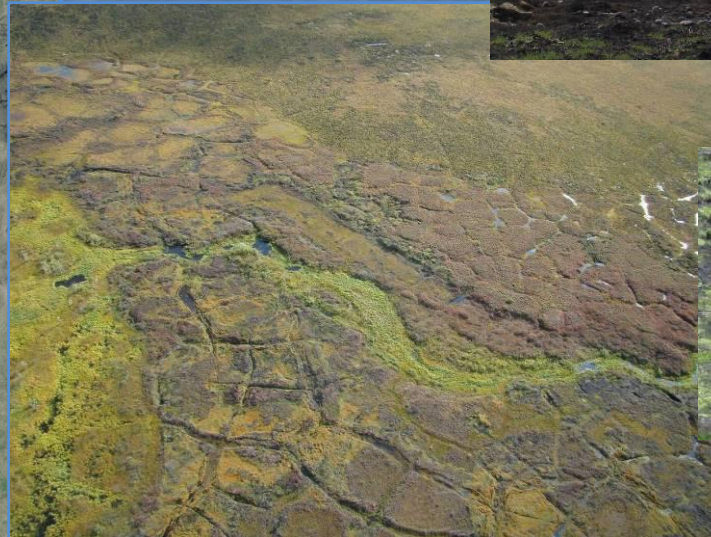
Geotechnical

- 1 Material Site every 10 miles
- Characterize terrain features



■ Topography and Terrain Characterizations

- Grades / Mountainous area
- Arctic conditions (Permafrost, Aufeis)
- Drainage Conditions
- Anaktuvuk 2007 Burn and Thermokarsting



Galbraith Corridor 2010 Field Season

- Foothills West Team:

- DOT&PF

- Northern Region Design Group
- Northern Region Materials Section
- Northern Region Survey Section
- Statewide Bridge Section

- Contractors

- Environmental: Three Parameters Plus, Inc.
- Imagery/LIDAR: R&M Consultants and Kodiak Mapping

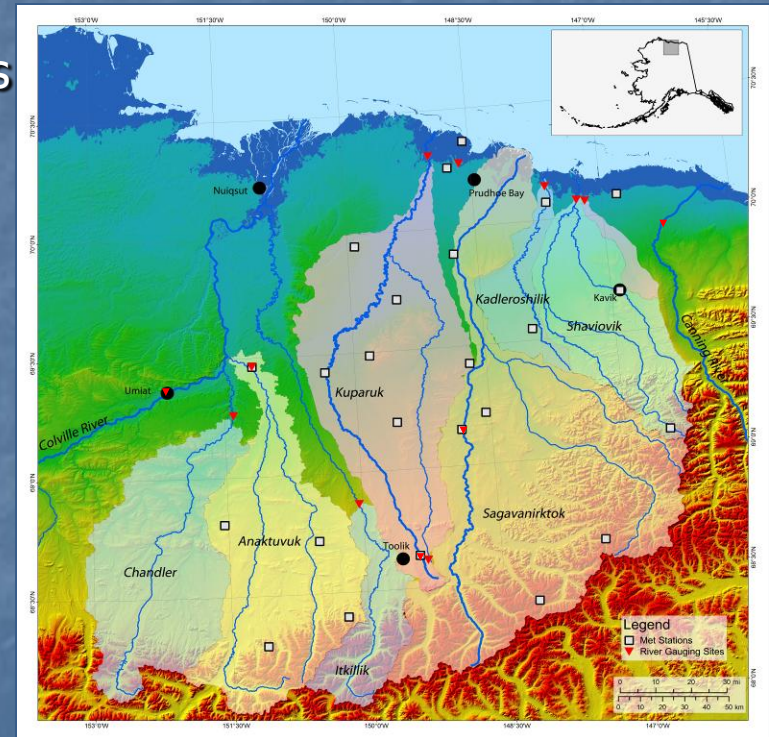


■ River Crossing Sites

■ 4 Major River Crossings

- Itkillik River, Anaktuvuk River, Chandler River, Colville River
- Apart from the Colville River, very little Hydrology data available

- UAF, Institute of Northern Engineering under contract to perform hydrology studies

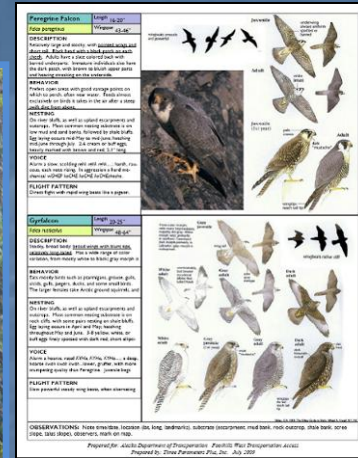


<http://www.uaf.edu/water/projects/foothills/foothills.html>

Galbraith Corridor Analysis

■ Environmental Concerns

- Wetlands
- Wildlife
- Habitat
- Fish
- Cultural Resources
- Subsistence Resources



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Galbraith Corridor Analysis

■ Public Involvement

- Conducted 3 rounds of informational public meetings at Anaktuvuk Pass, Nuiqsut, and Barrow.
- Newsletters
- Subsistence Monitors during field season efforts
- Road Access related to subsistence resources is the issue with local communities

