



# **ENVIRONMENTAL ASSESSMENT**

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## **Taylor Highway MP 64.5 to Canadian Border Project No. STP-0785 (11)/66446**

*Prepared By:*

**Alaska Department of  
Transportation & Public  
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*Prepared For:*

**Federal Highway  
Administration**

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**Taylor Highway MP 64.5 to the Canadian Border**

State Project Number: 66446

Federal Project Number: STP-0785(11)

**ENVIRONMENTAL ASSESSMENT**

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by the

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and

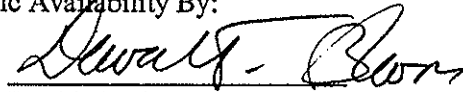
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The Alaska Department of Transportation and Public Facilities, in cooperation with the Federal Highway Administration, proposes to improve the Taylor Highway from the Mosquito Fork Bridge (MP 64.5) to the Alaska/Canada Border. The work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, wayside, and parking area construction; and highway sign installations.



## EXECUTIVE SUMMARY

This environmental assessment (EA) was completed to comply with the National Environmental Policy Act requirements for proposed improvements to the Taylor/Top of the World Highway in eastern Alaska. The Alaska Department of Transportation and Public Facilities (ADOT&PF), in conjunction with the Federal Highway Administration (FHWA), is proposing to improve the Taylor/Top of the World Highway from milepost (MP) 64.5 to the Alaska/Canada Border (Figure 1). The scope of the project consists of rehabilitation, restoration, and resurfacing of the existing roadway on the same or slightly modified alignment.

### Project Need

The project is needed to restore and improve the structural integrity and drainage of the existing roadway, enhance safety by improving deficient roadway geometry, provide enhancements for recreation along the highway, and provide reliable summer access to the Fortymile Wild and Scenic River (W&SR), Wade Creek recreation area.

### Existing Conditions

Road access into Alaska is limited to two highways, the Alaska Highway and the Taylor/Top of the World/Taylor Highway. The Alaska Highway is the only year-round access. The Top of the World/Taylor Highway is only open to vehicles during snow free months, typically April through mid-October. During the winter snow machines and dog sleds use the road. From MP 64.5 to MP 92 the Taylor Highway winds in and out of the Fortymile W&SR withdrawal which is managed by the Bureau of Land Management (BLM). The Taylor Highway is within the withdrawal for a total of 16.5 miles. Ten of those miles are within the Wade Creek Recreational Withdrawal.

For a large portion of the project area the Taylor Highway is a narrow, windy, gravel road with many steep hills and some hairpin curves. For the first 18 miles of the project (starting at MP 64) the road climbs in and out of river valleys (Chicken Creek, South Fork and Walker Fork) before following the Wade Creek river valley for 10 miles. While in the Wade Creek valley, the road is bound by Wade Creek on the southeast and steep hillsides to the northwest (Appendix A, Photo 1). After the road climbs out of the Wade Creek drainage the topography changes dramatically and the road traverses along the tops of tundra and shrub covered rolling hills offering spectacular scenic vistas (Appendix A, Photo 2).

The first 28 miles of the project travels through an area rich in mining history with remnants of mining equipment scattered through out the area. Visitors to the area have the opportunity to see historic mining camps, dredges, and various other mining equipment that has been abandoned over the years. According



to BLM's *Preliminary Finding (BLM) Pursuant to Section 7 of the Wild and Scenic Rivers Act for the Proposed Taylor Highway Project (MP 64 near Chicken, Alaska, north to the Canadian Border)*, Wade Creek has been moved about for decades by miners whose rights under mining laws supercede the protection provided by the Wild and Scenic Rivers Act. Federal mining claims extend the entire length of Wade Creek. Mining rights also predate the road ROW and over the years the highway has been routinely rerouted in the process of mining operations. Mining has left over 650 acres of river bottom land in unstable condition, moved approximately 1.1 million cubic yards of material, buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing thousands of cubic yards of rock. These mining practices have created an unstable creek bed that has contributed to periodic washouts of the Taylor Highway (BLM, 2003).

Current road conditions on the Taylor Highway include:

- No surface aggregate, resulting in a slippery driving surface during wet weather;
- Soft subsiding edges on the roadway;
- A road width averaging 22 to 24 feet wide with no shoulders;
- Inadequate drainage;
- Seasonal flooding and road washouts from adjacent streams;
- Frequent loss of roadway due to water erosion;
- Few scenic pullouts or facilities for travelers; and
- Insufficient access to the Recreational segment (Wade Creek) of the Fortymile W&SR.

During the summer months the Top of the World/Taylor Highways are used frequently by fuel trucks delivering fuel to Dawson City and other communities located along the road. Because the road is closed during the winter, reliable summer access is critical to ensure that enough fuel can be delivered to last the communities through the winter.

### **Alternatives**

Alternatives considered in this document include one Build Alternative and the No-Build Alternative. The Build Alternative would 1) resurface, restore, and rehabilitate the existing highway from the Mosquito Fork Bridge to the Alaska/Canada border; 2) replace the existing one lane bridge over Chicken Creek with a single span, two lane bridge; and 3) provide enhancements for the Wild and Scenic River, recreation section. The No-Build Alternative is used as a baseline for an analysis of the environmental impacts. Under the No-Build Alternative no improvements would be made and the road would continue



with its current level of maintenance and with only cursory repairs being made as needed. The road would continue to be seasonally affected by runoff.

### **Environmental Consequences**

Beneficial social, environmental, and economic impacts would result from the Build Alternative.

#### *Right-of-Way (ROW)*

Right-of-way will likely be required from the owners of federal mining claims located at Lost Chicken Creek and along Wade Creek. There are no current ROW plans for the Taylor or Top of the World Highways; therefore the exact amount of ROW required for project construction is unknown at this time. ROW plans will be completed when the environmental document and project plans are complete.

#### *Social Impacts*

The proposed project is expected to have beneficial impacts to residents in the communities of Chicken and Eagle which are located along the Taylor Highway. The improved driving conditions will make it easier and more reliable to transport goods via road into the communities. The improved driving conditions will likely encourage more tourists to drive the road because with the increase road width and other improvements drivers will be more comfortable driving larger vehicles such as motor homes on the road. The road improvements will make the drive less stressful and more enjoyable for tourists wishing to drive the road for its scenic vistas. The proposed project will also improve access for the Fortymile Wild and Scenic River land manager, BLM. As the number of visitors driving the road increases it will be more economically feasible for residents to operate tourism-related businesses. The project will not result in the relocation of any residents or businesses. The project will improve access to the Fortymile Wild and Scenic River corridor for visitors and land managers.

#### *Historic Properties*

Historic Properties along the project area were identified during a 2002 survey conducted by the Alaska Department of Natural Resources – Office of History and Archaeology. On October 30, 2003 the State Historic Preservation Officer concurred that no historic properties would be affected by the proposed project, provided that any road widening would occur on the opposite side of the present highway from Jack Wade Camp and Jack Wade Dredge. The build alternative complies with these provisions.

#### *Wetlands*

Approximately 20 acres of wetlands will be impacted by project construction with approximately 100,000 cubic yards of fill being discharged into wetlands. No high quality wetlands will be impacted. All affected wetlands are located adjacent to the current road. The vast majority of wetlands that would be



affected by project construction are palustrine scrub shrub wetlands which are prevalent through out the project corridor and the state.

#### *Fish and Wildlife*

No anadromous fish streams or threatened and endangered species are located in the project area. The project is not expected to have an adverse impact on fish or wildlife resources in the area. The road improvements are expected to have a beneficial impact on the water quality of the streams adjacent to the road due to less sedimentation and improved drainage.

#### *Floodplain Impacts*

The project is not expected to have an impact to the floodplain of the Walker Fork. The project will create an additional 12 acres of floodplain at various locations along Wade Creek by moving the road away from the creek and regrading the old roadbed. The replacement bridge at Chicken Creek will be designed to adequately pass the 100-year flood without damage to the surrounding area. A small amount of riprap will be needed at MP 75.25 along the South Fork to protect the roadway from erosion.

#### *Water Quality*

Water quality of the adjacent streams and wetlands are expected to improve after road construction. Erosion and sedimentation levels are expected to decrease with the replacement of culverts and the creation of additional floodplain along Wade Creek. Short-term impacts during construction will include temporary increased sedimentation, but the impacts are expected to be temporary.

#### *Section 4(f) Impacts*

A Programmatic Section 4(f) Evaluation was completed for this project to determine whether there is a 'feasible and prudent alternative to the use of land' from the Wade Creek Wild and Scenic Withdrawal for roadway improvements and to ensure that the action 'includes all possible planning to minimize harm to the property resulting from the use' (23 CFR 771.135). For the highway to be built not using land from the Wade Creek Wild and Scenic Withdrawal the highway would need to be built on a new location which would fail to provide public access to the Wade Creek recreational segment of the Forty-mile Wild and Scenic River withdrawal. Ten locations within the Wade Creek Withdrawal are proposed for improvements that would require ADOT&PF to acquire additional ROW easements from BLM (Figure 2). One additional area in the Withdrawal would require temporary construction access by ADOT&PF for construction of a wayside. A total of 3.6 acres of ROW easement would need to be acquired for the proposed project. Without the use of the Section 4(f) land the Taylor Highway will continue to be eroded by Wade Creek, the road will continue to flood in the spring and during high-water events, people will

continue to be stranded while the road is closed for repairs, and the road could be irreparably damaged during flooding. Use of the Section 4(f) land will benefit recreational users and BLM by providing reliable summer access to the area. Use of the land at these 10 locations is not expected to have an adverse impact on the remaining Wade Creek or remainder of the Fortymile Withdrawal.

#### *Permits*

A U.S. Army Corps of Engineers 404/10 wetlands permit, an Alaska Department of Environmental Conservation (ADEC) 401 water quality certification, an Alaska Department of Natural Resources Fish Habitat Title 41 Permit, and a National Pollution Discharge Elimination System (NPDES) permit will be required before construction.

#### *Material Sites*

Material for project construction will come from two permitted material sources, road cuts at MP 72 and 89.1, and mine tailings along Wade Creek. The material sites have been previously permitted.

#### **Environmental Commitments and Mitigation Measures**

Environmental commitments and mitigation measures incorporated in this project include the following:

- Creation of approximately 12 acres of additional floodplain habitat along Wade Creek through realignment of the highway at various locations.
- Maintenance of a tree buffer between the highway and the historic Jack Wade Camp which appears to meet the eligibility requirements for the National Register of Historic Places according to the Alaska Department of Natural Resources – Office of History and Archaeology.
- Improving natural drainage patterns by providing culverts for cross drainage. Currently there is very little cross drainage due to an inadequate number of culverts and improperly sized culverts.
- Designing culverts to allow fish passage at all fish stream crossings.
- Constructing public facilities to enhance existing and provide for new recreation areas. Proposed new facilities include the Walker Fork Wayside, Mosquito Fork Dredge trailhead parking, and various scenic pullouts.
- ADOT&PF will prepare an Erosion and Sediment Control Plan during final design to minimize the potential for sediment to reach surface waters. Temporary erosion control measures, including straw bales and/or silt fencing will be used during construction and kept in place until newly seeded plants can bind with the soil. The Contractor will prepare a Storm Water Pollution

Prevention Plan to reduce impacts to water from construction to the maximum extent practicable. This will include a hazardous materials control plan to address measures to prevent and respond to potential releases of hazardous material during construction.

- Refueling and servicing of equipment shall not be performed within 100 feet of wetlands or water bodies with the exception of low mobility equipment used for road construction or bridge repairs. A Hazardous Materials Control Plan (HMCP) will provide a detailed process for fueling this equipment within 100 feet of wetlands or waters of the U.S. (Wade Creek, Walker Fork, South Fork). Fueling and service vehicles will be equipped with adequate materials (such as sorbent pads, booms, etc) to immediately contain and commence clean-up of spilled fuels and other petroleum products.
- Adequate absorbent material will be kept on site to be used in the event oil, fuel, or other hazardous materials are spilled during equipment operation.
- Best management practices will be used and maintained to prevent pollution of surface and groundwater, soil, and the atmosphere with any contaminants including hazardous or toxic materials. Any release of these materials into the environment will require immediate corrective action by the contractor in accordance with applicable State and Federal Regulations.
- If contaminated or hazardous materials are encountered during construction, all work in the vicinity of the contaminated site will be stopped until ADEC is contacted and a corrective action plan is approved by ADEC.
- Advance notice of road closures will be posted in Tok, Chicken, Eagle, the Alaska/Canada Border Crossing and Dawson City and tour and fuel companies will be contacted regarding road closures to reduce construction impacts on highway users.



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## ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
ADFG	Alaska Department of Fish & Game
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation and Public Facilities
ADT	Average Daily Traffic
ANILCA	Alaska National Interest Lands Conservation Act
BLM	Bureau of Land Management
BMP	Best Management Practice
CE	Categorical Exclusion
dba	Decibels
DOI	Department of the Interior
EA	Environmental Assessment
EFH	Essential Fish Habitat
EO	Executive Order
EPA	Environmental Protection Agency
ESCP	Erosion and Sediment Control Plan
FHWA	Federal Highway Administration
W&SR	Wild and Scenic River
FONSI	Finding of No Significant Impact
LUST	Leaking Underground Storage Tank
MP	Milepost
NAC	Noise abatement criteria
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OHW	Ordinary High Water
PLO	Public Land Order
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SO	Secretarial Order
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
W&SR	Wild and Scenic River
Withdrawal	Wade Creek Wild and Scenic River Withdrawal

## **1.0 PROPOSED ACTION**

The purpose of this National Environmental Policy Act (NEPA) Environmental Assessment (EA) is to assess the environmental impacts of the proposed project and determine if the impacts are significant. If no significant impacts are found, the Federal Highway Administration (FHWA) will issue a finding of no significant impact (FONSI). If there are significant impacts, an environmental impact statement will be prepared. The Alaska Department of Transportation and Public Facilities (ADOT&PF) has prepared this EA for the Federal Highway Administration for the Taylor/Top of the World Highway Milepost (MP) 64.5 to the Alaska/Canada Border project.

### **1.1 Project Background**

The ADOT&PF proposes and requests funding for a "3R" project for the Taylor and Top of the World Highway, from MP 64.5 to the Alaska/Canada Border. The scope of this project consists of rehabilitation, restoration, and resurfacing of the existing roadway on the same or slightly modified alignment. The principal objective is to restore and preserve the structural integrity of the roadway, subsequently extending the roadway's service life and the safety of its users.

The Taylor Highway extends north from its intersection with the Alaska Highway (MP 1306) east of Tok, Alaska. At the Jack Wade Junction (MP 95), the highway splits into two routes: one route proceeds north to Eagle, continuing the milepost sequence; the other route (Top of the World Highway) turns east and ends 13 miles farther at the Alaska/Canada border. At the Jack Wade Junction the milepost marker numbering along the Top of the World Highway begins at 0. This project begins at the crossing of Mosquito Fork Creek, MP 64.5 (approximately 2 miles south of Chicken) and proceeds north. At MP 95 it follows the easterly route (Top of the World Highway) to the Alaska/Canada Border. The total length of this "3R" project is 44 miles.

### **1.2 Proposed Action**

The project begins in Alaska at the Mosquito Fork Bridge and ends at the Alaska/Canada Border. The project is located on the U.S. Geological Survey quadrangle maps Eagle A-1 and A-2. A location and vicinity map is presented in Figure 1. The work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, wayside, and parking area construction; and highway sign installation. The project area includes approximately 44 miles of highway.

Final design will likely be completed during 2004 with project construction scheduled to begin in 2005.

The project will be constructed in three phases:

- Jack Wade Junction to the Border (MP 95 to MP 13 of the Top of the World Highway), 2006;
- Mosquito Fork to Walker Fork (MP 64.5 to MP 82), 2007; and
- Walker Fork to Jack Wade Junction (MP 82 to MP 95), 2008.



## 2.0 PURPOSE AND NEED

The proposed project would restore and improve the structural integrity and drainage of the existing roadway, enhance safety by improving deficient roadway geometry, provide enhancements for recreation along the highway, and provide reliable summer access to the Wade Creek recreation area.

Little structural improvement has occurred within the project area since construction of the Taylor and Top of the World Highways was completed in the mid 1950's. The road lacks surface aggregate, resulting in a slippery driving surface during wet weather and soft subsiding edges. In numerous areas, there is insufficient drainage away from the road causing ponding on the road. The road also experiences glaciation (ice build-up from inadequate drainage) at certain locations which must be removed by ADOT&PF maintenance crews. Removing the ice build-up causes damage to the road and increases maintenance costs. There is also a sinkhole at MP 80 that requires significant maintenance to keep the road open.

The Taylor Highway parallels Wade Creek for approximately 10 miles and needs to be shifted farther away from the creek in several locations to minimize re-occurring embankment erosion and road closures. In June 2000 the road was closed due to washouts between MP 74 and MP 94 and in 2001, the road was reduced to one lane due to washouts from mud slides (Fehrenbacher, 2003). Flooding was visible in April 2003 near the Walker Fork Campground, see Appendix A, Photo 12. No permanent repairs have been made to protect the road from potential washouts. Where possible, the road will be designed to avoid the placement of riprap in Wade Creek, as requested by the Bureau of Land Management (BLM).

Elements of deficient roadway geometry include segments of road with less than the recommended standard width for rural highways. Design standards (American Association of State Highway and Transportation Officials specifications) for rural highways recommend a minimum 24-foot roadway width. The existing roadway averages 20 to 22 feet wide. ADOT&PF proposes to upgrade approximately 44 miles of the Taylor Highway to a surface width of 28 feet. The additional width will provide for more road edge stability and a shoulder on both sides of the road for bicycle and pedestrian use. Currently, the road has inadequate road width for smaller vehicles to pass or be passed by commercial vehicles. For vehicles to pass one vehicle must slow down significantly and pull over to the side of the road as much as possible.

Sharp horizontal curves exist along the highway. Curves are up to 45 degrees and require slower approach speeds and demand extreme caution to negotiate them due to the danger of oncoming wide-

track trucks. Sight distance around the curves is also restricted. Realignment is necessary to lengthen the radius of these curves and conform, as much as practical, to a design standard of a 600-foot minimum radius for a design speed of 40 miles per hour and 750 feet for a design speed of 50 miles per hour or 11.0 and 6.75 degree maximum curvature, respectively (ADOT&PF; 2003).

Enhancements for recreation are also needed along the highway. Currently, travelers visiting the Fortymile drainage and enroute to and from Canada must park on the road, in most places, in order to access recreational and scenic or wildlife viewing opportunities. A wayside at Walker Fork, as requested by the BLM, will allow busses and individuals to use facilities without driving through the Walker Fork Campground. In addition, the construction of turnouts would make it easier and safer for travelers to enjoy scenic views and the recreational opportunities along the highway.

The proposed improvements are consistent with land use plans that have been developed for the region. The following plans have been developed: BLM's *Fortymile River, River Management Plan (1983)*; *Fortymile, A Minimum Personnel Contact Visitor Management Program (1976)*; and the Alaska Department of Natural Resource's (ADNR) *Upper Yukon Area Plan (2003)*. Section 4.4 discusses these land use plans. The Taylor Highway is the only road access to the Fortymile National Wild and Scenic River (W&SR) withdrawal as well as the communities of Chicken, Boundary, and Eagle. Improvements to the Taylor and Top of the World Highways are needed to ensure reliable access to the local communities and the Fortymile W&SR, including the Wade Creek Recreational Area.

### 3.0 ALTERNATIVES

ADOT&PF has considered various alternatives to upgrade the Taylor Highway. Alternatives considered include the proposed action, building a new highway on new alignment in the vicinity of Wade Creek due to potential Section 4(f) impacts, improving the highway without using Section 4(f) lands, and a No-Build alternative. The alternatives are discussed in more detail below.

#### 3.1 No-Build Alternative

Under the No-Build alternative, the current situation would continue to exist with a substandard road surface, insufficient road width, inadequate drainage, and lack of pullouts for the long distance traveler. Without the proposed improvements the road will continue to deteriorate and irreparable damage could occur. The road would continue to erode into Wade Creek causing sedimentation of the stream and degradation of the roadway. The road will continue to flood in the spring as shown in Photo 12 in Appendix A making it impassible to vehicles until water levels recede. Under the No-Build alternative the potential for people and supplies to be stranded due to road damage from erosion will continue to exist. With out permanent repairs to the road, residents of Chicken and Eagle will continue to have unreliable road access to their communities.

Under the No-Build alternative no widening of the road would occur which would prolong the conflict between smaller private vehicles and large commercial vehicles such as fuel trucks and buses due to inadequate road width. Currently, drivers of recreational vehicles must always be on the lookout for commercial vehicles so that they may either pull off the road or significantly slow down to let the commercial vehicles go by. Widening of the road is needed to enhance the safety of both commercial and private vehicle drivers and passengers.

The existing level of maintenance would continue with cursory repairs being made when necessary.

#### 3.2 Alternatives Considered but Rejected

Because the proposed project has the potential to use a minor amount of land from a publicly-owned recreation area (Fortymile W&SR – Wade Creek Recreational Withdrawal), Section 4(f) of the Department of Transportation Act requires ADOT&PF to look at design and location alternatives that would avoid the use of Section 4(f) property. Two alternatives were considered. The first alternative looked at design options for construction of the road that would not use adjacent Section 4(f) land. These design alternatives included:



- No widening or realignment of the road;
- Increasing the slope of the road prism;
- Reducing the width of the traffic lane shoulders and the corresponding clear zone; and
- Changing the vertical alignment of the road.

None of the design alternatives were found to meet the purpose and need of the project which is to provide a more stable roadbed and enhance safety through improvement of deficient roadway geometry. The design alternatives are discussed in more detail in the attached Programmatic Section 4(f) Evaluation (Appendix B).

The second alternative examined construction of a new road on new alignment. Two alignments were considered; one that went north and west of the project area and one that went south and east of the project area. Because of the mountainous topography, feasible alternate alignments were limited to the two described above. Both alternative alignments would have resulted in substantial adverse environmental impacts and substantially increased project cost. The alignment north and west of the Section 4(f) property would have required construction of 20 miles of road on new alignment with numerous new bridges. The southeast alignment would have required 11.5 miles of new road with several bridges. The new alignments also would have traversed through sections of the Fortymile W&SR designated as scenic which are managed by BLM to be more remote than recreational sections. Constructing a road through a scenic withdrawal would have more impacts than keeping the road with the Wade Creek recreational withdrawal. Also, existing access to recreation facilities and other historic properties of interest to the traveling public along Wade Creek would be lost.

### **3.3 Build Alternative**

The build alternative would 1) resurface, restore, and rehabilitate the existing highway from the Mosquito Fork Bridge to the Alaska/Canada border; 2) replace the existing one lane bridge over Chicken Creek with a single span, two lane bridge; 3) provide enhancements for recreation; and 4) provide reliable access to and through the Wade Creek Recreational Area.

The present highway alignment would be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain. The highway would be realigned at multiple locations for a total of approximately 3.5 miles (Figures 3-12). The proposed highway realignments at corners average 0 to 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 0 to 100 feet from the centerline. The road would be improved by widening

to 28 feet with two 10-foot lanes and 4-foot shoulders, and surfacing with asphalt (Figure 13). Drainage would be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road. The posted speed would be 40 miles per hour from MP 64.5 to Walker Fork (MP 82) and 50 miles per hour from Walker Fork to the Alaska/Canada border.

A wayside will be constructed at Walker Fork on the southeast side of the road with outhouses, interpretive signing, and picnic tables, as indicated on Figures 3 and 14. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the east side of the road and MP 78 on the northwest side of the road (Figure 15). A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within the existing ADOT&PF right-of-way. The parking area will have no facilities and will not impact the current trailhead. Highway signing will also be installed along the entire project corridor, including milepost markers and standard highway signs for direction and safety information.

The current one lane bridge over Chicken Creek will be replaced by a two-lane, single span bridge. The new bridge location will be the same as the current bridge. A temporary crossing will be installed during construction of the new bridge and will be removed when the new bridge is operational. Bridge approach railing and bridge deck railing will be installed on the South Fork and Walker Fork bridges. In addition, the South Fork Bridge piers require work to repair concrete spalling. The pier work will require the use of partial wooden coffer dams which will be pumped out to allow workers to fix the piers. The coffer dams will not be constructed to the stream bed. No heavy equipment will be used in the river.

Material for road construction will be obtained from road cuts/unclassified excavation, tailings from Wade Creek and two permitted material sites (Figures 15 and 16). Any additional material from excavations will be used as slope flattening material in non-wetland areas within the ADOT&PF ROW. Material disposal sites will be identified by ADOT&PF during the final design or by the construction contractor.

Avoidance and minimization measures were evaluated in compliance with Executive Order (EO) 11990 (protection of wetlands), E.O. 11988 (floodplain management), Section 4(f) impacts, and Section 404(b)(1) guidelines. Avoidance and minimization of impacts to wetlands can be found in Section 4.6, avoidance and minimization to floodplains can be found in Section 4.14, and a discussion of Section 4(f) impacts can be found in Appendix B.

## 4.0 ENVIRONMENTAL CONSEQUENCES

The project is located in the Fortymile River basin in eastern Alaska near the border with Canada. The project begins at the Mosquito Fork and travels along the South Fork, Walker Fork, and Wade Creek before climbing out of the rivers' valleys and onto the Top of the World Highway. The area has a long history of mining as is evidenced by the numerous spoil piles and remnants of mining equipment visible from the road. The Fortymile area offers many opportunities for those seeking outdoor adventure and/or scenic beauty. In the past several years, visitation to the area has increased significantly by people utilizing public lands for a variety of reasons including: camping, hunting, canoeing, river rafting, ghost towns, hiking, bird watching, educational activities, wildlife viewing, dog mushing, trapping and snow machining. The Taylor and Top of the World Highways are only open during the summer, typically mid-April through October, depending on snow.

A literature search was used to identify issues. The scoping process with public and resource agencies was then used to find out more in depth information. This included public meetings, coordination with resource agencies, meetings with adjacent land management agencies, and a number of field visits.

Project-specific studies conducted to support preparation of this EA include a Wetlands Delineation/Vegetative Mapping/Wildlife Assessment (Appendix C), a Draft Section 7 Evaluation prepared by BLM (Appendix D), an ANILCA Section 810 Evaluation (Appendix E), a Programmatic Section 4(f) Evaluation (Appendix B), and a Cultural Resource Survey. The following subsections discuss the probable environmental impacts associated with the proposed project.

### 4.1 Right-of-Way Impacts

Right-of-way status for the Taylor Highway MP 64.5 to the Alaska/Canada Border project is complex. There are no current ROW Plans for this portion of the Taylor Highway (MP 64.5 to the Jack Wade Junction, MP 95.7) and Top of the World Highway [Jack Wade Junction (MP 0) to the Canadian Border (MP 11.7)]. The ADOT&PF Northern Region ROW Section has performed considerable research on the ROW for this project, and will continue to research and resolve issues as the project progresses through the easement acquisition phase following NEPA and design.

Public Land Order (PLO) 601 (dated 8/10/49) and Secretarial Order (SO) 2665 (dated 10/16/51) established a ROW for the Taylor Highway (also referred to as Tok-Eagle Road) at 200 feet wide. The Top of the World Highway is not considered part of the Taylor Highway; it appears to be classified as a "local road" under the same Orders. The specified ROW for a local road is 100 feet.

Much of the land along the Taylor Highway corridor is owned either by the federal or State government (Figure 17) and is subject to the 200-foot ROW, including State mining claims. However, any contemplated realignments outside of the existing corridor will require ROW permitting from BLM and the ADNR. Right-of-way mapping of the existing corridor will be required before project certification. This is due, in part, to the fact that the existing ROW in many locations is defined by the current location of the road.

*James L. B.*  
The reserved ROW for the Taylor and Top of the World Highways is subject to valid existing rights, including federal mining claims, homesteads, and trade and manufacturing sites that predate the establishment of the ROW under PLO 601 and SO 2665. In such areas, the ROW claim is likely to be limited to "ditch-to-ditch" or the actual prism occupied by the road and necessary for its ongoing maintenance. No documents have been prepared that show the specific location of federal mining claims along the Taylor Highway. In addition, where the road does cross federal mining claims, ROW must be obtained prior to construction. Should federal mining claims be relinquished along this corridor, and returned to public domain, it is ADOT&PF's standpoint that the PLO 601 ROW (200 feet) will automatically attach to this corridor (Appendix F).

There are a number of unpatented federal mining claims (claimant has the right to extract the minerals, but does not own the land) in the Wade Creek area, shown on Figures 15 and 16. The Alaska Road Commission acquired easements for a public highway from the Wade Creek Dredging Company in 1949. The claims have been continuously worked since that time and are located within Townships 27 and 28 North, Range 20 East, from MP 86 to MP 92. According to the easement documents, the ROW reserved is "... a sufficient width to maintain a finished road bed of twenty four (24) feet."

In addition, unpatented federal mining claims exist in the area of the Jack Wade dredge (MP 86). The claims appear to be part of the original Wade Creek Dredging Company group that existed prior to the establishment of the 200-foot wide ROW along the current alignment of the Taylor Highway. Road realignment in a southeasterly direction will likely place the new roadbed in an unpatented federal mining claim. ROW acquisition would then be required from both the holder of the mineral rights and BLM.

Similarly, there are existing federal claims dating from 1901 in the Chicken Creek area which appear to have been continuously worked since the turn of the century. Some of these claims may be included in an Alaska Road Commission easement from the Lost Chicken Mining Company; however, the easement width is limited to that area "required for the highway and appurtenant structures." These claims are

located between MP 68 and MP 70, and there is no mapping available showing the location of the federal mining claims. Therefore, the exact number of claims in this area is unknown at this time.

At this time, ADOT&PF is not able to estimate the amount of ROW that will be required to construct the project due to the lack of ROW plans. Right-of-way plans are not authorized until completion of the environmental document and the final design. After final design has been completed, ADOT&PF will negotiate with the individual mining claimholders to purchase road easements across the claims. The easements will include restrictions on the mining operations, preventing mining through the road or relocation of the road. If the claimholder is not willing to negotiate the right to mine through the road, the easement restrictions will require the miner to replace the road in its original location and condition once mining is complete. In addition, the restrictions will require the miner to provide a detour constructed to the same design standards as the highway while mining is in progress. These easements will be acquired before the project is constructed

#### **4.2 Social Impacts**

The proposed project would benefit Chicken, Boundary, and Eagle residents by providing improved access to the Alaska Highway and cities such as Tok, Fairbanks, and Anchorage since the Taylor Highway is the only road access in the area. The project would likely increase the volume of tourist traffic on the Taylor Highway each summer due to the improved driving conditions. ADOT&PF has forecasted an increase in average daily traffic (ADT) of 75 vehicles to 250 over the next 20 years. This increase is not expected to cause changes in neighborhoods, travel patterns, or accessibility; nor will it affect social groups, public facilities, or services. There is very little development along the project corridor. The only communities located within the project corridor are Chicken (2002 population 24) and Boundary (population not available, less than Chicken). No household or business relocations will result from the project. In Boundary, the road is being moved west of the current alignment which is currently located on private property. This realignment will allow more space for the property owners of the Boundary store to expand and improve their facilities, should they decide to do so.

ADOT&PF has coordinated with BLM to establish appropriate locations for the construction of turnouts and waysides that will best serve visitors to the Fortymile W&SR. Turnouts will be constructed at MP 77 and MP 78 to allow travelers to pull off the road to rest or view scenic vistas. A wayside is planned at Walker Fork (MP 82) (Figure 14). The Walker Fork Wayside will be located on the southeast side of the road and will have outhouses, interpretive signing, and picnic tables. The Walker Fork Wayside will meet all applicable American with Disabilities Act guidelines. The BLM will maintain the toilets and

other appurtenances and ADOT&PF will plow and maintain the wayside surface. The facilities will also be improved for pedestrians through construction of trailhead parking at the Mosquito Fork Dredge Hiking Trail and wider shoulders along the road for bicycles and pedestrians.

The proposed project would also improve driving conditions for tour buses, fuel trucks, and travelers through road widening and surfacing. The road improvements will increase public safety through the construction of shoulders, better sight distance around curves, and properly designed pullouts and waysides.

The project is in compliance with Executive Order (EO) 12898. Executive Order 12898 requires federal agencies, "to the greatest extent practicable and permitted by law, and consistent with the principals set forth in the report on the National Performance Review," to "achieve environmental justice as part of its mission by identifying and addressing, as appropriate disproportionately high and adverse human health or environmental affects," including interrelated social and economic effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

No disproportionately high or adverse effects on minority or low income populations, as outlined in EO 12898, are expected to result from the proposed project. No persons or populations were excluded from participation in, denied the benefits of, or subjected to discrimination under the NEPA process because of their race, color, or national origin.

### **4.3 Economic Impacts**

The proposed project would improve economic opportunity for residents in Chicken, Eagle, and Boundary through the potential increase of visitors using the improved road. Average daily traffic (ADT) levels are expected to increase from 175 in 2000 to 250 in 2020. With the increased traffic there will likely be an increased demand for tourist items (souvenirs, food, fuel) in Chicken, Boundary and Eagle. The improved road will also make it easier for mining equipment to be transported into the region and for mining products to be transported out of the region. With increased traffic comes the potential for commercial development near the Eagle cutoff. Maintenance and operation costs of the road are expected to decrease with realignment of the road away from Wade Creek due to fewer washouts and reduced erosion of the road prism.

Temporary economic benefits from the project would include increased sales in local stores and gas stations from outside workers staying in the project area during construction. Sufficient lodging is not

available along the Taylor Highway for the number of personnel required to complete project construction. Construction crews would stay in temporary work camps in the project area.

Federal mining claims located within the proposed ROW will be purchased from the claimholders at fair market value or easements will be obtained by ADOT&PF as discussed in Section 4.1.

#### **4.4 Recreation and Tourism**

Under the No-Build alternative recreational access would continue to be limited to those willing to drive the road in its current substandard condition. Without improvements to the road, visitor use could decrease as the road becomes more likely to damage vehicles due to erosion, washouts, and inadequate drainage. Currently, car and motor home rental companies in Anchorage and Fairbanks will not allow their vehicles to be driven on the Taylor Highway because of the road conditions.

Visitors to the Fortymile W&SR corridor participate in recreational activities such as camping at the Walker Fork Campground, visiting the Jack Wade Dredge, site seeing at Davis Dome, fishing in Walker and South Fork, hunting, wildlife viewing, and snow machining. Visitor's access to the Fortymile W&SR is by private vehicle and tour bus during the summer months and snow machine or dog sled during the winter. There are few developed recreation sites in the Fortymile management area. Within the project area there are waysides at Mosquito Fork (MP 64 Taylor Highway), South Fork (MP 75 Taylor Highway), and Davis Dome (MP 11.7 Top of the World); a hiking trail at MP 68.2 Taylor Highway; and a campground at Walker Fork (MP 82 Taylor Highway). According to BLM, visitor use numbers have slowly increased since 1997 with the numbers dropping in 2000. In 2003, 55,580 vehicle passengers passed through the Poker Creek Boarder Station. At the Walker Fork Campground, 7,051 camping registrations were collected in 2003.

The proposed project is expected to make it more convenient for people to visit the Fortymile area due to the improved access. With the improved road conditions visitors will have increased maneuverability and will be better able to avoid wildlife collisions. As the road conditions improve more people will be willing to make the drive and visit the area knowing that they won't be risking damage to their cars because of substandard road conditions.

The proposed project will also construct public facilities along the road to enhance recreational opportunities in the area. Proposed public facilities include constructing the Walker Fork Wayside which will include restroom and picnic facilities. Construction of the Mosquito Fork Dredge trailhead will



allow people to park their vehicles off the road when utilizing the hiking trail. Construction of scenic pullouts along the road will give recreational vehicles a place to pull off the road and view the spectacular scenery and wildlife present in the area.

#### **4.5 Local Land Use and Transportation Plans**

In general, there is little development of the federal, State, and private lands adjacent to the Taylor Highway. One store is located adjacent to the road in the community of Chicken. In addition, a store and dwellings are present adjacent to the current road in Boundary. At this location the road will be moved north approximately 180 feet away from the store; however, access to the store will be maintained. A few placer mining operations are located along the project corridor. Because the road will remain within the current ROW in the vast majority of the project area, the proposed project will have little impact on the adjacent land use. In the Wade Creek area, from approximately MP 85 to MP 92, ROW will need to be obtained from the owners of federal mining claims located under the current road. Section 4.1 discusses ROW impacts from the proposed project. Figure 17 presents the land status within the project area.

Land in the project area is used for recreational activities such as boating, hunting, camping, viewing historic sites, fishing, site seeing, snow machining, dog mushing, picnicking, and photography. The proposed project will have a beneficial impact on recreational use by providing improved access to the area and by constructing additional pullouts and waysides for recreational use.

##### *4.5.1 Fortymile Wild and Scenic River*

The Alaska National Interest Lands Conservation Act (ANILCA) of December 2, 1980 established the Fortymile River and certain tributaries as a component of the National Wild and Scenic Rivers System to be administered by the Secretary of the Interior through BLM. This classification designated approximately 392 miles of stream in the Fortymile drainage as part of the Wild and Scenic Rivers system (BLM, 1983). Within the project corridor the streams listed in Table 1 are included in the Fortymile Wild and Scenic River System.

**Table 1**  
**Streams Designated as part of the Fortymile Wild and Scenic River System<sup>a</sup>**

<b>Stream</b>	<b>Designation</b>	<b>Start Upstream</b>	<b>End Downstream</b>	<b>Length (miles)</b>	<b>Length in Project Area (miles)</b>
Mosquito Fork	Wild	Confluence with Kechumstuk Creek	Confluence with Ingle Creek	30	0 (immediately adjacent to the project area)
Mosquito Fork	Scenic	Confluence with Ingle Creek	Confluence with Dennison and South Forks	5	0.25
South Fork	Scenic	Confluence with Mosquito and Dennison Forks	Confluence with North Fork and Main Stem	27	2.75
Walker Fork	Scenic	Downstream of Liberty Creek	Confluence with South Fork	12	0.75
Wade Creek	Recreational	Confluence with Grace and Warner Creek	Confluence with Walker Fork	10	10

a. Source: River Management Plan for the Fortymile National Wild and Scenic River, 1983.

Three river designations (wild, scenic, and recreational) determine how BLM manages the streams. A congressional mandate dictates that wild rivers shall “be free of impoundments and generally inaccessible except by trail with watersheds or shorelines primitive, and water unpolluted.” Scenic rivers shall be managed to be “free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.” Recreational rivers shall be managed to be “readily accessible by road or railroad and may have some development along their shorelines, and ... may have undergone some impoundment or diversion in the past.”

Because the proposed project will require the placement of fill and riprap that could restrict the ability of Wade Creek to meander naturally within its valley, BLM is required to complete a Section 7 Evaluation. A Section 7 Evaluation determines whether or not the proposed action will have a “direct and adverse” impact on the values for which Wade Creek was added to the Wild and Scenic River System. A draft Section 7 Evaluation has been completed by BLM and can be found in Appendix D. BLM’s preliminary finding is, “the proposed project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River System.” BLM will issue a final finding after public review of this EA and before the FONSI is signed.

#### 4.5.2 Land Use Plans

Development and land use plans for the region include BLM's *Fortymile River, River Management Plan; Fortymile, A Minimum Personnel Contact Visitor Management Program*; and ADNR's *Draft Upper Yukon Area Plan*. Proposed project improvements are consistent with these plans. Extensive planning and coordination have been accomplished with BLM in order to limit disturbance and ensure enhancement of the natural environment along the project corridor.

The Taylor Highway is the only road access to the Fortymile River and its tributaries. Extensive coordination was conducted between ADOT&PF and BLM to ensure the proposed project is consistent with the Plan. BLM has issued a preliminary draft finding that the proposed project would be consistent with "...BLM's wild and scenic river management mandate to protect and enhance free-flow water quality and outstanding values of the river area" (Appendix D). Impacts to the Scenic and Recreational Rivers (Mosquito Fork, Walker Fork, South Fork, and Wade Creek) from construction will be minimized as much as possible. A final finding will be issued after public review of this EA and before a FONSI is signed.

The project is located in Region 4, Walker Fork, of the *Upper Yukon Area Plan*. The plan has designated much of the State land along the project corridor as general use to allow for flexibility of management based on future demand (ADNR, 2003). The management intent is to limit residential and commercial development to designated areas in Chicken, Boundary, and northwest of Jack Wade Junction. State land not designated as *Settlement* or *Settlement-commercial* will be managed to "preserve scenic values, minimize the number of access points onto the Taylor and Top of the World Highways, and reduce the extent of impacts to wildlife and other natural resources" (ADNR, 2003). The proposed improvements to the Taylor Highway are consistent with the *Upper Yukon Area Plan*.

#### 4.6 Historic Properties

To identify and evaluate cultural resources in accordance with the requirements of 36 CFR 800.4, a field survey and literature review of documents, reports, and other relevant information pertaining to the historic and archeological resources in the vicinity of the Taylor and Top of the World Highways and potential material sites was conducted by the ADNR – Office of History and Archaeology. According to 36 CFR 800, Protection of Historic Properties, federally assisted projects must take into account the possible effects on properties that are on or eligible for the National Register of Historic Places (NRHP). The projects area of potential effect was identified as 150 feet from the highway centerline. A report

titled *Cultural Resource Survey of the Taylor Highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 (To the U.S.-Canadian Border)*, Project 66446 (Buzzell, 2003) summarized the results of the field survey and literature review. SHPO concurred with the determination that no historic properties would be affected by the project on October 30, 2003. A letter was also received from BLM on June 5, 2003 concurring with the general findings in the cultural resource report prepared by ADNDR. Appendix G contains correspondence regarding cultural resources.

Two historic properties were identified within the area of potential effect, the Jack Wade Dredge (Appendix A, Photo 10) at MP 86 and the historic Jack Wade Camp at MP 89.9. The Jack Wade Camp consists of 10 historic buildings, one structure, and a number of objects associated with placer mining. BLM signed a memorandum of agreement with the Alaska State Historic Preservation Office for dismantling the Jack Wade Dredge on October 27, 2003. According to BLM, it is likely the dredge will be dismantled before road construction. If the dredge has not been dismantled before road reconstruction (currently scheduled for 2007), there will be no impacts to the site because the roadway will stay within the existing footprint adjacent to the dredge, and be widened on the other side of the road, away from the dredge. At the Jack Wade Camp, ADOT&PF plans to shift the road alignment away from the mining camp. The mining camp is currently 140 feet north of the Taylor Highway. The vegetation blocking the camp from the road will not be disturbed, as requested by BLM and SHPO. No effect is expected at either of the sites due to project construction.

In addition to consultation with SHPO under Section 106 of the National Historic Preservation Act, ADOT&PF consulted with the BLM area archaeologist on the location of cultural resources and potential project impacts to the resources. Also, federally recognized Native American Tribal Governments were formally invited to participate in the consultation process and asked to provide information regarding historical or archaeological properties potentially affected by this project. Nine federally recognized tribal governments in the project area were contacted by letter, however no responses were received. In addition, follow up phone calls were made to Tribal contacts. Copies of the letter, phone logs, and the mailing list can be found in Appendix G.

If cultural, archeological, or historical sites are discovered during project construction, the SHPO will be contacted and any work that might impact these sites will be stopped. Work shall not resume in the vicinity of the site until a written clearance from the SHPO is issued to the Project Engineer.

#### 4.7 Wetlands

A wetland delineation was conducted by Shannon and Wilson, Inc. from September 10 to 13, 2002 using methods described in the 1987 *U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* (USACE, 1987). A detailed wetlands report for the project area is provided in Appendix C. Figures 1 through 26 in Appendix C identify the wetlands within the road corridor (typically 100 feet on either side of the road).

High value wetlands – defined as those that provide critical habitat to fish, birds, or mammals for feeding, nesting, or habitation – are almost nonexistent within the project area (BLM 2003). The ponds and marshes adjacent to the road along Wade Creek have been formed by ground disturbance from placer mining. Many are either old settling ponds or small stream diversions that collect storm water runoff, but cannot drain due to mining berms or the road bed acting as a dam.

Most of the alignment is dominated by black spruce (*Picea mariana*), low ericaceous shrubs (*Vaccinium oxycoccus*, *Vaccinium uliginosum*, *Ledum groenlandicum*, *Ledum decumbens*) moss (*Sphagnum* spp.) and lichen wetlands. Wetland soils are predominantly organic in the upper layer with 6 to 15 inches of peat or muck, underlain generally by silt loam soils. These soils are classified as histic epipedons. Typically these areas are saturated to the soil surface. In one soil pit, excavated west of the Walker Fork, permafrost was encountered at 11 inches. This type of wetland is common in the project area as well as throughout Alaska. The *Status of Alaska Wetlands* [U.S. Fish and Wildlife Service (USFWS) 1994] states that almost two thirds of Alaska's 1.7 million acres of wetlands are palustrine scrub/shrub wetlands similar to those found extensively in the project area.

The low-lying riparian wetlands are dominated by willows (*Salix planifolia*, and *Salix* spp.), horsetail (*Equisetum* spp.), sedges (*Carex* spp.), mosses, and some grasses. These areas have mineral soils ranging from a sandy loam with mottles to a gravelly sandy loam.

Other wetland types observed includes small patches of sedge meadows and a buttercup-dominated area. Neither of these wetland types occupies a significant amount of area. The sedge meadow wetlands are primarily found interspersed along Wade Creek as well as between Chicken and the Mosquito Fork Bridge. The buttercup-dominated wetland area is adjacent to the Jack Wade Dredge. This area has a distinctive plant assemblage dominated by buttercup (*Ranunculus gmelini*), bluejoint (*Calamagrostis* spp.) sedges (*Carex aquatilis*, and *Carex diandra*), black spruce, and mosses. The soils in this area consist of six inches of peat over a highly organic silt loam. This area is bounded by the road on one side

and a short rock bluff on the other, forming a small wetland less than ¼ acre in size (Shannon & Wilson 2003).

Under the No-Build alternative, no wetlands would be filled. Negative impacts to wetlands such as sedimentation from erosion and storm water runoff associated with the existing road would continue. Natural drainage patterns of the wetlands would continue to be disrupted by the road causing some wetlands to be cut off from surface water and some to be flooded by water backing up behind the road.

Wetland impacts of the proposed project associated with the build alternative would occur when roadbed material is placed in wetlands, decreasing wetland size and altering wetland function. Most of the undisturbed areas along the alignment beyond the road fill meet the federal definition of wetlands with the primary exception being the area along the Top of the World Highway (Shannon & Wilson, 2003). Proper culvert design and installation will be necessary to maintain water flow between wetlands bisected by the road. Riprap will likely be needed at all stream crossings along the road corridor, at various locations along Wade Creek, and at one location along South Fork. Riprap will be placed along Wade Creek in intervals for a total of two miles to control road bank erosion. Riprap will also be used at MP 75.25 along South Fork to control road bank erosion.