Join Us for an Informational Open House Barrow August 20th



Foothills West Transportation Access
Proposed All-Season Road from the Dalton Highway to Umiat

**Thursday
August 20th**
3:00 to 6:00 pm

**Barrow
Assembly
Chambers**

Door Prizes: 55 gallons of gasoline

Questions?
Our Project Manager
is Your Direct Contact:
Mr. Ryan Anderson, P.E.
State Department of
Transportation & Public
Safety
2323 Poplar Road
Fairbanks, Alaska 99709
(907) 465-2329
ryan.anderson@dot.alaska.gov



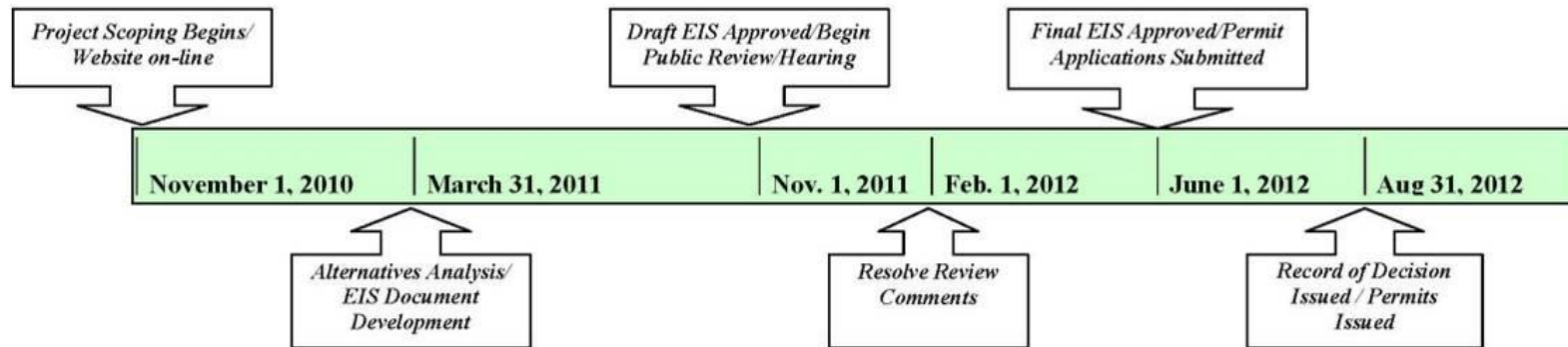
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Foothills West Next Steps

Focus on EIS / Permitting

- Wrap up Env.Baseline Studies in 2010 and as needed through 2011
- EIS 3rd Party Contractor Model
- Continue Hydrology Evaluations/Preliminary Engineering as determined by Alternatives Analysis

Page 2: Proposed EIS Schedule



*Schedule has not yet been approved by the Corps of Engineers

Foothills West Next Steps



Permitting Requirements

Federal Government:

- U.S. Army Corps of Engineers
 - 404 Wetlands Permit / Section 10 Rivers / Section 106 Historical
- EPA
 - Section 404 Permit Review / Storm Water / Air Quality
- USF&W
 - Section 7 TES / Bald Eagle Clearance / Migratory Birds
- BLM
 - ROW on BLM Administered Federal Lands/ Field Study Authorizations
- Coast Guard
 - Bridge Permits over Navigable Rivers

State of Alaska:

- State Of Alaska DNR
 - ROW / Water Use / Cultural Resources (Section 106) / Coastal Zone Consistency / Materials Sales/ Field Study authorizations
- State of Alaska DEC
 - SWPPP / Air Quality
- State of Alaska DF&G
 - Fish Habitat and Fish Passage

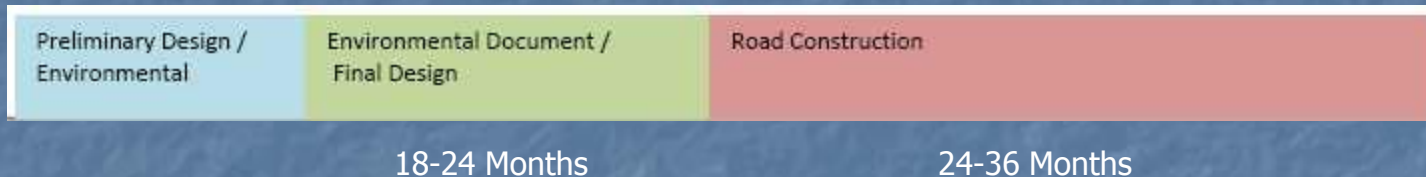
Others:

- North Slope Borough
 - Land Use Permit / Zoning / Field Study Permits
- Arctic Slope Regional Corporation
 - Field Study Permits / ROW

Project Schedule / Additional Funding Needs



- Contingent on Funding...
 - Begin Formal Environmental Process
 - 18-24 Months to complete
 - Includes environmental work and engineering support



- Could be ready to Construct in Spring 2013



www.foothillsroad.alaska.gov