Along the entire project area, approximately 100,000 cubic yards of fill (including riprap and road base material) will be discharged into approximately 20 acres of wetlands due to road widening and realignment. Fill will also be used at stream crossings and for the installation of culverts.

Low-value wetlands will also be affected by development of Material Site 78-5-031 (Figure 15). The material site is approximately 80 acres and much of the site has been disturbed from past operations. It is expected that the material site will be depleted during construction of the proposed project. A conservative estimate of the amount of wetlands to be impacted at the material site is 40 acres.

### ***Wetland Finding***

As defined by EO 11990, Protection of Wetlands, new construction in wetlands can not be undertaken unless (1) there is no practicable alternative to such construction and (2) the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

ADOT&PF has analyzed the project, and determined there are no practicable alternatives having less impact on the aquatic ecosystem and without significant adverse environmental consequences that do not involve discharges into waters of the United States. In order to upgrade the Taylor Highway to meet current safety standards the highway will need to be widened. Widening the highway will require filling wetlands located on either side of the road corridor at various locations. Fill areas will be minimized through the use of a 'barn roof' road design (Figure 13). From the edge of the shoulder out for four feet (recovery area) the slope will be 4:1. From the edge of the recovery area to the toe of the road bed the slope will be 1.5:1 to minimize the footprint of the road.

Wetland habitat will also be created and enhanced by moving the highway away from Wade Creek at intervals, creating an additional 12 acres of floodplain. The additional floodplain will be created in places where the road is being realigned away from Wade Creek and the old road bed material is removed and used in construction of the new road bed. This is expected to occur at multiple locations as shown on Figures 3 through 12. It is expected that after project construction, seasonally flooded marshy and riparian areas adjacent to Wade Creek will return to their natural habitat. Currently, Wade Creek has very few functioning riparian areas due to road location and mining berms adjacent to the creek. The installation of properly sized culverts and realignment of the road will help restore natural drainage patterns throughout the project area.

The palustrine wetlands in the project area are extensive and designing a road that avoids all wetland impacts would not be possible. Appendix C provides a description of wetlands located along the project corridor. Since there is already an existing road, designing a new road at a new location would cause equal or greater wetland degradation. The proposed design utilizes the existing, already disturbed road ROW for the majority of the project length.

The following measures will be implemented during construction to minimize harm to wetlands.

- Construction vehicles, equipment, and activities (stockpiling of materials) will be prohibited in wetland areas outside of the design toe slope.
- The contractor will provide effective control of erosion and surface water run off from the road into adjacent streams and wetlands during construction.



- Each bank cut, slope, fill, bottoms of road side ditches, and exposed earth work attributable to this project will be stabilized to prevent erosion both during and after project completion.
- No equipment or vehicles will be fueled or serviced within 100 feet of wetlands or waters of the U.S. (Wade Creek, South Fork, and Walker Fork) with the exception of low mobility equipment used for road construction. The Hazardous Materials Control Plan (HMCP) shall provide a detailed process for fueling this equipment within 100 feet of wetlands or waters of the U.S. Fueling and service vehicles shall be equipped with adequate materials (such as sorbent pads, booms, etc.) to immediately contain and commence clean-up of spilled fuels and other petroleum products.
- Adequate sorbent materials will be kept on site to be used to contain and cleanup unintentional releases of petroleum products.

Mitigation for impacting wetlands will include creating additional floodplain along Wade Creek where the road will be moved away from the creek and the old road bed graded to transition to the stream. Any additional mitigation that may be required will be done during the permitting process.

#### **4.8 Fish and Wildlife**

The following subsections discuss potential impacts to fish and wildlife in the project area.

##### *4.8.1 Anadromous and Resident Fish*

The two major drainages associated with the road alignment are the South Fork and its tributaries—Chicken Creek, Lost Chicken Creek, Mosquito Fork, Dennison Fork and Wall Street Creek—and the Walker Fork and its tributaries—Wade Creek, Ophelia, Gilliland, Warner, and Robinson Creeks. Figures 15 and 16 shows the rivers and streams associated with the project. Fish species reported within the Fortymile River drainage include arctic grayling (*Thymallus arcticus*), sheefish (*Stenodus leucichthys*), round whitefish (*Prosopium cylindraceum*), longnose sucker (*Catostomus catastomus*), and slimy sculpin (*Cottus cognatus*). Infrequent occurrences of secondary species such as humpback whitefish (*Coregonus oidschian*), northern pike (*Esox lucius*), burbot (*Lota lota*), Chinook salmon (*Oncorhynchus tshawytscha*), and chum salmon (*O. keta*) have been documented in lower reaches. Available information indicates that none of these secondary species occur within the drainages that would be affected by the proposed road improvements (Grundy, 1986; Alaska Department of Fish and Game (ADFG), 1999; and Garner, 2002).

According to information in the *1988 Fortymile River Placer Mining Final Cumulative Environmental Impact Statement* (BLM DOI), surveys by BLM and ADFG reported sedimentation and cementing of the Chicken Creek streambed, therefore the creek does not support a fishery because it lacks spawning habitat, cover, and aquatic invertebrates. Similarly, Wade Creek and Lost Chicken Creek are not expected to support a fishery because of the extensive mining disturbance in those creeks.

Table 2 summarizes the fish species present in streams in the project area and the type of work expected to occur below ordinary high water.

**Table 2**  
**Fish Species and Expected Stream Work within the Project Area**

Stream	Fish Species Present <sup>a</sup>	Work Below Ordinary High Water (OHW) (Y/N)	Type of Work
Chicken Creek	None	Y	Bridge replacement
Lost Chicken Creek	None	Y	Culvert replacement
South Fork	AG, SF, RF,LS, SS	Y	Placement of riprap to control road bank erosion at one location and repair work on the bridge piers
Walker Fork	AG, SF, RF,LS, SS	N	No work will be performed below OHW
Wade Creek	AG, SC <sup>b</sup>	Y	Placement of riprap to control road bank erosion at various locations.
Ophelia Creek	AG, SC <sup>b</sup>	N	No work will be performed below OHW
Robinson Creek	AG, SC <sup>b</sup>	N	No work will be performed below OHW
Gilliland Creek	AG, SC <sup>b</sup>	Y	Culvert Replacement
Warner Creek	AG, SC <sup>b</sup>	Y	Culvert Replacement

- a. AG – arctic grayling  
 SF – sheefish  
 RF – roundfish  
 LS – longnose sucker  
 SS – slimy sculpin

- b. Arctic grayling and slimy sculpin may migrate in Walker Fork and its tributaries during the summer to take advantage of feeding opportunities.

Source: BLM, 2003 and Shannon & Wilson, 2003.

#### 4.8.2 Essential Fish Habitat

In 1999, ADFG determined that anadromous fish runs in the Fortymile River and its tributaries are at the upper limit of their natural distribution and may not successfully reproduce on an annual basis. Adequate winter water flows are the limiting factor for successful egg hatch, and in most years it appears there is insufficient flow. Based on their information, ADFG delisted, without prejudice, the Fortymile River and its tributaries from the *Catalog and Atlas of Waters Important for the Spawning, Rearing or Migration of Anadromous Fish* (ADFG, 1999). The Taylor Highway upgrades are being proposed entirely within drainages that are tributaries to Fortymile River. Therefore, no essential fish habitat (EFH) will be impacted by the proposed upgrades.

#### 4.8.3 Wildlife Resources

Caribou (*Rangifer tarandus*), moose (*Alces alces*), Dall sheep (*Ovis dalli*), grizzly bear (*Ursus arctos*), black bear (*U. americanus*), and wolf (*Canus lupus*) are the big game species present in the Fortymile River watershed. Fur bearers such as marten (*Martes Americana*), lynx (*Lynx Canadensis*), red fox (*Vulpes vulpes*), beaver (*Castor Canadensis*), otter (*Lontra Canadensis*), and mink (*Mustela vison*) are known in the area. In addition, during a site visit, several porcupines (*Erethizon dorsatum*) were observed. Small game species such as sharp-tailed (*Tympanuchus phasianellus*), spruce (*Dendragapus canadensis*) and ruffed grouse (*Bonasa umbellus*), willow (*Lagopus lagopus*) and rock ptarmigan (*L. mutus*), and snowshoe hare (*Lepus americanus*) occupy habitat in the area. Additionally, raptors, waterfowl, shorebirds, and a variety of passerine birds can be found in the area. Neither the National Marine Fisheries Service (NMFS) nor the USFWS web sites indicated threatened or endangered species existing in the project area. The project area is within the range of the American Peregrine falcon (*Falco peregrinus*), which was removed from the list of threatened and endangered species on August 25, 1999.

According to ADFG the areas around Chicken and Jack Wade Junction are intensively used for hunting caribou, moose, and bear. The Fortymile caribou herd utilizes habitat in the project corridor as they migrate. The *ADFG Alaska Habitat Management Guide* shows the spring migration in the northwest direction with their return to the southeast in the fall (ADFG, 1985). In 2002, the population was estimated at 46,000. The herd is actively managed by ADFG, and the population is increasing. Additionally, 2003 marks the first time since the early 1960's that the Fortymile caribou herd has crossed the Yukon River during their migration. While caribou populations may be on the rise in this area, the moose population is decreasing. The low density of the moose population is unrelated to the existing road and is likely the result of over hunting, and calf mortality from predation (Gardner, 2002). An

ANILCA Section 810 Subsistence Evaluation was completed and can be found in Appendix E. The evaluation found that due to the nature of the proposed project, rehabilitation of an existing highway, the project will not likely result in a significant reduction of subsistence uses or increased competition due to: direct impacts on the resource or habitat; changes in availability of the resource; or limitations on access to the resource.

Based on this information wildlife habitat will not be fragmented, no migration corridors will be affected, and wildlife/vehicle accidents should not increase. Vehicle numbers and speeds may increase due to the improved road surface, but the new highway alignment will increase sight distance and vehicle maneuverability which will help reduce the potential for wildlife vehicle accidents.

#### 4.7.4 Raptors

ABR, Inc. completed raptor habitat surveys in the late 1990's when raptor habitat was increasing. Information provided by ABR on the presence of raptors within the project area is as follows. There are many pairs of peregrine falcons nesting along the South Fork, but almost all downstream from the highway. The lower Walker Fork and the South Fork below its confluence with the Walker Fork has the best habitat for cliff nesters. No cliff nesters were found on Wade Creek; however, its tributaries were not investigated. No bald eagle (*Haliaeetus leucocephalus*) nests were located on any of the project drainages, although a golden eagle (*Aquila chrysaetos*) nest was identified more than two miles up the Dennison Fork. Additionally, a peregrine falcon nest was identified on the first large cliff above the Mosquito Fork highway crossing (Ritchie, 2002). USFWS identified two peregrine falcon nests within a mile of the Taylor Highway in the project area. The peregrine falcon nests are not expected to be affected by the proposed project because the road will remain on essentially the same alignment after reconstruction.

#### 4.9 Threatened and Endangered Species

There are no known threatened or endangered species in the project area. Detailed information is included in Appendix C, Section 6.0. Correspondence with USFWS can be found in Appendix F.

#### 4.10 Migratory Bird Treaty Act

Executive Order 13186, Migratory Bird Treaty Act, protects species or families of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. There are 445 species of birds in Alaska, most of which are migratory (USFWS, 2002). Research

indicates in the project area there are between 113 and 159 species of birds, most of which are migratory birds (USFWS, No Date, and Sowl, 1998). Ten of these species have special designations from ADFG and USFWS, as described in Table 3. All ten species infrequently use the project area. USFWS in Tok was contacted regarding migratory birds in the project area and they referred to the bird checklists for the Upper Tanana Valley (Sowl 1998) and Yukon Flats National Wildlife Refuge (USFWS, No Date) for species present in the project area (Johnson, 2003). No bird surveys have been performed in the project area.

**Table 3**  
**Migratory Bird Species in the Project Area with Special Designations**

Species	USFWS Bird of Conservation Concern <sup>a</sup>	ADFG State of Alaska Species of Special Concern <sup>b</sup>	Occurrence in Project Area
Peregrine falcon	Yes	Yes	Rare <sup>c</sup>
Olive-sided flycatcher ( <i>Contopus lorealis</i> )	No	Yes	Rare
Gray-cheeked thrush ( <i>Catharus minimus</i> )	No	Yes	Rare
Townsend's warbler ( <i>Dendroica striata</i> )	No	Yes	Rare
Blackpoll warbler ( <i>D. striata</i> )	No	Yes	Rare
American golden-plover ( <i>Plurialis dominica</i> )	Yes	No	Rare
Whimbrel ( <i>Numenius haemastica</i> )	Yes	No	Rare
Hudsonian godwit ( <i>Limosa haemastica</i> )	Yes	No	Casual/Accidental <sup>d</sup>
Surfbird ( <i>Aphriza rirgata</i> )	Yes	No	Casual/Accidental
Short-billed dowitcher ( <i>Limnodromus grisens</i> )	Yes	No	Casual/Accidental

a. USFWS, 2002

b. ADFG, 1998

c. Rare – present annually in very small numbers or locally distributed. Infrequently encountered.

d. Casual/Accidental – do not occur annually. Species beyond normal range. May not occur again.

#### 4.11 Water Body Involvement

Water bodies with the potential to be affected by this project include Mosquito Fork, Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, Taylor Creek, Jefferson Creek, Wilby Creek, Robinson Creek, and several unnamed Wade Creek tributaries. Potential impacts include bridge replacement, culvert installation and repair, and bridge pier repair.

The current one-lane Chicken Creek Bridge will be replaced with a two-lane, single span bridge. During construction of the new bridge, a temporary culvert will be used to keep the road open to through traffic. Chicken Creek does not support anadromous or resident fish due to previous mining activities that severely changed the bed and habitat of the creek (Shannon & Wilson 2003). Chicken Creek is not listed as a navigable water by the USACE or the U.S. Coast Guard (USCG). A USACE Section 404 permit will be completed for the placement of fill in Chicken Creek and its associated wetlands.

Bridge approach railing and bridge deck railing work will be performed on the South Fork and Walker Fork bridges. This work is not expected to have an impact on the South Fork or Walker Fork, since it does not require work below OHW. Pier work will also be conducted on the South Fork Bridge to patch concrete spalling at and below the water line. This work will be conducted by building a partial wooden coffer dam around the pier and pumping out the water (Photo 4 in Appendix A). The coffer dam will not extend all the way to the stream bottom; it will only extend as far down as necessary to repair the pier. Workers will access the piers by boat; no heavy equipment will be in the river during repair of the piers. The river will not be closed to boaters during construction. Neither South Fork nor Walker Fork are listed as navigable waters by the USACE or the USCG. No fill is expected to be placed in either river due to the bridge work.

The proposed project would include repair of existing culverts and installation of new culverts at numerous locations to improve and maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions. Culverts installed on fish streams will be designed to maintain water flow and allow fish passage. Culvert design and installation on fish streams would follow guidance outlined in the "Memorandum of Agreement – Design, Permitting and Construction of Culverts for Fish Passage" between ADOT&PF and ADFG (ADOT&PF, 2001). All culverts with a diameter greater than four feet will be designed by a hydrologist. Riprap will be used at the inlet and outlet of culverts to prevent scouring and erosion.

Riprap will be used to stabilize the road embankment along the South Fork at MP 75.25 and at various locations along Wade Creek. Riprap will only be used at locations where the road cannot be realigned far enough away from Wade Creek to prevent erosion. The final location of riprap will be determined during final design.

Stabilization practices will be used during and after construction to limit sedimentation of adjacent surface water. Stabilization practices could include: temporary and permanent seeding, geotextiles, vegetative buffer strips, protection of trees, construction phasing, and other appropriate measures. Structural practices will also be used to limit sediment transport from exposed soils into surface waters. Structural practices could include silt fences, earthen dikes, drainage swales, sediment traps, or check dams. Cut and fill slopes resulting from construction will be revegetated so soil will not erode into adjacent waters. A Storm Water Pollution Prevention Plan (SWPPP) will be developed by the contractor and approved by ADOT&PF prior to commencement of construction activities.

#### **4.12 Alaska Coastal Management Program**

The proposed project is not within the Alaska Coastal Management Plan boundary.

#### **4.13 Hazardous Waste**

The Alaska Department of Environmental Conservation (ADEC) contaminated sites database contains no inventoried hazardous waste sites within the project corridor. However, the ADEC Leaking Underground Storage Tank (LUST) database listed one site at the ADOT&PF maintenance station at MP 74 of the Taylor Highway (Facility ID 1765). According to ADEC, the tanks have been removed but residual fuels-related contamination remains beneath the dispenser island. This site is outside the ROW and is not expected to be affected by the proposed project.

The ADEC spills database indicated there was one recorded spill in 1994 at MP 92-96. A truck rolled over and 200 gallons of diesel were discharged. The case was closed on July 2, 1996. No other spills were recorded in the project corridor.

According to BLM, there is contaminated soil (unknown quantity) and solid waste at the Glen Couch site (MP 84.25, Figure 5). BLM is in the planning stage of cleaning up the site. Site cleanup is not expected prior to 2005 (Walker, 2004). ADOT&PF is proposing to obtain a ROW easement in this area and will need to ensure that BLM has cleaned up the site prior to obtaining the easement. BLM is not aware of any other contaminated sites along the project corridor. One area of contamination was observed during a



site visit conducted in September 2002. A 12-foot by 10-foot area of stained soil was observed at approximately MP 83.7 on the north side of the road. In addition to the stained soil, there was miscellaneous metal debris and partially buried drums present. This area is outside of the project corridor and will not be affected by the proposed project. In addition to the stained soil, there are numerous locations along the project corridor with old mining equipment, miscellaneous metal debris, tires, and old vehicles. There is also debris in Wade Creek and in ponded areas adjacent to the current road.

Should contamination be discovered within the ROW during road construction, a corrective action plan approved by ADEC would be developed and implemented. As part of the construction contract, the contractor would be required to develop a Hazardous Material Control Plan (HCMP) to address containment, cleanup, and disposal of all construction-related discharges of petroleum fuels, oils, and/or other hazardous substances. In addition, a specification requiring the use of material "free from contamination" would be in the construction contract.

#### **4.14 Air Quality**

The proposed project is situated within an air quality attainment area, and the air quality meets or exceeds the Environmental Protection Agency (EPA) criteria for "healthy" air conditions. The ADT is projected to increase from 175 vehicles in 2000 to 250 vehicles in the design year (2020). The air quality impacts associated with vehicular emissions and airborne particulates (dust) is expected to be negligible because of the low traffic volumes. Dust levels will be lower after construction because of the asphalt being used to surface the road.

#### **4.15 Floodplain Impacts**

The No-Build alternative would result in the continued erosion of the road base in the Wade Creek floodplain. Floodplain would remain very limited throughout the Wade Creek Area. At Chicken Creek the existing one-lane bridge would remain. Under the No-Build alternative no fill would be placed in Chicken Creek.

Per EO 11988: Floodplain Management, as amended by EO 12148, U.S. Department of Transportation Order 5650.2 and Title 23, Code of Federal Regulations, Part 650, this project has been assessed for impacts to the floodplain. Executive Order 11988 requires that no federal action be developed within the base floodplain unless there is no practicable alternative.

There is no Federal Emergency Management Agency floodplain information available for the project area. The Alaska Community Flood Hazard Information website did not have flood information for Chicken or Boundary. Based on this information it has been determined that this project is not located in a regulatory floodplain. BLM has not mapped the floodplains in the project area (Kostohrys, 2003). According to BLM publication *Water Resources of the Fortymile National Wild & Scenic River, Alaska*, the Mosquito Fork is subject to flooding during moderate to high water, the South Fork is subject to flooding only during extreme high water, and the Walker Fork is subject to flooding during moderate to high water (Kostohrys et al, 1999). During a site visit there was evidence of erosion of the Taylor Highway from Wade Creek in numerous areas. In 2003 the Taylor Highway near the Walker Fork Campground was flooded in April (Appendix A, Photo 12). The road has been moved in the past due to washouts from flooding.

Additional floodplain will be created along Wade Creek where the new road is moved away from Wade Creek. In areas where the road is being realigned the existing embankment will be removed. The road realignments are shown on Figures 3 through 12. The proposed project includes moving up to 3.5 miles of road an average of 28 feet away from Wade Creek. In other areas of the project corridor the road will remain on essentially the same alignment. At multiple locations along Wade Creek and at MP 75.25 along South Fork, where it is not possible to move the road, bank armoring (riprap) will be needed to stabilize the road base. ADOT&PF is coordinating with the BLM hydrologist to limit the amount of riprap placed in Wade Creek. Riprap will only be used at selective locations to control highway flooding. The exact locations of riprap will be determined during final design. The road realignments along Wade Creek, when added together, would create over 12 acres of additional floodplain. Currently, there is very little floodplain along Wade Creek due to mining activities and the location of the road. The road reconstruction will create additional floodplain that would act as a buffer strip, separating the creek from the road, and would help minimize the effects of flooding, such as erosion and sedimentation, that occur every time it rains. Regrading and blending of the old roadbed will help with drainage and will be an improvement over existing conditions (Kostohrys, 2003).

It is not feasible to move the road out of the Wade Creek floodplain due to the steep valley surrounding the current road location. In order to avoid construction in the floodplain the road would need to be moved to the west and built on a new alignment through rugged mountains. The current floodplain conditions are a direct result of extensive placer mining activity in the area and do not represent a natural floodplain. The proposed project will improve the quality of the floodplain by realigning portions of the

road, repairing and replacing culverts, and improving drainage. There is no practicable alternative to the proposed road reconstruction and realignment in the floodplain.

The Chicken Creek floodplain will also be impacted during replacement of the bridge. Only a small portion of floodplain will be affected and would have to be affected by any alternative to provide access across the creek. The bridge will be designed to adequately pass the 50-year and 100-year floods without significant damage to the floodplain, bridge, or embankment. The bridge will be designed to minimize floodplain impacts. The banks of the river at the bridge crossing are not vegetated and have been highly disturbed from mining (Appendix A, Photo 11). There is no practicable alternative to the proposed encroachment.

#### **4.16 Noise Impacts**

Noise impacts from a roadway occur when predicted and/or actual noise levels after construction approach or exceed the FHWA noise abatement criteria or substantially exceed existing noise levels. The ADOT&PF's noise policy defines approach as within 2 decibel (dBA) of the noise abatement criteria (NAC). The FHWA NAC are 72 dBA for commercial receivers and 67 dBA for residential receivers. The proposed project will be in compliance with FHWA noise standards.

The level of highway traffic noise depends on the volume, the speed of traffic, and number of trucks in the flow of traffic. Generally, heavier traffic volumes, higher speeds, and a greater number of trucks increase the loudness of traffic noise. There are no baseline noise measurements available for the project area. Noise levels after construction are not expected to substantially exceed existing noise levels. Average daily traffic levels are currently 175 and are projected to increase to 250 in 2020. There are very few noise receivers (i.e. residential or commercial buildings) in the project area. Due to the low traffic levels projected for 2020, noise levels after construction are not expected to have an impact on the adjacent areas. Therefore, no noise abatement measures are proposed. Section 4.18 discusses construction noise impacts.

#### **4.17 Water Quality**

##### *4.17.1 Groundwater*

The proposed project is within the Fortymile River Watershed. Groundwater supplies residents in the area with drinking water through individual wells (Alaska Department of Community and Economic Development, 2002). The proposed project would have no direct impact to groundwater quality or

potable water sources. Sediment from road runoff would be minimized by maintaining vegetation buffers where possible, using porous embankment materials, and constructing drainage channels.

#### *4.17.2 Surface Water*

This project should improve the existing water quality of adjacent water bodies and wetlands along the project corridor. Surface water resources adjacent to the project area include Mosquito Fork, Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, Taylor Creek, Jefferson Creek, Wilby Creek, Robinson Creek, several unnamed tributaries and unnamed wetlands. Many of the existing culverts are insufficient to maintain flow during high flow conditions, resulting in overflow and ponding adjacent to the road. In addition to insufficient culverts, Wade Creek erodes the road embankment at various locations every year. Proposed improvements to repair and/or install culverts, stabilize the road embankment, move sections of road away from Wade Creek, and the application of asphalt will result in improved water quality of adjacent water bodies and wetlands.

Pier work on South Fork and placement of culverts along the project length may temporarily increase sedimentation into streams. South Fork may support arctic grayling, sheefish, round whitefish, longnose sucker, and slimy sculpin (Shannon & Wilson, 2003). Specific methods of construction will be developed during the design phase. Bridge replacement at Chicken Creek will also result in a temporary increase in sedimentation of the creek. Due to a lack of spawning habitat, cover, and aquatic invertebrates Chicken Creek does not support a fishery (Shannon & Wilson, 2003). ADOT&PF will prepare an Erosion and Sediment Control Plan (ESCP) and the construction contractor will prepare a SWPPP to address issues raised in the ESCP. These plans will identify the best management practices that will be implemented during and following construction to minimize erosion and sedimentation and mitigate impacts to water quality.

#### **4.18 Permits and Authorizations**

The following permits and approvals may be required for the proposed project. Because laws and regulations may change prior to construction, this list will require review and potential revision as construction approaches.

- USACE Section 404/10 Permit;
- EPA National Pollutant Discharge Elimination System Construction General Permit;
- ADNR, Office of Habitat Management and Permitting Title 41 Habitat Permit; and

- ADEC 401 Certificate.

#### 4.19 Construction Impacts

Construction of this project is currently scheduled to be completed in three phases (Jack Wade Junction to the Alaska/Canada Border, Mosquito Fork to Walker Fork, and Walker Fork to Jack Wade Junction) with each phase taking a minimum of two construction seasons. Temporary impacts associated with road and bridge construction and repair activities are summarized in the following paragraphs.

- **Air Quality** would be temporarily diminished during construction as a result of dust and equipment emissions. Impacts would be minimized by using dust control measures, as necessary, and maintaining construction equipment in good running condition.
- **Noise levels** in the area of construction would increase because of the use of heavy equipment. Most of the project area is undeveloped. A few residences and businesses in Chicken and Boundary will experience temporary noise impacts from construction. Noise from road construction may also affect recreational vehicles traveling along the highway, but due to the low volume of traffic noise impacts are expected to be minimal.
- **Water quality** of the following streams may be affected during construction: Mosquito Fork, Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, Taylor Creek, Jefferson Creek, Wilby Creek, Robinson Creek, and several unnamed tributaries to Wade Creek. Work will be conducted so impacts are minimized. Pier work on South Fork and installation of culverts along the project corridor may temporarily increase sedimentation into streams. Pier work on South Fork will most likely entail the construction of partial coffer dams that will be pumped dry for workers to repair the concrete spalling. No heavy equipment is anticipated in the river. The piers will be accessed by boat with equipment such as generators being staged on the bridge deck. Specific methods of construction will be developed during the design phase. ADOT&PF will prepare an ESCP and the construction contractor will prepare a SWPPP to address issues raised in the ESCP. These plans will identify best management practices (BMP) that will be implemented during and following construction to minimize erosion and sedimentation and mitigate impacts to water quality.
- **Staging and storage of fuels** would be in upland areas and would not be allowed within 100 feet of any wetland or stream/river. The construction contractor would be required to identify all

fuels, oil, paint, lubricants, etc. that would be used and/or stored in the project area, prepare a hazardous material control plan that addresses how fueling would be accomplished, where and how hazardous materials would be stored and handled, and what measures would be taken in response to a release. All contamination encountered would be handled and disposed of in accordance with an ADEC-approved action plan.

- **Fish and wildlife impacts** would be minimized by implementing BMP's to reduce turbidity levels in surface water adjacent to the project area to the lowest extent possible.
- **Vehicular traffic** on the Taylor Highway would be temporarily disrupted, although a one-way traffic lane or suitable detour would remain open at all times to maintain access except for short term (2-4 hours) closures during certain construction activities such as placing culverts. Notice of road closure would be coordinated with various agencies, the Alaska State Troopers, Canadian authorities, fuel hauling companies, and tourism companies that drive buses on the Taylor Highway. Communities affected by the road closure would also be notified. Heavy equipment and material-hauling truck traffic on the Taylor Highway would increase during construction. Standard traffic control procedures such as flagging and signs will be used during construction to maintain safe driving conditions for through traffic.
- **Recreational river use** (fishing, canoeing, rafting) of the streams in the project area would not be restricted during project construction. Owners of mining claims would have access to their claims during project construction.
- **Economic impacts** to the local communities (Boundary and Chicken) could result from an increase in construction workers to the area utilizing the stores and restaurants. It is not likely there will be much local hire due to the small population base. The economic impacts are expected to be minor.

#### 4.20 Material Sites

Material for project construction will come from five different locations: Material site 78-5-031 (MP 80 Taylor Highway), Material Site 78-052-2 (between MP 6 and 7 of the Top of the World Highway), road cut material at MP 72 and 89.1 of the Taylor Highway, and tailing piles along Wade Creek (Figures 15 and 16). Each site is described in more detail below. On October 30, 2003 the State Historic Preservation

Officer concurred that no historic properties would be affected by the proposed project, including the material sites.

#### Material Site 78-5-031

This material site has been extensively used in the past by maintenance and operations and a large portion of the site has been previously disturbed. The undisturbed portion is located in low-value black spruce wetlands. It is expected that the site will be depleted during project construction. After construction the site will be reclaimed by seeding with native vegetation and allowed to return to a natural state. The material site is located within the Fortymile W&SR, South Fork River Scenic Withdrawal. No unique wildlife habitat is located within the material site.

#### Material Site 78-5-052-2

This is a large material site that has had very little previous development. The site is located in uplands and will likely be used for the next 20-30 years before it is depleted. The site is designed to have a 100-foot vegetative buffer on three sides to screen it from the road. This site is located on State of Alaska land and has been previously permitted. No unique wildlife habitat is located at this site.

#### Riprap Source at MP 72

Riprap would be created from widening the road cut at this location. The road cut will be within the current ADOT&PF road ROW. The road cut would be located in wetlands. The riprap would be used to stabilize the newly constructed road from erosion.

#### Riprap Source MP 89.1

Riprap would come from widening the road cut at this location. The road cut will be within the current ADOT&PF road ROW. There are no wetlands at this location. The riprap would be used to stabilize the newly constructed road from erosion.

In addition to the above material sources, tailings within the highway ROW along Wade Creek will be used as fill during road construction. No wetlands or archaeological sites will be affected by use of the tailings.



## 5.0 ENVIRONMENTAL COMMITMENTS AND MITIGATION MEASURES

Environmental commitments and mitigation measures incorporated in this project include the following:

- Creation of approximately 12 acres of additional floodplain habitat along Wade Creek through realignment of the highway.
- Maintenance of the existing tree buffer between the highway and the historic Jack Wade Camp.
- Improving natural drainage patterns by providing culverts for cross drainage. Currently there is very little cross drainage due to an inadequate number of culverts and improperly sized culverts.
- Design culverts to allow fish passage at all fish stream crossings.
- Construct public facilities to enhance existing and new recreation areas. These include the Walker Fork Wayside, Mosquito Fork Dredge trailhead parking, and various scenic pullouts.
- ADOT&PF will prepare an ESCP to minimize the potential for sediment to reach surface waters. Temporary erosion control measures, including straw bales and/or silt fencing will be used during construction and kept in place until newly seeded plants can bind with the soil. The Contractor will prepare a SWPPP to reduce air and water construction impacts to the maximum extent practicable. This will include a hazardous materials control plan to address measures to prevent and respond to potential releases of hazardous material during construction.
- Refueling and servicing of equipment shall not be performed within 100 feet of wetlands or waterbodies with the exception of low mobility equipment being used for road construction. The HMCP will provide a detailed process for fueling this equipment within 100 feet of wetlands or waters of the U.S. (Wade Creek). Fueling and service vehicles will be equipped with adequate materials (such as sorbent pads, booms, etc) to immediately contain and commence clean-up of spilled fuels and other petroleum products.
- Best management practices will be used and maintained to prevent pollution of surface and groundwater, soil, and the atmosphere with any contaminants including hazardous or toxic materials. Any release of these materials into the environment will require immediate corrective action by the contractor in accordance with applicable State and Federal Regulations.
- If contaminated or hazardous materials are encountered during construction, all work in the vicinity of the contaminated site will be stopped until ADEC is contacted and a corrective action plan is approved by ADEC.

- Advance notice of road closures will be given to reduce construction impacts on highway users.

## 6.0 COMMENTS AND COORDINATION

This section describes the public and agency outreach (scoping) conducted by ADOT&PF and ASCG to support preparation of this EA. The purpose of the public and agency outreach is to determine issues, concerns, and alternatives that should be evaluated in the EA. All comments and issues identified by the agencies and public to date are summarized in this section. Scoping summary information can be found in Appendix H.

### 6.1 Agency and Public Coordination

The environmental process originally began for a portion of the project area in 1997 for MP 82 to the Alaska/Canada Border. A draft Categorical Exclusion (CE) and Section 4(f) document were prepared by ADOT&PF and reviewed by BLM. BLM concurred with the findings in the two reports on February 19, 1998. The CE was never finalized or approved by FHWA because it was determined that the environmental document needed to cover proposed road improvements from MP 64.5 to the Alaska/Canada Border.

In December 1999, ADOT&PF initiated the environmental process for rehabilitation of the Taylor Highway this time from MP 64.5 to the Alaska/Canada Border. A meeting was held with BLM on December 16, 1999 to discuss project status and schedule. On September 5, 2001, ADOT&PF sent out agency scoping letters. In response to the scoping letter BLM sent a letter requesting more detailed information about the project. To answer BLM's questions ADOT&PF and BLM met on January 17, 2002 to discuss project schedule, ROW status, and Fortymile management requirements. In September 2002, the environmental services for the project were contracted to a consultant and the NEPA process was initiated with a site visit and initiation of the public and agency scoping in November 2002. The following sections describe the most recent round of public and agency coordination conducted by ADOT&PF for the proposed project.

#### 6.1.1 Agency Coordination

An agency meeting was scheduled for December 4, 2002 at the ADOT&PF Fairbanks office. Due to a lack of interest the meeting was not held. Agency scoping letters were sent out on November 29, 2002 with comments requested by December 31, 2002. Responses to the scoping letter were received from ADEC, BLM, NMFS, and ADFG. Scoping letters were sent to mining organizations in early December, 2002 with comments requested by January 7, 2003. No comments were received from the mining organizations. In addition, nine federally recognized tribes were contacted regarding the location of and

potential impacts to cultural resources within the project area. No responses were received from any of the tribes (Appendix G).

Numerous meetings were held between ADOT&PF and BLM. BLM attended the public scoping meeting in Tok on December 5, 2002 and met with ADOT&PF after the meeting to discuss the project. In February 2003, the ADOT&PF project manager, design engineer, BLM hydrologist, and BLM Outdoor Recreation Planner met several times in Fairbanks to discuss the road alignment, road design, and the use of riprap along Wade Creek. During these meetings BLM requested that the road be moved as far from Wade Creek as feasible and that the use of riprap be minimized. Based on these meetings, ADOT&PF revised the road design to incorporate BLM's requests to the extent possible. On June 9, 2003 ADOT&PF, BLM, and ASCG met in Tok to discuss the proposed project. The next day (June 10) ADOT&PF and BLM participated in a site visit to discuss project details such as the location of proposed waysides, proposed bridge work, and the location and rehabilitation of material sites. The entire project corridor was driven during the site visit. Coordination with BLM has also involved many phone calls and emails with ADOT&PF and ASCG. Documentation relating to coordination with BLM can be found in Appendix I.

#### 6.1.2 Public Coordination

A public notice was published in the *Mukluk News* on November 21, 2002 and the *Fairbanks Daily News-Miner* on November 27, 2002. In the notices, the proposed project was described, the public meeting was announced, and input and comments were sought. The public meeting was also announced on the Caribou Clatter ham radio service.

A public meeting was held in Tok, Alaska on December 5, 2002. The meeting provided the opportunity for interested parties to comment on the proposed project and receive project information. The sign-in sheet shows that six people attended the meeting, including two representatives from BLM. Comment sheets were provided for people to mail in their written comments. One comment form was received at the meeting. No public comment forms were received in the mail.

## 6.2 Summary of Comments

Responses to comments are in italics after each comment.

### 6.2.1 Agency Comments

- A fish habitat permit may be required for activities affecting fish-bearing streams (ADFG). *A fish habitat permit will be obtained by ADOT&PF for all work in fish bearing streams.*
- ADFG does not expect the proposed project to affect wildlife migrations or negatively bisect critical wildlife habitats.
- The general areas around Chicken and Jack Wade Junction are intensively used caribou, moose, and bear hunting areas (ADFG).
- ADFG provided a copy of the fish stream log for the Taylor Highway.
- An ANILCA 810 finding and evaluation will need to be included in the EA (BLM). *An ANILCA 810 finding and evaluation is included in Appendix E.*
- The Migratory Bird Treaty Act EO should be discussed in the EA and may require mitigation (BLM). *The Migratory Bird Treaty Act is discussed in Section 4.9. No adverse impacts are expected from the proposed project.*
- If realignment or placement of turnouts and waysides displaces any of the BLM signage indicating entering or leaving the National Wild and Scenic River corridor for the purpose of federal subsistence hunting, then the signs need to be replaced at the new crossing points (BLM). *Any signs displaced by project construction will be replaced by ADOT&PF.*
- ROW authorization may be needed from BLM at MP 84-85 (BLM). *ADOT&PF will coordinate all ROW with BLM.*
- A Wild and Scenic Rivers Act, Section 7 Evaluation is being completed by BLM and will need to be included in the EA (BLM). *The Draft Section 7 Evaluation is included in Appendix D.*
- NMFS concurred that no EFH will be affected by the proposed project.

### 6.2.2 Public Comments

- Concern was expressed about the flooding potential of the proposed Walker Fork wayside. *The wayside will be designed to minimize flooding of the site.*
- Residents wanted to know where money was going to come from to maintain the road after it is improved. *It was explained that money for maintenance would come from a different source than construction money and that the environmental document would not be covering maintenance costs.*
- Construction on the Taylor Highway should be coordinated with construction on the Alaska Highway so that the only two roads into the state from Canada are not under construction at the same time. *Construction impacts will be minimized as much as possible.*
- Concern was expressed about how the high-float asphalt will hold up on the sections of road that experience glaciation. *Likely the entire road will be surfaced with high-float asphalt and if the road does not hold up in areas of glaciation the road will be graded and left as gravel.*
- How will the new bridge at Chicken Creek be affected by flooding and will it increase flood potential to downstream residents? *The Chicken Creek Bridge will be designed to withstand a 100 year flood and will not increase flood potential to downstream residents.*
- Will mining claims be affected by road construction? *ADOT&PF will acquire ROW from some mining claims along Wade Creek (see Section 4.1 for a discussion of ROW impacts) for construction of the road; the remaining mining claims will not be affected by road construction.*
- Will the Fortymile caribou herd be affected by road construction? *The Fortymile Caribou herd is not expected to be affected by the proposed road improvements because the road will remain on essentially the same alignment.*
- The sinkhole at MP 80 needs to be addressed during design. *The sinkhole will be taken into account during design.*
- The road base needs to be stabilized. *The road is being moved away from Wade Creek where possible to stabilize the highway from being eroded by the creek. The road is also to be rehabilitated for the entire length of the project corridor.*

- The road needs to be armored where it is adjacent to Wade Creek. *The road is being moved away from Wade Creek where possible and will be armored with riprap where it is not possible to realign the road.*
- Snow drifting on Boundary Road near the U.S. Customs at the border needs to be addressed. *Snow drifting will be taken into account during design.*
- A Chicken resident requested a walkway from the Chicken Creek Bridge to the airport road. The reconstructed road will have four-foot shoulders which will allow an area for pedestrian use. Due to the low population, pedestrian use is expected to be minimal.

## 7.0 PROGRAMMATIC SECTION 4(F) EVALUATION

A Programmatic Section 4(f) Evaluation was completed for the proposed project and signed by ADOT&PF on May 28, 2004 and FHWA on June 2, 2004. The project's applicability is based on the following FHWA guidelines:

1. The proposed project is designed to improve the operational characteristics, safety, and/or physical condition of existing facilities on essentially the same alignment. This includes 4R work (resurfacing, restoration, rehabilitation, and reconstruction); safety improvements, such as shoulder widening and the correction of substandard curves; bicycle and pedestrian facilities; and bridge replacements on essentially the same alignment.
2. The Section 4(f) land is publicly-owned recreational land within the existing Withdrawal.
3. The amount and location of the land to be used would not impair the use of the remaining Section 4(f) land, in whole or in part, for its intended purpose. The total amount to be acquired by the proposed project, ROW and easement combined is approximately 5 acres. This proposed take does not exceed the maximum limit of one percent of the total size (3,302 acres) of the Section 4(f) Withdrawal.
4. The proximity impacts of the project on the remaining Section 4(f) land would not impair the use of such land for its intended purpose. The existing highway already bisects the Section 4(f) land and does not impair the use of this land for its intended purpose nor will the proposed improvements to the current facility.
5. The BLM has jurisdiction over the Section 4(f) land and has concurred in writing with the assessment of the potential impacts of the proposed project on Section 4(f) land (Appendix B).
6. The project would not require land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act (Dingell-Johnson Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act), or similar laws, or lands otherwise encumbered with a Federal interest.
7. This is not a project for which an Environmental Impact Statement was prepared.

ADOT&PF will comply with the Section 4(f) requirement for the Wade Creek Withdrawal of the Fortymile Wild and Scenic River by applying a nationwide evaluation in accordance with Projects that Use Minor Amounts of Land from Public Parks, Recreation Areas, and Wildlife and Waterfowl Refuges. A copy of the Programmatic Section 4(f) Evaluation can be found in Appendix B.



## 8.0 REFERENCES

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## 9.0 LIST OF PREPARERS

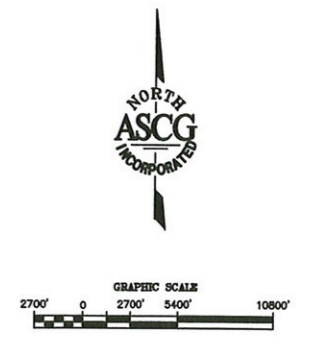
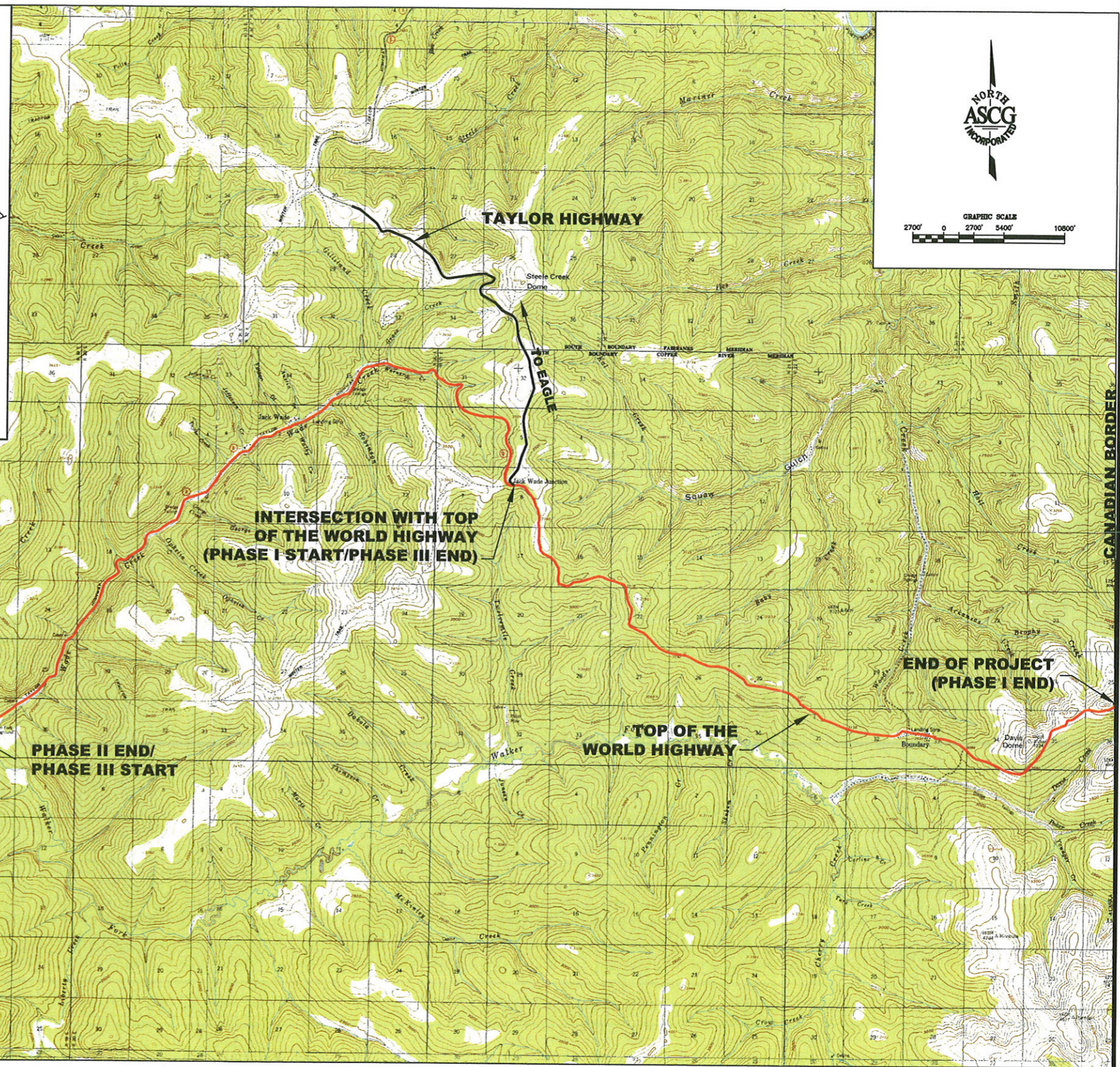
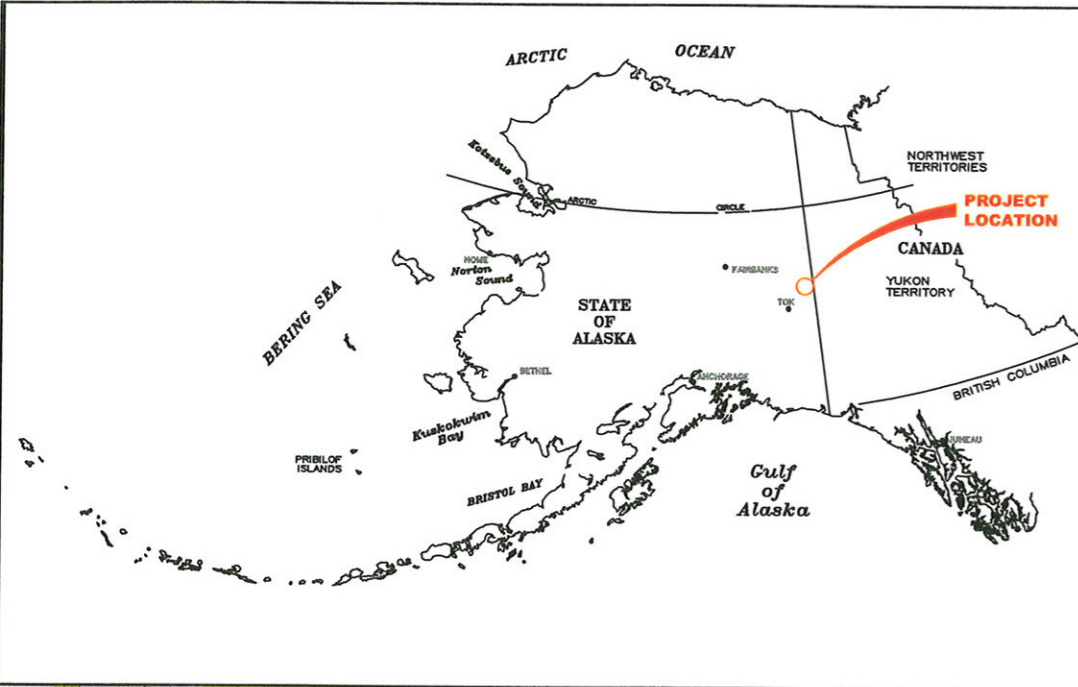
The following table provides the list of personnel involved in the preparation of the EA.

<b>Name/Education</b>	<b>Affiliation</b>	<b>Expertise Applied to this EA</b>	<b>Profession/Experience</b>
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Ed DeClava	FHWA	Northern Region Liaison	Environment and Historic Preservation
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Melissa Parker B.S. Biology	ADOT&PF	Document review	Environmental Analyst 8 years
Tiff Vincent, P.E. B.S. Civil Engineering	ADOT&PF	Road Design	Civil Engineer 14 years
Laurie Mulcahy M.S. Public Administration B.S. Anthropology	ADOT&PF	Document review	Environmental Analyst 20 years
Kimberly Stricklan, P.E. M.S. Environmental Engineering B.S. Ocean Engineering	ASCG Inc.	Consultant Project Manager	Environmental Engineer 18 years
Karen Tilton, PLS A.A.S. Surveying Technology	ASCG Inc.	Right-of-Way	Land Surveyor 17 years
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Stephanie Gould, EIT B.S. Physics and Math M.S. Civil Engineering	ASCG Inc.	Research, drafting	Environmental Engineer 2 years
John Ingold B.S. Environmental Science	ASCG Inc.	Section 106	Environmental Specialist 15 years
Larry Clamp B.S. Geography	ASCG Inc.	GIS	GIS Coordinator 5 years

Name/Education	Affiliation	Expertise Applied to this EA	Profession/Experience
Nicole Knox, EIT B.S. Civil Engineering	ASCG Inc.	Drafting	Environmental Engineering Intern 2 years
Dawn Laster B.S. Environmental Engineering	ASCG Inc.	Drafting	Environmental Engineer 1 year

# FIGURES





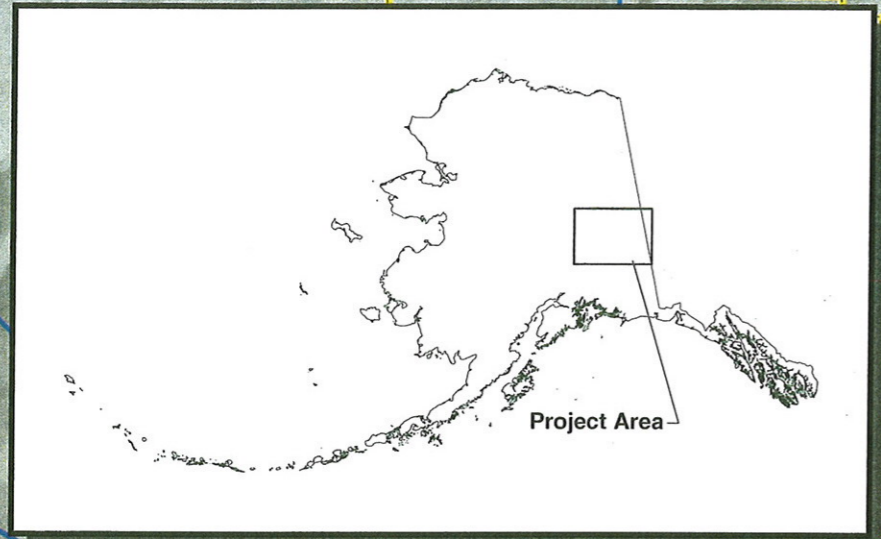
TAYLOR HIGHWAY MP 645  
TO THE  
CANADIAN BORDER

SITE LOCATION AND VICINITY  
FIGURE 1

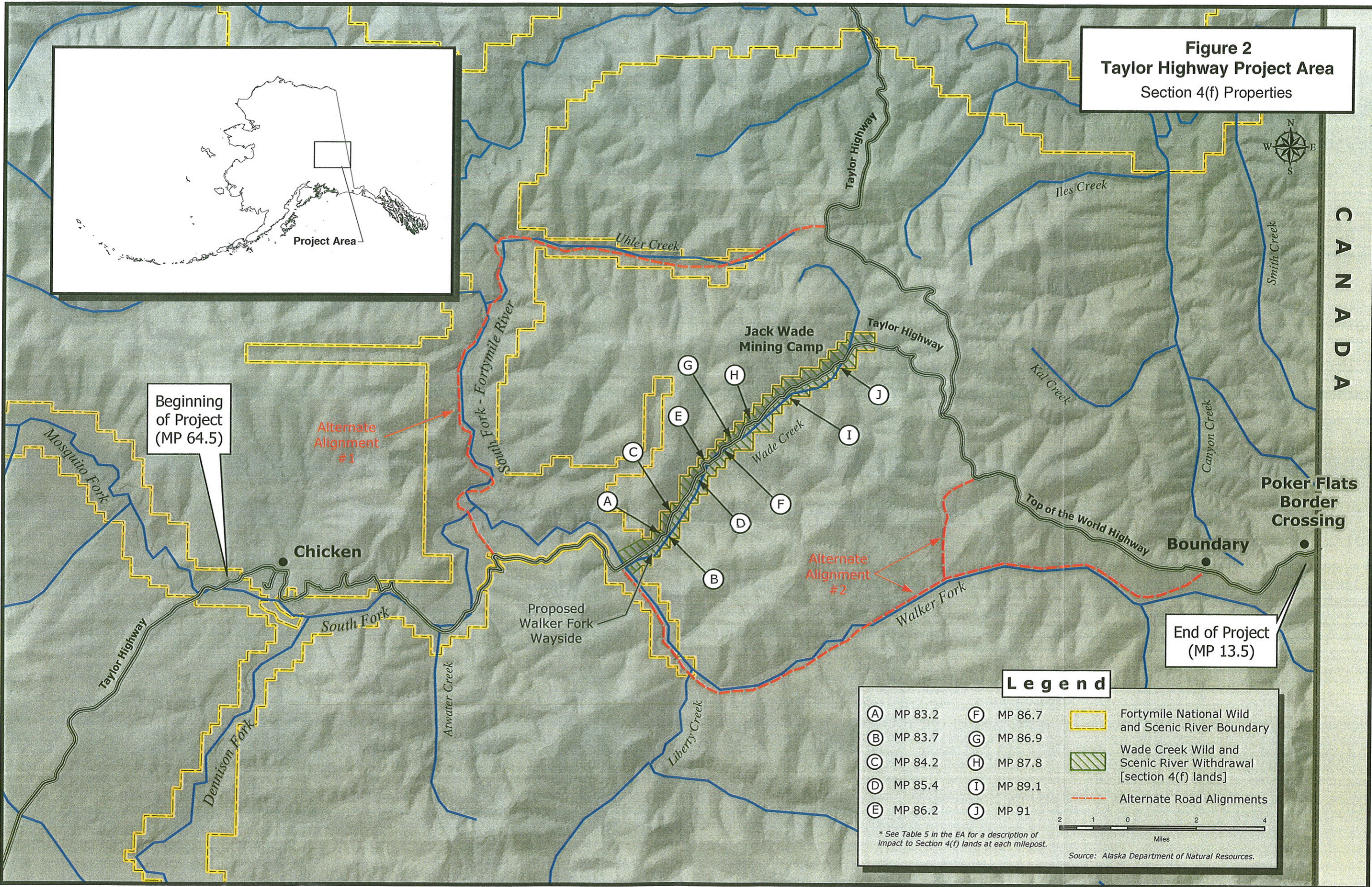
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**Figure 2**  
**Taylor Highway Project Area**  
 Section 4(f) Properties



CANADA

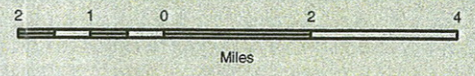


Beginning of Project (MP 64.5)

End of Project (MP 13.5)

**Legend**

(A) MP 83.2	(F) MP 86.7	Fortymile National Wild and Scenic River Boundary
(B) MP 83.7	(G) MP 86.9	Wade Creek Wild and Scenic River Withdrawal [section 4(f) lands]
(C) MP 84.2	(H) MP 87.8	Alternate Road Alignments
(D) MP 85.4	(I) MP 89.1	
(E) MP 86.2	(J) MP 91	



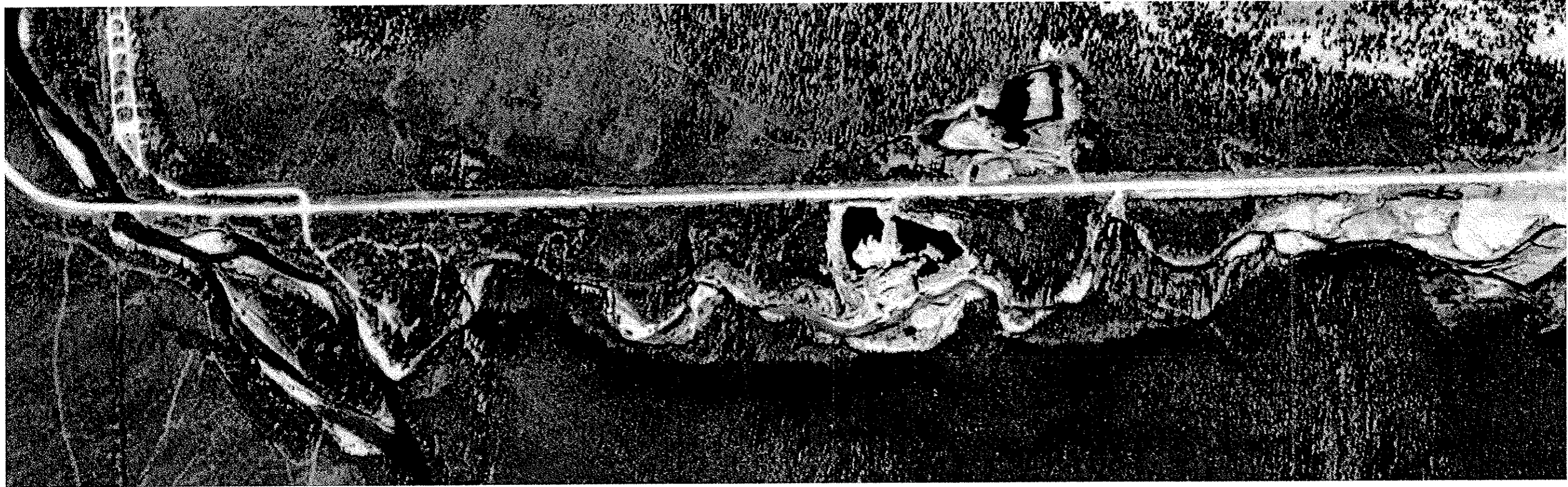
\* See Table 5 in the EA for a description of impact to Section 4(f) lands at each milepost.

Source: Alaska Department of Natural Resources.

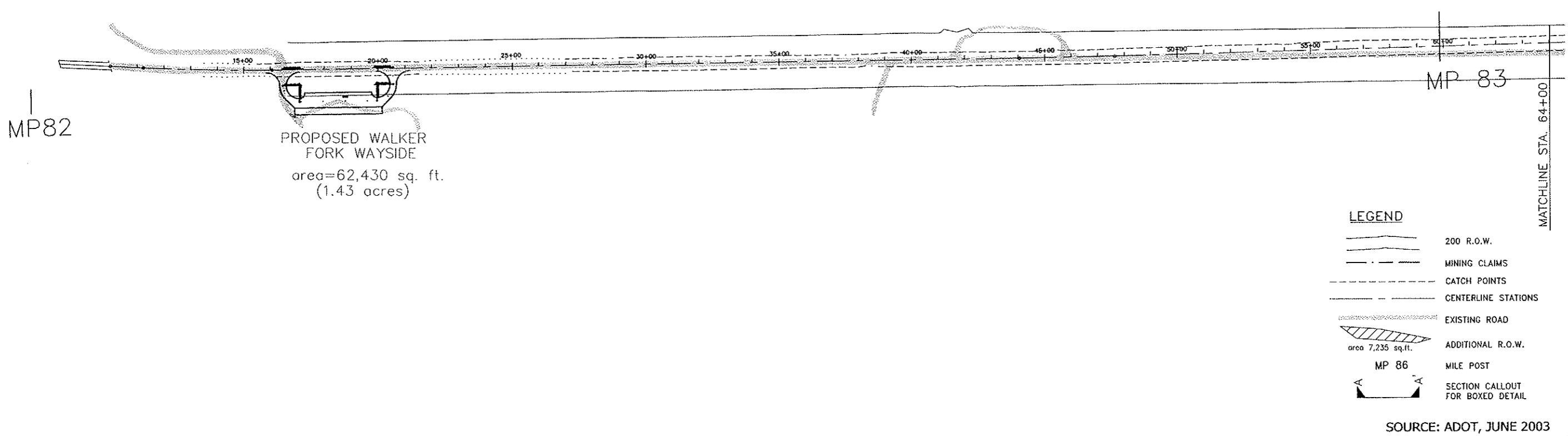




TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



SOURCE: BLM, 5-15-94

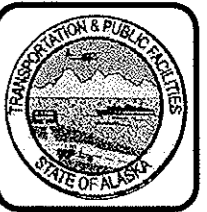


SECTION 4(f) PROPERTIES  
FIGURE 3

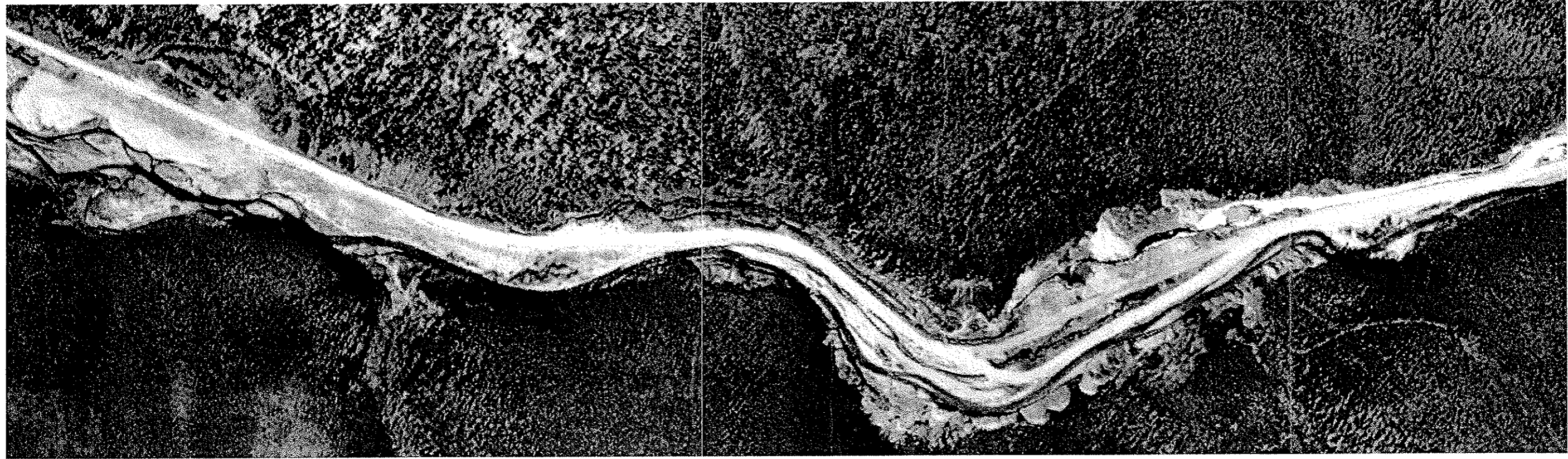
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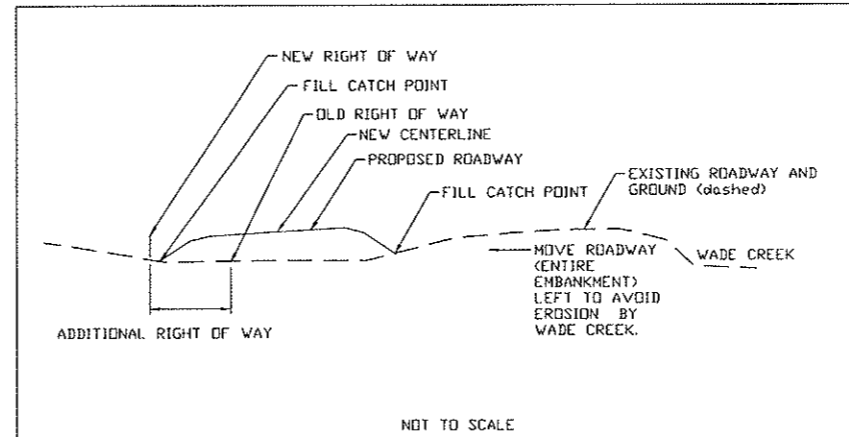


TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



AREA B SECTION B-B'

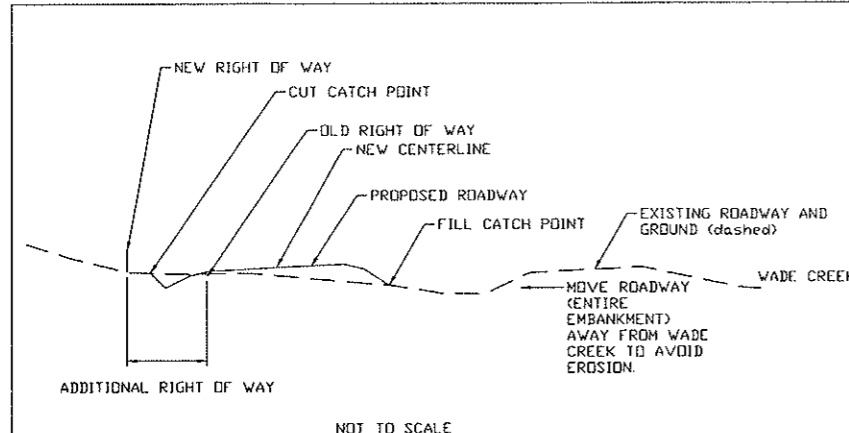
SOURCE: BLM, 5-15-94



A  
area 9,822 sq.ft.  
(0.23 acre)  
CATCH POINT

B  
area 4,602 sq. ft.  
(0.11 acre)  
CATCH POINT

AREA A SECTION A-A'



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- area 7,235 sq.ft.  
ADDITIONAL R.O.W.
- MP 86  
MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: ADOT, JUNE 2003

SECTION 4(f) PROPERTIES  
FIGURE 4

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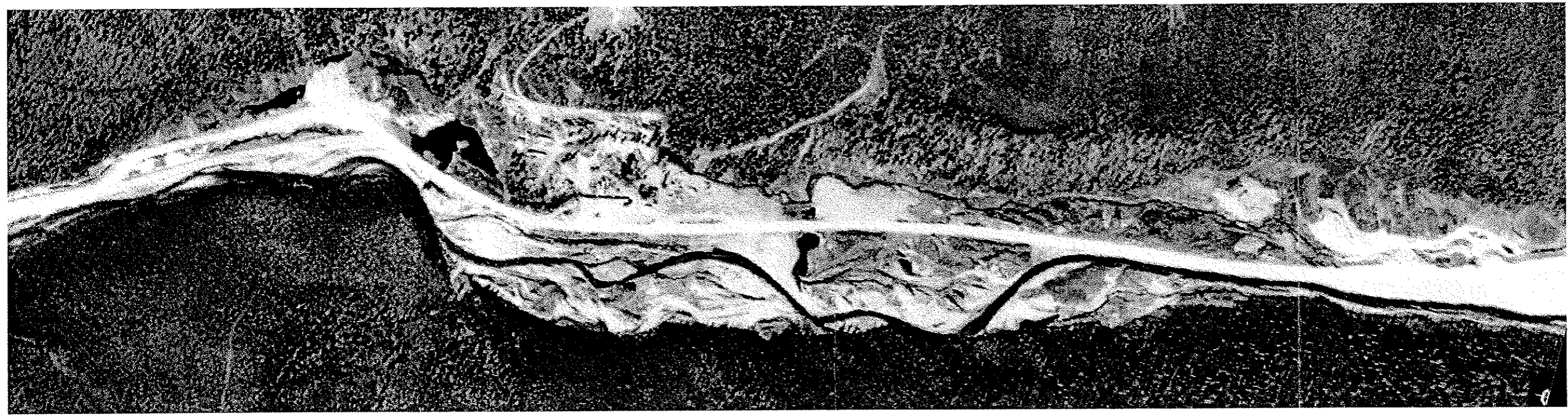
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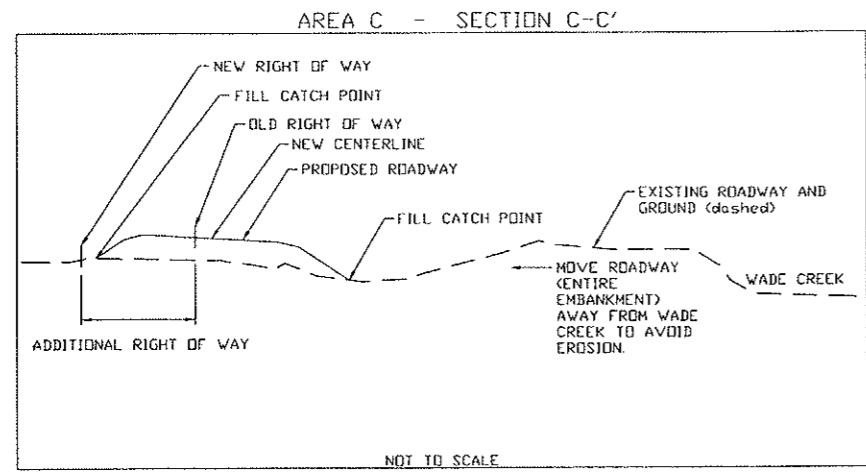
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 5

JOB NO: 4444  
DATE: JULY-2003  
DRAWN BY: KML  
CHECKED BY: BM



SOURCE: BLM 5-15-94



NOT TO SCALE

LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- ADDITIONAL R.O.W.  
area 7,235 sq.ft.
- MILE POST  
MP 86
- SECTION CALLOUT  
FOR BOXED DETAIL



SOURCE: ADOT, JUNE 2003

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 YEAR  
 ROW  
 RES-K  
 JORO  
 2003





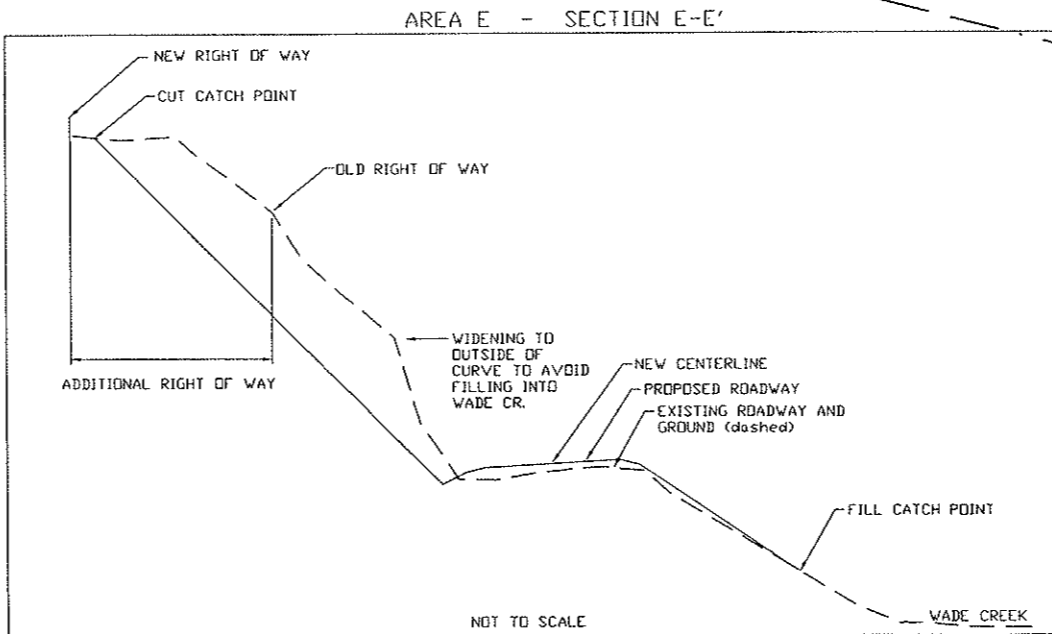
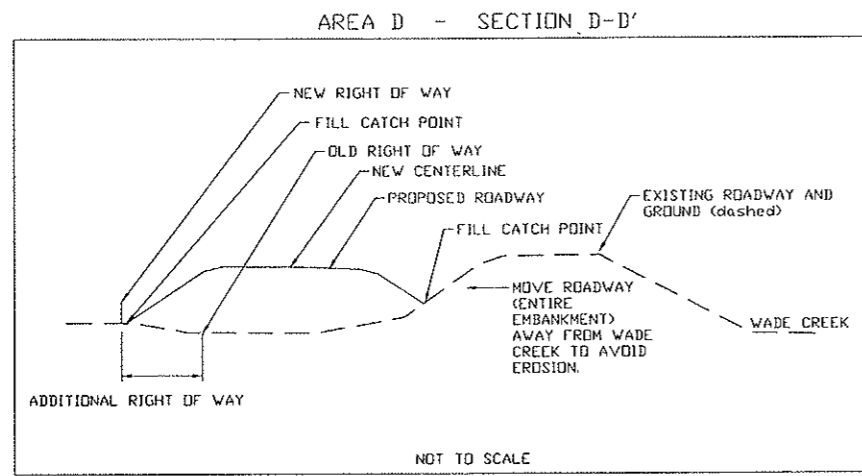
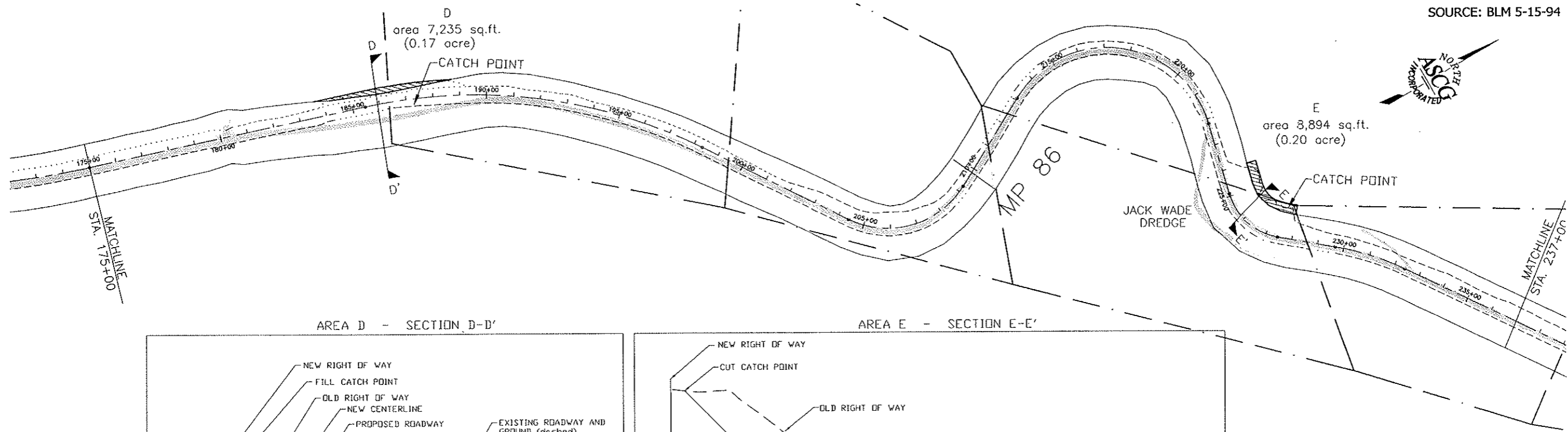
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 6

JOB NO: 4444  
DATE: JULY-2003  
DRAWN BY: KML  
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SOURCE: BLM 5-15-94



**LEGEND**

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- area 7,235 sq.ft. ADDITIONAL R.O.W.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: ADOT, JUNE 2003

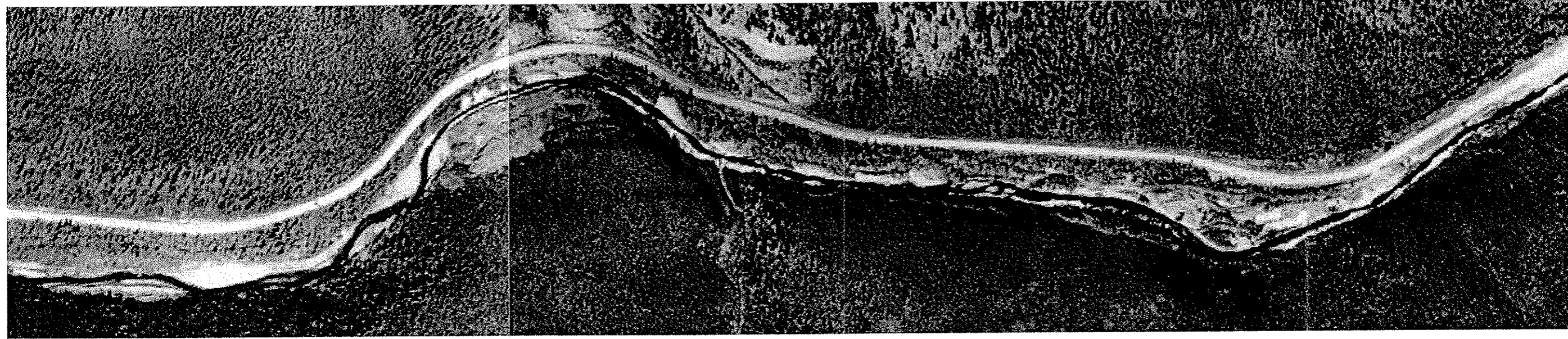
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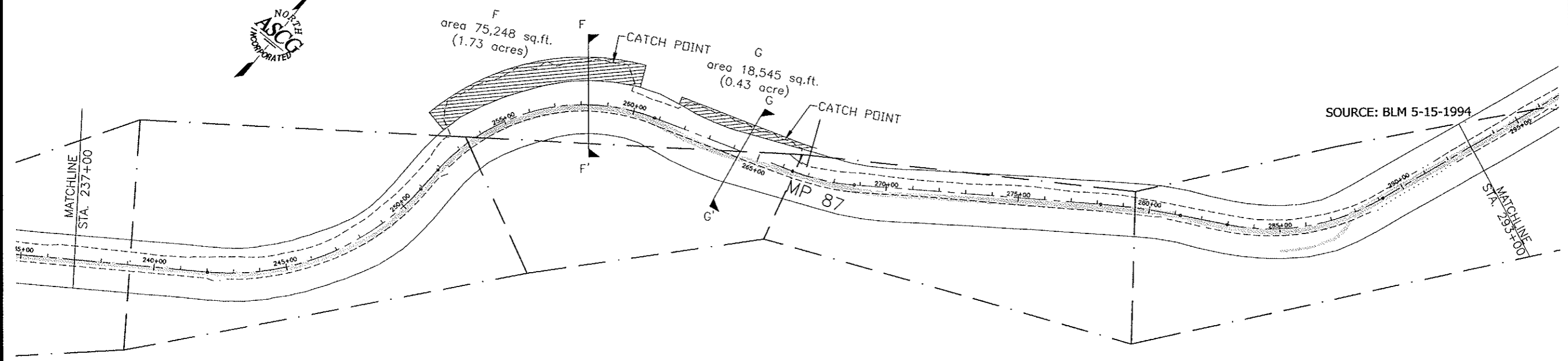
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 7

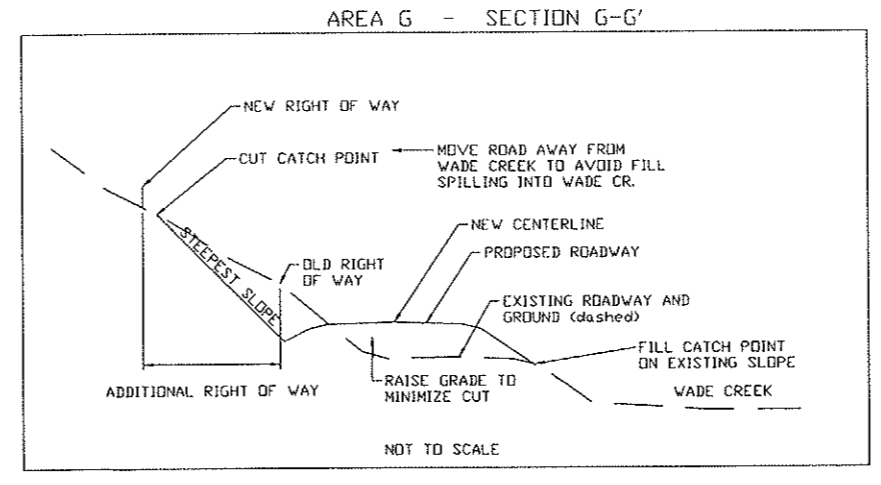
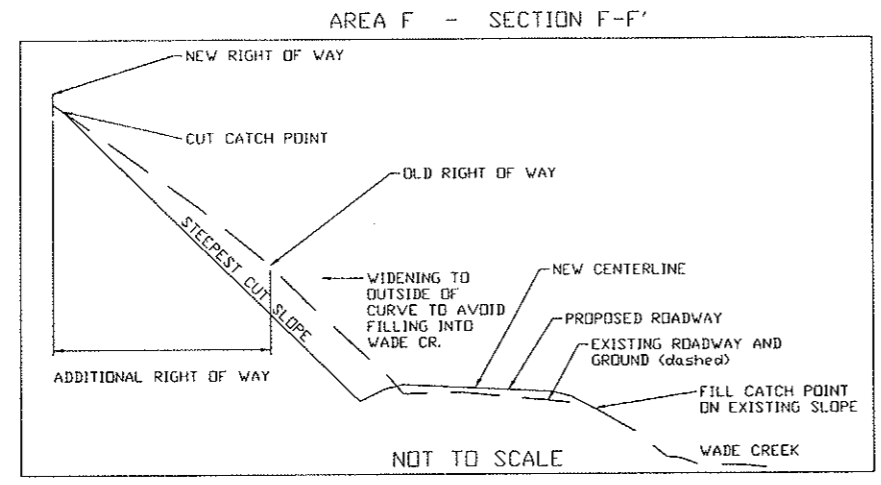
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SOURCE: ADOT, JUNE 2003



SOURCE: BLM 5-15-1994



**LEGEND**

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- ADDITIONAL R.O.W.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

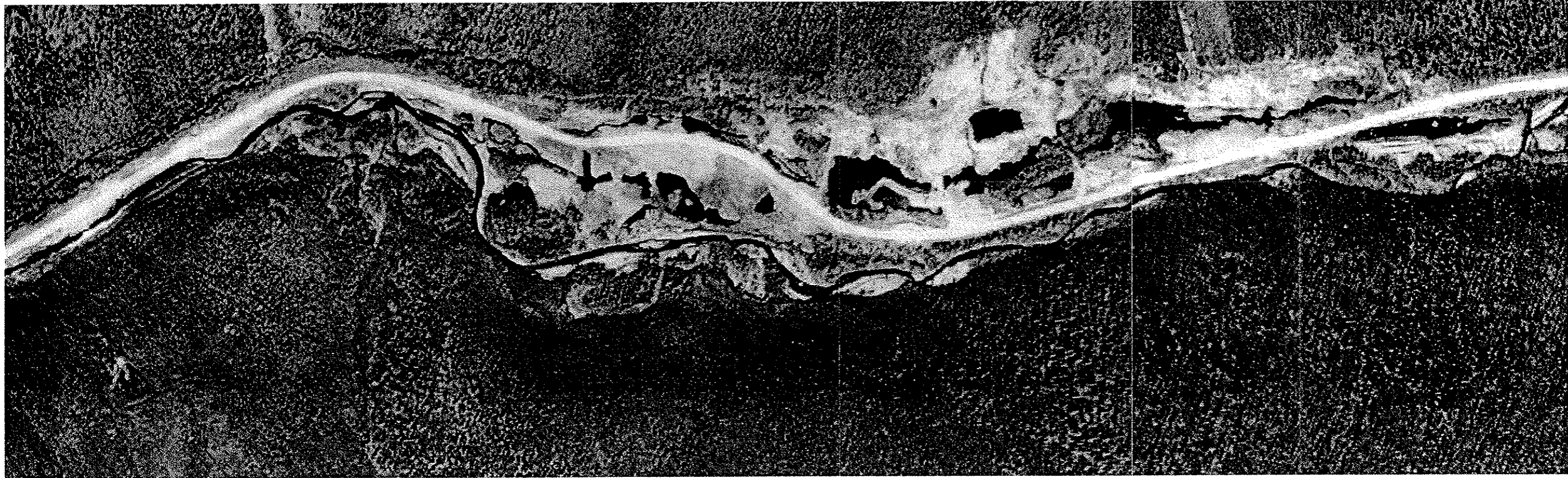
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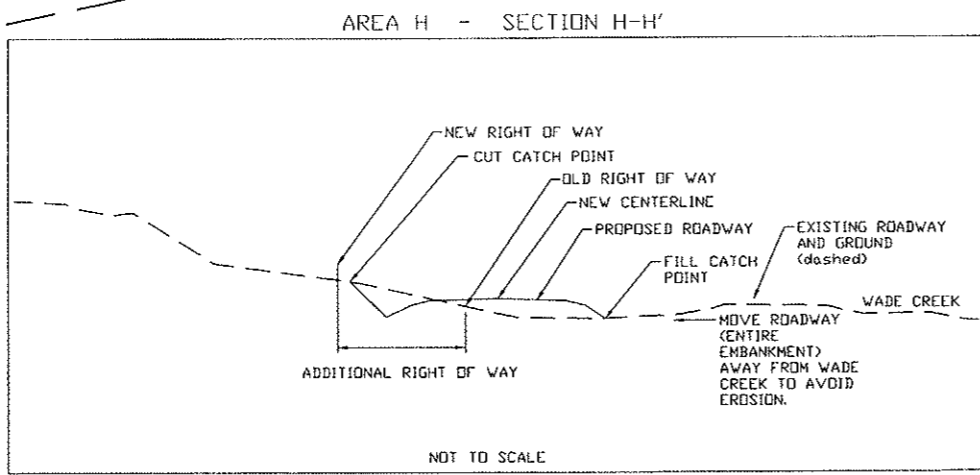
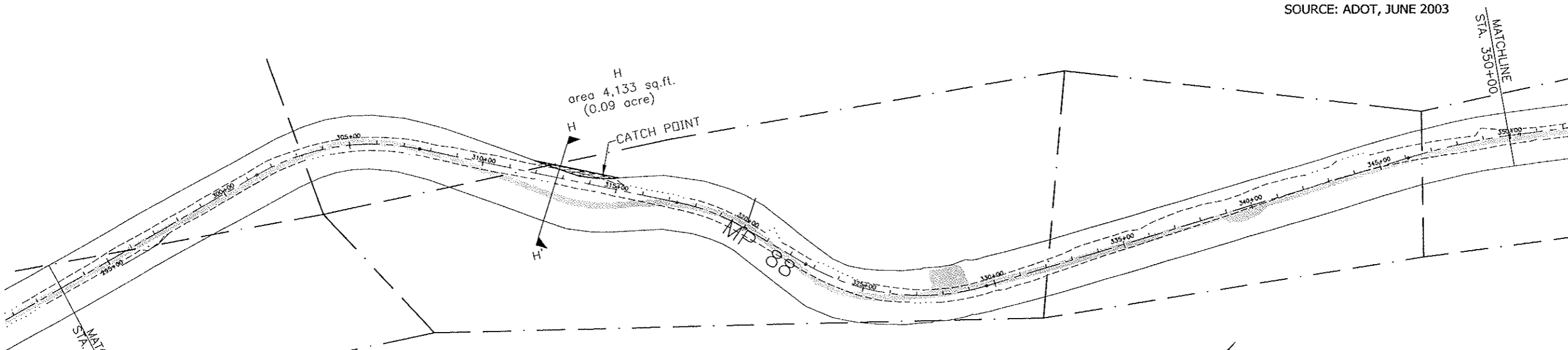
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 8

JOB NO: 4444  
DATE: JULY-2003  
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SOURCE: ADOT, JUNE 2003



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- area 7,235 sq.ft.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: BLM 5-15-2003

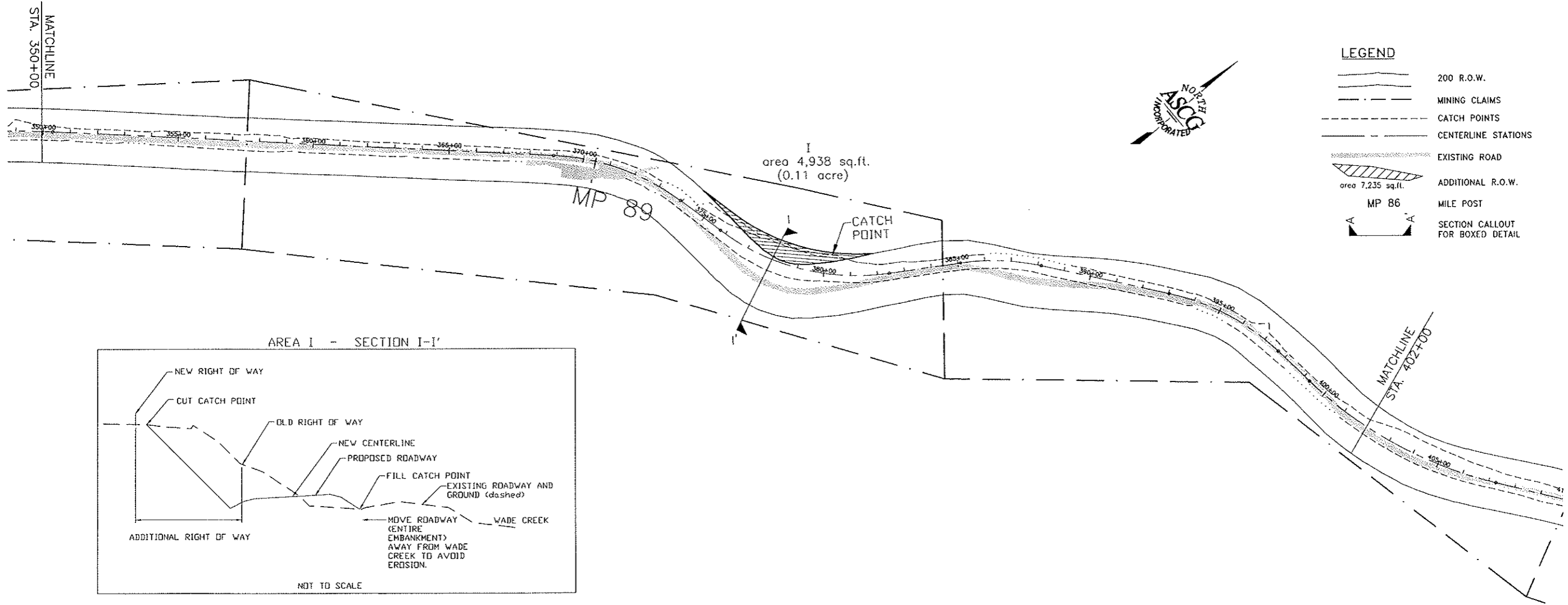
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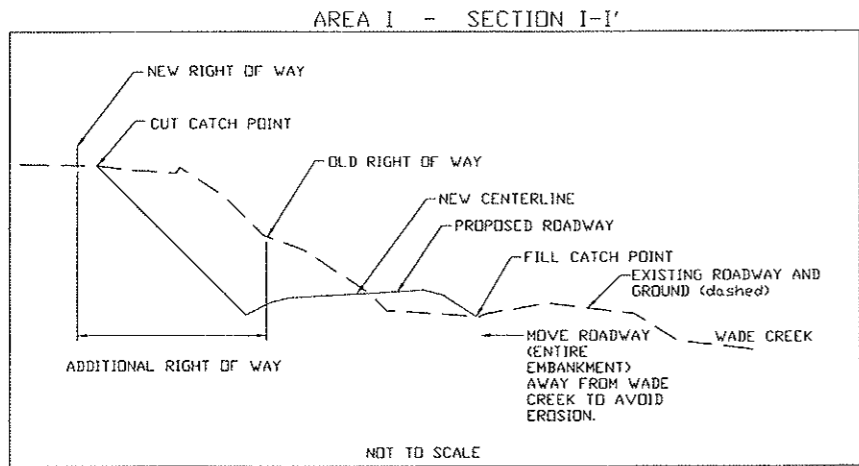


TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SOURCE: BLM 5-15-94



- LEGEND**
- 200 R.O.W.
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  - CATCH POINTS
  - CENTERLINE STATIONS
  - EXISTING ROAD
  - ADDITIONAL R.O.W.
  - MP 86
  - SECTION CALLOUT FOR BOXED DETAIL



SECTION 4(f) PROPERTIES  
FIGURE 9

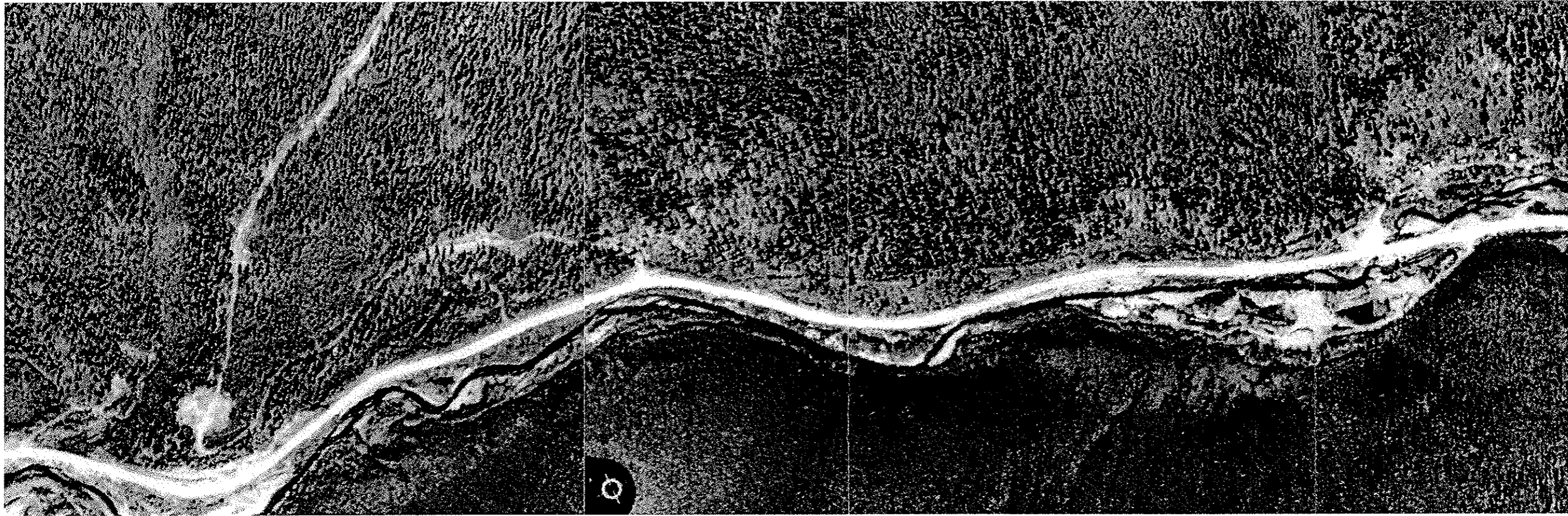
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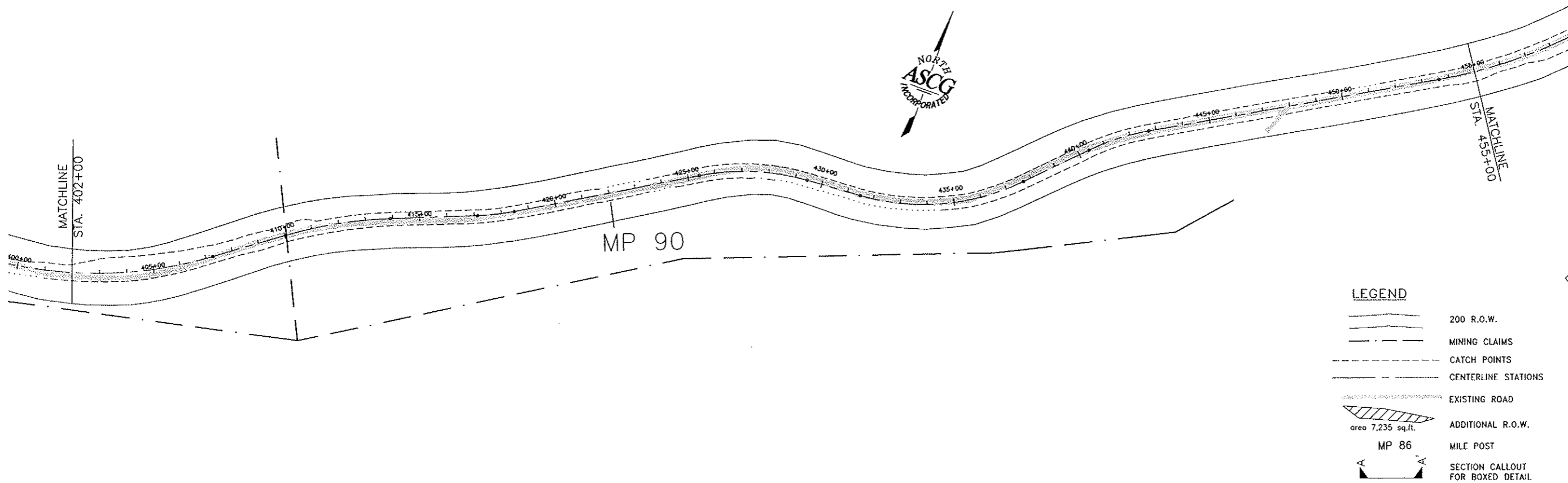
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TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



SOURCE: BLM 5-15-94



SOURCE: ADOT, JUNE 2003

SECTION 4(f) PROPERTIES  
FIGURE 10

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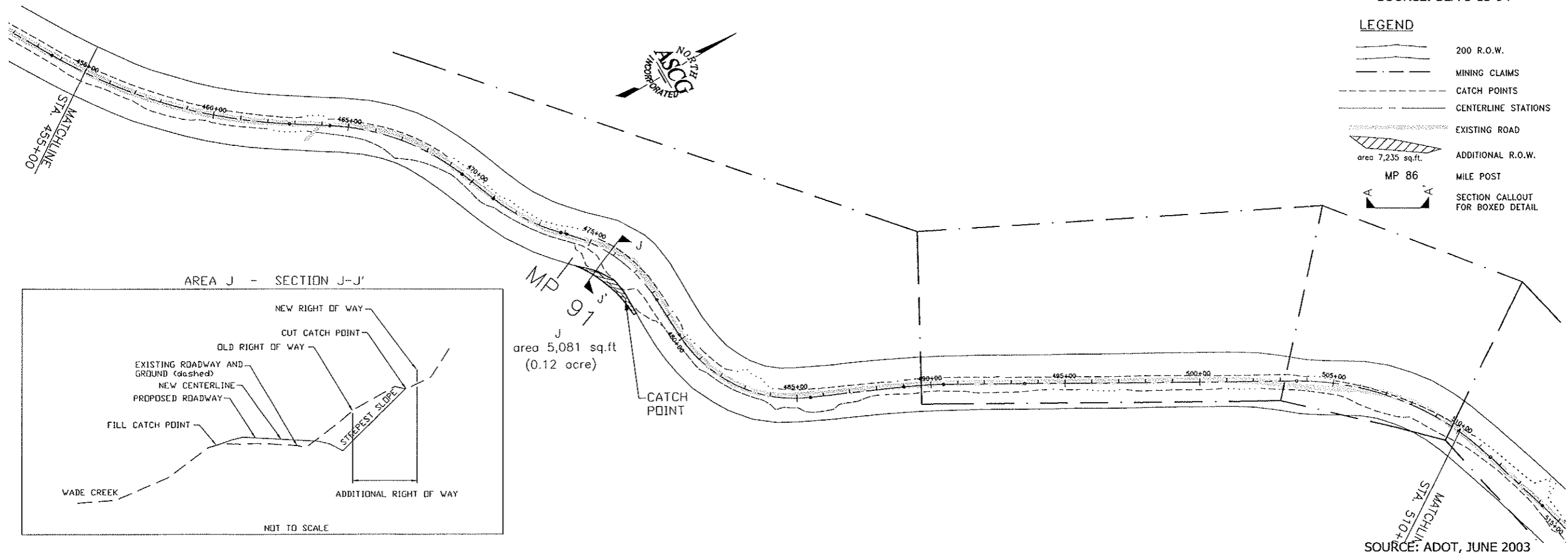
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TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SOURCE: BLM 5-15-94

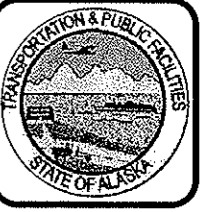


SECTION 4(f) PROPERTIES  
FIGURE 11

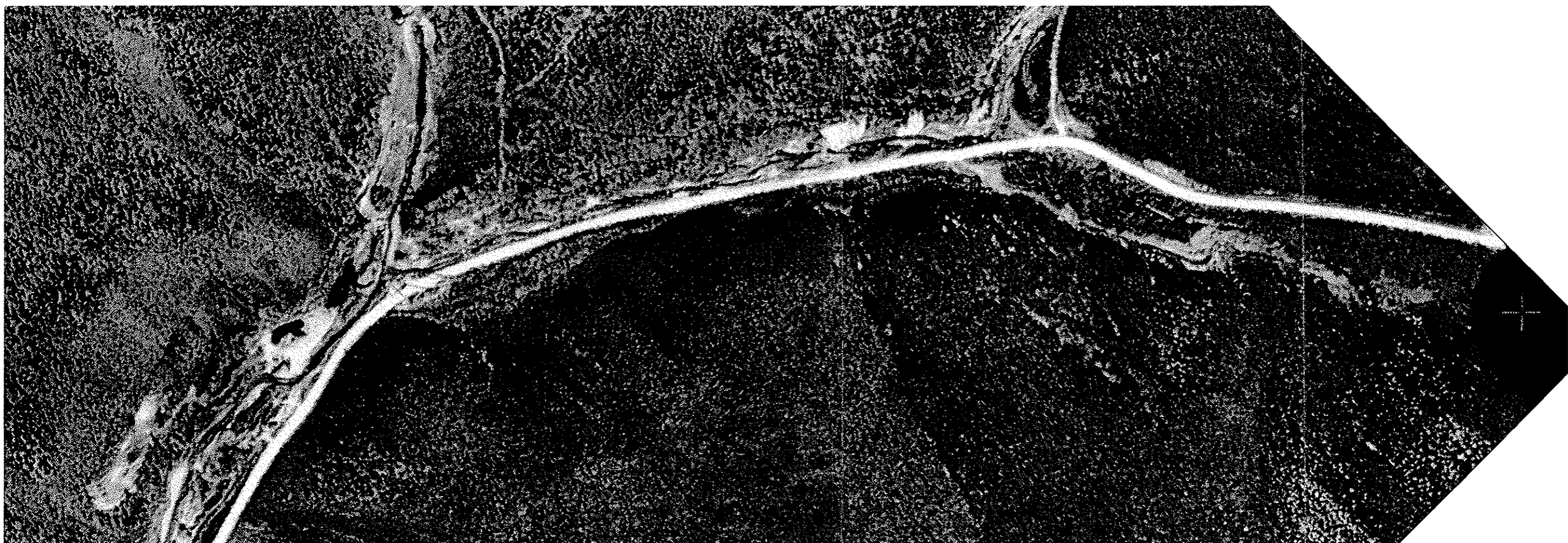
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PUBLIC - TAYLOR HIGHWAY - ES-K - DRAWN - 2003





TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

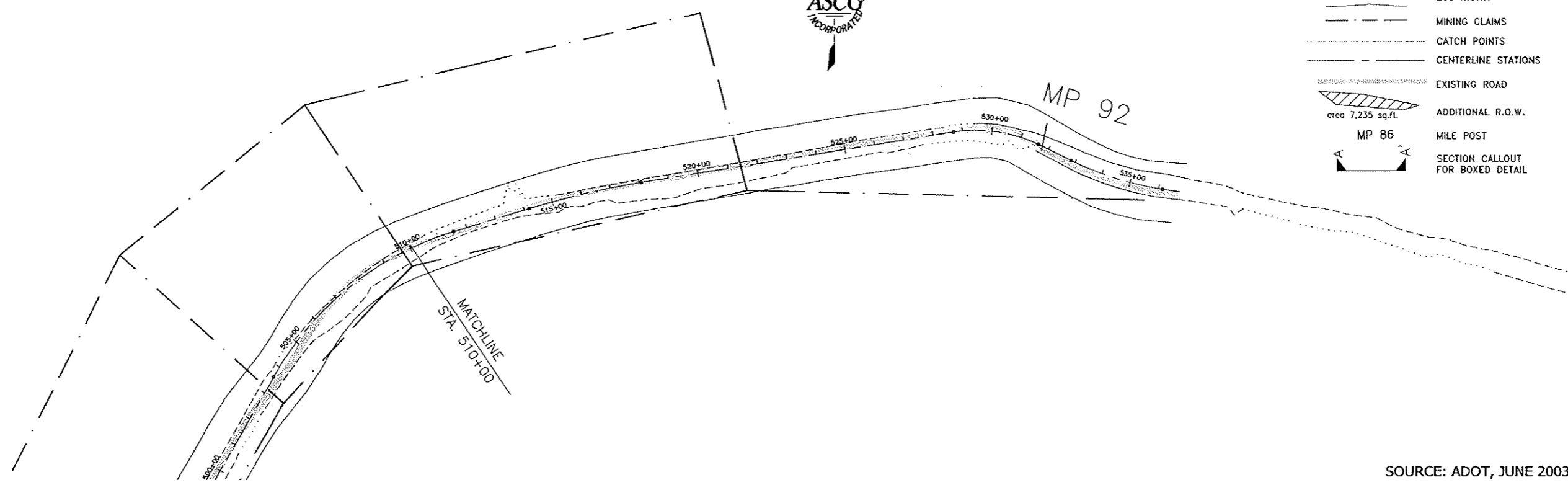


SOURCE: BLM 5-15-94



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- ADDITIONAL R.O.W.  
area 7,235 sq.ft.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

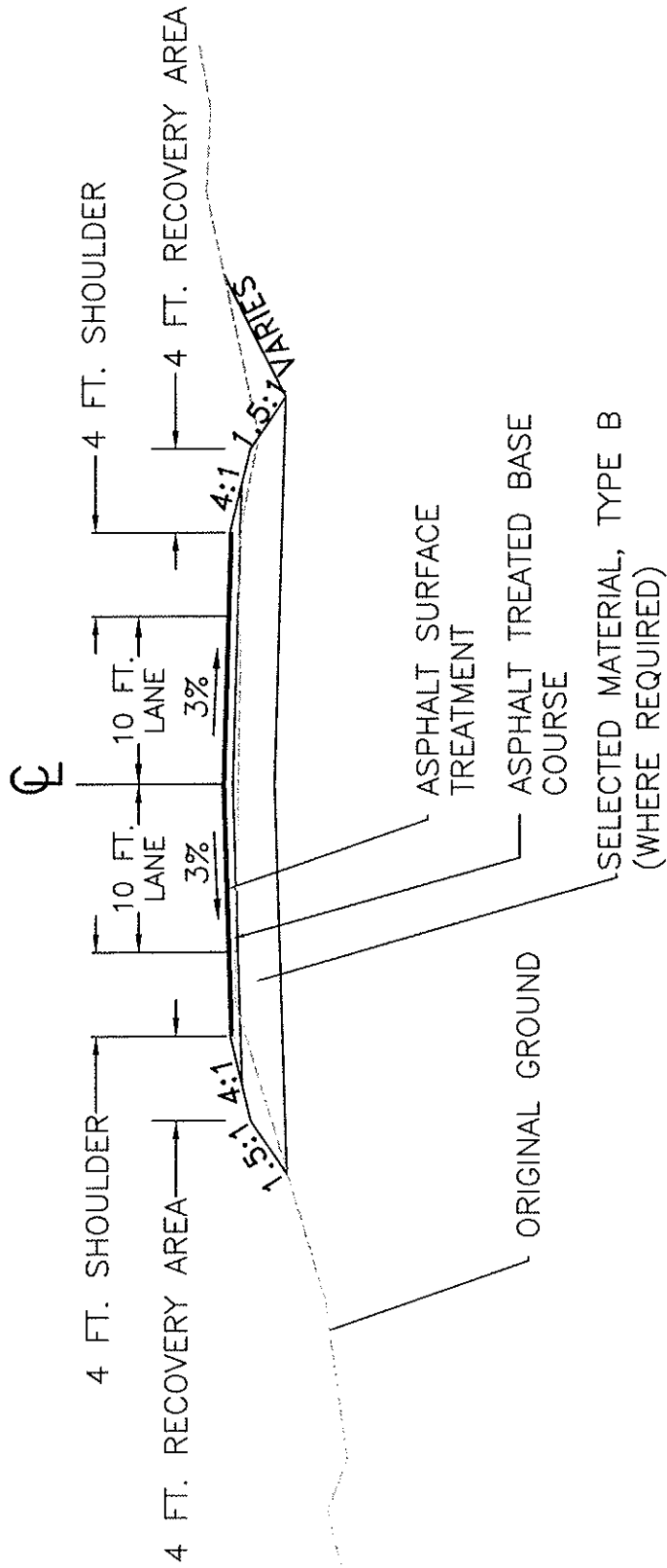


SOURCE: ADOT, JUNE 2003

SECTION 4(f) PROPERTIES  
FIGURE 12

JOB NO:	4444
DATE:	JULY-2003
DRAWN BY:	KML
CHECKED BY:	BM

\\111C\...Tayl\...EA\...LOW\...ES-KI\...DRAW\...003.d

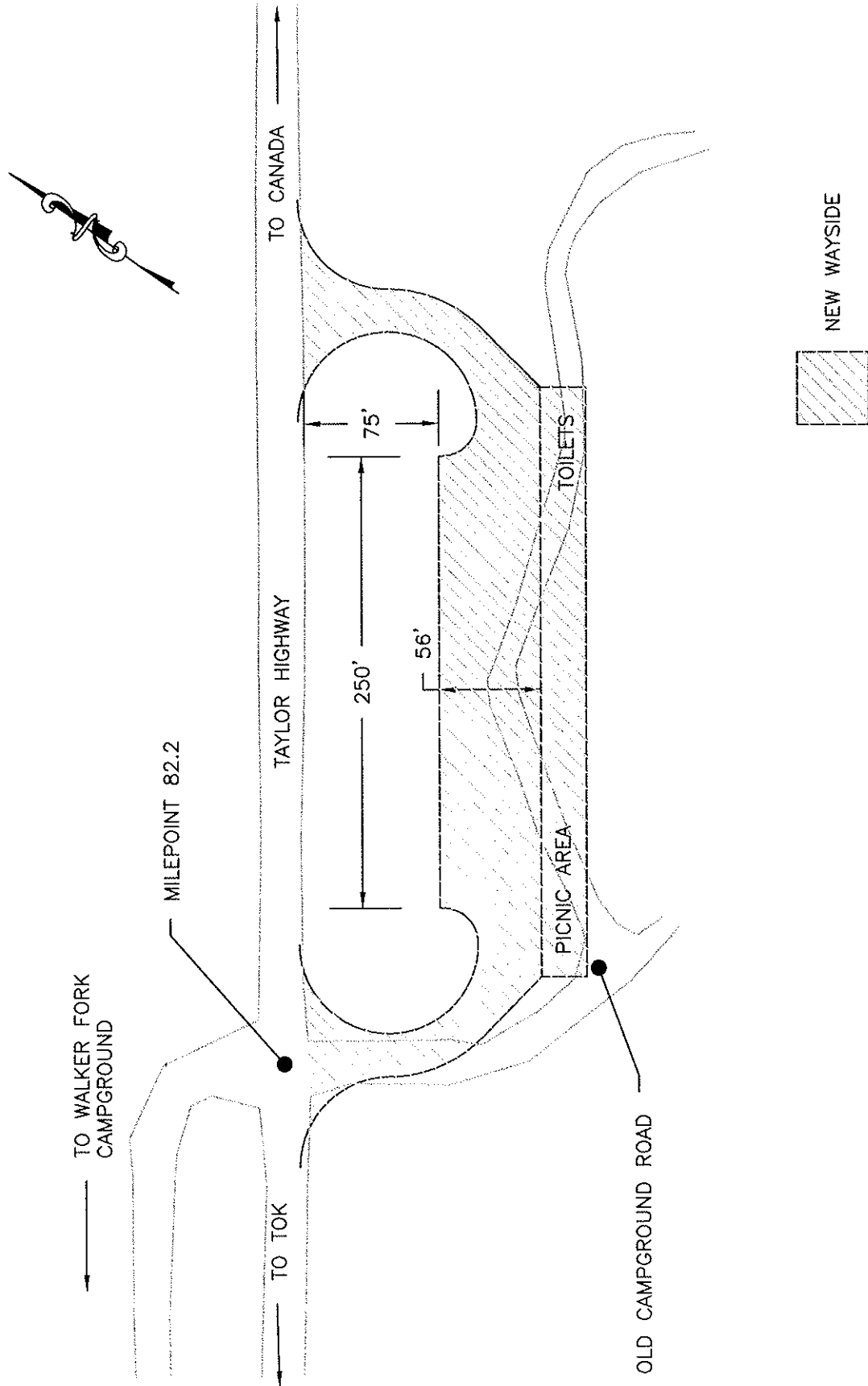


JOB NO:	444
DATE:	11/12/02
DRAWN BY:	DRM
CHECKED BY:	ROS

TYPICAL ROAD SECTION  
FIGURE 13

TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER





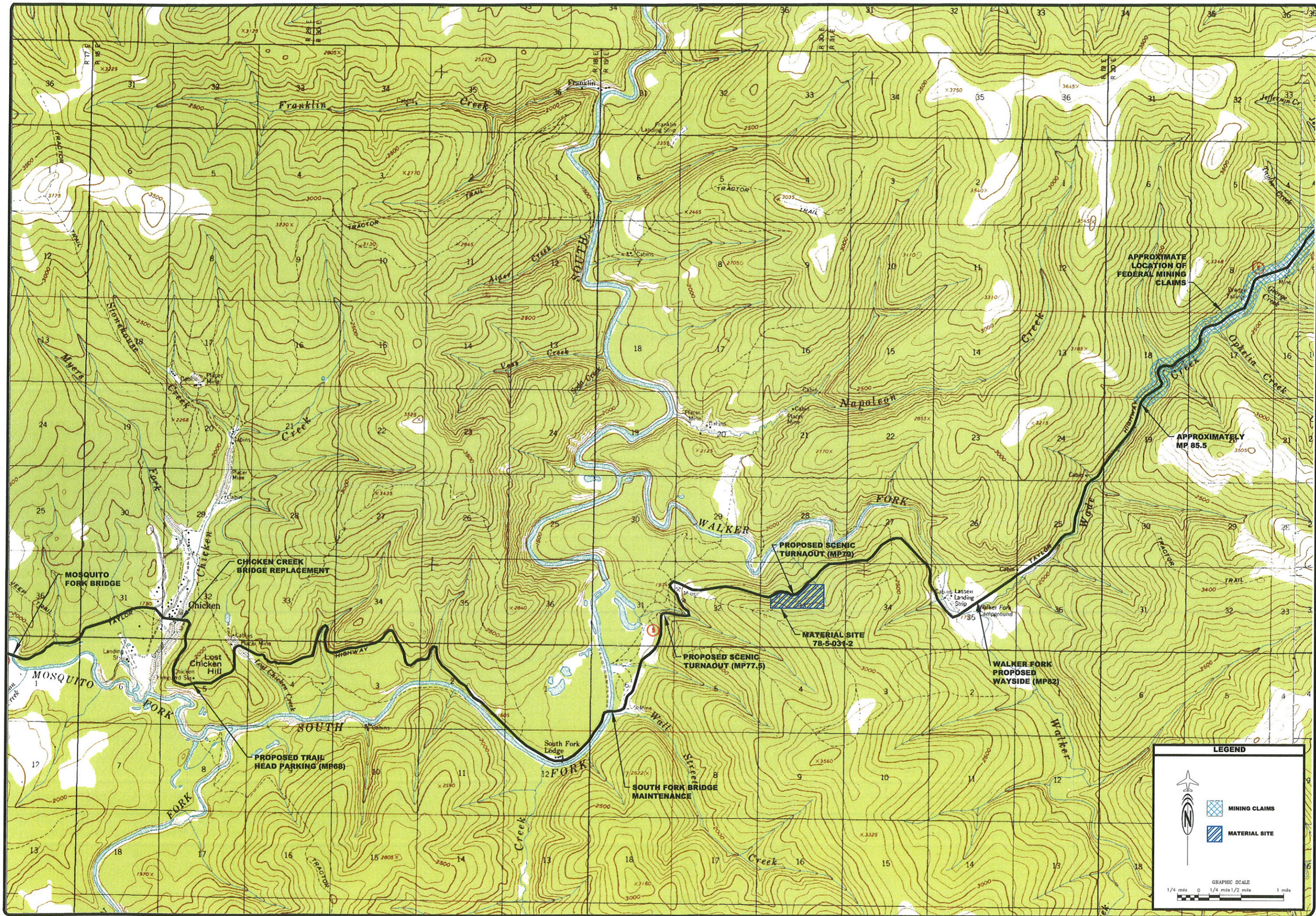
TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WALKER FORK WAYSIDE  
PRELIMINARY PLAN VIEW  
FIGURE 14

JOB NO.:	4444
DATE:	1/12/02
DRAWN BY:	DRM
CHECKED BY:	NCS



K:\008111\04444 - Taylor Hwy EA\Acad\Final Submittal\Figure 15 and 16.dwg



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

PROJECT DETAIL MAP 1  
FIGURE 15

JOB NO: 4444  
DATE: 11/12/02  
DRAWN BY: DRM  
CHECKED BY: KKS



3011.001.14 - Taylor Hwy E. Final/Initial Figure 15 and 16



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

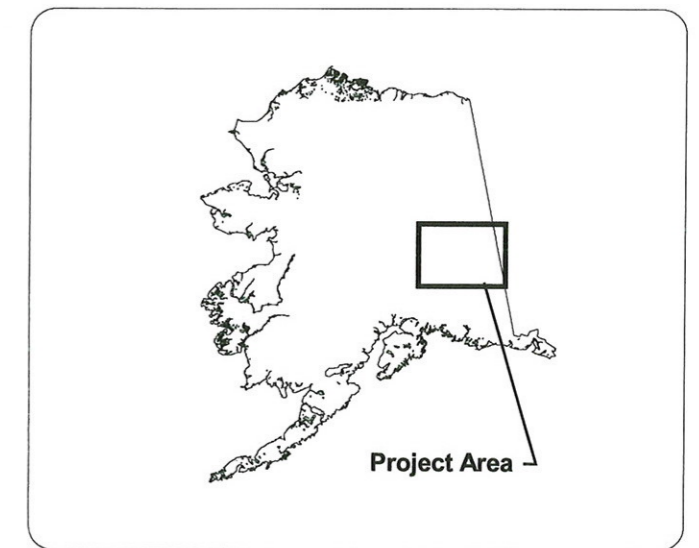
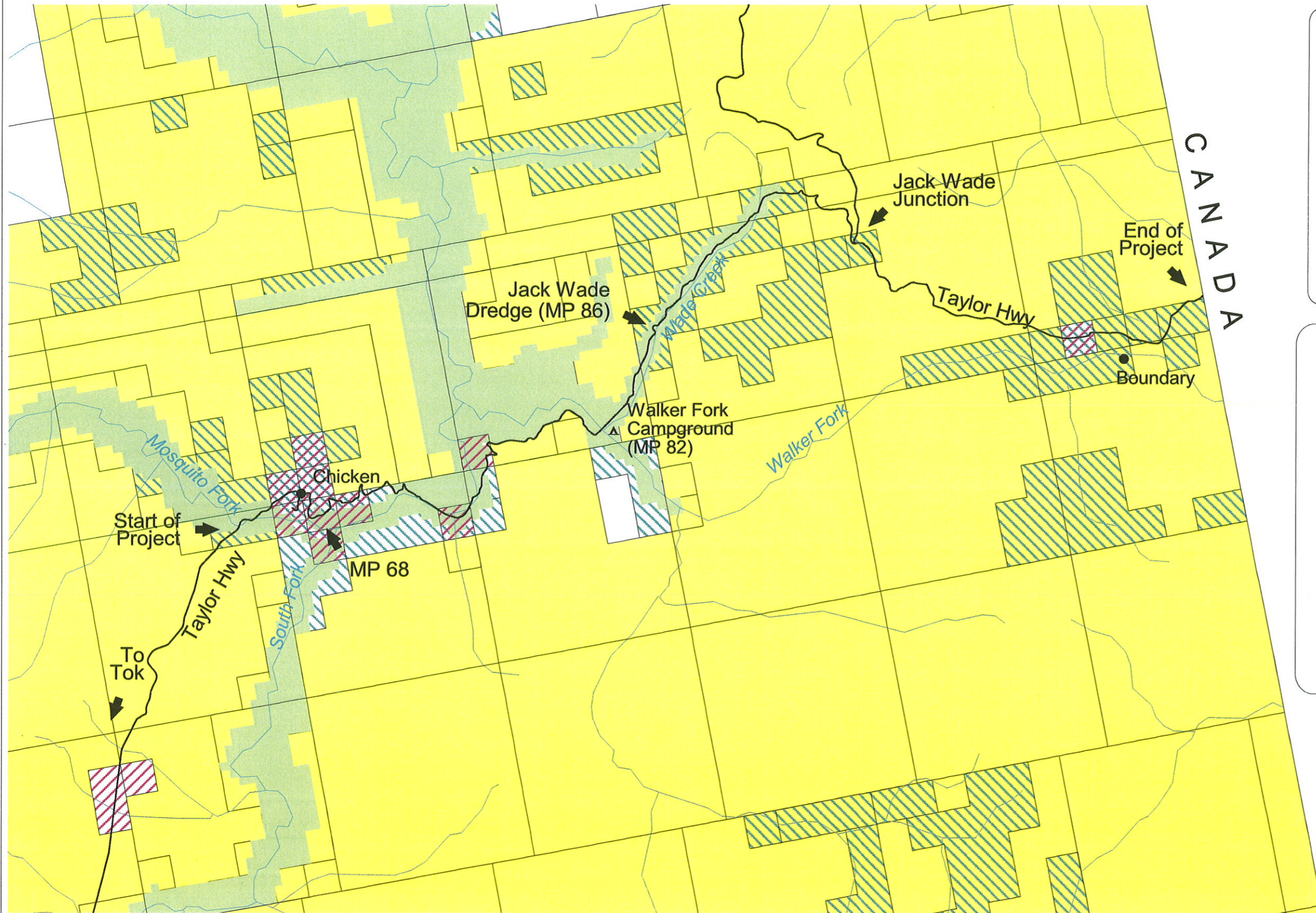
PROJECT DETAIL MAP 2  
FIGURE 16

JOB NO: 4444  
DATE: 11/12/02  
DRAWN BY: DRM  
CHECKED BY: KKS



# Figure 17 - Land Status Map

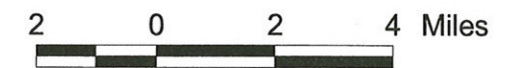
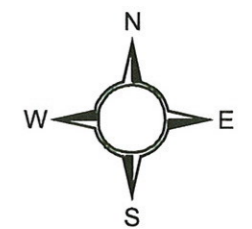
## Taylor Highway MP 64.5 to the Canadian Border



### LEGEND

- Towns
- ▲ Campground
- Roads
- River
- ▨ Private Land
- State Land
- ▨ State Selected
- BLM
- Fortymile National Wild and Scenic River (Managed by BLM)

*Source: Alaska Department of Natural Resources*





## APPENDIX A

### PHOTO LOG

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Photo 1. View looking west from the Taylor Highway with Wade Creek in the background. (9/12/02).

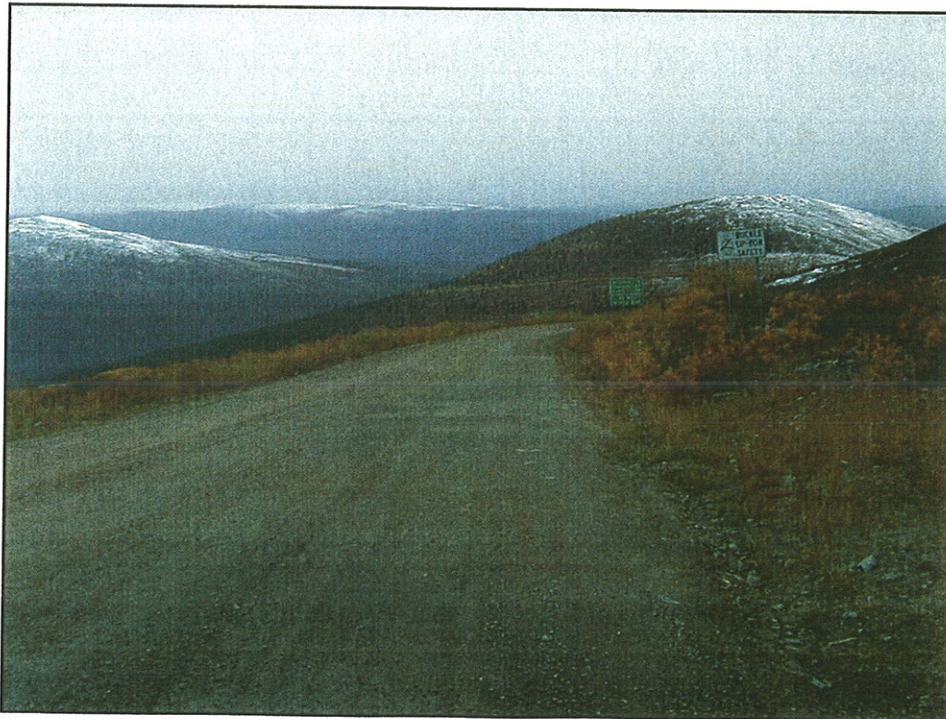


Photo 2. Looking west from MP 12 Top of the World Highway at the Canadian/Alaska Border (9/11/02).





Photo 3. Material Site 78-5-031-2 at MP 80 of the Taylor Highway. This site will likely be depleted during road construction. The undisturbed portion is located in black spruce wetlands.

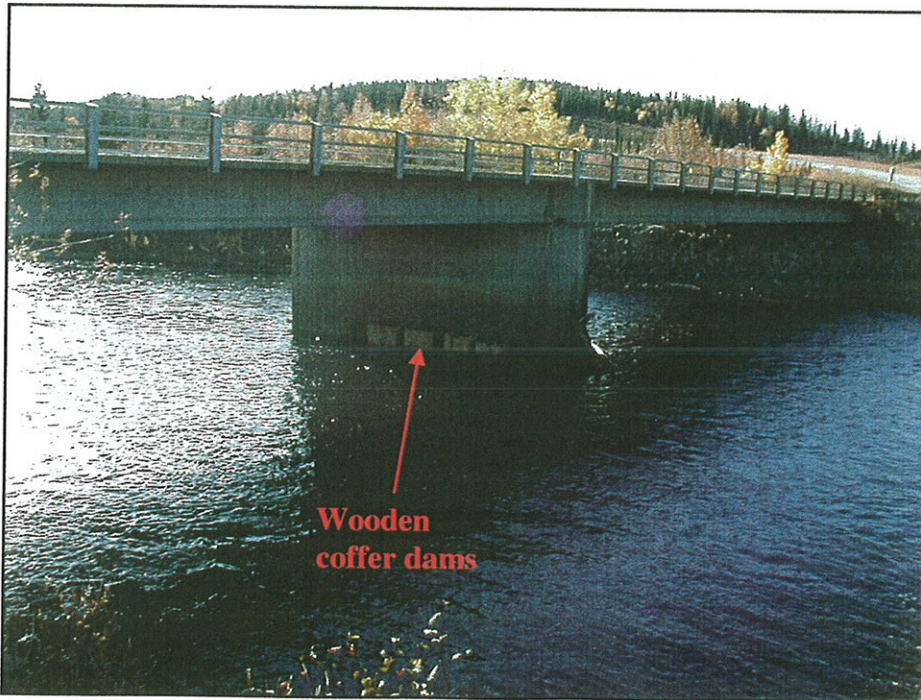


Photo 4. Spalling repair on Mosquito Fork Bridge (2000). A similar technique will be used on the South Fork to repair the concrete on the bridge piers.





Photo 5. Typical black spruce, scrub shrub wetland found extensively in the project area. MP 92.55 Taylor Highway (9/11/02).



Photo 6. Typical road bed surface, MP 91 Taylor Highway (9/11/02).





Photo 7. MP 90 Taylor Highway. Typical drainage problem along a side road of the highway near Wade Creek. (9/11/02).



Photo 8. MP 86.5 Taylor Highway, typical material site along the road (9/12/02).





Photo 9. View looking west from MP 86.9 Taylor Highway. Typical drainage along the Wade Creek Section of road. (9/12/02).



Photo 10. Jack Wade Dredge, MP 86 Taylor Highway. Dredge is proposed to be dismantled by BLM, date for dismantlement has not been set. Road will be widened away from dredge. (9/12/02).





Photo 11. Current Chicken Creek Bridge. Bridge is scheduled to be replaced with a single span two lane bridge. (9/12/02)

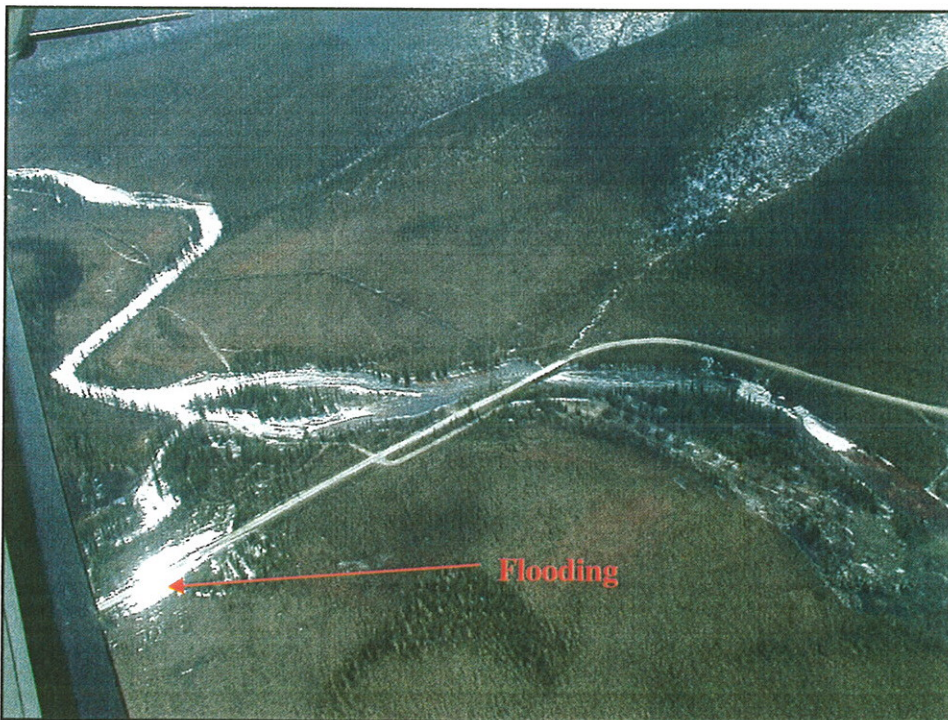


Photo 12. Aerial view of flooding along the Taylor Highway near the Walker Fork Campground. (4/30/03)

## **APPENDIX B**

### **PROGRAMMATIC SECTION 4(f) EVALUATION**

**Programmatic Section 4(f) for the Use of Minor Amounts of Land from Public Parks,  
Recreation Lands, and Wildlife and Waterfowl Refuges**

**Alaska Department of Transportation and Public Facilities  
May 19, 2004**

**DRAFT**

**Project Name:** Taylor Highway Milepost 64.5 to the Alaska/Canada Border

**Project Number:** STP-0785(11)/66446

The Federal Highway Administration (FHWA) agreed on February 3, 2004 that Section 4(f) applies to the project and that the project is designed to improve the operational characteristics, safety, and/or physical condition of the existing facilities on essentially the same alignment. The proposed project would rehabilitate the Taylor Highway from milepost (MP) 64.5 to the Alaska/Canadian Border. The entire project is approximately 44 miles long. The proposed project does not require the preparation of an Environmental Impact Statement.

**Project Description**

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in conjunction with FHWA, is proposing to improve the Taylor Highway from MP 64.5 to the Alaska/Canada Border (Figure 1). The scope of the project consists of rehabilitation, restoration, and resurfacing of the existing roadway on the same or slightly modified alignment.

The proposed project would 1) resurface, restore, and rehabilitate the existing highway from the Mosquito Fork Bridge to the Alaska/Canada border; 2) replace the existing one lane bridge over Chicken Creek with a single span, two lane bridge; 3) provide enhancements for recreation; and 4) provide reliable access to the Wade Creek Recreational Area.

The present highway alignment would be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain. The highway would be realigned at multiple locations for a total of approximately 3.5 miles (Figures 3-12). The proposed highway realignments at corners average 0 to 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 100 feet from the current centerline. The road would be improved by widening to 28 feet with two 10-foot lanes and 4-foot shoulders, and surfacing with asphalt (Figure 13). Drainage would be improved to convey water away from the road by ditching parallel to the road and

installing cross-drainage under the road. The posted speed would be 40 miles per hour from MP 64.5 to Walker Fork (MP 82) and 50 miles per hour from Walker Fork to the Alaska/Canada border.

A wayside would be constructed at Walker Fork and located on the southeast side of the road with outhouses, interpretive signing, and picnic tables, as indicated on Figures 3 and 14. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the east side of the road and MP 78 on the northwest side of the road (Figure 15). A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within ADOT&PF right-of-way. The parking area will have no facilities and will not impact the current trailhead. Highway signing will also be installed along the entire project corridor, including milepost markers and standard highway signs for direction and safety information.

The current one lane bridge over Chicken Creek will be replaced by a two-lane, single span bridge. The new bridge location will be the same as the current bridge. A temporary crossing will be installed during construction of the new bridge and removed when the new bridge is operational. Bridge approach railing and bridge deck railing will be installed on the South Fork and Walker Fork bridges. In addition, the South Fork Bridge piers require work to repair concrete spalling. The pier work will require the use of partial wooden coffer dams which will be pumped out to allow workers to fix the piers. No heavy equipment will be used in the river.

Material for road construction will be obtained from road cuts/unclassified excavation, tailings from Wade Creek and two permitted material sites (Figures 15 and 16). Any additional material from excavations will be used as slope flattening material in non-wetland areas within the ADOT&PF ROW. Material disposal sites will be identified by ADOT&PF during the final design or by the construction contractor.

Additional ROW easements proposed by ADOT&PF in the Wade Creek Wild and Scenic River Withdrawal would be required at ten locations for a total area of 3.6 acres (Figures 3-12). Temporary construction access would be required on 1.43 acres in the Withdrawal to construct the Walker Fork Wayside. BLM would maintain the wayside after construction. Table 1 provides a summary of each proposed Section 4(f) impact. A detailed description of each site is provided following Table 1.



**Table 1  
Proposed Section 4(f) Land Impacts**

Letter Designation <sup>a</sup>	Location (MP)	Additional ROW (acres)	Type of Section 4(f) Impact	Reason for Section 4(f) take
A	83.2	0.23	Acquire ROW Easement	Centerline of road will be moved up to 67 feet to the west to avoid a bend in Wade Creek that washes out the existing road.
B	83.7	0.11	Acquire ROW Easement	Centerline of road will be moved up to 63 feet to the west to avoid the road being washed out by Wade Creek.
C	84.2	0.41	Acquire ROW Easement	Centerline of road will be moved up to 102 feet to the southwest to avoid a bend in Wade Creek that washes out the existing road.
D	85.4	0.17	Acquire ROW Easement	Centerline of road will be moved up to 66 feet to the west to avoid the road being washed out by Wade Creek.
E	86.2	0.20	Acquire ROW Easement	The road will be widened to the inside of the curve to avoid filling into Wade Creek on the south side. Cut catch point on steep hillside on north side occurs outside of the ROW limit. The centerline of the road will be moved up to six feet to the north.
F	86.7	1.73	Acquire ROW Easement	The road will be widened to the outside of the curve to avoid filling into Wade Creek on the east side. Cut catch point on steep hillside on west side occurs outside of the ROW limit. The centerline of the road would be moved up to 17 feet to the east.
G	86.9	0.43	Acquire ROW Easement	Centerline of road will be moved 36 feet to the north to pull roadway away from erosion area caused by Wade Creek.
H	87.8	0.09	Acquire ROW Easement	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek.
I	89.1	0.11	Acquire ROW Easement	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
J	91	0.12	Acquire ROW Easement	Centerline of road will be moved 19 feet to the southeast to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
<b>Total</b>		<b>3.6</b>		
Walker Fork Wayside	82.1	1.43	Temporary Construction Access	Construction of a wayside at Walker Fork on the southeast side of the road. BLM will own and maintain the wayside after construction.

<sup>a</sup> Letter designation corresponds to the site identifier on Figures 3 through 12.  
MP -- Milepost

**Area A** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 67 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.23 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area B** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 63 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.11 acre of ROW on the west side of the existing road alignment. The old road embankment material would be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area C** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 5). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 102 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.41 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area D** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 6). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 66 feet to the west and eliminate the curve in the road in this area. Shifting the centerline away from Wade Creek requires an additional 0.17 acre of ROW on the west side of the existing road alignment due to the catch slope extending outside of the current ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area E** - This section of road is cut into a high, steep hillside adjacent to Wade Creek (Figure 6). In order to widen the road at this location fill would have to be placed in the active channel of

Wade Creek or the hillside would need to be excavated. The preferred option, requested by BLM, would require excavation of the hillside so that Wade Creek is not impacted. The centerline of the road would be moved up to six feet to the north, which would force the excavation limits to extend outside of the current ROW. An additional 0.20 acre of ROW would be required. The existing road embankment material will be incorporated into the new road.

**Area F** – This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends into Wade Creek and is often subject to erosion because it is located on an outside bend of the creek (Figure 7). ADOT&PF is proposing to move the road away from the creek to reduce future erosion. The centerline of the road would be moved up to 17 feet to the east which would force the excavation limits to extend outside the current ROW. An additional 1.73 acres of ROW would be required. The existing road embankment material will be incorporated into the new road.

**Area G** - This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends down a steep hillside adjacent to Wade Creek. The centerline of the road would be moved up to 36 feet to the east eliminating the curve and thereby moving the road away from Wade Creek (Figure 7). By moving the road away from Wade Creek the hillside would need to be excavated to accommodate the new alignment. Excavation of the hillside would require an additional 0.43 acre of ROW. The existing road embankment material will be incorporated into the new road.

**Area H** – This section of highway is directly adjacent to the active channel of Wade Creek and road base fill extends into Wade Creek (Figure 8). The curves are proposed to be straightened and the road moved up to 81 feet away from Wade Creek to avoid future erosion of the road. The relocation away from Wade Creek will extend the ditch excavation on the northwest side of the road beyond the current ROW, requiring an additional 0.09 acre of ROW. It is not possible to design the road to meet standards and stay within the current ROW because the short distance between the two substandard curves does not allow an adequate transition zone between curves. Eliminating the curves greatly reduces the potential for erosion of the roadway and enhances the roadway geometry. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area I** – This section of highway is directly adjacent to the active channel of Wade Creek on the southeast and is bound by a steep hillside on the northwest (Figure 9). Wade Creek often erodes



this section of highway. To reduce erosion problems, ADOT&PF proposes to realign the centerline a maximum of 81 feet to the northwest. To realign the road, additional ROW of 0.11 acre would be required on the northwest side of the existing alignment. The additional ROW is required because the limits of excavation on the inside of the curve would extend outside of the existing ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area J** – This section of road is bound by Wade Creek on the west and a steep hillside on the east (Figure 11). The existing roadway fill extends into the active channel of Wade Creek and is frequently eroded by the creek. To prevent future erosion the road is being moved away from Wade Creek. The centerline is proposed to be moved a maximum of 19 feet to the east. Moving the road to the east requires the addition of 0.12 acre of ROW. The existing road embankment material will be incorporated into the new road.

### **Section 4(f) Property**

The proposed project would involve one park property, the Fortymile Wild and Scenic River (W&SR) – Wade Creek Recreational Withdrawal which is managed by the Bureau of Land Management (BLM).

Within the Wade Creek Recreational area, the Taylor Highway is a narrow, windy, gravel road with many steep hills and some hairpin curves. In the Wade Creek valley, the road is bound by Wade Creek on the southeast and steep hillsides to the northwest (Attachment B, Photo 1). After the road climbs out of the Wade Creek drainage the topography changes dramatically and the road traverses along the tops of tundra and shrub covered rolling hills offering spectacular scenic vistas.

The Wade Creek area is rich in mining history with remnants of mining equipment scattered through out the area. Visitors to the area have the opportunity to see historic mining camps, dredges, and various other mining equipment that has been abandoned over the years

*Ownership:* Department of the Interior, Bureau of Land Management

*Size:* The entire Fortymile W&SR corridor is approximately 392 miles long and encompasses approximately 250,000 acres. The Taylor Highway traverses the Fortymile W&SR corridor for 16.5 miles. Under the Fortymile W&SR Management Plan, only the Wade Creek Wild and Scenic River Withdrawal is officially-designated as a segment of publicly-owned “recreational”

land (DOI, 1983). The Wade Creek Withdrawal is included in the proposed project area for 10.5 miles from MP 82 to MP 92 (Figure 2). The Withdrawal is approximately 3,302 acres.

*Type:* Wild and Scenic River System – Recreational Segment. The Fortymile W&SR was designated as a component of the National W&SR by the Alaska National Interest Land Conservation Act (ANILCA, P.L. 96-487) of 1980. The Wade Creek segment is the only part of the Fortymile W&SR system designated as ‘recreational’.

*Access:* The Fortymile River basin is accessible by road, air, and water. There are no rail facilities. The Alaskan Highway skirts the southern part of the region and provides access from Anchorage, Fairbanks and the Lower 48 states. Direct access from the Alaska Highway to the Fortymile basin is provided by the Taylor Highway to Eagle and the Top of the World Highway to Dawson City, Yukon Territory, Canada. Primitive roads and fire lanes lead from the Taylor Highway to various parts of the Fortymile basin but are generally impassable in summer. Air service provides access to Northway, Tanacross, Eagle, and Chicken which have improved airfields. Air access is also provided at primitive air strips and gravel bars throughout the area. BLM is mandated by its River Management Plan to manage the land within the Wade Creek Withdrawal to be “readily accessible by road or railroad.” During the winter the area is accessible by snow machine or dog sled.

*Function and/or available activities:* The land surrounding the Fortymile W&SR is mostly undeveloped and unpopulated. There are no communities within the Fortymile management area with a population of greater than 50 people. Chicken is the largest community in the Fortymile management area with an estimated population of 24 in 2002.

According to the Fortymile River Management Plan, Wade Creek receives more visitor use than any other stream segment in the Fortymile W&SR because the highway runs along Wade Creek and the Walker Fork Campground is located at its mouth (DOI, 1983). Visitors to the Withdrawal participate in recreational activities such as camping at the Walker Fork Campground, visiting the Jack Wade Dredge, fishing in Walker Fork, hunting, wildlife viewing, and snow machining. Visitor’s access to the Fortymile W&SR is by private vehicle or tour bus during the summer months and snow machine or dog sled during the winter. ADOT&PF does not maintain the road during the winter. There are few developed recreation sites in the Fortymile management area. Within the project area there are waysides at Mosquito Fork (MP 64 Taylor Highway), South Fork (MP 75 Taylor Highway), and Davis Dome (MP 11.7 Top of the

World); a hiking trail at MP 68.2 Taylor Highway; and a campground at Walker Fork (MP 82 Taylor Highway). BLM keeps records of the number of visitors participating in recreational activities in the Withdrawal and these statistics are summarized in Table 2.



**Table 2**  
**Number of Visitors to Various Places in the Wade Creek Area<sup>a</sup>**

Location	Activity	Number of Users in 2003
Walker Fork Campground	Camping	7,015 <sup>b</sup>
Jack Wade Dredge	Viewing historic dredge	10,515 <sup>c</sup>
Walker Fork	Fishing	200 <sup>d</sup>
Wade Creek	General recreational activities <sup>e</sup>	1,000 <sup>f</sup>
Poker Creek Border Station	Vehicle passengers	55,580 <sup>g</sup>

- a. Source: BLM, December 2003
- b. Use number is based on the number of campground registrations received by BLM.
- c. Number of visitors was determined using a formula based on the total vehicles/passenger numbers at the Poker Creek border crossing.
- d. Use number is based on observation and estimation.
- e. Includes: camping, hiking, photography, picnicking, and fishing.
- f. Use number is an estimation by BLM.
- g. Number of passengers counted passing through the U.S. Canadian Border.

BLM's River Management Plan for the Fortymile W&SR contains the following description of Wade Creek: "It may be unique in the Wild and Scenic system because its course and bed are largely reflections of mining activity. A dredge, now in ruins near MP 86, operated on the creek for several years in the 1930's and 1940's, changing the course of the stream with tailing piles as it worked up the drainage." According to BLM's *Preliminary Finding (BLM) Pursuant to Section 7 of the Wild and Scenic Rivers Act for the Proposed Taylor Highway Project (MP 64 near Chicken, Alaska, north to the Canadian Border)*, Wade Creek has been moved about for decades by miners whose rights under mining laws supercede the protection provided by the Wild and Scenic Rivers Act. Federal mining claims extend the entire length of Wade Creek. Mining rights also predate the road ROW and over the years the highway has been routinely rerouted in the process of mining operations. Mining has left over 650 acres of river bottom land in unstable condition, moved approximately 1.1 million cubic yards of material, buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing thousands of cubic yards of rock. These mining practices have created an unstable creek bed that has contributed to periodic washouts of the Taylor Highway (BLM, 2003).

### Project Impacts to the Section 4(f) Site

The total Section 4(f) site is greater than 100 acres and the taking does not exceed 1% of the total acreage. The total size of the Wade Creek Withdrawal is approximately 3,302 acres. The total

amount to be acquired by the proposed project is approximately 3.6 acres (0.1 percent of the Wade Creek Withdrawal).

The proposed project is likely to result in improved water quality of Wade Creek, a more stable roadbed, and increased floodplain along Wade Creek. BLM completed a preliminary Section 7 Evaluation for the proposed project that stated "since the existing roadway adjacent to Wade Creek currently poses significant problems, due to diversions, impoundments, and increased sediment runoff whenever it rains, moving the road as far as possible away from the creek would have the greatest single reduction in impacts to the water resources" (Attachment A). In order to improve and protect the water quality of Wade Creek, ADOT&PF is minimizing the use of riprap and is moving the road away from Wade Creek where possible to create a buffer zone between the road and Wade Creek. Erosion and sedimentation levels are expected to decrease with the replacement of culverts and the creation of additional floodplain along Wade Creek. Short-term impacts during construction will include temporary increased sedimentation, but the impacts are expected to be temporary.

cross  
Ref #1  
Sec 7

No anadromous fish streams exist in the project area. Arctic grayling and slimy sculpin may migrate up Wade Creek during the summer to take advantage of feeding opportunities but, Wade Creek currently has little suitable habitat to support resident fish populations (BLM, 2003). No essential fish habitat is present in the project area.

The proposed project will affect approximately 1.81 acres of black spruce wetlands located adjacent to the road. There are no high-value wetlands located in the project area. According to BLM, the ponds and marshes adjacent to the road along Wade Creek are the result of ground disturbing activities from mining activities. Many are old settling ponds or small stream diversions that collect storm runoff, but cannot drain because of tailing piles or the roadbed. Rehabilitation of the road will help restore natural drainage patterns.

On October 30, 2003 the State Historic Preservation Officer concurred that no historic properties would be affected by the proposed project, provided that any road widening would occur on the opposite side of the present highway from Jack Wade Camp and Jack Wade Dredge (Attachment B, Photo 4). The proposed project conforms to these constraints.

no 401  
trigger

The project would not require land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act (Dingell-Johnson

11 "

Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act), or similar laws, or lands otherwise encumbered with a Federal interest.

## **Alternatives**

### **No Build Alternative**

The No Build Alternative would not correct existing roadway deficiencies such as insufficient width, deteriorated conditions, and maintenance problems (Attachment B, Photo 3). Delayed maintenance and reconstruction costs are likely to increase significantly as deteriorating conditions in problem areas compound over time.

Without additional ROW or highway improvements at Section 4(f) land areas A through D and G through J, erosion by Wade Creek would continue and the pattern of cursory, temporary repairs made each year would continue. The deteriorating highway conditions and maintenance problems would compound and increase significantly over time. The road would continue to be narrow, shoulder less, and frequent washouts would continue to be expected.

Under the No Build Alternative, primary safety hazards presented by existing highway conditions would continue. Insufficient sight distances around substandard curves would not be corrected at areas I and J, and areas E and F would continue to have insufficient roadway width.

### **Build Alternative that Does Not Use Section 4(f) Land**

Since the Taylor Highway bisects Section 4(f) land in the Withdrawal, any proposed realignment outside the current ROW needed for safety or physical improvements would require use of Section 4(f) lands. It is not possible to avoid Section 4(f) land within the proposed project area by using roadway design or transportation system management techniques. Implementing such measures without using a minor amount of Section 4(f) land would result in the project not meeting the long-identified transportation needs.

The project included evaluation of four engineering design alternatives to avoid impacts to Section 4(f) lands. All four alternatives were determined to not meet the purpose and need of the project for the identified Section 4(f) land areas in question. The four eliminated designs are summarized below.



### **Design Option 1**

Option 1 would leave the road in its current location with no widening or realignment, but would provide highway surfacing with high-float asphalt. The road would continue to be narrow, shoulderless, and would continue to erode. Frequent washouts could be expected to continue. Sedimentation of Wade Creek due to erosion of sideslopes and roadbed structure would continue to occur.

By surfacing the current roadway without widening or realignment the road would not benefit from safety enhancements provided by the proposed project. Restoration and improvement of the existing roadway located in the Wade Creek floodplain (Areas A-D and G-H) would not prevent future embankment erosion nor would it allow for increased stabilization of the floodplain.

Leaving the road in its current alignment and surfacing with high-float asphalt would not meet the purpose and need of the project to restore and improve the structural integrity and drainage of the existing roadway, enhance safety by improving deficient roadway geometry, and provide reliable summer access to the Wade Creek recreation area. Therefore, this option has been dropped from further consideration.

### **Design Option 2**

This option involves steepening the slope of the road prism. The maximum slope allowed, based on the material available for road construction, is 1.5:1. The proposed road design currently incorporates side slopes of 1.5:1. Steepening the road prism to greater than 1.5:1 would create an unstable roadbed that would be subject to erosion and would be unsafe for vehicle traffic.

This alternative would not meet the purpose and need of the project to enhance safety by improving deficient roadway geometry and provide reliable summer access to the area. This option has been dropped from further consideration.

### **Design Option 3**

Another option is to reduce the width of the traffic lane shoulders and the corresponding clear zone, thus reducing the overall footprint area of the highway. The proposed project includes a 28-foot wide roadway with two 10-foot lanes and 4-foot shoulders on either side. With reduced road width, the road would continue to provide inadequate width for commercial and recreational vehicles to pass and there would continue to be inadequate width for vehicles to maneuver around hazards and compensate to stay on the road.

Reducing the roadway width in certain sections to avoid Section 4(f) property would cause inconsistent road conditions and would not meet the purpose and need of the project to enhance safety by improving deficient roadway geometry. This option has been dropped from further consideration.

#### **Design Option 4**

This option requires changing the vertical alignment of the road. The purpose of the project is to design for geometric integrity, which includes minimizing vertical changes and maintaining consistent grades for trucks with heavy loads. By lowering the vertical alignment of the road the road would continue to be subject to flooding and erosion by Wade Creek. Frequent washouts can be expected to continue to occur. The road would continue to have inconsistent grades making driving the road difficult for commercial vehicles.

Lowering the road's vertical alignment would not meet the purpose and need of the project which is to restore and improve the structural integrity and drainage of the existing roadway and provide reliable summer access to the Wade Creek recreation area. Therefore, this option has been dropped from further consideration.

#### **Build Alternative on New Location**

In order to construct a roadway free of embankment erosion and flooding from Wade Creek and free of deficient geometry without involving Section 4(f) land, a new Taylor Highway corridor outside of the Withdrawal would be necessary (Figure 2). New route alternatives would be limited to construction within the surrounding mountain range. Two alignments were considered; one that went north and west of the project area and one that went south and east of the project area. Both alternative alignments would result in substantial adverse environmental impacts and substantially increase the project cost. The alignment north and west of the Section 4(f) property would have required construction of 20 miles of road with numerous bridges. The south east alignment would require 11.5 miles of new road with several bridges. The significant level of engineering and construction required to establish a new highway route is anticipated to be significantly more expensive and complicated than the proposed project.

In addition, establishment of new routes would result in significant environmental impacts. A new highway route would significantly reduce access by the traveling public to existing recreational facilities and cultural resources along Wade Creek. Reducing access to the Wade Creek area to the traveling public would not meet the management guidelines of the Fortymile

Wild and Scenic River Management Plan which states that the Wade Creek Area will be managed to be “readily accessible by road or railroad.”

### **Minimization of Harm**

The proposed project design includes all possible planning to minimize harm to the Section 4(f) land, provides new recreational facilities, and in several areas, provides long-term benefits for protection against erosion to improve the water quality of Wade Creek. Extensive planning and fieldwork has been conducted with BLM to ensure the road design will protect and enhance Wade Creek and its immediate environment in order to make long-lasting improvements. BLM agreed with the assessment of impacts and proposed mitigation measures on May 14, 2004 (Attachment C). Mitigation for the use of the Section 4(f) property includes moving the road away from Wade Creek where possible, minimizing the use of riprap during road construction, regrading and blending of the abandoned road bed to create additional floodplain for Wade Creek, construction of a wayside at Walker Fork, and maintenance of the existing tree buffer between the highway and the historic Jack Wade Camp.

*Ref  
signature of  
See 7  
in Forest  
to Appendix*

ADOT&PF will prepare an Erosion and Sediment Control Plan to minimize the potential for sediment to reach surface waters. Temporary erosion control measures, including straw bales and/or silt fencing will be used during construction and kept in place until newly seeded plants can bind with the soil. The Contractor will prepare a SWPPP to reduce air, water, and noise construction impacts to the maximum extent practicable. This will include a Hazardous Materials Control Plan (HMCP) to address measures to prevent and respond to potential releases of hazardous material during construction. Refueling and servicing of equipment shall not be performed within 100 feet of wetlands or waterbodies with the exception of low mobility equipment being used for road construction. The HMCP will provide a detailed process for fueling this equipment within 100 feet of wetlands or waters of the U.S. (Wade Creek). Fueling and service vehicles will be equipped with adequate materials (such as sorbent pads, booms, etc) to immediately contain and commence clean-up of spilled fuels and other petroleum products.

### **Coordination**

The environmental process originally began for a portion of the project area in 1997 for MP 82 to the Alaska/Canada Border. A draft Categorical Exclusion (CE) and Section 4(f) document were prepared by ADOT&PF and reviewed by BLM. On February 19, 1998, BLM concurred with the findings in the two reports. The CE was never finalized or approved by FHWA because it was



determined that the environmental document needed to cover proposed road improvements from MP 64.5 to the Alaska/Canada Border.

In December 1999, ADOT&PF initiated the environmental process for rehabilitation of the Taylor Highway this time from MP 64.5 to the Alaska/Canada Border. A meeting was held with BLM on December 16, 1999 to discuss project status and schedule. On September 5, 2001, ADOT&PF sent out agency scoping letters. In response to the scoping letter BLM sent a letter requesting more detailed information about the project. To answer BLM's questions ADOT&PF and BLM met on January 17, 2002 to discuss project schedule, ROW status, and Fortymile management requirements. In September 2002, the environmental services for the project were contracted to a consultant and the NEPA process was initiated with a site visit and initiation of the public and agency scoping in November 2002.

An agency meeting was scheduled for December 4, 2002 at the ADOT&PF Fairbanks office. Due to a lack of interest from the natural resource agencies the meeting was not held. Agency scoping letters were sent out on November 29, 2002 with comments requested by December 31, 2002.

Numerous meetings were held between ADOT&PF and BLM. BLM attended the public scoping meeting in Tok on December 5, 2002 and met with ADOT&PF after the meeting to discuss the project. In February 2003, the ADOT&PF project manager, design engineer, BLM hydrologist, and BLM Outdoor Recreation Planner met several times in Fairbanks to discuss the road alignment, road design, and the use of riprap along Wade Creek. During these meetings BLM requested that the road be moved as far from Wade Creek as feasible and that the use of riprap be minimized. Based on these meetings, ADOT&PF revised the road design to incorporate BLM's requests to the extent possible. On June 9, 2003 ADOT&PF, BLM, and ASCG met in Tok to discuss the proposed project. The next day (June 10) ADOT&PF and BLM participated in a site visit to discuss project details such as the location of proposed waysides, proposed bridge work, and the location and rehabilitation of material sites. The entire project corridor was driven during the site visit. Coordination with BLM has also involved many phone calls and emails with ADOT&PF and ASCG.

BLM has agreed in writing with the impact assessment and mitigation measures on May 14, 2004 and a copy of their letter can be found in Attachment C.

### Certification and Approval

I certify that all applicable coordination and consultations have occurred during the development of this Section 4(f) Evaluation and that this project meets all criteria and findings required for approval under the FHWA, Programmatic Section 4(f) Evaluation approval dated December 23, 1986.

Certified by: \_\_\_\_\_ Date: \_\_\_\_\_  
Regional Environmental Coordinator

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the Fortymile Wild and Scenic River – Wade Creek Recreational Withdrawal and the proposed action includes all possible planning to minimize harm to the Fortymile Wild and Scenic River – Wade Creek Recreational Withdrawal resulting from such use.

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
FHWA, Environmental Project Manager

Cc: Nancy Whicker, BLM  
Susan Will, BLM



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Fortymile Team  
Tok Field Station  
P.O. Box 309  
Tok, Alaska 99780  
Phone: (907) 883-5121  
Fax: (907) 883-5123

Date: BETH MILLER, ASCG, Tay Hwy Project  
To: 5-8-03 FAX 339-5329

From:

Mary Maggie Randy Nancy Kevan Kent  
Jeff Heath Steve Shane

Regarding: Preliminary Sec. 7 Finding - Tay Hwy Proj-

Place x in box if Confidential

Message:

Per our telephone call this morning,  
this is still considered a draft until  
signed.

*Nancy Miller, Realty Specialist*

The information contained in this message is intended for the addressee or addressee's authorized agent. The message may contain information that is privileged, confidential, or otherwise exempt from disclosure. If the reader of this message is not the intended recipient, then you are notified that any distribution or copying of this message is prohibited. If you have received this message in error, please notify the sender.



**DRAFT**

May 8, 2003

**Preliminary Finding (BLM) Pursuant to Section 7 of the  
Wild and Scenic Rivers Act  
For the Proposed Taylor Highway Project  
(MP 64 near Chicken, Alaska, north to the Canadian Border)**

**Proposed Action**

The State of Alaska Department of Transportation and Public Facilities (ADOTPF) proposes to upgrade the portion of the Taylor Highway that parallels Wade Creek. The purpose of the project is to improve the safety of those traveling the highway, lower scheduled maintenance costs, and reduce the negative effects of flooding on the highway and the waters of the area. As of April 2003 the project has not been precisely described by design drawings. The detailed design will only be prepared following approval of the National Environmental Policy Act (NEPA) process and if funding is obtained for the project.

The following are descriptive excerpts from the scoping documents provided by ADOTPF:

*"Alignment – The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain between MP 84 and 85. The proposed highway realignments at corners average 0 to 15 meters (0 to 50 feet) from the existing highway centerline. Along Wade Creek, the maximum shift is 30 meters (0 to 100 feet) from the centerline. The road will be improved by widening the road to 28 feet with two 10-foot lanes and 4-foot shoulders and surfaced with "high float asphalt". Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road."*

*"Material and Disposal Sites – Material for road construction will come from road cuts/unclassified excavation and tailings from Wade Creek. There are also nine state-owned material sites available if they are needed during construction. Figures 1 and 2 show the locations of material sites. Additional unclassified excavation will be used as slope flattening in non-wetland areas. Disposal sites have not yet been identified. A Storm Water Pollution Prevention Plan and all necessary permits and clearances for material and disposal sites will be obtained prior to construction."*

*"Impacts to Water bodies – Streams within the project corridor that could be temporarily affected by road rehabilitation include: Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, and several unnamed tributaries to Wade Creek. The Chicken Creek bridge will be replaced with a single span bridge. In-water work will be required at the Chicken Creek bridge for replacement of the old bridge. Approach and bridge railing work will be performed on the South Fork and Walker Fork bridges. In-water work will be required at the South Fork Bridge to repair a concrete pier. Work will be conducted at and below the water line. No reclamation of the Wade Creek floodplain will occur as outlined in previous*

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*project plans. An ADF&G habitat permit will be required for work in fish bearing streams including Chicken Creek and South Fork.*

*“Culverts-Culverts will also be installed at numerous locations to maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions and prevent restriction of fish passage. Culvert design and installation will follow guidance outlined in the “Memorandum of Agreement – Design, Permitting and Construction of Culverts for Fish Passage” between the ADOT&PF and ADF&G”*

*“Flood Plain Management – There are no Federal Emergency Management Agency Flood maps for the project area. The Alaska Community Flood Hazard Information website did not have flood information for Chicken or Boundary. According to a BLM publication Water Resources of the Fortymile National Wild & Scenic River, Alaska, the Mosquito Fork is subject to flooding during moderate to high water, the South Fork is subject to flooding only during extreme high water, and the Walker Fork is subject to flooding during moderate to high water. During the site visit there was evidence of erosion from high water of the Taylor Highway along Wade Creek at approximately MP 83 and 84. The proposed project will move portions of the Taylor Highway out of the Wade Creek floodplain.”*

*“Wetlands – There are no National Wetlands Inventory Maps available for the project area. A wetlands delineation based on aerial photography and field verification was conducted on September 10 to 13, 2002. A wetlands delineation report is currently being prepared. Preliminary information indicates that most areas with black spruce forest are considered wetlands along the Taylor Highway. Changes in the road footprint will likely result in impacts to the forested spruce wetlands. There are also scrub shrub and emergent wetlands associated with Wade and Walker Creeks along the road right of way. These wetlands have been highly disturbed by mining activities. It is likely that a Section 404 permit would be needed from the USACE for the proposed project.”*

### **Background Information**

Wade Creek is a component of the Fortymile National Wild and Scenic River (FNWSR) system, and is managed as a recreational river area. Walker Fork and South Fork are also part of the FNWSR managed as scenic river areas. The proposed upgrade of the highway will require the placement of fill and riprap that could restrict the ability of the Wade Creek channel to meander naturally within its valley. Because of this direct impact on the “free-flow” of the stream, the Bureau of Land Management as federal manager of the wild and scenic river area is required to determine whether or not the proposed action will have a “direct and adverse” impact on the values for which Wade Creek was added to the national system pursuant to Section 7 of the Wild and Scenic Rivers Act. As mentioned above, we lack detailed and final information about the project. We do not know exactly how much fill or riprap will be used or exactly where the road will be moved from its existing location, nor do we know where the existing stream lies relative

P. 4/4  
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to the road. However, we do know that the project will likely result in improved water quality in Wade Creek, a more stable roadbed, and that when the roadbed is realigned, it will likely move away from the creek rather than towards it. This draft finding was prepared based on preliminary working drawings and tabular information, incomplete surveys, and discussions with DOT staff.

One interesting fact which is quite unusual for wild and scenic river areas, is that throughout the project area Wade Creek does not flow in a "natural" channel. Instead, the stream has been moved about for decades by miners whose rights under the mining laws supersede the protections provided by the Wild and Scenic Rivers Act. Miners had rights that also predated the right-of-way for the road and routinely rerouted the highway and stream in the process of mining their claims. Miners have left over 650 acres of river bottom land in unstable condition (moving approximately 1,140,000 cubic yards of material in the process), buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing many thousands of cubic yards of rock. These practices have decreased the average depth and sinuosity of Wade Creek and increased turbidity and bedload creating a situation where the channel has been unstable since at least the early 1900's. This unstable channel led to persistent flood damage to the Walker Fork Tent Campground that was been closed as a result by BLM. The instability of the channel and floodplain has also contributed to periodic washouts of the Taylor Highway causing episodes of impaired water quality during the flood events and during reconstruction activities.

### Affected Environment

#### **Direct alteration to within-channel conditions**

The proposal includes several areas where the current channel runs right along the road. In these areas, the road would be moved away from the creek. This would have the effect of moving the artificial stream bank provided by the existing road fill that would effectively widen the flood plain. While new stream channel would not be constructed during the project, it is likely that the stream would become more sinuous and that channel slope, depth, and velocity would all decrease in these areas. Removal of roadway materials from the floodplain in those areas where realignment occurs would create short-term disturbance, primarily erosion and sedimentation during construction, but the additional space created within the Wade Creek floodway would help minimize long-term effects of flooding.

The improvements to channel stability conditions could be greatly enhanced if the road were moved above the floodplain and if the mining tailing piles and capped settling ponds were more fully reclaimed.

While removal of material from the floodplain would create short-term disturbance to the Wade Creek floodplain during construction, the additional space created within the floodway would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream. Blending the former tailings piles to create better drainage as well as seeding to promote revegetation would be an improvement over the existing unreclaimed tailings piles scattered along the floodplain.



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### **Changes to water quality as a direct result of the project**

Currently the natural drainage patterns are disrupted by past mining activities, the existing road, and the lack of culverts working to divert, impede, or block flow in stream channels. Blockages or diversions resulting from insufficient flow capacity can result in seasonal or permanent impoundments. Diverting stream flow can also result in increased bank or shoreline erosion and sedimentation as well as potential thermokarst where permafrost is present. Proper siting and adequate design capacity of culverts and bridges will minimize these impacts. Any short-term disturbance, primarily erosion and sedimentation during construction, would be offset by the reduction in the flood damage that occurs annually within the watershed from the current deranged drainage and inadequate culverts.

During the construction phase water quality would decrease due to soil disturbance. In the mid- to long-term, water quality should improve somewhat due to the decrease in average velocity and control of runoff through improved road design and improved culvert design and installation.

### **Changes to fish habitat as a direct result of the project**

Walker Fork currently supports an Arctic grayling fishery. Slimy sculpin, longnose sucker and whitefish species are present as well. There are no anadromous fish migrating, spawning, or rearing in Walker Fork. Arctic grayling and slimy sculpin may migrate into Wade Creek during the summer months to take advantage of feeding opportunities in its tributaries.

The proposed activity is unlikely to have negative impacts and may benefit the fish using Walker Fork and Wade Creek. Wade Creek currently has little suitable habitat (spawning or rearing) to support a resident fish population.

If the project included moving the road out of the floodplain, and reclamation of mining impacts, the beneficial impacts would be maximized. Floodplain restoration and revegetation would create new habitat and enhance the small resident fishery.

### **Changes to navigability of the stream as a direct result of the project**

To the best of our knowledge, Wade Creek is not suited for boating due to lack of adequate depth except during flood events. The proposal would not affect navigability during normal or flood flows.

### **Direct alteration to riparian and floodplain conditions**

The plan and profile annotated by ADOT engineers indicates that up to approximately 3.5 miles of road at an average shift of 28 feet will require realignment along Wade Creek. Bank armoring (possibly including riprap) may be required along approximately two miles of road. Construction or other activities (such as material sites, equipment storage, and construction camp sites) that could affect the streambanks, floodplain, or remove protective shoreline vegetation might disturb up to double the area of road realignment or up to 25 acres during construction.

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The bridgework proposed by ADOT involves no surface disturbing activities in the floodplain due to the use of pier coffer dams, boating the crews to the work area, and supply lines running from the top of the bridge structure. Thus, there should be minimal impacts during construction and no impacts afterwards. Other than a short stretch of roadway near the South Fork ADOT camp where the river is currently eroding the road, no realignments are proposed within the FNW&SR corridor except at Wade Creek. The maximum shift of the road alignment estimated to be less than 150 feet from the existing centerline will definitely not be sufficient to move any existing portion of the road out of the Wade Creek floodplain. The additional space created within the floodway by shifting the road away from the creek an average of 28 feet would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains.

ADOT does require an Erosion and Sediment Control Plan (ESCP) to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary and permanent seeding, mulching, geotextiles, vegetative buffer strips, protection of trees, preservation of mature vegetation, construction phasing, and other appropriate measures. The surfaces of the existing embankment slopes are coarse gravel. Temporary stabilization practices may include temporary seeding, surface roughening, construction of mulching, and construction phasing. Permanent stabilization practices consist of limited areas of permanent seeding. Structural practices that may be implemented to divert flows from exposed soils, store flows, or limit runoff and discharge of pollutants from the exposed areas of the site may include silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Temporary structural practices shall include straw bale barriers, silt fences, temporary shoulder berms, brush barriers, sediment traps, check dams, and temporary pipe outlet protection. The ESCP also requires that steps be taken during the construction process to control pollutants in storm water discharges that may occur after construction operations have been completed. These measures may be subject to Section 404 of the Clean Water

This project would create over 12 acres of additional floodplain adjacent to Wade Creek after construction is completed. This area would act as an additional buffer strip, separating the creek from the road. The increase in floodway width would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains. Regrading and blending the former roadbed to create more direct drainage as well as revegetation of the newly created floodplain would be a great improvement over existing conditions.

High-value wetlands—those that provide critical aquatic habitat to fish, birds, or mammals for feeding, nesting, or habitation—are almost nonexistent within the project area. The ponds and marshes adjacent to the road along Wade Creek resulted from ground disturbance during past placer mining. Many are either old settling ponds or small stream diversions that collect storm runoff but cannot drain due to mining berms or roadbed that block the drainage. Clearing the berms, road realignment, new culverts, and

**DRAFT**

proper regrading will help restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.

**Direct alteration to upland conditions particularly outstandingly remarkable values**  
The proposed action as described is unlikely to affect upland conditions significantly so long as standard stipulations to preserve historic and cultural resources are followed. Evidence of historic human activity in the area is one of the values for which the area was designated and should be protected adequately by site specific cultural reviews and standard stipulations required by the State Historic Preservation Officer.

**Relationship of the project to river management goals**

Most of the project involves reconstruction of the current roadway and replacement of existing culverts so impacts should be minimal using proper sediment control during construction. The bridgework proposed by ADOTPF involves no surface disturbing activities to the channel or stream banks so should have minimal impacts during construction and none afterwards. The road realignment for the Wade Creek section of the project involves a total of up to 3.5 miles of road at an average shift of 28 feet and could cause up to 25 acres of disturbance to the Wade Creek floodplain. Short-term disturbances, primarily removal of vegetation and erosion and sedimentation during construction, would occur in areas where Wade Creek is adjacent to the road. However, ADOT does require an Erosion and Sediment Control Plan to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. After construction is completed, the additional space created by moving the road away from the creek would create over 12 acres floodplain to act as a buffer strip, separating the creek from the road. This additional space within the floodway would help minimize long-term impacts of flooding, such as erosion and sedimentation that currently impact the stream whenever it rains. The new culverts should also reduce the flood damage from the current lack of proper drainage and inadequately sized and spaced culverts. The project should improve public safety and generally improve environmental conditions in the stream and floodplain which is consistent with the BLM's wild and scenic river management mandate to protect and enhance free-flow, water quality and outstanding values of the river area. The proposed project would not avoid all impacts to the river area because of constrained funding sources for small improvements to alignment rather than wholesale relocation. There will still be confinement of the stream particularly during floods, and there will still be impacts to water quality due to runoff from the road area and adjacent mining disturbance.

Since the existing roadway adjacent to Wade Creek currently poses significant problems, due to the diversions, impoundments, and increased sediment runoff whenever it rains, moving the road as far as possible away from the creek would have the greatest single reduction in impacts to the water resources. Clearing the berms, road realignment, new culverts, and proper regrading would help to restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.



**DRAFT****Section 7 finding**

Our preliminary finding is that the proposed project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system. Given the fact that the project has yet to be designed in detail, we can only make a preliminary Section 7 finding based on the scoping information and informal discussions we have held with ADOTPF staff.

The above determination was analyzed by the following individuals from the Northern Field Office and the Fortymile Management Team:

Hydrologist - Jon Kostohrys  
Outdoor Recreation Planner - Lon Kelly  
Fisheries Biologist - Ingrid McSweeny  
Fortymile Team Manager - Mary Figarelle

**I concur with the preliminary finding that the proposed Taylor Highway project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system.**

Date: \_\_\_\_\_

**Robert W. Schneider, Manager**

**Bureau of Land Management  
Northern Field Office  
1150 University Avenue  
Fairbanks, AK 99709-3844**

AK026:NWhicker:Lands/DOTPF/Tay Hwy/Sec 7 Determination/WadeCrSec7 Prelim  
Doc 050803.doc

Attachment B  
Photographic Log

## **ATTACHMENT B**

### **PHOTOGRAPHIC LOG**

Photo 1. View looking west from the Taylor Highway with Wade Creek in the background. (9/12/02).	1
Photo 2. Typical road bed surface, MP 91 Taylor Highway (9/11/02).	1
Photo 3. View looking west from MP 86.9 Taylor Highway. Typical drainage along the Wade Creek Section of road. (9/12/02).	2
Photo 4. Jack Wade Dredge, MP 86 Taylor Highway. Dredge is proposed to be dismantled by BLM, date for dismantlement has not been set. Road will be widened away from dredge. (9/12/02).	2
Photo 5. Aerial view of flooding along the Taylor Highway near the Walker Fork Campground. (4/30/03).	3
Photo 6. Erosion of the Taylor Highway by Wade Creek. (9/12/02).	3





Photo 1. View looking west from the Taylor Highway with Wade Creek in the background. (9/12/02).



Photo 2. Typical road bed surface, MP 91 Taylor Highway (9/11/02).





Photo 3. View looking west from MP 86.9 Taylor Highway. Typical drainage along the Wade Creek Section of road. (9/12/02).



Photo 4. Jack Wade Dredge, MP 86 Taylor Highway. Dredge is proposed to be dismantled by BLM, date for dismantlement has not been set. Road will be widened away from dredge. (9/12/02).



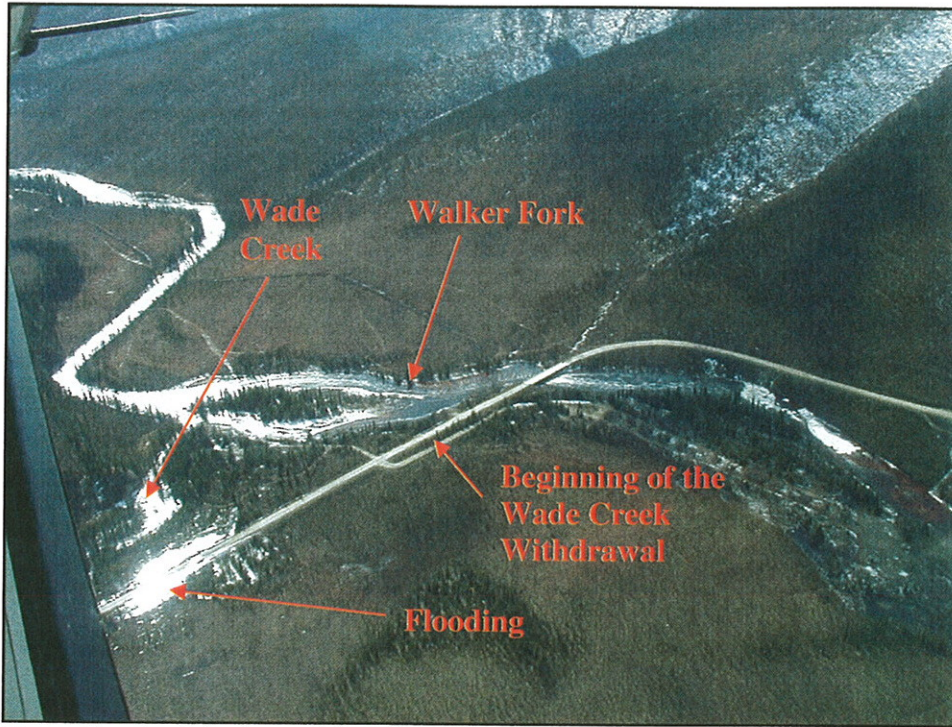


Photo 5. Aerial view of flooding along the Taylor Highway near the Walker Fork Campground. (4/30/03)



Photo 6. Erosion of the Taylor Highway by Wade Creek. (9/12/02)

Attachment C

BLM Concurrence Letter





# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Northern Field Office  
1150 University Avenue  
Fairbanks, Alaska 99709-3844  
<http://www.ak.blm.gov>

IN REPLY REFER TO:  
8300 (AK-020)

May 14, 2004

Tim Woster, Design Project Manager  
Alaska Department of Transportation  
and Public Facilities  
2301 Peger Road  
Fairbanks, Alaska 99709

Dear Mr. Woster:

This letter responds to your request for concurrence with the Alaska Department of Transportation and Public Facilities' (ADOTSPF) assessment of impacts and proposed mitigation for impacts associated with the Taylor Highway Mile Post (MP) 64 to Canadian Border project. Our offices have worked closely to coordinate the planning of the project where it passes through a recreational segment of the Fortymile Wild and Scenic River called Wade Creek. Members of our offices worked together through field visits, office meetings and numerous telephone calls. We concur that:

- The amount and location of the land to be used does not impair the use of the remaining recreational area in whole or in part of its intended purpose.
- The proximity impacts of the project on the remaining Section 4(f) land (Wade Creek Recreational segment of the Fortymile Wild and Scenic River withdrawal) shall not impair the use of such land for its intended purpose.
- The Bureau of Land Management (BLM) agrees with the assessment of the impacts of the proposed project and the proposed mitigation for the Section 4(f) lands per the "commitment" letter and attachments from ADOT&PF dated April 9, 2004. These attachments included the project summary, the proposed 4(f) land impacts, the proposed 4(f) land impacts detail table, figures of 4(f) properties, maps and site locations and right-of-way acquisition areas.

In addition, as part of this project, ADOT&PF is designing and constructing the Walker Fork Wayside at the request of BLM. This wayside is located within the Wade Creek Recreational segment of the Fortymile Wild and Scenic River area managed by the BLM. Construction of this wayside will be under a temporary BLM authorization.

BLM concurs that:

- The construction of the wayside is of short duration and less than the time needed for construction of the entire project.
- The temporary authorization to construct this wayside will not change the ownership or result in the retention of long-term or indefinite interests in the land for transportation purposes.
- The project will not result in any temporary or permanent adverse changes to the activities, features, or attributes which are important to the purposes or functions that qualify the resource for protection under Section 4(f).
- The construction of the wayside will impact only 1.43 acres of land which is a minor amount of land within a much larger land holding of the Fortymile National Wild and Scenic River area (approximately 250,000 acres).

If you have further questions, please contact Nancy Whicker, Realty Specialist, at the Tok Field Station, (907) 883-5121.

Sincerely,



Susan M. Will  
Associate Field Manager

cc: Kim Strickland, P.E., ASCG Project Manager ✓  
Melissa Parker, ADDOT&PF Environmental Analyst  
Tiff Vincent, ADOT&PF Project Designer

# STATE OF ALASKA

*FRANK H. MURKOWSKI, GOVERNOR*

**DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES**

*NORTHERN REGION, PRECONSTRUCTION*

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5399  
TELEPHONE: (907) 451-2288  
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April 9, 2004

Re: Taylor Highway MP 64.5 to the  
Canadian Border  
Project No. 66446  
**Commitment Letter**

Susan Will  
Associate Field Manager  
Bureau of Land Management  
Northern Field Office  
1150 University Avenue  
Fairbanks, AK 99709

Dear Ms. Will:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), is proposing to upgrade the Taylor Highway from MP 64.5 to the Alaska/Canada Border (Figure 1). This letter is to formally update Bureau of Land Management (BLM) on the progress of the environmental process for the project, and to request concurrence from BLM on the assessment of environmental impacts and proposed mitigation for those impacts. The attached project summary describes the impacts and the proposed avoidance and mitigation measures to be incorporated into project design and construction. The summary includes right-of-way acquisition figures, a table describing proposed Section 4(f) impacts, and Proposed Section 4(f) Land Impacts Detail Descriptions.

ADOT&PF is currently performing preliminary design and developing an Environmental Assessment for the project. These activities include a Section 4(f) Evaluation required by FHWA to evaluate ROW acquisition along Wade Creek, which is part of the Fortymile Wild and Scenic River system. ADOT&PF has worked closely with BLM during the preliminary design and evaluation of the project impacts, including numerous meetings, telephone calls, and field visits. ADOT&PF is requesting concurrence from BLM that:

- The amount and location of the land to be used does not impair the use of the remaining recreational area, in whole or in part, for its intended purpose.
- The proximity impacts of the project on the remaining Section 4(f) land (Wade Creek Recreational Segment of the Fortymile Wild and Scenic River System) shall not impair the use of such land for its intended purpose.
- BLM agrees with the assessment of the impacts of the proposed project on, and the proposed mitigation for, the Section 4(f) lands.



We need your concurrence on these items to complete our Section 4(f) Evaluation, which in turn is needed to complete our Environmental Assessment for the project. The preliminary Environmental Assessment is ready to submit for FHWA review, pending receipt of your concurrence.

Thank you for your consideration in this matter. I look forward to meeting with you in the near future to discuss the project. If you have any questions I can be reached via email at [tim\\_woster@dot.state.ak.us](mailto:tim_woster@dot.state.ak.us) or by phone at 451-2288.

Sincerely,



Tim Woster, P.E.  
ADOP&PF Project Manager

TW/vzb

Enclosures: Project Summary  
Figures 1-16  
Table 1  
Proposed Section 4(f) Land Impacts Detail Descriptions

cc: Kim Stricklan, P.E., ASCG Project Manager  
Melissa Parker, ADOT&PF Environmental Analyst  
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## Project Summary

### **Scope**

The scope of the project consists of rehabilitation, restoration, and resurfacing of the existing roadway on the same or slightly modified alignment. The project is needed to restore and improve the structural integrity and drainage of the existing roadway, enhance safety by improving deficient roadway geometry, provide enhancements for recreation along the highway, and provide reliable summer access to the Wade Creek recreation area. The project area includes approximately 44 miles of highway.

Final design will likely be completed during 2004 and 2005 with project construction scheduled to begin in 2006. The project will be constructed in three phases:

- Phase I - Jack Wade Junction to the Border (MP 95 to MP 13 of the Top of the World Highway), 2006;
- Phase II - Mosquito Fork to Walker Fork (MP 64.5 to MP 82), 2007; and
- Phase III - Walker Fork to Jack Wade Junction (MP 82 to MP 95), 2008.

### **Alternatives**

Alternatives being considered during development of the EA include one Build Alternative and the No-Build Alternative. The Build Alternative would 1) resurface, restore, and rehabilitate the existing highway from the Mosquito Fork Bridge to the Alaska/Canada border; 2) replace the existing one lane bridge over Chicken Creek with a single span, two lane bridge; and 3) provide enhancements for recreation. Under the No-Build Alternative no improvements would be made and the road would continue with its current level of maintenance and with only cursory repairs being made as needed.

### **Build Alternative**

The present highway alignment would be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain. The highway would be realigned at multiple locations for a total of approximately 3.5 miles, most of which is within the current road ROW (Figures 2-12). The proposed highway realignments at corners average 0 to 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 0 to 100 feet from the centerline. The road would be improved by widening to 28 feet with two 10-foot lanes and 4-foot shoulders, and surfacing with asphalt (Figure 13). Drainage would be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road. The posted speed would be 40 miles per hour from MP 64.5 to Walker Fork (MP 82) and 50 miles per hour from Walker Fork to the Alaska/Canada border.

A wayside will be constructed at Walker Fork and located on the southeast side of the road with outhouses, interpretive signing, and picnic tables, as indicated on Figures 3 and 14. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77.5 on the west side of the road and MP 79 on the northwest side of the road (Figure 15). A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the

south side of the highway within ADOT&PF right-of-way. The parking area will have no facilities and will not impact the current trailhead. Highway signage will also be installed along the entire project corridor, including milepost markers and standard highway signs for direction and safety information.

The current one lane bridge over Chicken Creek will be replaced by a two-lane, single span bridge. The new bridge location will be the same as the current bridge. A temporary crossing will be installed during construction of the new bridge and removed when the new bridge is operational. Bridge approach railing and bridge deck railing will be installed on the South Fork and Walker Fork bridges. In addition, the South Fork Bridge piers require work to repair concrete spalling. The pier work will require the use of cofferdams, which will be pumped out to allow workers to fix the piers. No heavy equipment will be used in the river.

Material for road construction will be obtained from road cuts/unclassified excavation, tailings from Wade Creek and two permitted material sites (Figures 15 and 16). Any additional material from excavations will be used as slope flattening material in non-wetland areas within the ADOT&PF ROW. Material disposal sites will be identified by ADOT&PF during the final design or by the construction contractor.

## **Environmental Consequences**

### *Right-of-Way (ROW)*

Right-of-way acquisition will likely be required from the owners of federal mining claims located at Lost Chicken Creek and along Wade Creek. There are no current ROW plans for the Taylor or Top of the World Highways; therefore the exact amount of ROW required for project construction is unknown at this time. Detailed design and ROW plans can not be completed by ADOT&PF until the environmental document has been signed by FHWA and ADOT&PF. A ROW application will be submitted to BLM after ADOT&PF has developed the detailed design sufficiently to accurately define ROW requirements.

After a detailed design has been completed, ADOT&PF will negotiate with the individual mining claimholders to purchase road easements across the claims. The easements will include restrictions on the mining operations, preventing mining through the road or relocation of the road. If the claimholder is not willing to negotiate the right to mine through the road, the easement restrictions will require the miner to replace the road in its original location and condition once mining is complete. In addition, the restrictions will require the miner to provide a detour constructed to the same design standards as the highway while mining is in progress. These easements will be acquired before the project is constructed.

### *Social Impacts*

The proposed project is expected to have beneficial impacts to residents in the vicinity of the project. The improved driving conditions will likely encourage more tourists to drive the road, making it more economically feasible for residents to operate tourism-related businesses. The project will not result in the relocation of any residents or businesses.

### *Cultural Resources*

Cultural resources along the project area were identified during a 2002 survey conducted by the Alaska Department of Natural Resources – Office of History and Archaeology. On October 30, 2003 the State Historic Preservation Officer concurred that no historic properties would be

affected by the proposed project, provided that any road widening would occur on the opposite side of the present highway from Jack Wade Camp and Jack Wade Dredge. The build alternative conforms to these constraints.

#### *Wetlands*

Approximately 20 acres of wetlands will be impacted by project construction with approximately 100,000 cubic yards of fill being discharged into wetlands. No high quality wetlands will be impacted. All affected wetlands are located adjacent to the current road.

#### *Fish and Wildlife*

No anadromous fish streams or threatened and endangered species are located in the project area. The project is not expected to have an adverse impact on fish or wildlife resources in the area. The road improvements are expected to have a beneficial impact on the water quality of the streams adjacent to the road due to less sedimentation and improved drainage.

#### *Floodplain Impacts*

The project is not expected to have an impact to the floodplain of the Walker Fork. The project will create an additional 12 acres of floodplain at various locations along Wade Creek by moving the road away from the creek and regrading the old roadbed. Riprap will likely be needed at all stream crossings along the road corridor, at various locations along Wade Creek, and at one location along South Fork. Riprap will be placed along the road embankment adjacent to Wade Creek in intervals for a total of two miles to control road bank erosion. Where possible, the road will be designed to avoid the placement of riprap in Wade Creek, as requested by the BLM. Riprap will also be used at MP 75.25 along South Fork to control road bank erosion. The replacement bridge at Chicken Creek will be designed to adequately pass the 100-year flood without damage to the surrounding area.

A preliminary Section 7 Analysis has been completed by BLM and the results of the Section 7 Analysis have been used in the development of ADOT&PF's environmental assessment. BLM's preliminary finding in the Section 7 Analysis is, "the proposed project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River System."

#### *Water Quality*

Water quality of the adjacent streams and wetlands are expected to improve after road construction. Erosion and sedimentation levels are expected to decrease with the replacement of culverts and the creation of additional floodplain along Wade Creek. Short-term impacts during construction will include increased sedimentation, but the impacts are expected to be temporary.

#### *Section 4(f) Impacts*

A Programmatic Section 4(f) Evaluation is being prepared for this project to determine whether or not there is a 'feasible and prudent alternative to the use of land' of the Wade Creek Segment of the Forty-Mile Wild and Scenic River System and to ensure that the action 'includes all possible planning to minimize harm to the property resulting from the use' (23 CFR 771.135). Ten locations within the Wade Creek Recreation Segment are proposed for improvements that would require ADOT&PF to acquire additional ROW from the Bureau of Land Management (Figures 2-12). A total of 3.6 acres would need to be acquired for the proposed project. One additional area involving 1.4 acres in the Wade Creek area would require temporary access onto



BLM land for construction of a wayside. Use of the land at these 11 locations is not expected to have an adverse impact on the remaining Wade Creek Recreational Segment. Table 1 gives a summary of each proposed Section 4(f) impact. Attached to this letter are more detailed descriptions of each proposed ROW take and descriptions as to why the take is necessary.

### *Permits*

A U.S. Army Corps of Engineers 404/10 wetlands permit, an Alaska Department of Environmental Conservation (ADEC) 401 water quality certification, an Alaska Department of Natural Resources Title 41 Fish Habitat Permit, and a National Pollution Discharge Elimination System permit will be obtained before construction.

### *Material Sites*

Material for project construction will come from two state-permitted material sources (Figures 15 and 16), road cuts at MP 72 and 89.1, and stockpiled mine tailings along Wade Creek at approximately MP 83. The road cut at MP 72 is located on state land and the ROW containing the road cut at MP 89.1 is proposed for acquisition by ADOT&PF. Use of mine tailings from MP 83 may require a Temporary Use Permit from BLM. Use of the mine tailings will not impact the Wild and Scenic River System because this area has been previously disturbed.

### **Environmental Commitments and Mitigation Measures**

Environmental commitments and mitigation measures incorporated in this project include the following:

- Creation of approximately 12 acres of additional floodplain habitat along Wade Creek through realignment of the highway at various locations.
- Maintenance of a tree buffer between the highway and Jack Wade Camp.
- Improving natural drainage patterns by providing culverts for cross drainage. Currently, there is very little cross drainage due to an inadequate number of culverts and improperly sized culverts.
- Designing culverts to allow fish passage at all fish stream crossings.
- Constructing public facilities to enhance existing and new recreation areas. These include the Walker Fork Wayside, Mosquito Fork Dredge trailhead parking, and various scenic pullouts.
- ADOT&PF will prepare an Erosion and Sediment Control Plan during final design to minimize the potential for sediment to reach surface waters. Temporary erosion control measures, including straw bales and/or silt fencing will be used during construction and kept in place until newly seeded plants can bind with the soil. The Contractor will prepare a Storm Water Pollution Prevention Plan to reduce impacts to water from construction to the maximum extent practicable. This will include a hazardous materials control plan to address measures to prevent and respond to potential releases of hazardous material during construction.
- Refueling and servicing of equipment shall not be performed within 100 feet of wetlands or waterbodies.

- Best management practices will be used and maintained to prevent pollution of surface and groundwater, soil, and the atmosphere with any contaminants including hazardous or toxic materials. Any release of these materials into the environment will require immediate corrective action by the contractor in accordance with applicable State and Federal Regulations.
- If contaminated or hazardous materials are encountered during construction, all work in the vicinity of the contaminated site will be stopped until ADEC is contacted and a corrective action plan is approved by ADEC.
- Advance notice of road closures will be given to reduce construction impacts on highway users.

Table 1

Proposed Section 4(f) Land Impacts

Letter Designation <sup>a</sup>	Location (MP)	Additional ROW (acres)	Type of Section 4(f) Impact	Reason for Section 4(f) take
Walker Fork Wayside	82.1	1.43	Temporary Construction Access	Construction of a wayside at Walker Fork on the southeast side of the road. BLM will own and maintain the wayside after construction.
A	83.2	0.23	Acquire ROW	Centerline of road will be moved up to 67 feet to the west to avoid a bend in Wade Creek that washes out the existing road.
B	83.7	0.11	Acquire ROW	Centerline of road will be moved up to 63 feet to the west to avoid the road being washed out by Wade Creek.
C	84.2	0.41	Acquire ROW	Centerline of road will be moved up to 102 feet to the southwest to avoid a bend in Wade Creek that washes out the existing road.
D	85.4	0.17	Acquire ROW	Centerline of road will be moved up to 66 feet to the west to avoid the road being washed out by Wade Creek.
E	86.2	0.20	Acquire ROW	The road will be widened to the inside of the curve to avoid filling into Wade Creek on the south side. Cut catch point on steep hillside on north side occurs outside of the ROW limit. The centerline of the road will be moved up to six feet to the north.
F	86.7	1.73	Acquire ROW	The road will be widened to the outside of the curve to avoid filling into Wade Creek on the east side. Cut catch point on steep hillside on west side occurs outside of the ROW limit. The centerline of the road would be moved up to 17 feet to the east.
G	86.9	0.43	Acquire ROW	Centerline of road will be moved 36 feet to the north to pull roadway away from erosion area caused by Wade Creek.
H	87.8	0.09	Acquire ROW	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek.
I	89.1	0.11	Acquire ROW	Centerline of road will be moved a maximum of 81 feet to the north to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
J	91	0.12	Acquire ROW	Centerline of road will be moved 19 feet to the southeast to pull roadway away from erosion area caused by Wade Creek and create a larger radius curve.
<b>Total</b>		<b>5</b>		

<sup>a</sup> Letter designation corresponds to the site identifier on Figures 3 through 12.  
MP -- Milepost

## Proposed Section 4(f) Land Impacts Detail Descriptions

**Area A** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 67 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.23 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area B** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 4). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 63 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.11 acre of ROW on the west side of the existing road alignment. The old road embankment material would be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area C** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 5). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 102 feet to the west in this area. Shifting the centerline away from Wade Creek requires an additional 0.41 acre of ROW on the west side of the existing road alignment. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area D** - This section of highway is directly adjacent to the active channel of Wade Creek (Figure 6). Wade Creek is adjacent to the east side of the road where it often erodes and sometimes completely washes out this section of highway. To reduce these erosion problems, ADOT&PF proposes to realign the centerline a maximum of 66 feet to the west and eliminate the curve in the road in this area. Shifting the centerline away from Wade Creek requires an additional 0.17 acre of ROW on the west side of the existing road alignment due to the catch slope extending outside of the current ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area E** - This section of road is cut into a high, steep hillside adjacent to Wade Creek (Figure 6). In order to widen the road at this location fill would have to be placed in the active channel of Wade Creek or the hillside would need to be excavated. The preferred option, requested by BLM, would require excavation of the hillside so that Wade Creek is not impacted. The centerline of the road would be moved up to six feet to the north, which would force the excavation limits to extend outside of the current ROW. An additional 0.20 acre of ROW would be required. The existing road embankment material will be incorporated into the new road.

**Area F** - This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends into Wade Creek and is often subject to erosion because it is located on an outside bend of the creek (Figure 7). ADOT&PF is proposing to move the road away from the creek to reduce future erosion. The centerline of the road would



be moved up to 17 feet to the east which would force the excavation limits to extend outside the current ROW. An additional 1.73 acres of ROW would be required. The existing road embankment material will be incorporated into the new road.

**Area G** - This section of the road is bound by Wade Creek on the east and a steep hillside on the west. Road base fill from the highway currently extends down a steep hillside adjacent to Wade Creek. The centerline of the road would be moved up to 36 feet to the east eliminating the curve and thereby moving the road away from Wade Creek (Figure 7). By moving the road away from Wade Creek the hillside would need to be excavated to accommodate the new alignment. Excavation of the hillside would require an additional 0.43 acre of ROW. The existing road embankment material will be incorporated into the new road.

**Area H** - This section of highway is directly adjacent to the active channel of Wade Creek and road base fill extends into Wade Creek (Figure 8). The curves are proposed to be straightened and the road moved up to 81 feet away from Wade Creek to avoid future erosion of the road. The relocation away from Wade Creek will extend the ditch excavation on the northwest side of the road beyond the current ROW, requiring an additional 0.09 acre of ROW. It is not possible to design the road to meet standards and stay within the current ROW because the short distance between the two substandard curves does not allow an adequate transition zone between curves. Eliminating the curves greatly reduces the potential for erosion of the roadway and enhances the roadway geometry. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area I** - This section of highway is directly adjacent to the active channel of Wade Creek on the southeast and is bound by a steep hillside on the northwest (Figure 9). Wade Creek often erodes this section of highway. To reduce erosion problems, ADOT&PF proposes to realign the centerline a maximum of 81 feet to the northwest. To realign the road, additional ROW of 0.11 acre would be required on the northwest side of the existing alignment. The additional ROW is required because the limits of excavation on the inside of the curve would extend outside of the existing ROW. The old road embankment material will be removed in its entirety to prevent erosion of this material into Wade Creek.

**Area J** - This section of road is bound by Wade Creek on the west and a steep hillside on the east (Figure 11). The existing roadway fill extends into the active channel of Wade Creek and is frequently eroded by the creek. To prevent future erosion the road is being moved away from Wade Creek. The centerline is proposed to be moved a maximum of 19 feet to the east. Moving the road to the east requires the addition of 0.12 acre of ROW. The existing road embankment material will be incorporated into the new road.



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

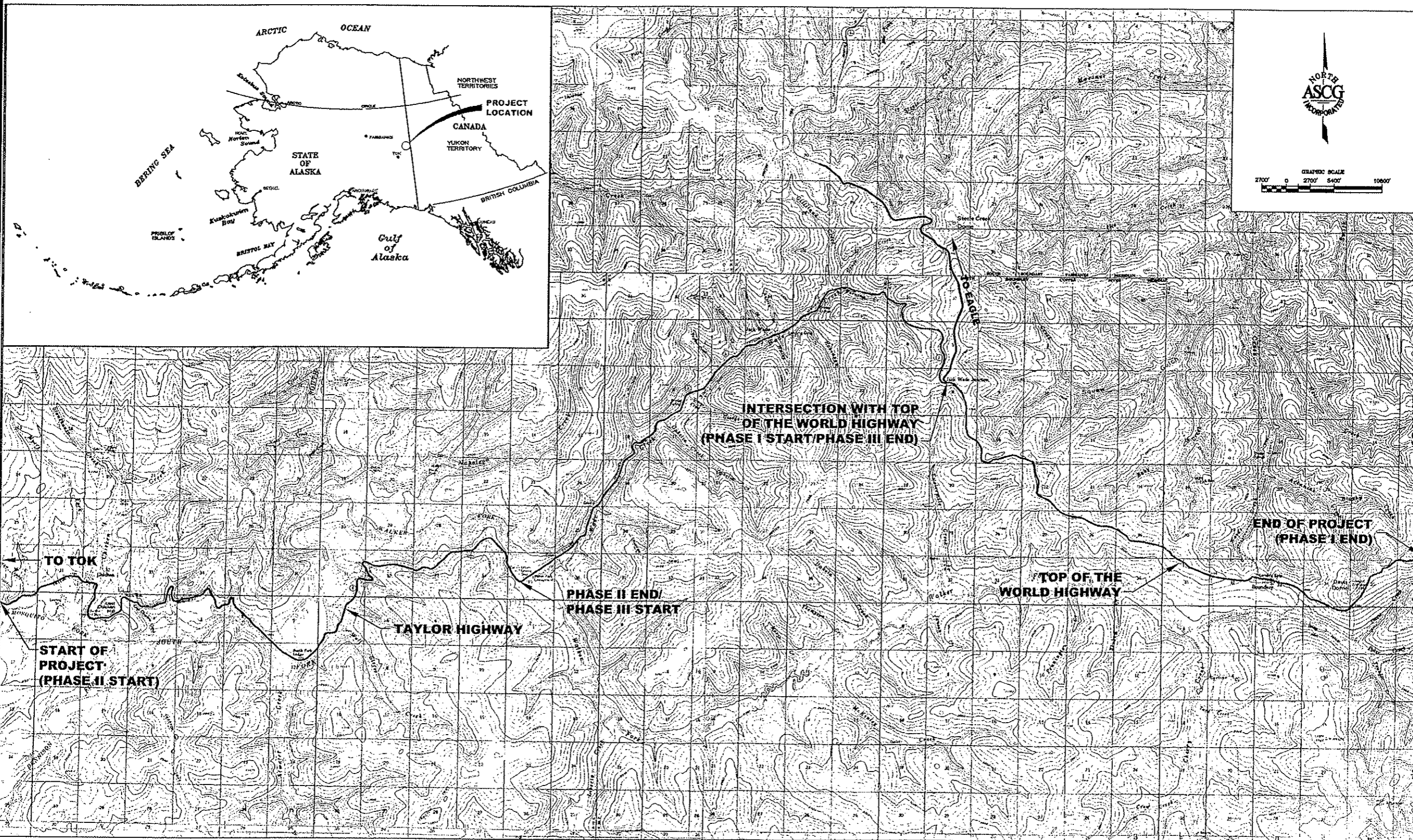
SITE LOCATION AND VICINITY  
FIGURE 1

JOB NO: 4444

DATE: 11/12/02

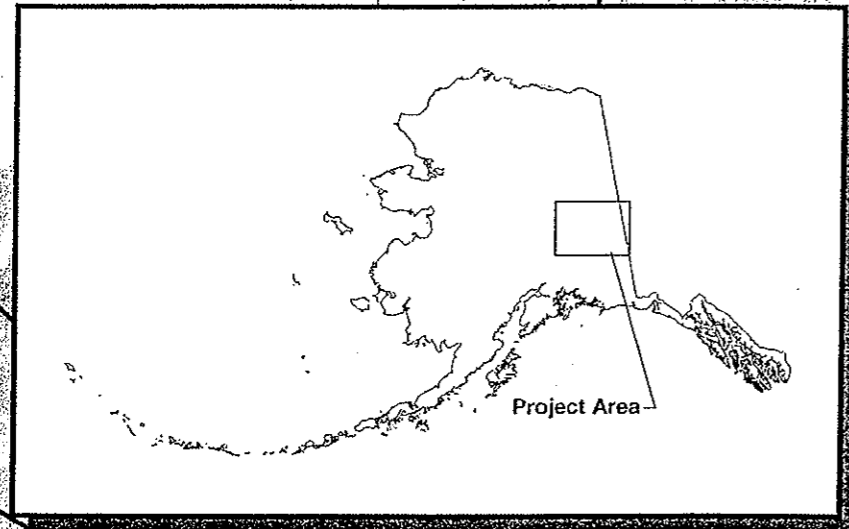
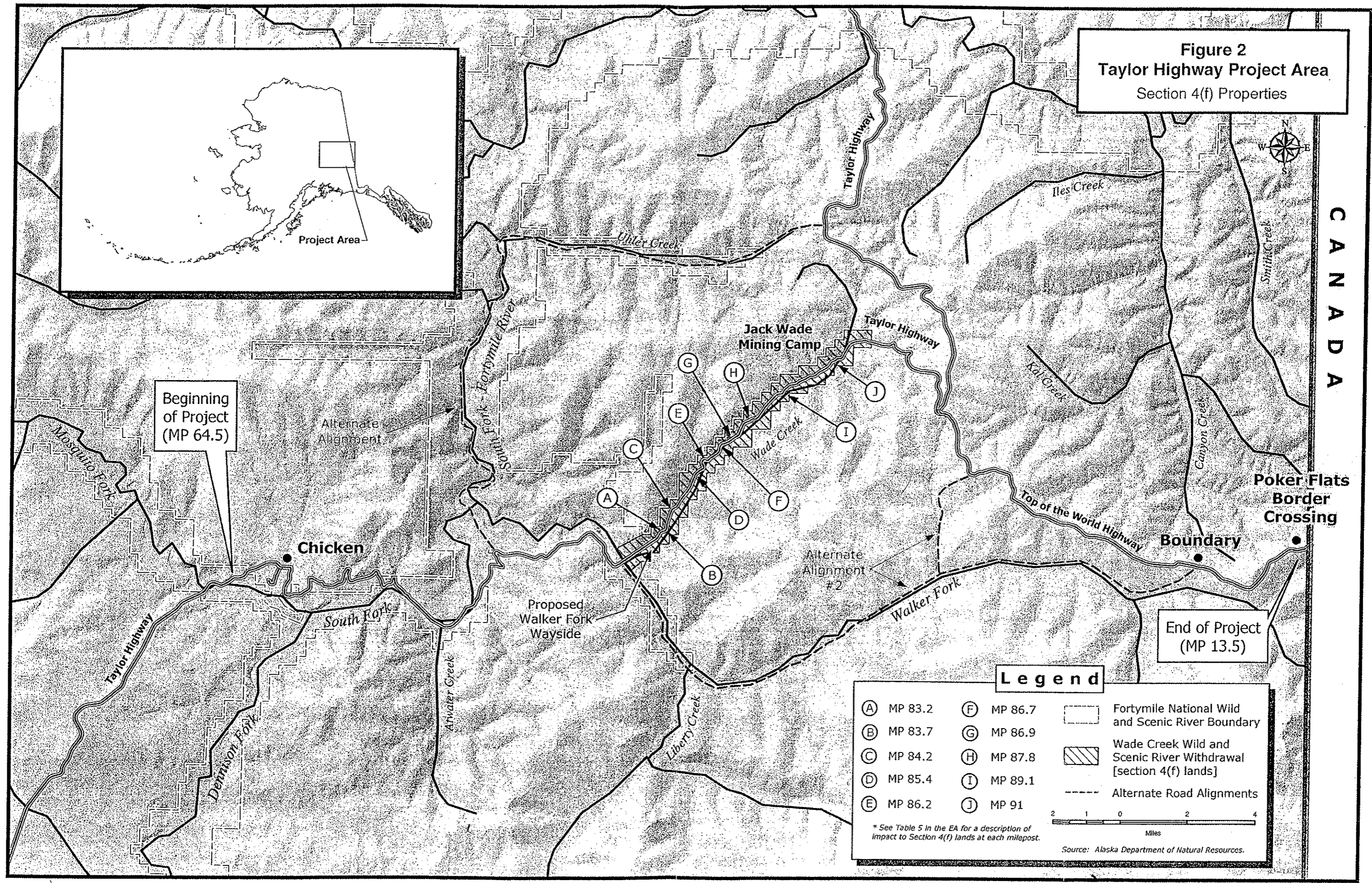
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**Figure 2**  
**Taylor Highway Project Area**  
 Section 4(f) Properties

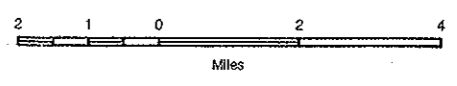


Beginning of Project (MP 64.5)

End of Project (MP 13.5)

**Legend**

(A) MP 83.2	(F) MP 86.7	[Dashed Line] Fortymile National Wild and Scenic River Boundary
(B) MP 83.7	(G) MP 86.9	[Hatched Area] Wade Creek Wild and Scenic River Withdrawal [section 4(f) lands]
(C) MP 84.2	(H) MP 87.8	[Dashed Line] Alternate Road Alignments
(D) MP 85.4	(I) MP 89.1	
(E) MP 86.2	(J) MP 91	



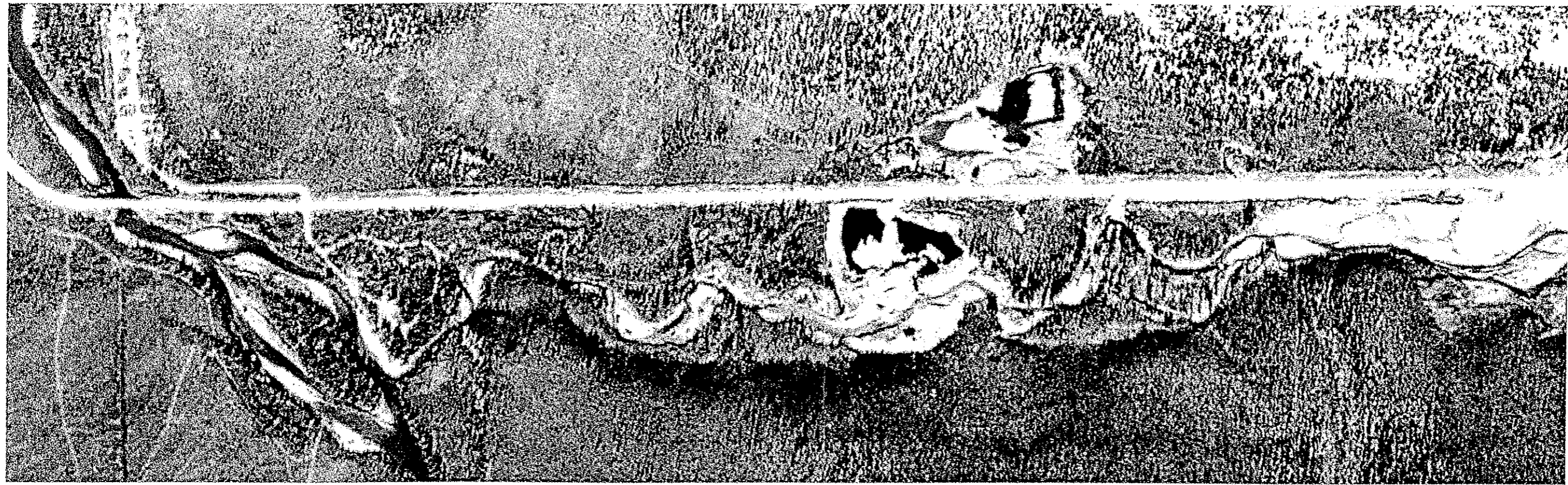
\* See Table 5 in the EA for a description of impact to Section 4(f) lands at each milepost.

Source: Alaska Department of Natural Resources.

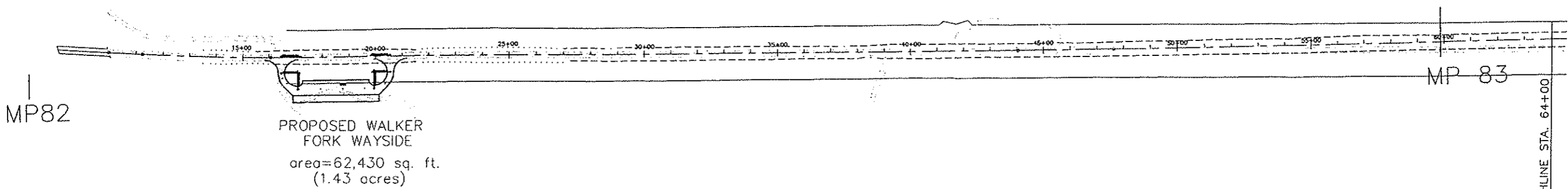
CANADA



TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



SOURCE: BLM, 5-15-94



MP82

PROPOSED WALKER  
FORK WAYSIDE  
area=62,430 sq. ft.  
(1.43 acres)

MP 83

MATCHLINE STA. 64+00

LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- area 7,235 sq.ft. ADDITIONAL R.O.W.
- MP 86 MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: ADOT, JUNE 2003

SECTION 4(f) PROPERTIES  
FIGURE 3

JOB NO:	4444
DATE:	JULY-2003
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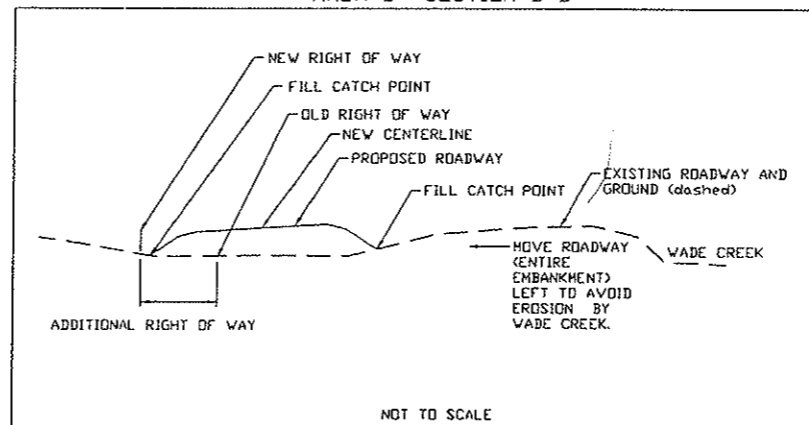


TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



AREA B SECTION B-B'

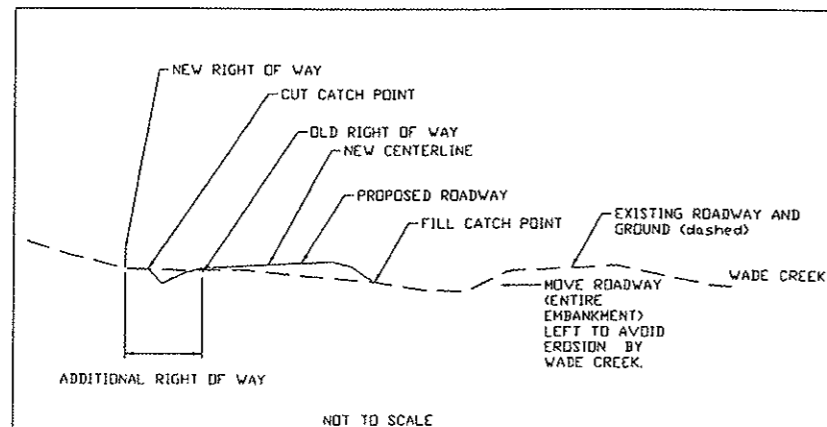
SOURCE: BLM, 5-15-94



A  
area 9,822 sq.ft.  
(0.23 acre)  
CATCH POINT

B  
area 4,602 sq. ft.  
(0.11 acre)  
CATCH POINT

AREA A SECTION A-A'



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- area 7,235 sq.ft. ADDITIONAL R.O.W.
- MP 86 MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: ADOT, JUNE 2003

K:\JOB\110\4444 - Taylor Hwy EA\Acad\ROW FIGURES-KML\200ROW6-10-2003.dwg

SECTION 4(f) PROPERTIES  
FIGURE 4

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DATE: JULY-2003

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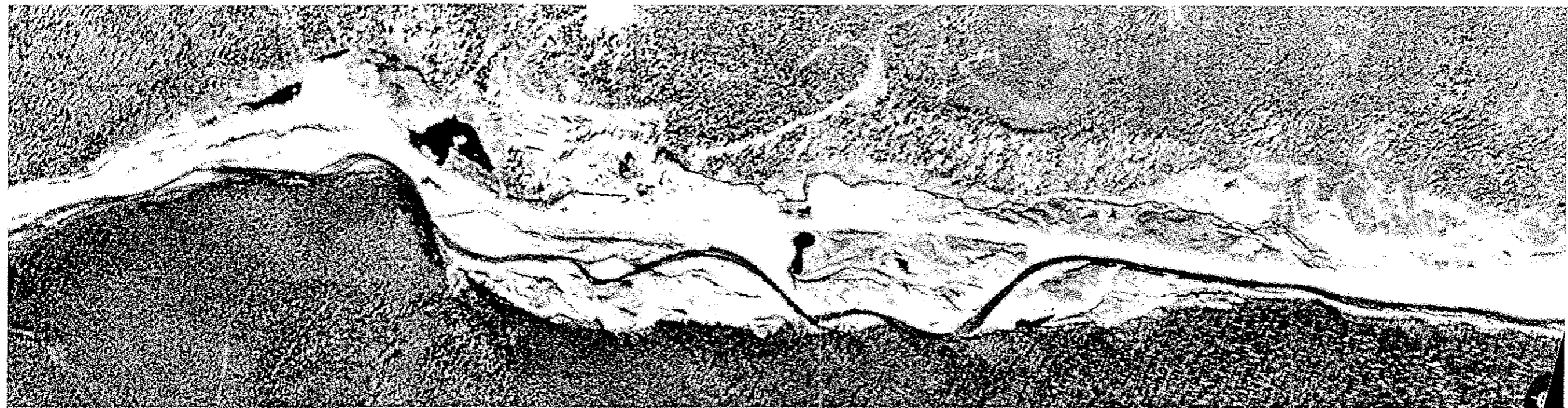
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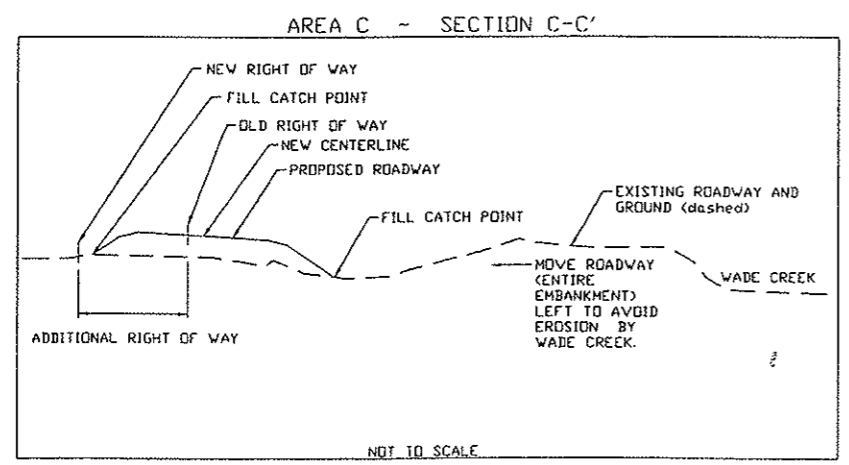
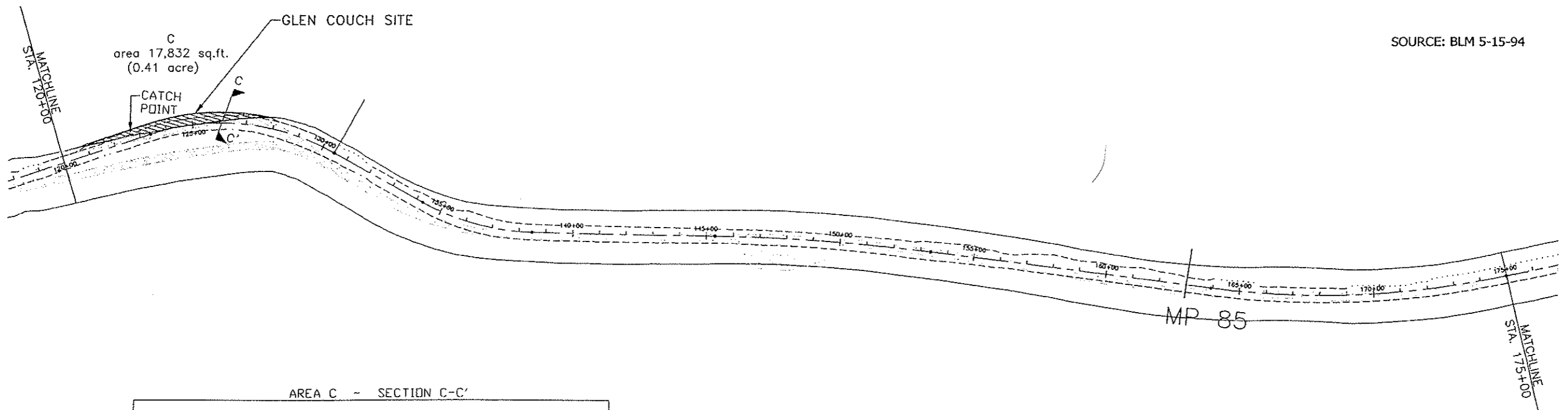
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 5

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DATE: JULY-2003  
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SOURCE: BLM 5-15-94

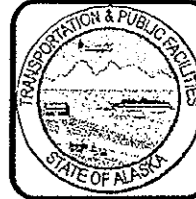


- LEGEND
- 200 R.O.W.
  - MINING CLAIMS
  - CATCH POINTS
  - CENTERLINE STATIONS
  - EXISTING ROAD
  - area 7,235 sq.ft. ADDITIONAL R.O.W.
  - MP 86 MILE POST
  - SECTION CALLOUT FOR BOXED DETAIL



SOURCE: ADOT, JUNE 2003

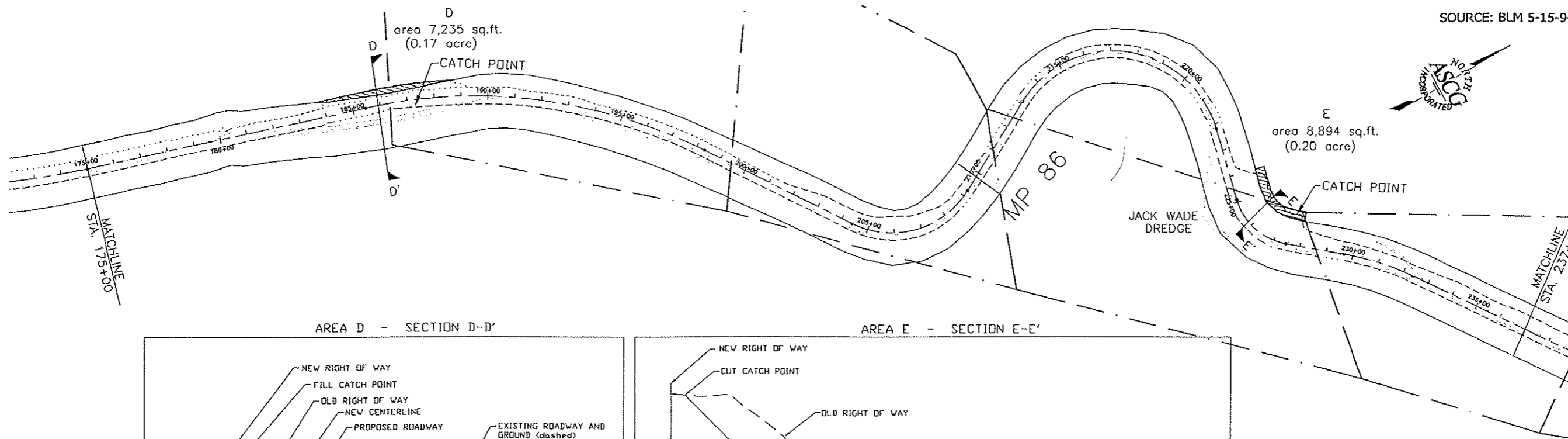
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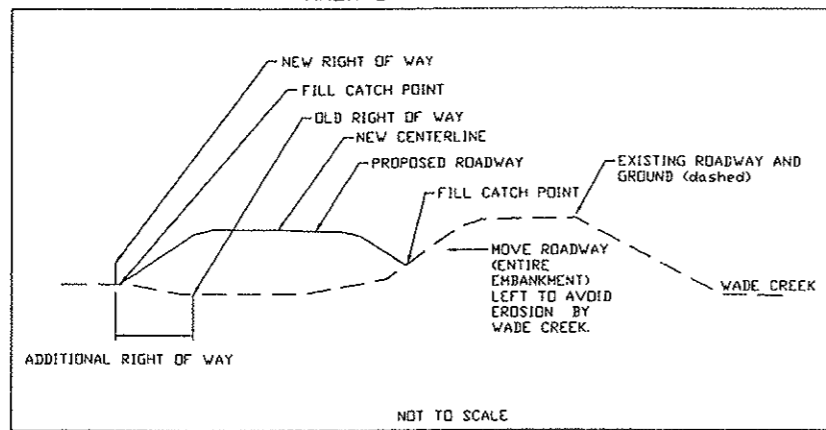
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



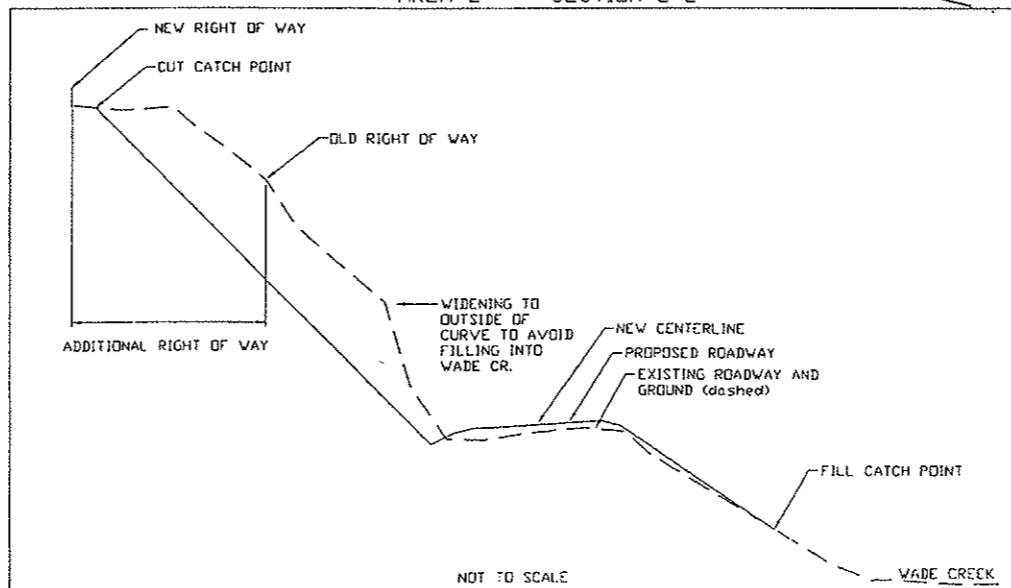
SOURCE: BLM 5-15-94



AREA D - SECTION D-D'



AREA E - SECTION E-E'



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- ADDITIONAL R.O.W.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SOURCE: ADOT, JUNE 2003

SECTION 4(f) PROPERTIES  
FIGURE 6

JOB NO: 4444

DATE: JULY-2003

DRAWN BY: KML

CHECKED BY: BM

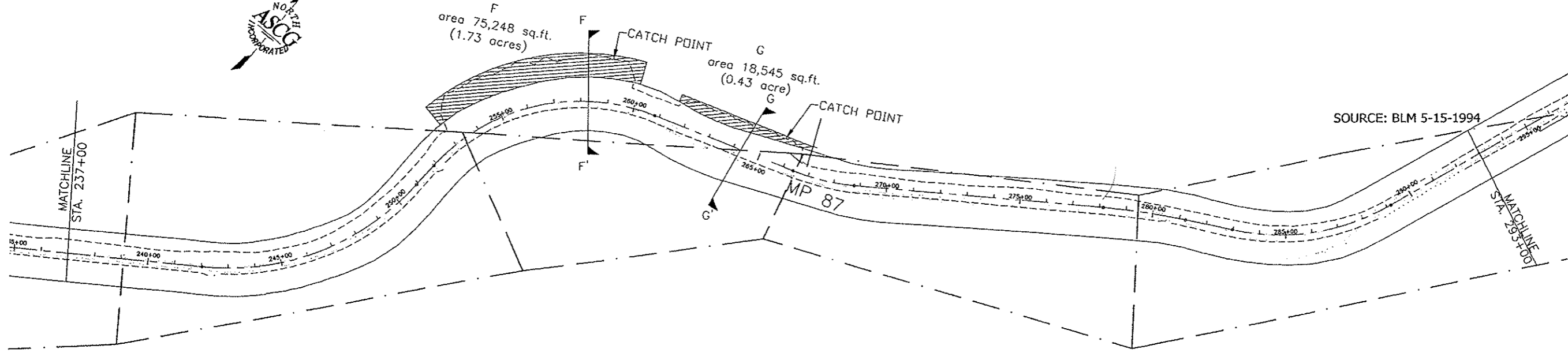




TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

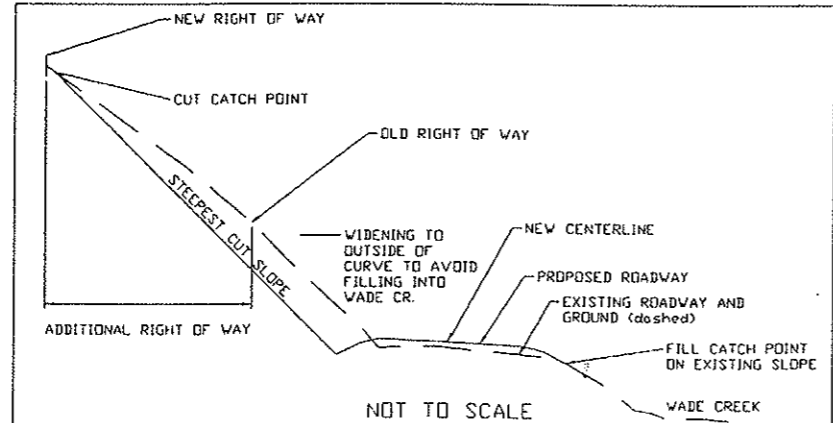


SOURCE: ADOT, JUNE 2003

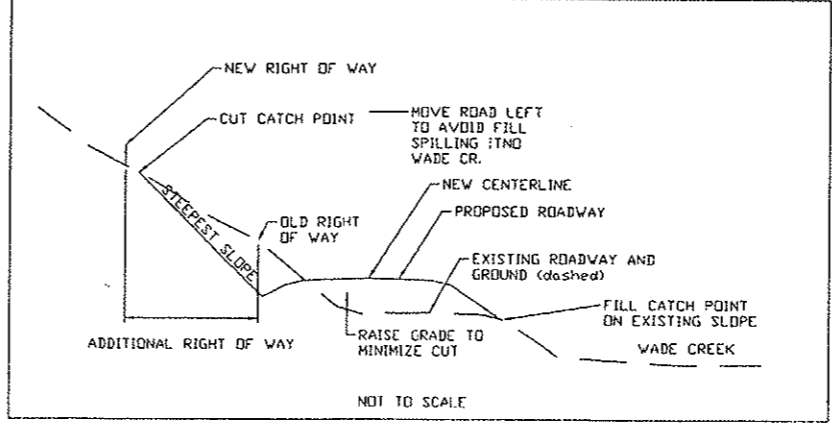


SOURCE: BLM 5-15-1994

AREA F - SECTION F-F'



AREA G - SECTION G-G'



LEGEND

- 200 R.O.W.
- MINING CLAIMS
- CATCH POINTS
- CENTERLINE STATIONS
- EXISTING ROAD
- ADDITIONAL R.O.W.
- MILE POST
- SECTION CALLOUT FOR BOXED DETAIL

SECTION 4(f) PROPERTIES  
FIGURE 7

JOB NO: 4444

DATE: JULY-2003

DRAWN BY: KML

CHECKED BY: BM

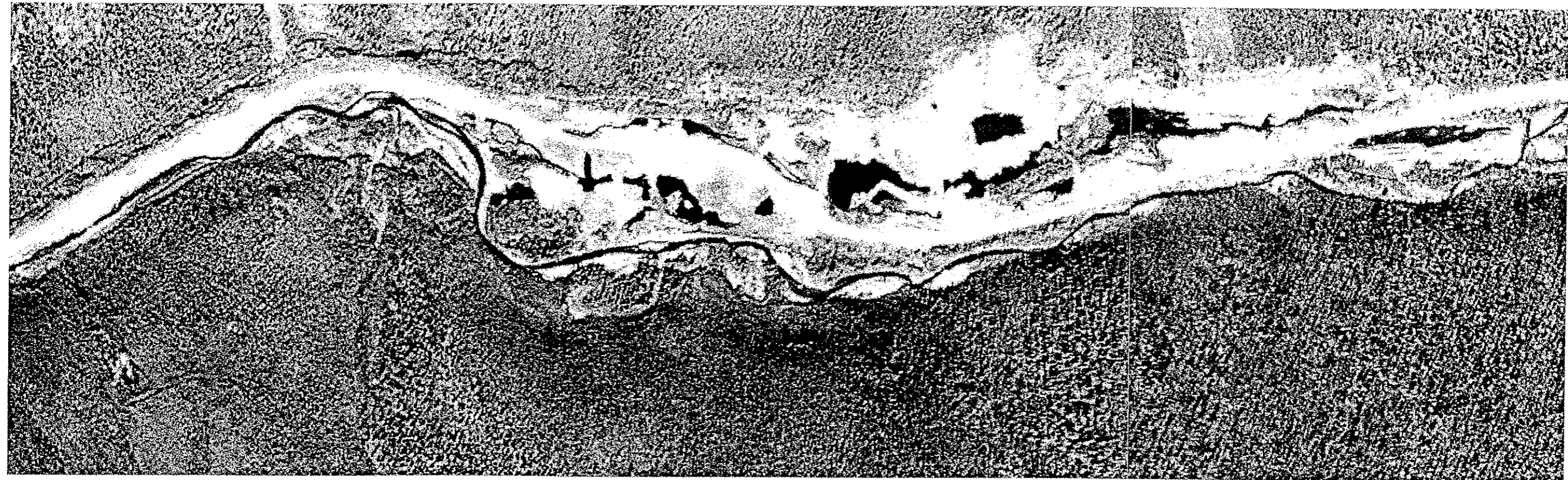




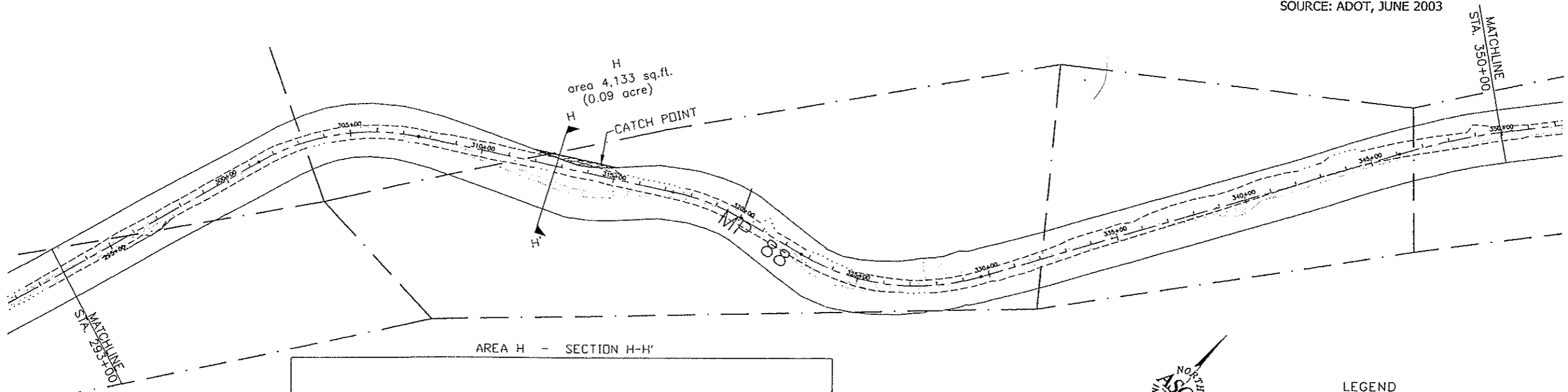
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 8

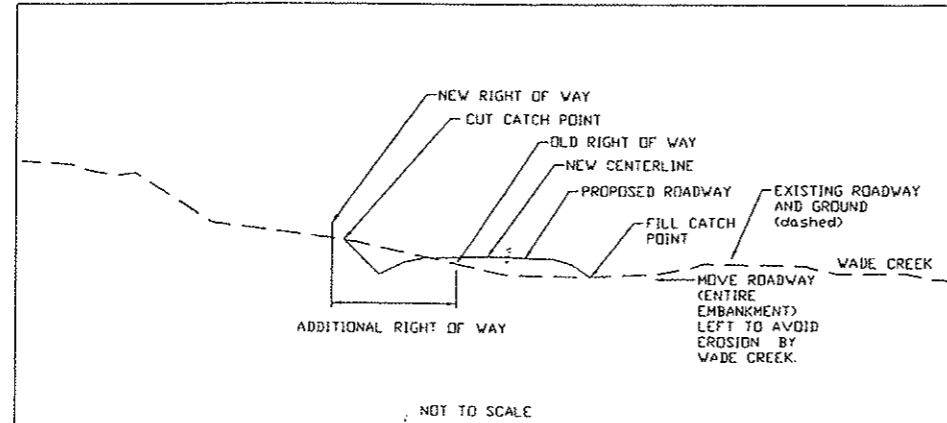
JOB NO: 4444  
DATE: JULY-2003  
DRAWN BY: KML  
CHECKED BY: BM



SOURCE: ADOT, JUNE 2003



AREA H - SECTION H-H'



- LEGEND**
- 200 R.O.W.
  - MINING CLAIMS
  - CATCH POINTS
  - CENTERLINE STATIONS
  - EXISTING ROAD
  - ADDITIONAL R.O.W. area 7,235 sq.ft.
  - MILE POST MP 86
  - SECTION CALLOUT FOR BOXED DETAIL

SOURCE: BLM 5-15-2003



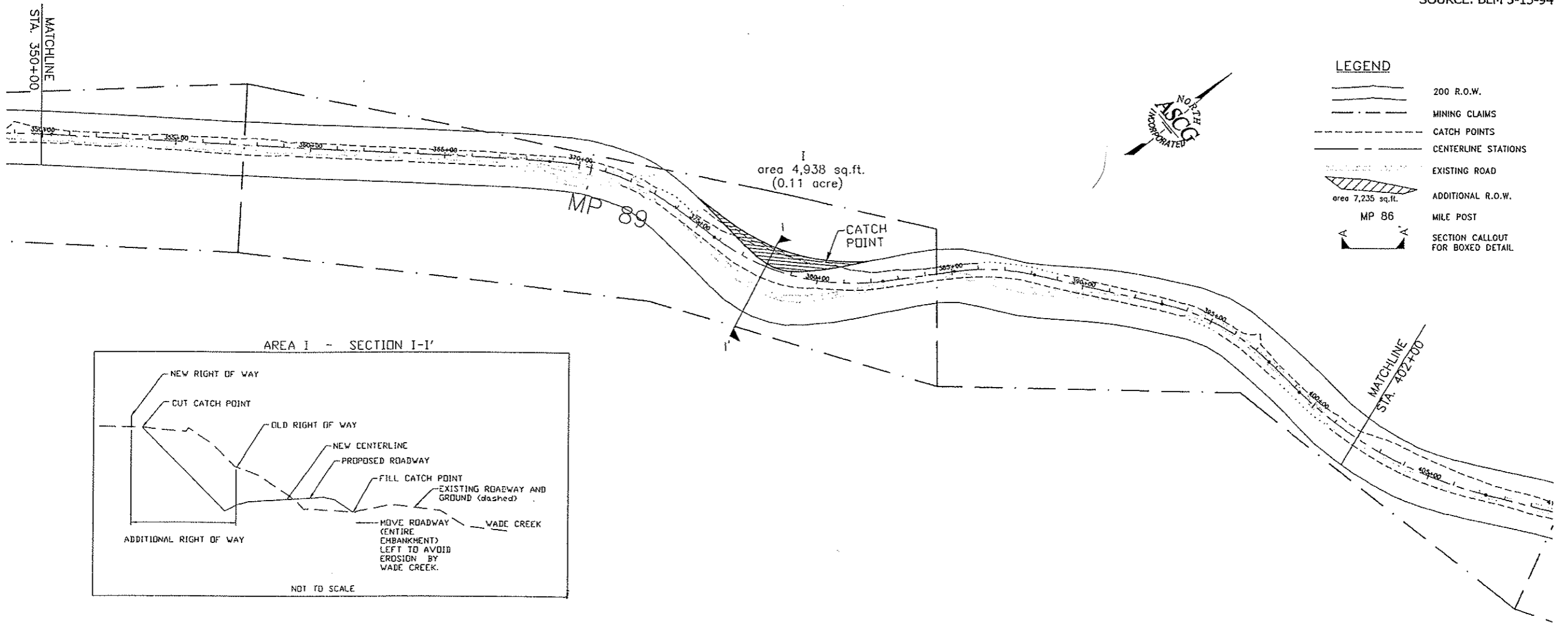
TAYLOR HIGHWAY MP 645  
TO  
CANADA BORDER

SECTION 4(f) PROPERTIES  
FIGURE 9

JOB NO: 4444  
DATE: JULY-2003  
DRAWN BY: KML  
CHECKED BY: BM



SOURCE: BLM 5-15-94

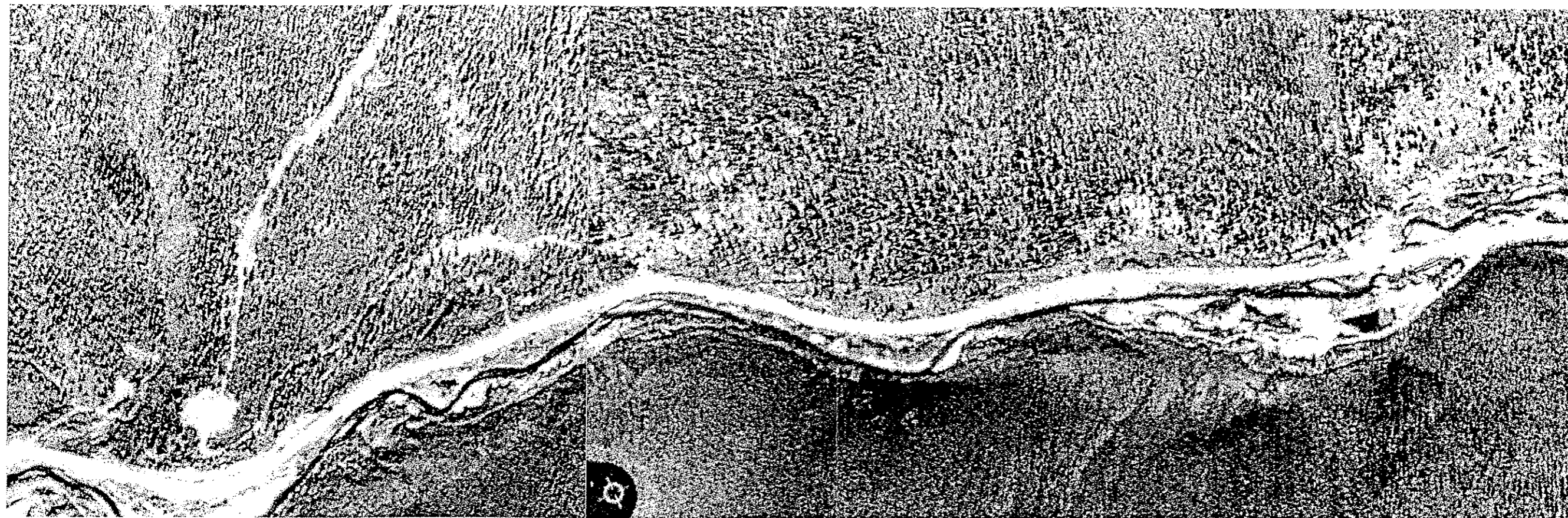


SOURCE: ADOT, JUNE 2003

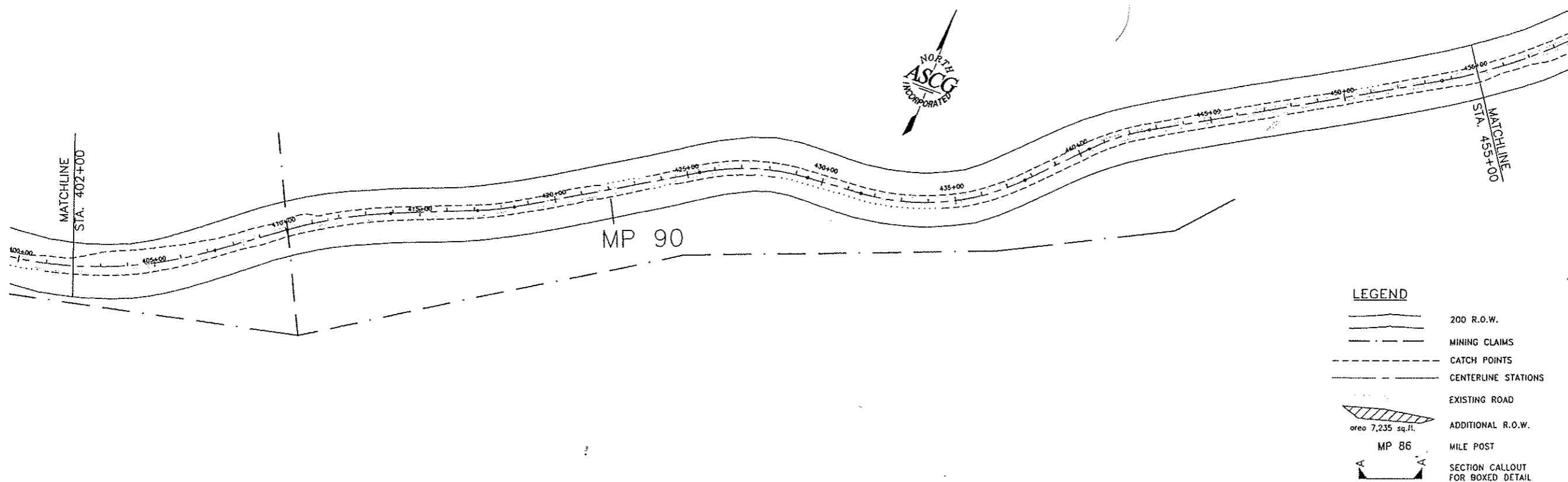




TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



SOURCE: BLM 5-15-94



SOURCE: ADOT, JUNE 2003

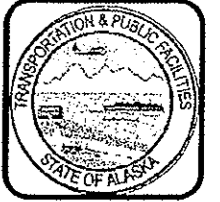
SECTION 4(f) PROPERTIES  
FIGURE 10

JOB NO: 4444

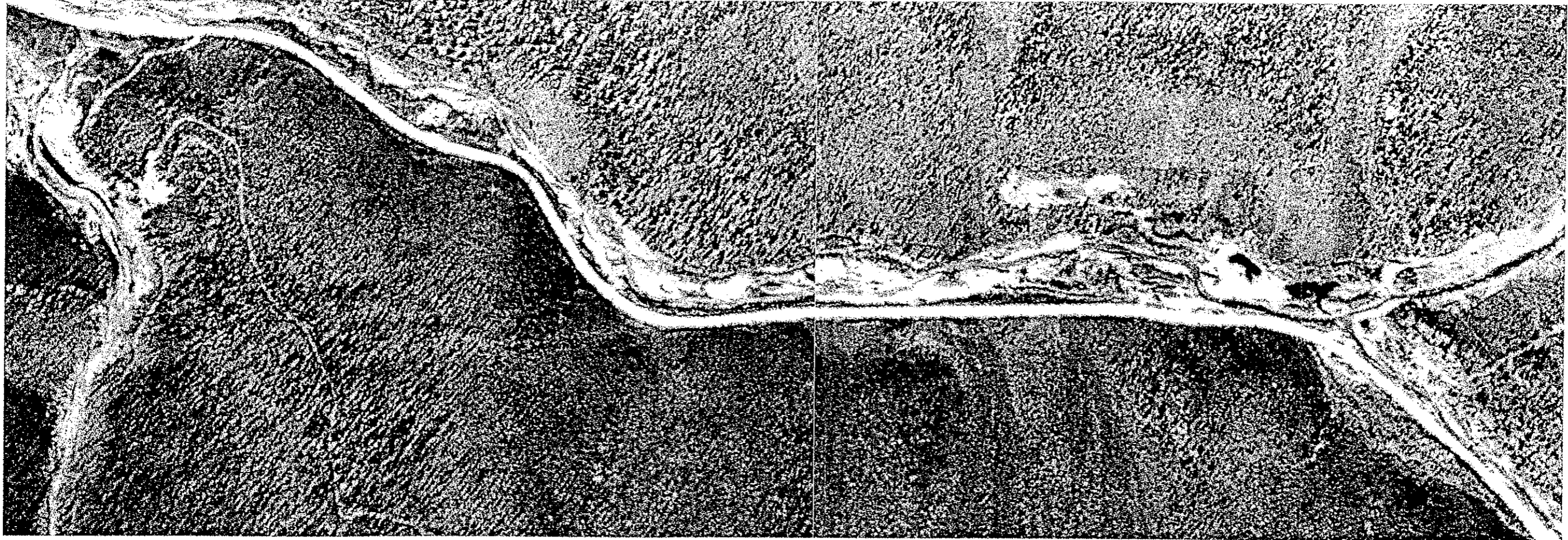
DATE: JULY-2003

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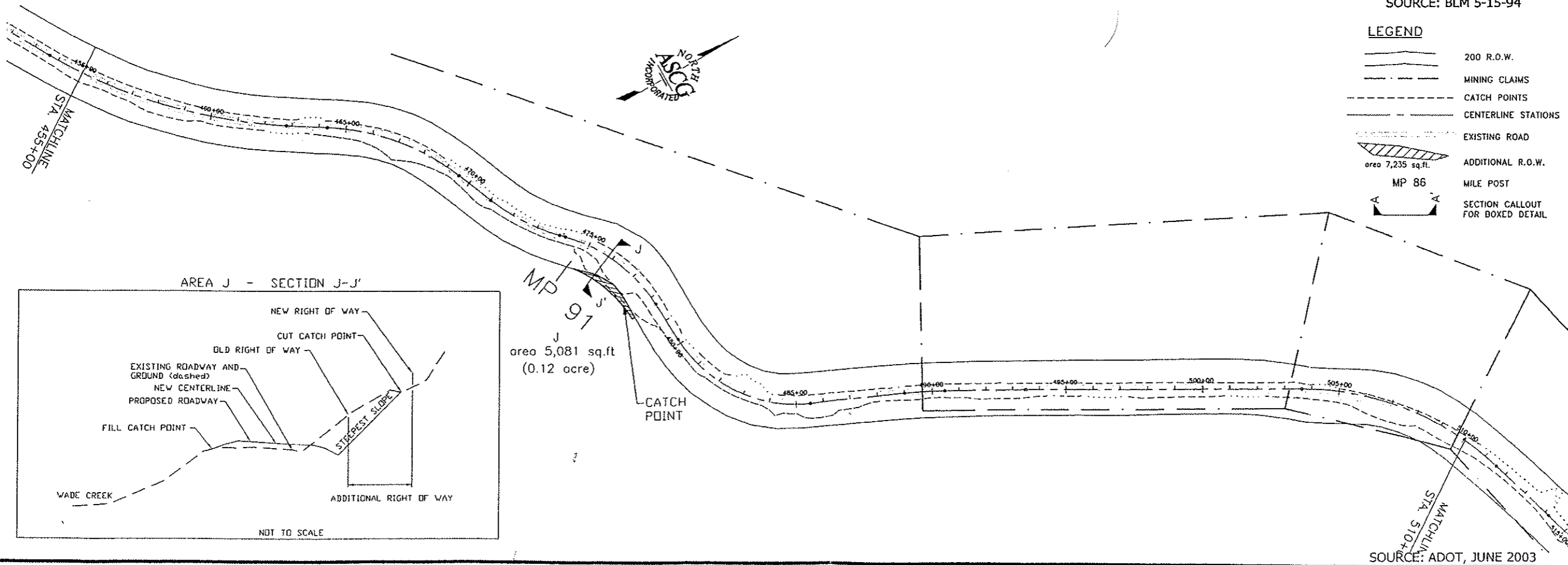
CHECKED BY: BM



TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER



SOURCE: BLM 5-15-94



SECTION 4(f) PROPERTIES  
FIGURE 11

JOB NO: 4444

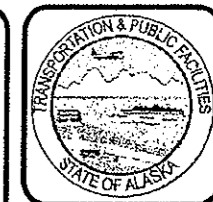
DATE: JULY-2003

DRAWN BY: KML

CHECKED BY: BM



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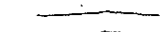
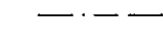
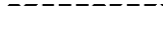

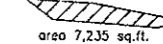
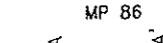


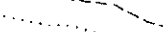


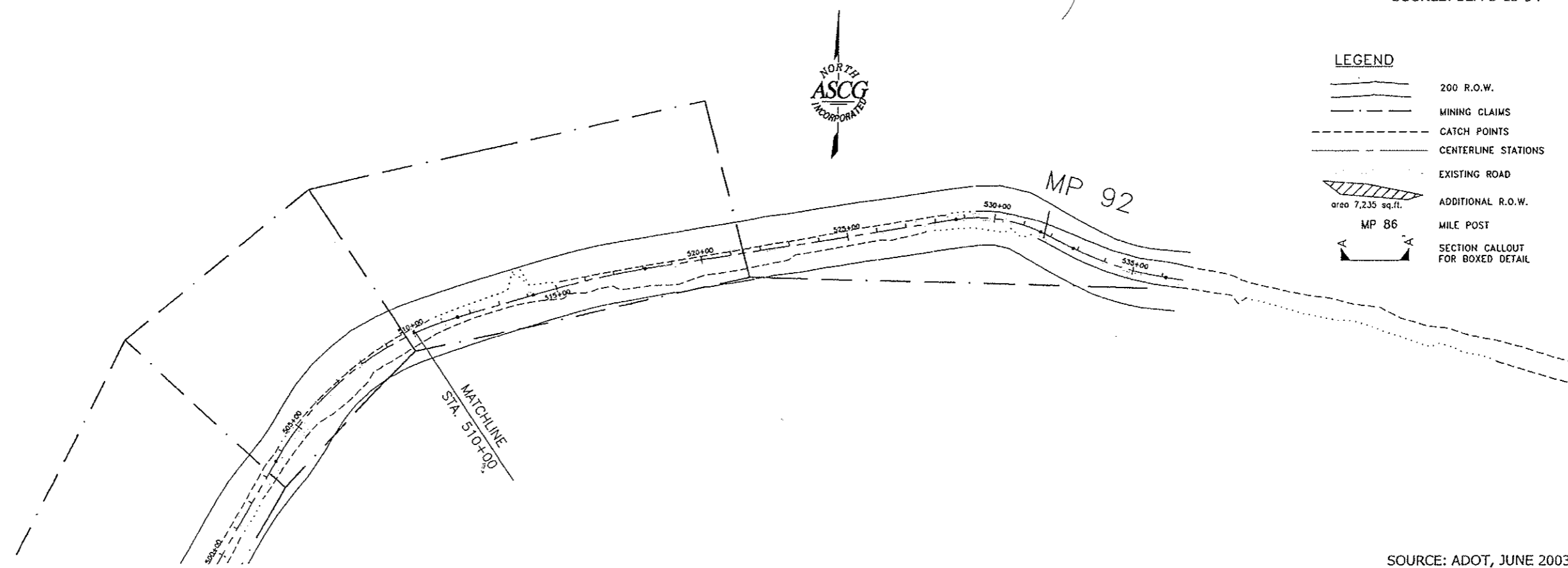
TAYLOR HIGHWAY MP 64.5  
TO  
CANADA BORDER

SOURCE: BLM 5-15-94



**LEGEND**

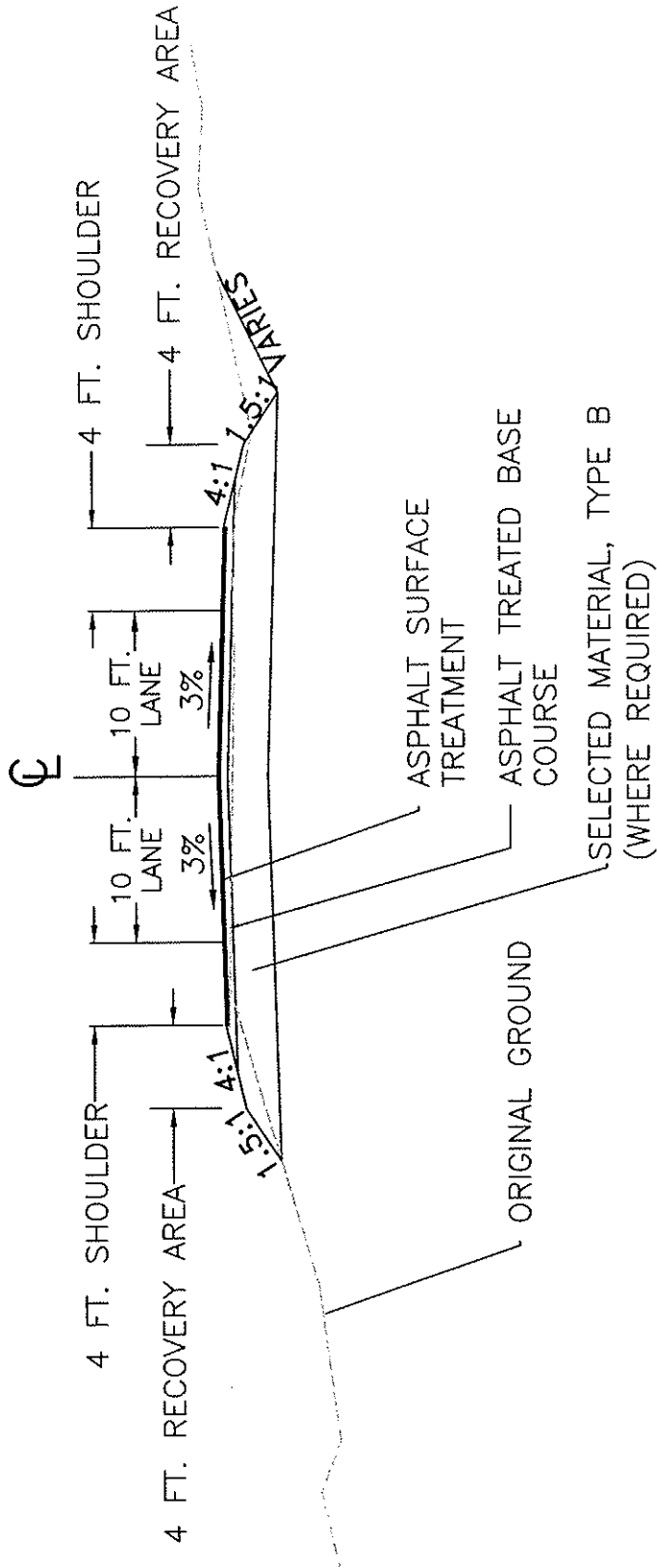
-  200 R.O.W.
-  MINING CLAIMS
-  CATCH POINTS
-  CENTERLINE STATIONS
-  EXISTING ROAD
-  ADDITIONAL R.O.W.  
area 7,235 sq.ft.
-  MP 86
-  MILE POST
-  SECTION CALLOUT FOR BOXED DETAIL



SECTION 4(f) PROPERTIES  
FIGURE 12

SOURCE: ADOT, JUNE 2003

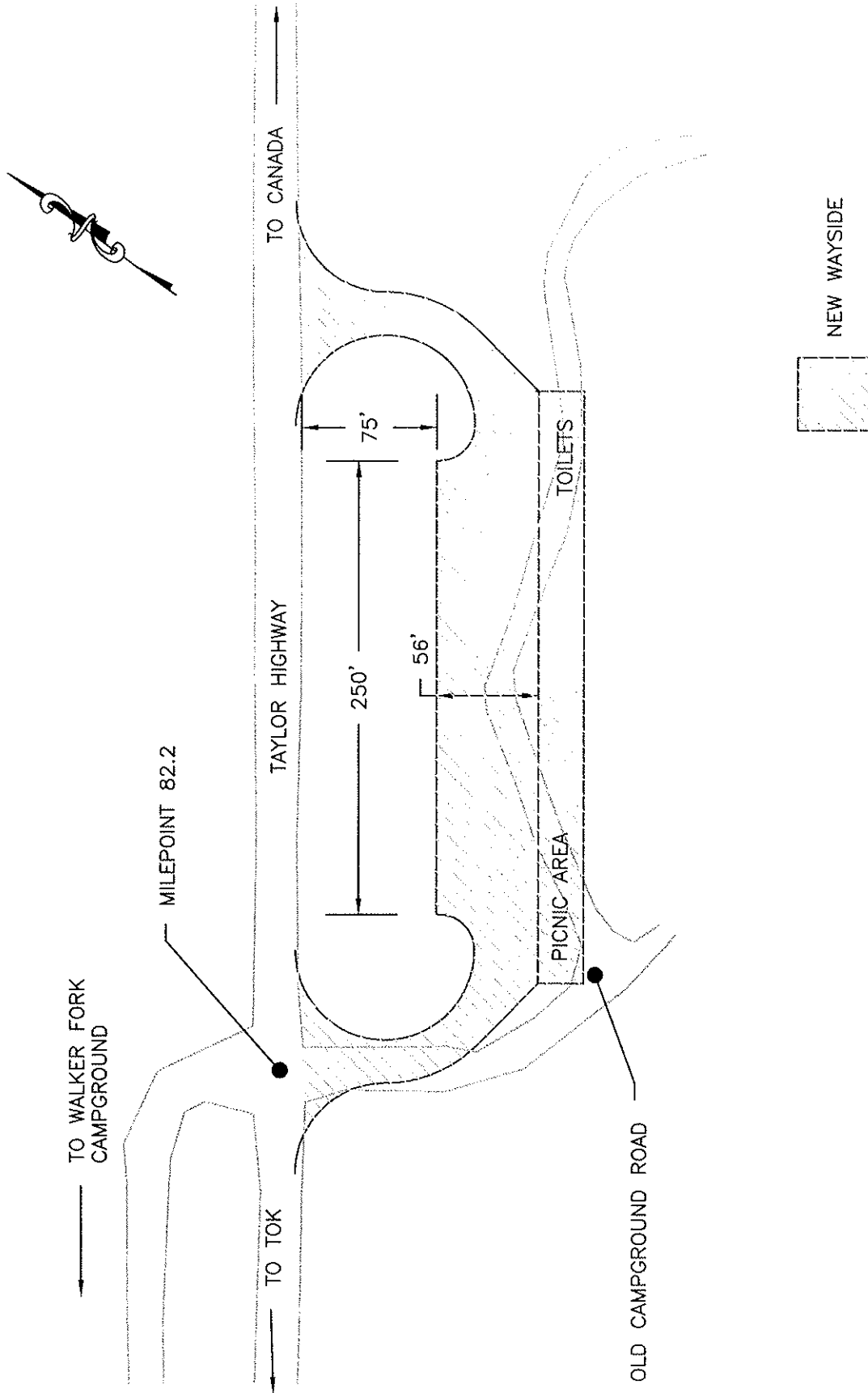
JOB NO:	4444
DATE:	JULY-2003
DRAWN BY:	KML
CHECKED BY:	BM



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

TYPICAL ROAD SECTION  
FIGURE 13

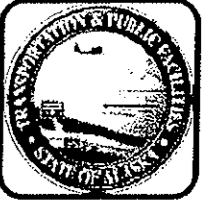
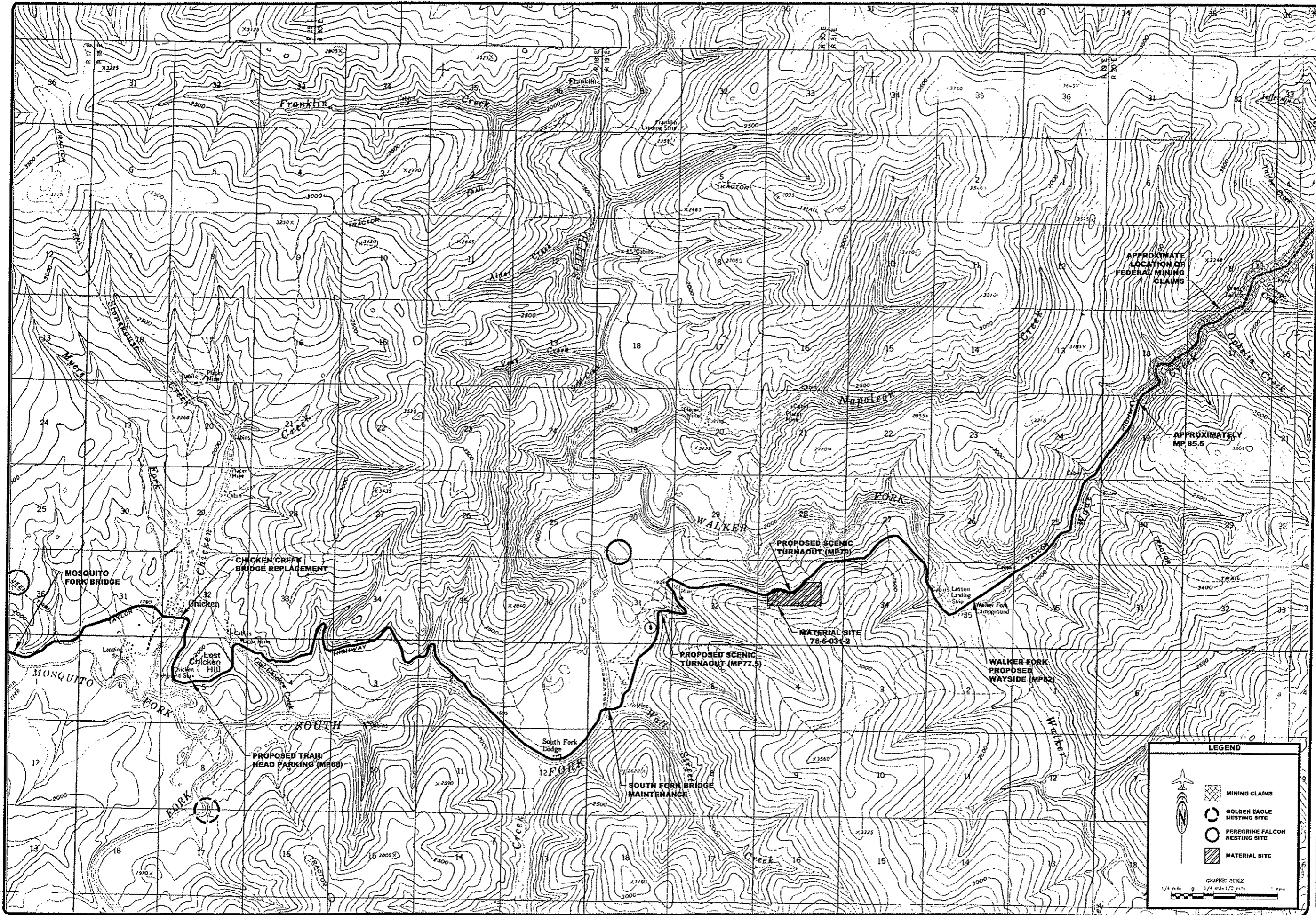
JOB NO:	4444
DATE:	11/12/02
DRAWN BY:	DM
CHECKED BY:	1003



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WALKER FORK WAYSIDE  
PRELIMINARY PLAN VIEW  
FIGURE 14

JOB NO:	4444
DATE:	11/12/02
DRAWN BY:	DM
CHECKED BY:	KRS



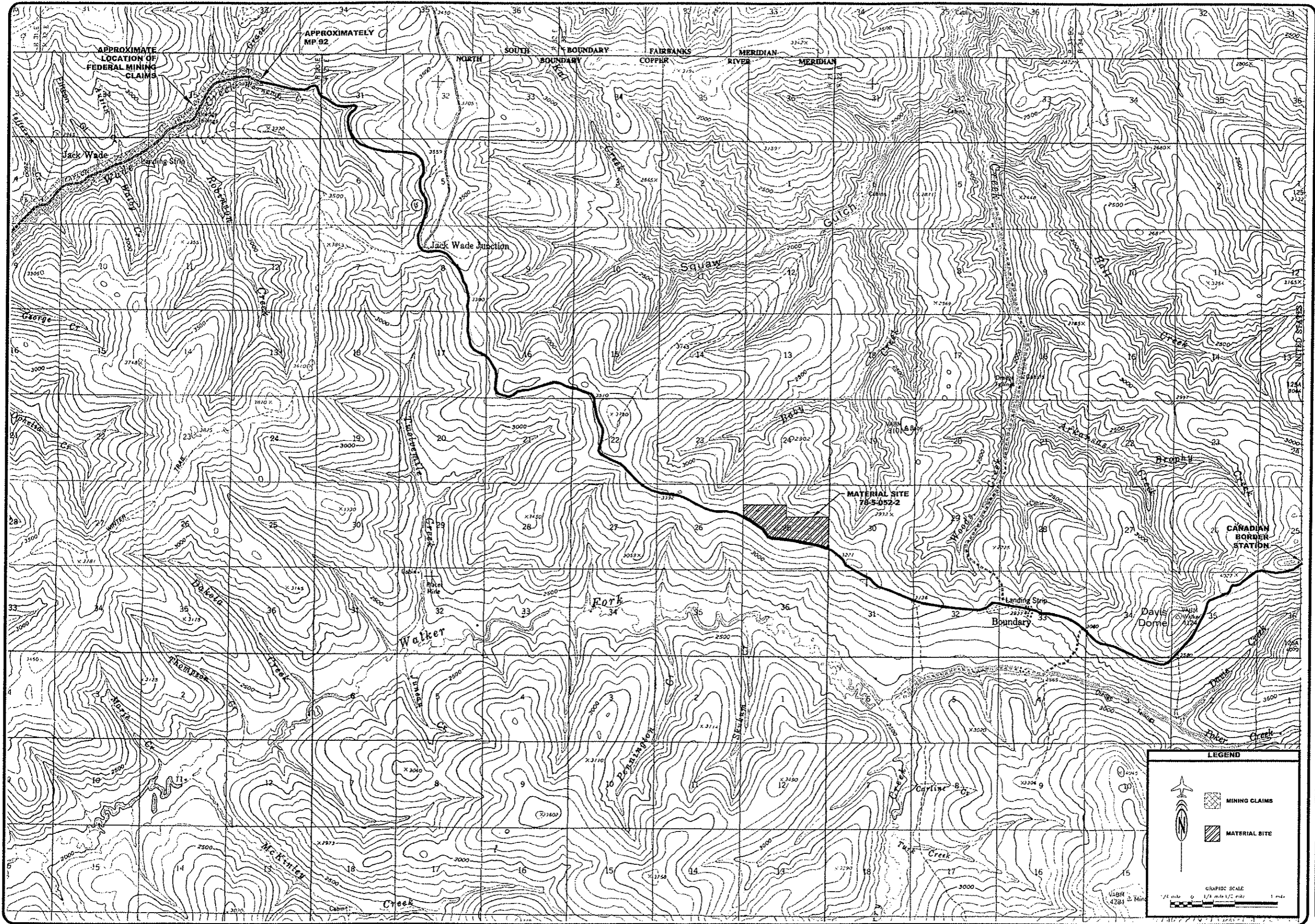
TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

PROJECT DETAIL MAP 1  
FIGURE 15

JOB NO: 444-1  
DATE: 11/12/02  
DRAWN BY: BRM  
CHECKED BY: KRS



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TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

PROJECT DETAIL MAP 2  
FIGURE 16

JOB NO: 4444  
DATE: 11/12/02  
DRAWN BY: DRM  
CHECKED BY: HNS

## **APPENDIX C**

### **WETLANDS, VEGETATION MAPPING AND WILDLIFE ASSESSMENT**

**Wetland Delineation,  
Vegetation Classification, and Wildlife Assessment  
Taylor Highway Project  
Chicken, Alaska to  
Canadian Border**

May 2003

Submitted To:  
ASCG, Inc.  
3900 C Street, Suite 501  
Anchorage, Alaska 99503-5967

By:  
Shannon & Wilson, Inc.  
400 N 34<sup>th</sup> Street, Suite 100  
Seattle, Washington 98103

21-1-12090-001

## EXECUTIVE SUMMARY

Shannon & Wilson, Inc. conducted a wetland delineation, essential fish habitat assessment, and wildlife habitat evaluation for the Taylor Highway MP 64.5 to Canadian Border Environmental Assessment project (referred to herein as the Taylor Highway project). The project area consisted of the right of way along approximately 44 miles of Taylor Highway from Chicken, Alaska, east to the Canadian border.

The project corridor passes through the Mosquito Fork, Chicken Creek, South Fork, Walker Fork, and Wade Creek drainages. Several of the drainages have been mined extensively using placer mining techniques. Impacts of the mining such as braided, unvegetated riparian channels are still clearly evident within Chicken, Lost Chicken, and Wade Creeks.

The dominant plant assemblage throughout the project area is an open, needle leaf forest community. The second most dominant plant community along the alignment, primarily west of Walker Fork, includes an open broadleaf forest. At the higher elevations, from approximately the highway junction near Milepost 95 of the Taylor Highway, to the Canadian border, the area is generally devoid of trees although some areas were dominated by willow (*Salix planifolia*). This higher-elevation area is classified as an open, tall scrub community.

Wetlands were identified and delineated for the project area using methods described in the 1987 Corps of Engineers Wetland Delineation Manual. The field survey and wetland delineation was limited to those areas within the road right of way. Due to the size of the project area, wetland boundaries were not flagged. Approximate wetland boundaries were drawn on maps provided by ASCG, Inc. (ASCG) and included in Appendix B.

The wetlands along the alignment can be distinguished by vegetation type, which is influenced by the areas hydrologic regime, soil type, and past disturbance. In general, two wetland types were observed. Wetland functions and values were assessed using best professional judgment.

The site wetlands provide some habitat for sport fisheries such as arctic grayling. Walker Fork and South Fork and their tributaries provide the riverine drainage system for this site. These systems provide rearing, migration, spawning, and foraging habitat for arctic grayling, sheefish, round whitefish, longnose sucker, and slimy sculpin.

Caribou, moose, Dall sheep, grizzly bear, black bear, and wolf are the big game species present in the Fortymile River watershed. Small game species such as sharp-tailed and spruce ruffed



grouse, willow and rock ptarmigan, and snowshoe hare occupy habitat in the area. Additionally, raptors, waterfowl, shorebirds, and a variety of passerine birds can be found in the surrounding area.

No Essential Fish Habitat is present in this area.

Several state and federal regulations apply to proposed developments in and/or near wetlands and streams. A summary of applicable regulatory implications is provided.

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- B Approximate Wetland Boundaries (Figures 1 through 26)
- C Wetland Field Data Sheets
- D Important Information About Your Wetland Delineation/Mitigation and/or Stream Classification Report

**WETLAND DELINEATION, VEGETATION CLASSIFICATION, AND  
WILDLIFE ASSESSMENT  
TAYLOR HIGHWAY PROJECT  
CHICKEN, ALASKA TO CANADIAN BORDER**

**1.0 INTRODUCTION**

Shannon & Wilson, Inc. was retained by ASCG, Inc. (ASCG) to conduct a wetland delineation, vegetation classification, and wildlife assessment for the Taylor Highway Environmental Assessment project (referred to herein as the Taylor Highway project). The project area includes approximately 44 miles of right of way along Taylor Highway and Top of the World Highway.

We understand that this report will be submitted to Alaska Department of Transportation (ADOT) as part of an Environmental Assessment for the proposed reconstruction of the highways in the project area. The work was authorized by Ms. Kimberly Stricklan of ASCG on September 2, 2002, and was performed in accordance with our proposal dated August 1, 2002.

**1.1 Scope of Services**

The scope of services for this project was limited to the following tasks:

- ▶ Review the Alaska Department of Fish and Game (ADFG) Anadromous Fish Stream Atlas and National Marine Fisheries Service (NMFS) Essential Fish Habitat maps to determine if the proposed action affects any cataloged anadromous fish streams or Essential Fish Habitat.
- ▶ Review information from the United States Fish & Wildlife Service (USFWS) to determine whether any bald eagle nesting trees have been identified within the project area and, if so, map their locations.
- ▶ Develop a threatened and endangered species list specific to the project area from ADFG, USFWS, and NMFS information.
- ▶ Identify and delineate wetlands found in the Taylor Highway right of way (typically 200 feet wide) that meet the triple-parameter jurisdictional definition as established by the U.S. Army Corps of Engineer's 1987 Wetlands Delineation Manual. Wetland delineation was limited to a field reconnaissance and sketching wetland boundaries onto right of way maps. Wetland boundaries were not flagged.



- ▶ Prepare a wetland delineation report describing the methods and results of our fieldwork and a set of hand drawn maps identifying wetland boundaries and the general plant communities of the project area.

## 1.2 Site Location and Description

The project area is located in the Fortymile drainage, which principally lies within the Eagle quadrangle (USGS 1:250,000). Specifically, the project area includes right of way along the Taylor Highway from just west of Chicken, Alaska, where the Mosquito Fork Bridge crosses the highway; to the Jack Wade Junction, then along the Top of the World Highway southeast through Boundary to the US/Canadian border (Figure A). The corridor is located in portions of Townships 26 and 27 North and Ranges 18, 19, 20, 21, and 22 East of the Copper River Meridian. The project corridor is approximately 44 miles in length, passing through the Mosquito Fork, Chicken Creek, South Fork, Walker Fork, and Wade Creek drainages.

Several of the drainages have been mined extensively using placer mining techniques. Mining impacts such as braided, unvegetated riparian channels are still clearly evident within Chicken, Lost Chicken, and Wade Creeks.

## 2.0 VEGETATION TYPES

The *Alaska Vegetation Classification System* (Viereck et al. 1992) was used to classify vegetation types along the corridor. It consists of a hierarchical classification containing units at five levels of resolution. This five-level classification system is specifically designed to describe vegetation associations from a general level (Level I including forest, scrub and herbaceous) to a detailed description (Level V, describing the scientific names of the specific species within the association). Vegetation is described below given by common name, with the scientific name in parentheses.

The dominant plant assemblage throughout the project area is considered an open needleleaf forest community. These areas are dominated by black spruce (*Picea mariana*), alpine blueberry (*Vaccinium uliginosum*), crowberry (*Empetrum nigrum*), Labrador tea (*Ledum palustre*), (*Ledum groenlandicum*), bearberry (*Arctostaphylos rubra*), and mosses and lichens.

The second most dominant plant community along the alignment, primarily west of Walker Fork, is an open broadleaf forest. This community occupied drier slopes and disturbed areas.

Birch (*Betula papyrifera*), aspen (*Populus tremuloides*) and alder (*Alnus crispa*) are the dominant tree species, with an understory similar to the needle-leaf forest community.

At the higher elevations, from approximately the Jack Wade junction to the Canadian border, the area is generally devoid of trees, although some areas were dominated by willow (*Salix planifolia*). This higher elevation area is classified as an open, tall scrub community. This area appeared drier than other parts of the project area, which also influenced the plant community distribution. The understory was dominated by crowberry, alpine blueberry, dwarf birch (*Betula nana*), and mosses. Soils in these areas were typically mineral with little organic matter buildup on the soil surface.

Some emergent plant communities were observed within the riparian areas along the streams and in the flood plains. They are classified as mesic, sedge-willow tundra (Level IV) or mesic graminoid herbaceous (Level III). These areas were dominated by various sedges (*Carex spp.*) and willow (*S. planifolia*). Some of these areas would also be considered successional as a result of the past disturbance from mining.

### 3.0 WETLAND DELINEATION METHODS

Shannon & Wilson, Inc. personnel, with assistance from ASCG, conducted the wetland delineation fieldwork from September 10 to 13, 2002, using methods described in the 1987 Army Corps of Engineers Wetland Delineation Manual. The field survey and wetland delineation was limited to those areas within the road right of way. Width of the right of way varied, but was typically approximately 200 feet wide. We field surveyed the project area to identify plant community types and determined wetland presence by conducting a routine method delineation using the triple-parameter approach. The triple-parameter approach considers vegetation types, soil conditions, and hydrologic conditions to determine wetland areas. For an area to be considered wetland it must display each of the following: (1) dominant plant species that are considered hydrophytic by the accepted classification indicators, (2) soils that are considered hydric under federal definition, and (3) indications of wetland hydrology, in accordance with federal definition. Please see Appendix A for more information and categorization of hydrophytic vegetation, hydric soils, and wetland hydrology.

We selected data points within identified plant community types to help describe the general conditions of the project area. Information on vegetation, soils, and hydrology was collected at each data point. We recorded data from upland and wetland plots.

Due to the large size of the project area, wetland boundaries were not flagged. Approximate wetland boundaries were drawn on maps provided by ASCG, Inc. (see Appendix B for the approximate wetland locations). Wetland functions and values were assessed using best professional judgment.

#### 4.0 DOCUMENT REVIEW

We reviewed the following documents for this project:

- ▶ Alaska Atlas and Gazetteer, DeLorme 2000.
- ▶ Aerial photographs of the site vicinity, provided by Alaska Department of Transportation including:
  - Black and White, 1:1,000, Date: 1970, Source: Aeromap U.S.
  - Boundary, 1:2,000, Date: 1983, Source: Aeromap U.S.
  - Wade Creek, 1:12,000, Date: 1994, Source: Alaska Bureau of Land Management (BLM)
  - Walker Fork, Chicken Field, 40 Mile South Fork 1:3,000, Date: 1994, Source: BLM
  - Infrared aeriels, 1:60,000, Date: 1978, Source: NASA
- ▶ Alaska Department of Fish and Game Habitat Maps
- ▶ Alaska Department of Transportation highway alignment maps for the site

#### 5.0 RESULTS

We identified and delineated wetlands interspersed throughout the project area. Approximate wetland boundaries are shown on Figures 1 through 26 in Appendix B.

The wetland boundaries were primarily established based on vegetation, hydrology, and hydric soil indicators. We recorded data from 14 data points (8 wetland plots and 6 upland plots), and we also dug and examined several other soil pits to aid in establishing the wetland boundaries. Appendix A includes vegetation indicator status definitions and Munsell Color Chart information. Data sheets are included in Appendix C.

A summary of the site wetlands and uplands follows. Data sheets 2, 3, 4, 5, 7, 9, 10, and 11 contain descriptions of the vegetation, soils, and hydrology typical of those observed in the site wetlands. Vegetation is described below by common name, with the scientific name and wetland indicator status in parentheses. Soils are described with the associated Munsell Color Chart color in parentheses.

## 5.1 Project Area Wetlands

Most of the undisturbed areas along the alignment beyond the road fill meet the federal definition of wetland with the primary exception of the area along the Top of the World Highway. In general, we observed wetland along both sides of the alignment from the Jack Wade Junction west to the South Fork Bridge. From the South Fork Bridge to the Mosquito Fork Bridge, wetlands were less continuous but still occupied the bulk of the alignment. The wetlands along the alignment can be distinguished by vegetation type, which is influenced by the areas hydrologic regime, soil type, and past disturbance. In general, two wetland types were observed as described below.

Most of the alignment (as documented in data points DP 3, 4, 5, 9, & 11) is dominated by black spruce (*Picea mariana* FACW), low ericaceous shrubs (*Vaccinium oxycoccus* OBL, *Vaccinium uliginosum* FAC, *Ledum groenlandicum* FACW, *Ledum decumbens* FACW) moss (*Sphagnum* spp.) and lichen wetlands. Wetland soils were predominantly organic in the upper layer (10YR 2/1) with 6 to 15 inches of peat or muck, underlain generally by silt loam soils (10YR 3/1 and 10YR 3/2). These soils are classified as histic epipedons. Typically these areas were saturated to the soil surface. In one soil pit (DP 11) excavated west of the Walker Fork, permafrost was encountered at 11 inches.

The low-lying riparian wetlands (DP 2 & 7) were dominated by willows (*Salix planifolia* FACW, and *Salix* spp.), horsetail (*Equisetum* spp.), sedges (*Carex* spp.), mosses, and some grasses. These areas had mineral soils ranging from a 10YR 3/2 sandy loam with 7.5YR 5/6 mottles to 2.5Y 3/2 gravelly sandy loam.

Other wetland types observed included small patches of sedge meadows and a buttercup-dominated area. Neither of these wetland types occupied a significant amount of area. The sedge meadow wetlands were primarily found interspersed along the Wade Creek as well as between Chicken and the Mosquito Fork Bridge. The buttercup-dominated wetland area was adjacent to the Jack Wade Dredge (DP 10). This area had a unique plant assemblage dominated



by buttercup (*Ranunculus gmelini* FACW), bluejoint (*Calamagrostis spp.*) sedges (*Carex aquatilis* OBL, and *Carex diandra* OBL), black spruce (*Picea mariana* FACW) and mosses. The soils in this area consisted of 6 inches of peat over a 10YR 3/1 highly organic silt loam. This area was bounded by the road on one side and a short rock bluff on the other, forming a small wetland less than ¼ acre in size.

## 5.2 Wetland Functions and Values

Wetland functions and values were assessed using best professional judgment. Assessment was limited to the functions of site wetlands within the right of way. Functions and values assessed included active/passive recreation, endangered species, uniqueness/rareness of wetland, wildlife habitat, fisheries habitat, food chain support, nutrient retention/removal, sediment retention and trapping, flood storage and reduction of peak flows, groundwater modification, and shoreline stabilization. Functions and values were rated as high, medium, or low (high indicated that the wetland is performing a function well or is highly valued for a particular characteristic, and a low indicating that the wetland is limited in its ability to perform a particular function or is considered low quality for the characteristic). Because wetlands occupy most of the alignment continuously and have similar characteristics, we rated the system as one except where severe disturbance warranted an alternate rating.

### 5.2.1 Active/Passive Recreation

Taylor and Top of the World Highways provide the primary access for recreational opportunities in the area. The undeveloped wetlands beyond the road right of way provide abundant wildlife habitat for a diverse number of species that are attractive to hunters and recreators. However, the quality of the wetlands directly adjacent to the road may be impacted by their proximity to the road. The project area wetlands all rated medium for this function.

### 5.2.2 Endangered Species

A formal consultation with the NMFS and the USFWS was not conducted, nor was it part of the scope of work for this project. However, based on telephone conversations with USFWS and NMFS, it is unlikely that this area provides habitat for any currently listed threatened or endangered species. Therefore, the site wetlands are presumed to be low for this function (for additional wildlife and fisheries information, see Section 6.0).

### 5.2.3 Uniqueness/Rareness of Wetlands

The wetland communities identified in the project area are common throughout the region, and additional loss resulting from this project would not result in significant adverse environmental effects on adjacent wetlands. The site wetlands rated low due to disturbance from past mining activities and the proximity of the road.

### 5.2.4 Wildlife Habitat

Site wetlands rated moderate for wildlife habitat because the road impacts the quality of the wetlands and increasing numbers of tourists predicted from the road upgrade will increase the disturbance to wildlife, especially during periods of migration, nesting, and calving. ADFG stated, however, that the road is not a migration barrier for migratory species. The surrounding wetlands beyond the right of way provide excellent, more pristine habitat that likely would be preferred by many species.

### 5.2.5 Fisheries Habitat

The site wetlands provide some habitat for sport fisheries such as arctic grayling. Walker Fork and South Fork and their tributaries provide the riverine drainage system for this site (see Section 6.0 for more information). These systems provide rearing, migration, spawning and foraging habitat for arctic grayling, sheefish, round whitefish, longnose sucker, and slimy sculpin. However, Wade Creek, Lost Chicken Creek, and Chicken Creek have been mined in areas directly adjacent to or within the road right of way, which significantly degraded the fish habitat. Additionally, ADFG has stated that some sports fishery populations are reduced, likely due to over harvesting. The site wetland and streams rate moderate to high for fisheries habitat with the exception of Wade and Chicken Creeks, which rate low because of disturbance from mining activities.

### 5.2.6 Food Chain Support

The wetlands provide some opportunity for grazing and foraging. Also, detritus and nutrients are exported to riverine and marine systems through regular flushing of site streams. In fact, many of the rivers have a brownish orange tint resulting from organic tannins. The site wetlands rated moderate to high for this function.

### **5.2.7 Nutrient Retention/Removal**

Vegetation cover is relatively dense over most of the alignment, with the exception of localized gravel mining areas and the stream corridors that have been disturbed by the placer mining. In addition, soils consisted predominantly of peat except in the riparian corridor areas. The site wetlands rated low for this function in areas where mining has occurred, and moderate in all other areas.

### **5.2.8 Sediment Retention and Trapping**

Most surface water passes through the site in channelized stream corridors; however, dense emergent vegetation traps some sediment in all the undisturbed areas. For the sediment retention and trapping function, the site scored moderate in areas not associated with mining and low in areas that have been mined.

### **5.2.9 Flood Storage and Reduction of Peak Flows**

During our site visit, we observed the creeks flowing at or above their capacity as a result of heavy rains. In areas that had been mined or otherwise disturbed, reduction in flood storage capacity and peak flows was evident. Several culverts under the road could not accommodate flows, and road embankment erosion had resulted. In undisturbed areas, the wetland soils consisted predominantly of a blanket of peat, which can store large amounts of surface water. In addition, these areas were heavily vegetated and did not appear to exceed flood storage capacity. Based on these site characteristics, the undisturbed site wetlands rated high for this function, whereas wetlands in the lowlands that had been disturbed rated low.

### **5.2.10 Groundwater Modification**

The project area wetlands are part of a large freshwater system. However, the wetlands in this area are typically underlain by till and therefore have little opportunity for groundwater recharge. The site wetlands rated moderate for groundwater modification.

### **5.2.11 Shoreline Stabilization**

The project area wetlands are subject to some erosion due to surface water runoff from the surrounding area and the road. Much of Wade Creek and portions of the other creeks have been significantly altered by sedimentation. As a result, these areas are limited in reducing the

velocity of flood flow. The site wetlands rated low for this function in disturbed areas, and moderate in all other areas.

### 5.3 Site Uplands

The site uplands are located primarily from the Jack Wade Junction to the Canadian border but are also interspersed throughout the alignment. These areas have similar plant communities as the wetland areas, with the addition of birch (*Betula papyrifera* FACU), bearberry (*Arctostaphylos uva-ursi* FACU), and cottonwood (*Populus balsamifera* FACU). Upland soils, in general, were mineral, composed of 10YR 4/4 and 10YR 3/2 sandy loams. Soils were dry to 18 inches, with the exception of DP1, DP6, and DP8, where they were saturated to the surface. However, these areas lacked other wetland indicators, so they were not considered wetland.

Data sheets 1, 6, 8, 12, 13, and 14 contain descriptions of the vegetation, soils, and hydrology typical of those observed in the upland areas (Appendix C).

## 6.0 WILDLIFE

### 6.1 Species and Habitats Present

Caribou, moose, Dall Sheep, grizzly bear, black bear, and wolf are the big game species present in the Fortymile River watershed. Fur bearers such as marten, lynx, red fox, beaver, otter, and mink are known in the area. During our site visit we also saw several porcupines. Small game species such as sharp-tailed and spruce ruffed grouse, willow and rock ptarmigan, and snowshoe hare occupy habitat in the area. Additionally, raptors, waterfowl, shorebirds, and a variety of passerine birds can be found in the area. ADFG confirmed that there are no threatened or endangered species in the project area. The project area is within the range of the American Peregrine falcon, which was removed from the list of threatened and endangered species on August 25, 1999.

According to the ADFG the areas around Chicken and Jack Wade Junction are intensively used for hunting caribou, moose and bear. The Fortymile caribou herd utilizes habitat in the project corridor as they migrate. The ADFG Alaska Habitat Management Guide shows the spring migration in the northwest direction with their return to the southeast in the fall. The herd is actively managed by ADFG, and the population is increasing. In 2002, the population was estimated at 46,000. Additionally, this year marks the first time since the early 1960's that the



Fortymile caribou herd has crossed the Yukon River during their fall migration. While caribou populations may be on the rise in this area, the moose population is decreasing. The low density of the moose population is unrelated to the existing road and likely results from over hunting, and calf mortality from predation (Gardner, pers. comm.).

## 6.2 Raptors

ABR, Inc. completed raptor habitat surveys in the late 1990's when raptor habitat was increasing. Information provided to us by ABR on the presence of raptors within the project area from the late 1990s is as follows. There are many pairs of peregrine falcons on the South Fork, but almost all downstream from the highway. The lower Walker Fork and the South Fork below its confluence with the Walker Fork has the best habitat for cliff nesters. No cliff nesters were found on Wade Creek, but ABR did not investigate any of its tributaries. No bald eagle nests were located on any of the project drainages, although a golden eagle nest was located more than 2 miles up the Dennison Fork. Additionally, a peregrine falcon nest was identified on the first large cliff above the Mosquito Fork highway crossing (Bob Ritchie pers. comm. 11/02).

## 6.3 Fisheries

The two major drainages associated with the alignment are the South Fork and its tributaries—Chicken Creek, Lost Chicken Creek, Mosquito Fork, Dennison Fork and Wall Street Creek—and the Walker Fork and its tributaries—Wade Creek, Ophelia, Gilliland, Warner, and Robinson Creeks. Figure B shows a map of the rivers and streams associated with the project. Fish species reported within the Fortymile River drainage include arctic grayling, sheefish, round whitefish, longnose sucker, and slimy sculpin. Infrequent occurrences of humpback whitefish, northern pike, burbot, Chinook salmon, and chum salmon have been documented in lower reaches. However, the information we obtained does not indicate that any of these secondary species occur within the drainages that would be affected by the proposed road improvements (ADFG, 1986, 1999, and 2002).

According to information in the 1988 Fortymile River Placer Mining Final Cumulative Environmental Impact Statement prepared by the BLM Department of the Interior (DOI), surveys by BLM and ADFG reported sedimentation and cementing of the Chicken Creek streambed. The creek does not support a fishery because it lacks spawning habitat, cover, and aquatic invertebrates. Similarly, Wade Creek and Lost Chicken Creek are not expected to support a fishery because of the extensive mining disturbance in those creeks.

#### 6.4 Essential Fish Habitat

In 1999, ADFG determined that anadromous fish runs in Fortymile River and its tributaries are at the upper limit of their natural distribution and may not successfully reproduce on an annual basis. Adequate winter water flows are the limiting factor for successful egg hatch, and in most years it appears there is insufficient flow. Based on their information, ADFG delisted, without prejudice, the Fortymile River and its tributaries from the *Catalog and Atlas of Waters Important for the Spawning, Rearing or Migration of Anadromous Fish* (ADFG, 1999). The Taylor Highway upgrades are being proposed entirely within drainages that are tributaries to Fortymile River. Furthermore, in an email to ASCG from Lawrence Peltz of NMFS on December 10, 2002, he confirmed that the project would not impact Essential Fish Habitat (EFH). Therefore, no EFH will be impacted by the proposed upgrades.

### 7.0 WETLAND AND STREAM REGULATIONS

Several state and federal regulations apply to proposed developments in and/or near wetlands and streams. A summary of applicable regulatory implications is provided in the following subsections.

#### 7.1 State Regulations

Alaska Department of Environmental Conservation (DEC) regulates the discharge of water or other materials directly into wetlands or streams under Section 401 of the Clean Water Act. A Section 401 Water Quality Certification (Section 401 Certification) is needed from the DEC if greater than 5 acres of wetland fill is proposed, or if less than 5 acres of wetland fill is proposed but the proposed fill area is located adjacent to a water body such as a lake or marine shoreline (streams are excluded from this criterion) (Rumfelt, 2003). Requirements for a Section 401 Certification may include pollution spill prevention and response measures, using fill material that does not compromise water quality, clearly identifying construction boundaries, and providing site access to permitting agency for inspection.

A Title 16 Fish Habitat Permit (Title 16 permit) will be required by the ADFG if site development includes work in or adjacent to a stream, such as culvert installation; stream realignment or diversion; dams; low-water crossing; and/or construction, placement, deposition, or removal of any material or structure below ordinary high water.

## 7.2 Federal Regulations

The Corps Section 404 review process is required for projects involving discharges of dredge or fill materials into the waters of the U.S., including non-isolated wetlands and streams. The Corps will likely regulate the site wetlands and streams as waters of the U.S. Any work associated with the road improvements that impact site wetlands and/or streams would likely require a nationwide permit (NWP) or an individual permit from the Corps.

If a Corps or other federal agency permit is needed, or if the project is federally funded or on federal land, the lead federal agency will need to comply with the Magnuson-Stevens Act (MSA) and the Endangered Species Act (ESA). Typically, under MSA, the lead agency would need to coordinate with NMFS on site streams that are considered EFH (i.e., site streams with anadromous fish present), however there is no EFH near this site.

The United States Environmental Protection Agency (EPA) will require a general construction National Pollutant Discharge Elimination System (NPDES) permit if proposed site construction is greater than 5 acres. The NPDES permit typically includes an erosion control plan, which must be approved by Alaska's DEC.

Because of the size of the project, its proximity to streams and river, and likely wetland impact, permits will be required from all of the agencies discussed above.

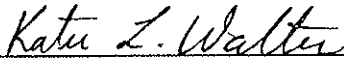
## 8.0 CLOSURE

The findings and conclusions documented in this report have been prepared for specific application to this project, and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our signed proposal. The conclusions and recommendations presented in this report are professional opinions based on interpretation of information currently available to us, and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

Wetland boundaries identified by Shannon & Wilson are considered to be preliminary until the Corps and/or the local jurisdictional agency validate the wetland boundaries. Validation of the wetland boundary by the regulating agency(s) provides a certification, usually written, that the wetland boundaries verified are the boundaries that will be regulated by the agency(s) until a specified date or until the regulations are modified. Only the regulating agency(s) can provide this certification.

Since wetlands are dynamic communities affected by both natural and human activities, changes in wetland boundaries may be expected; therefore, wetland delineations cannot remain valid for an indefinite period of time. Development activities on a site two years after the completion of this wetland delineation report may require revision of the wetland delineation; however, the U.S. Army Corps of Engineers typically recognizes the validity of wetland delineations for a period of five years after their verification. Changes in government code, regulations, or laws may occur. Because such changes are beyond our control, our observations and conclusions regarding this site may need to be revised wholly or in part. We have prepared Appendix D, "Important Information About Your Wetland Delineation/Mitigation and/or Stream Classification Report," to assist you and others in understanding the use and limitations of our report.

SHANNON & WILSON, INC.



Katie L. Walter, PWS  
Natural Resources Manager

KLW:DNC/klw



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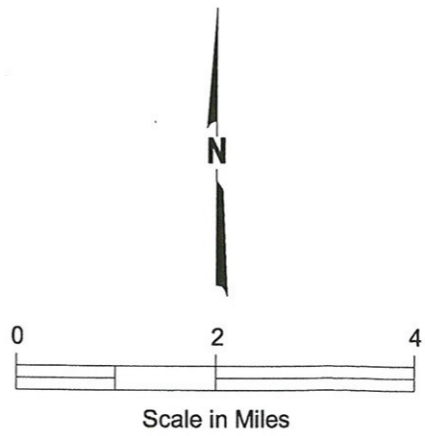
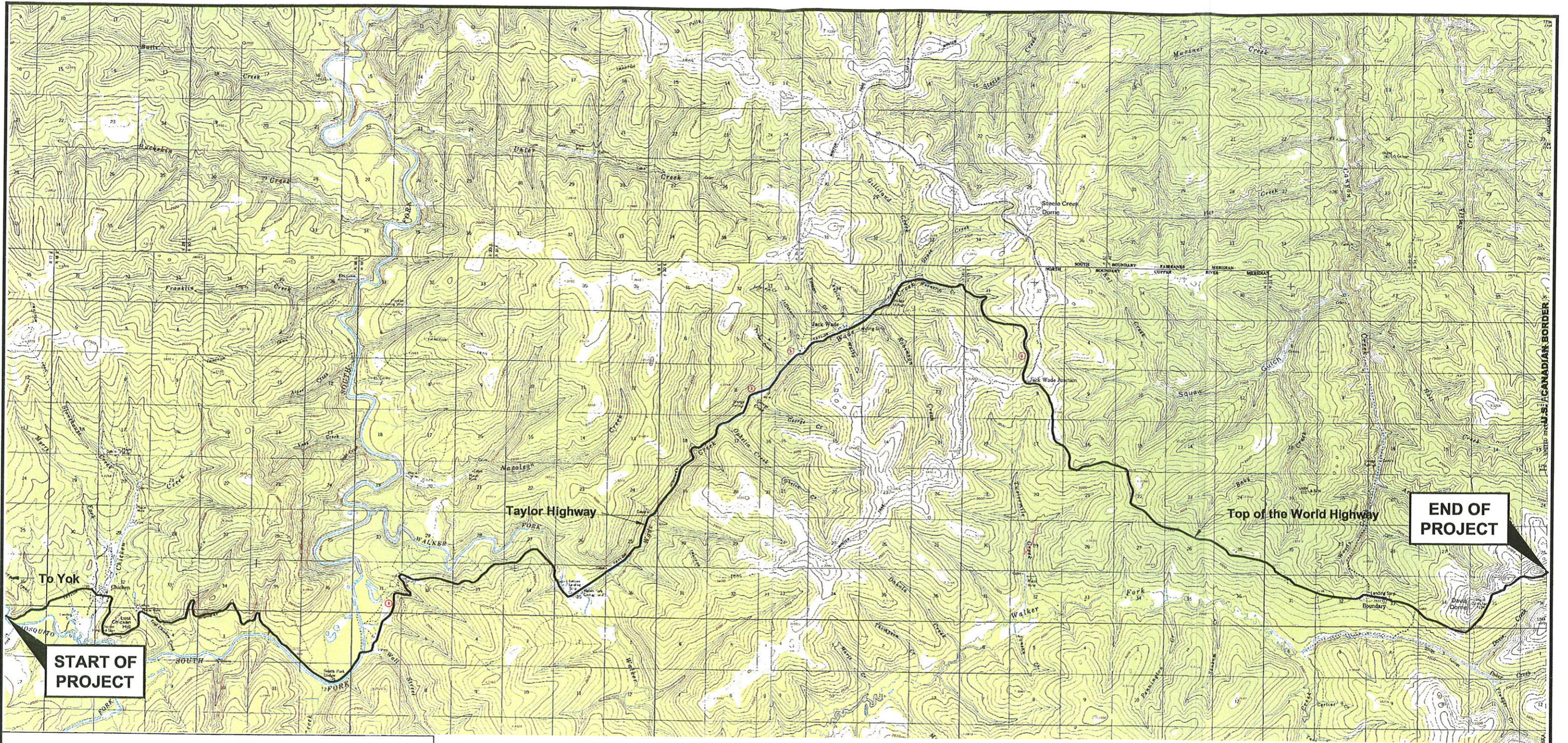
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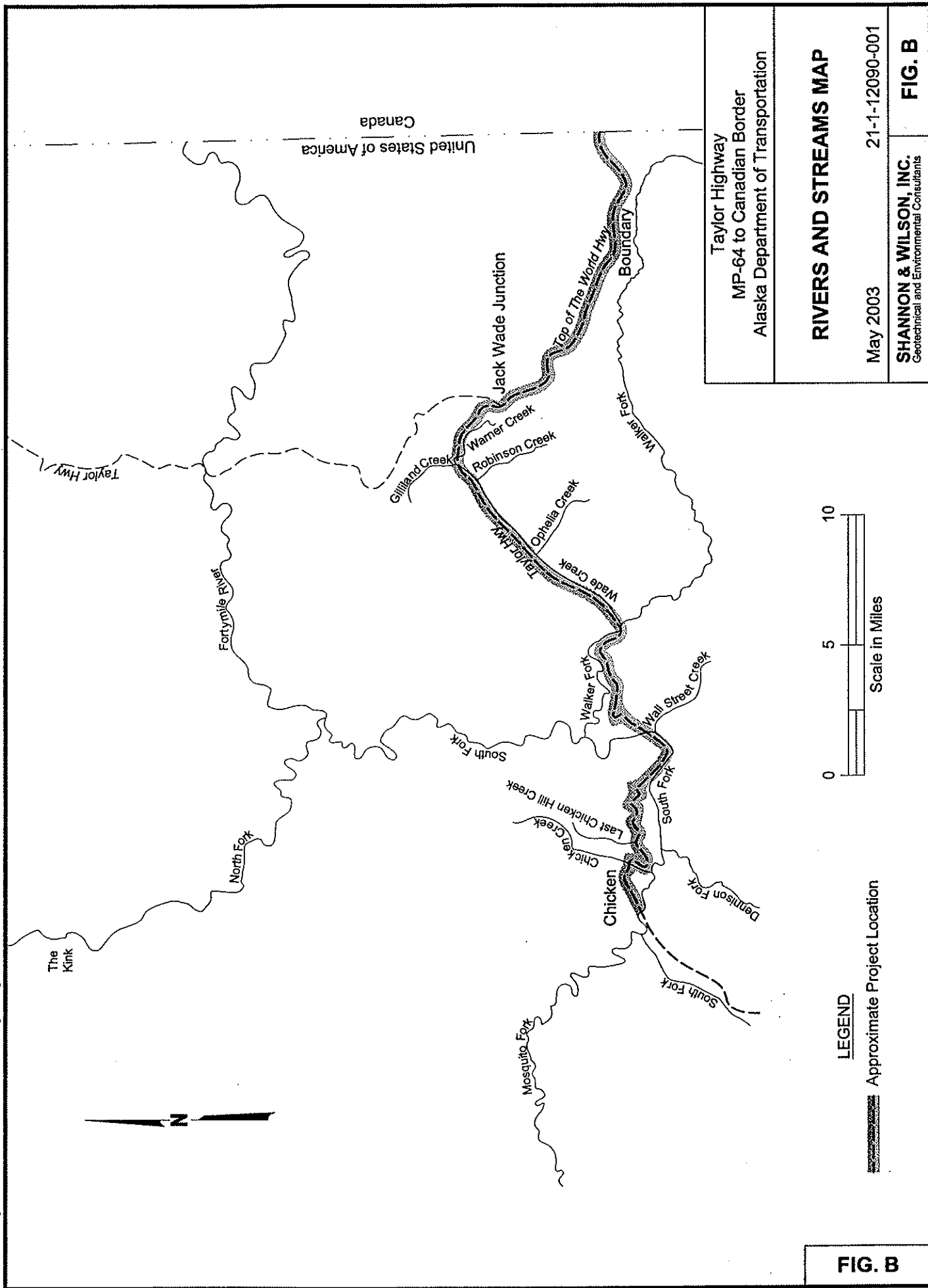




**NOTE**  
Map adapted from Big Topo,  
provided by ASCG, Inc.

Taylor Highway MP-64 to Canadian Border Alaska Department of Transportation	
<b>VICINITY MAP</b>	
May 2003	21-1-12090-001
SHANNON & WILSON, INC. Geotechnical and Environmental Consultants	<b>FIG. A</b>





Taylor Highway MP-64 to Canadian Border Alaska Department of Transportation	
<b>RIVERS AND STREAMS MAP</b>	
May 2003	21-1-12090-001
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. B</b>

**FIG. B**



**APPENDIX A**  
**WETLAND DELINEATION METHODOLOGY**

APPENDIX A  
WETLAND DELINEATION METHODOLOGY

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**APPENDIX A****WETLAND DELINEATION METHODOLOGY**

The triple-parameter approach, as required in the *Corps of Engineers Wetland Delineation Manual* (March 1987), was used to identify and delineate the wetlands on the site described in this report. Under this methodology, vegetation, soils, and hydrology are each evaluated to determine the presence or absence of wetlands. Based on the use of this method, an area is considered to be a wetland if each of the following is met: (1) dominant hydrophytic vegetation is present in the area, (2) the soils in the area are hydric, and (3) the necessary hydrologic conditions within the area are met. Corresponding upland and wetland plots were recorded to determine more accurately the boundaries of on-site wetlands.

**A.1 WETLAND VEGETATION**

Hydrophytic plants are plant species specially adapted for saturated and/or anaerobic conditions. These species can be found in areas where there is a significant duration and frequency of inundation, which produces permanently or periodically saturated soils. Hydrophytic species, due to morphological, physiological, and reproductive adaptations, have the ability to grow, effectively compete, reproduce, and thrive in anaerobic soil. The U.S. Army Corps of Engineers (Corps) and the U.S. Fish and Wildlife Service (USFWS) has assigned indicator status to many plant species, based on the estimated probability of the species' existing under wetland conditions. Plants are categorized as Obligate (OBL), Facultative Wetland (FACW), Facultative (FAC), Facultative Upland (FACU), and Upland (UPL). Species with an indicator status of OBL, FACW, or FAC are considered to be adaptive to saturated and/or anaerobic (i.e., wetland) conditions and are referred to as hydrophytic vegetation (Table A-1).

**TABLE A-1  
DEFINITIONS OF PLANT INDICATOR STATUS**

<b>Plant Indicator Status Categories</b>
Obligate Wetland Plants (OBL) – Plants that occur in wetlands, under natural conditions, approximately 99 percent of the time.
Facultative Wetland Plants (FACW) – Plants that occur in wetlands approximately 67 to 99 percent of the time.
Facultative (FAC) – Plants that are as likely to be found in wetlands as in non-wetlands; approximately 34 to 66 percent of the time in either.
Facultative Upland Plants (FACU) – Plants that occur in non-wetlands approximately 1 to 33 percent of the time.
Obligate Upland Plants (UPL) – Plants that occur in non-wetlands, under natural conditions, approximately 99 percent of the time.
No Indicator (NI) – Species that have not been given an indicator status.

Source: National List Of Plant Species That Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.9). (Revised 1993) 89 p.

Trees within a 30-foot radius, shrubs within a 15-foot radius, and herbs within a 5-foot radius of each data point were identified and noted. The approximate percentage of cover for each of the different plant species occurring within the tree, shrub, and herb strata were determined.

Dominant plant species are considered to be those that, when cumulatively totaled in descending order of abundance, exceed 50 percent of the aerial cover for each vegetative stratum. Any additional species individually representing 20 percent or greater of the total aerial cover for each vegetative strata are also considered dominant.

The indicator status of the dominant plant species within each of the vegetative strata is used to determine the presence of hydrophytic vegetation near each data point. A data point was considered to have hydrophytic vegetation if greater than 50 percent of the dominant plant species within the area had an indicator status of OBL, FACW or FAC.

## **A.2 HYDRIC SOILS**

Hydric soils are defined as those that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. As a result of anaerobic conditions, hydric soils exhibit characteristics directly observable in the field, including high organic matter content, greenish or bluish gray color (gley formation), accumulation of sulfidic material, spots of orange or yellow color (mottling), and dark soil colors (low chromas), Table A-2.



**TABLE A-2  
HYDRIC SOIL INDICATORS**

<b>Hydric Indicator</b>	<b>Diagnostic Criteria</b>
Organic Content	>50 percent by volume (constitutes organic soil)
Sulfidic Material	"Rotten egg" odor
Soil Color	Matrix Chroma of 2 or less in mottled soils
	Matrix Chroma of 1 or less in unmottled soils
	Gleyed colors
Water Saturation	Soil saturated at 0.5, 1.0, or 1.5 feet from the surface (depending on the soil drainage class and permeability) for a significant period during the growing season.
Soil Color Definitions	Hue: Indicates the dominant spectral color (i.e., red, yellow, green, blue, and purple).
	Value: Measure of degree of darkness or lightness of the color.
	Chroma: Measure of the purity or strength of the color.

Source: Environmental Laboratory, 1987, Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1, U.S. Army Waterways Experiment Station, Vicksburg, Mississippi.

Throughout a large portion of the area delineated as wetland, identification of hydric soils was aided through observation of surface hydrologic characteristics and indicators of wetland hydrology (e.g., drainage patterns). The extent of hydric soils was defined through direct soil observation within several data points, placed both inside and outside the wetland. Soil observations were completed within soil holes dug with a shovel to a depth of at least 18 inches below the existing ground surface. Soil organic content was estimated visually and texturally. Soil colors were determined through analysis of the hue, value, and chroma best represented in the Munsell Soil Color Chart. A soil chroma of 2 in combination with soil mottling, or a soil chroma of 1 without mottling, typically indicates a hydric soil if within 10 inches of the surface, or directly below the A horizon.

### **A.3 WETLAND HYDROLOGY**

Soils were examined for the presence of hydrology. Wetland hydrologic characteristics develop during periods when the soils are inundated permanently or periodically, or when the soil is continuously saturated to the surface for sufficient duration to develop hydric soils and support vegetation typically adapted for life in periodically anaerobic conditions. Wetland hydrology criteria were considered to be satisfied if it appeared that wetland hydrology was present for at least 5 to 12 percent of the growing season. The growing season begins when the soil reaches a temperature of 5 degrees Celsius at 19.7 inches below the soil surface.

The hydrology was evaluated by direct visual observation of surface inundation or soil saturation within 18 inches below the existing ground surface in test plots. According to the 1987 Manual, ...“for soil saturation to impact vegetation, it must occur within a major portion of the root zone (usually within 12 inches of the surface) of the prevalent vegetation.” Therefore, if saturated soils or indicators were observed within 12 inches of the surface, positive indicators of wetland hydrology were noted.

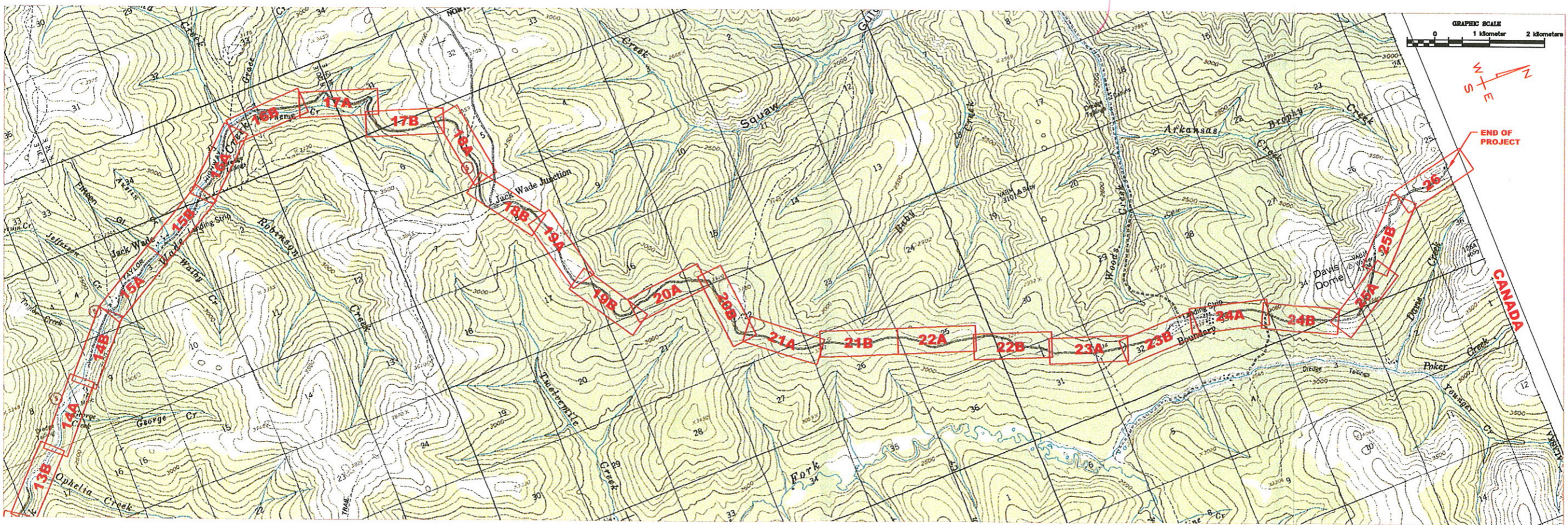
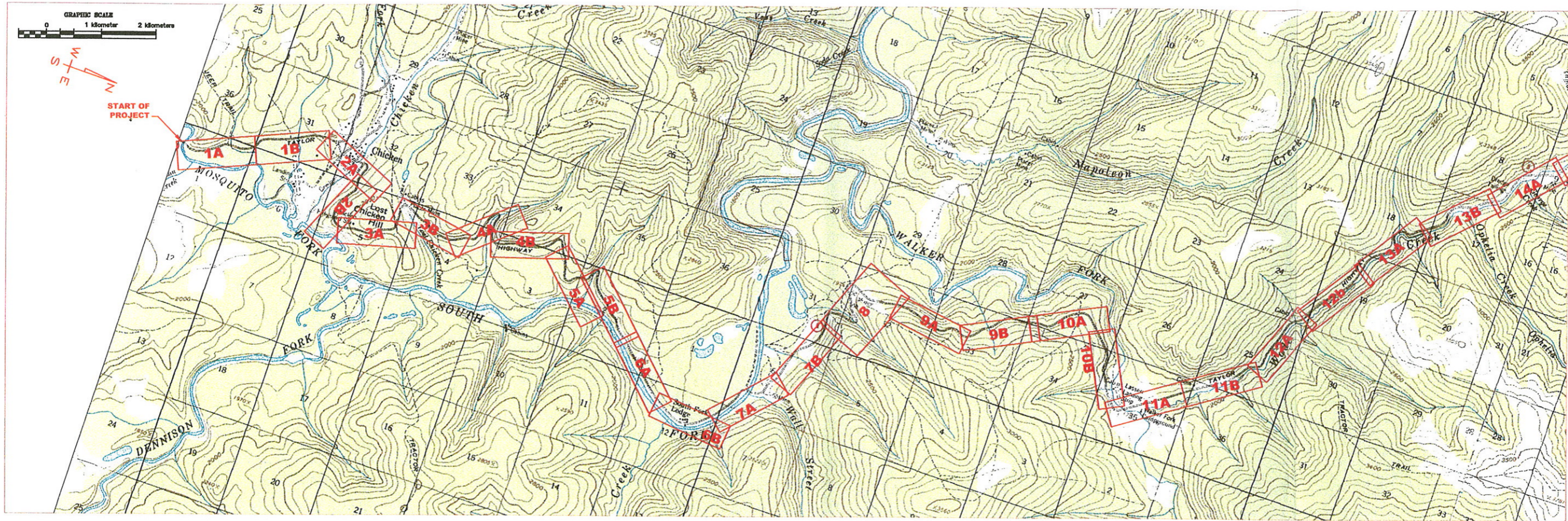
The area near each data point was examined for indicators of wetland hydrology. These indicators include dried watermarks, drift lines, sediment deposits, and drainage patterns. Areas where positive indicators of hydrology were noted were assumed to contain wetland hydrology.

**APPENDIX B**  
**APPROXIMATE WETLAND BOUNDARIES**





TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER



WETLAND DELINEATION  
KEY

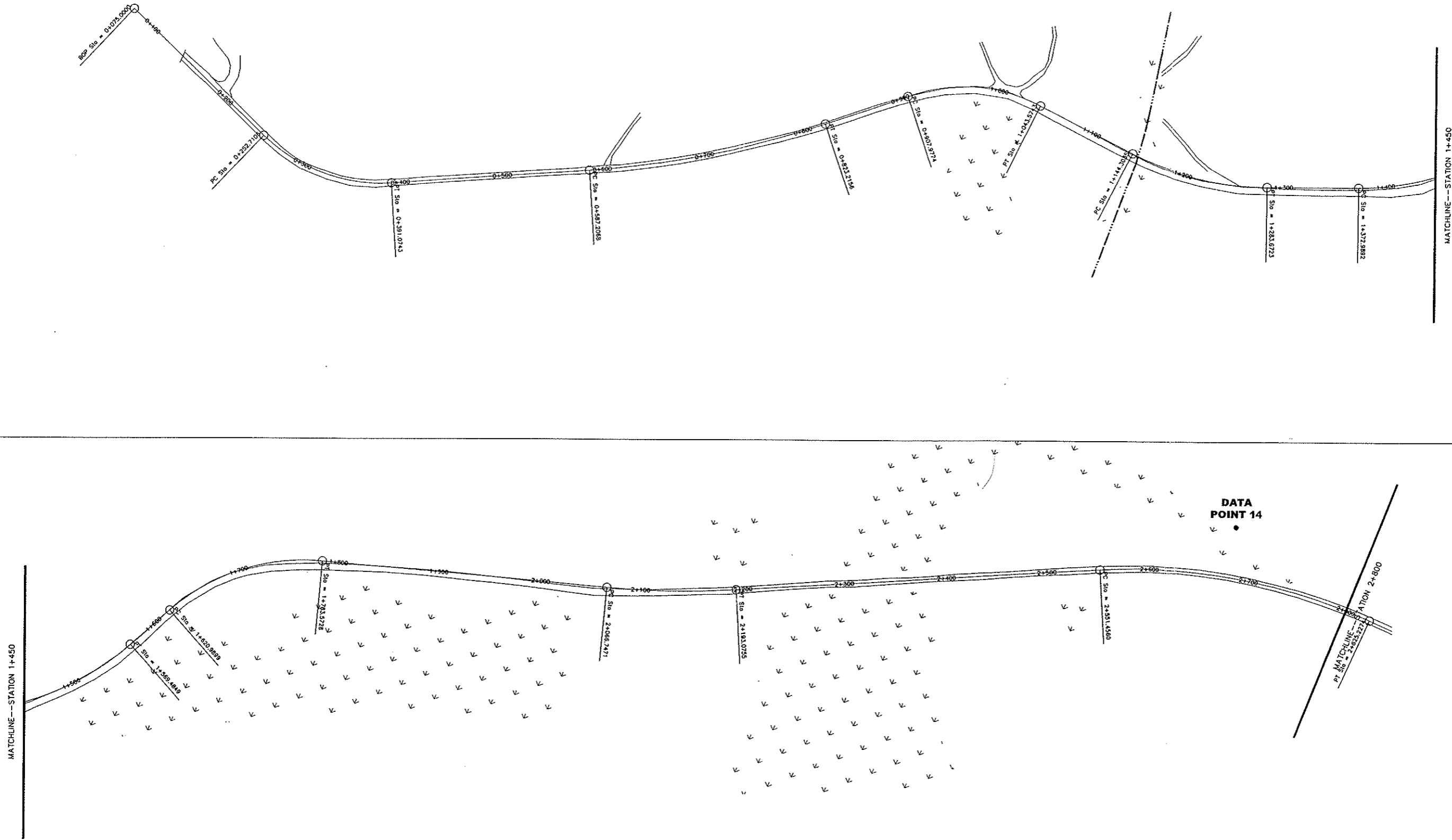
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TAYLOR HIGHWAY MP 64.5  
TO THE  
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WETLAND DELINEATION  
FIGURE 1

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TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

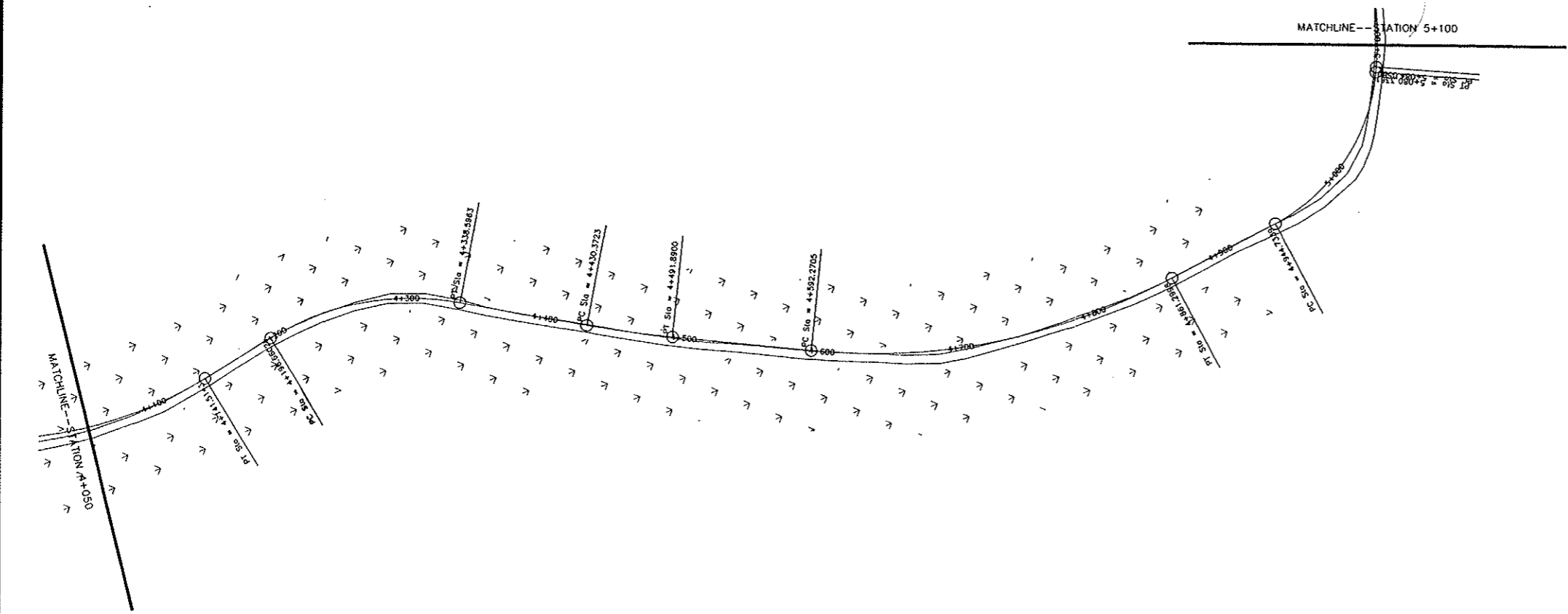
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FIGURE 2

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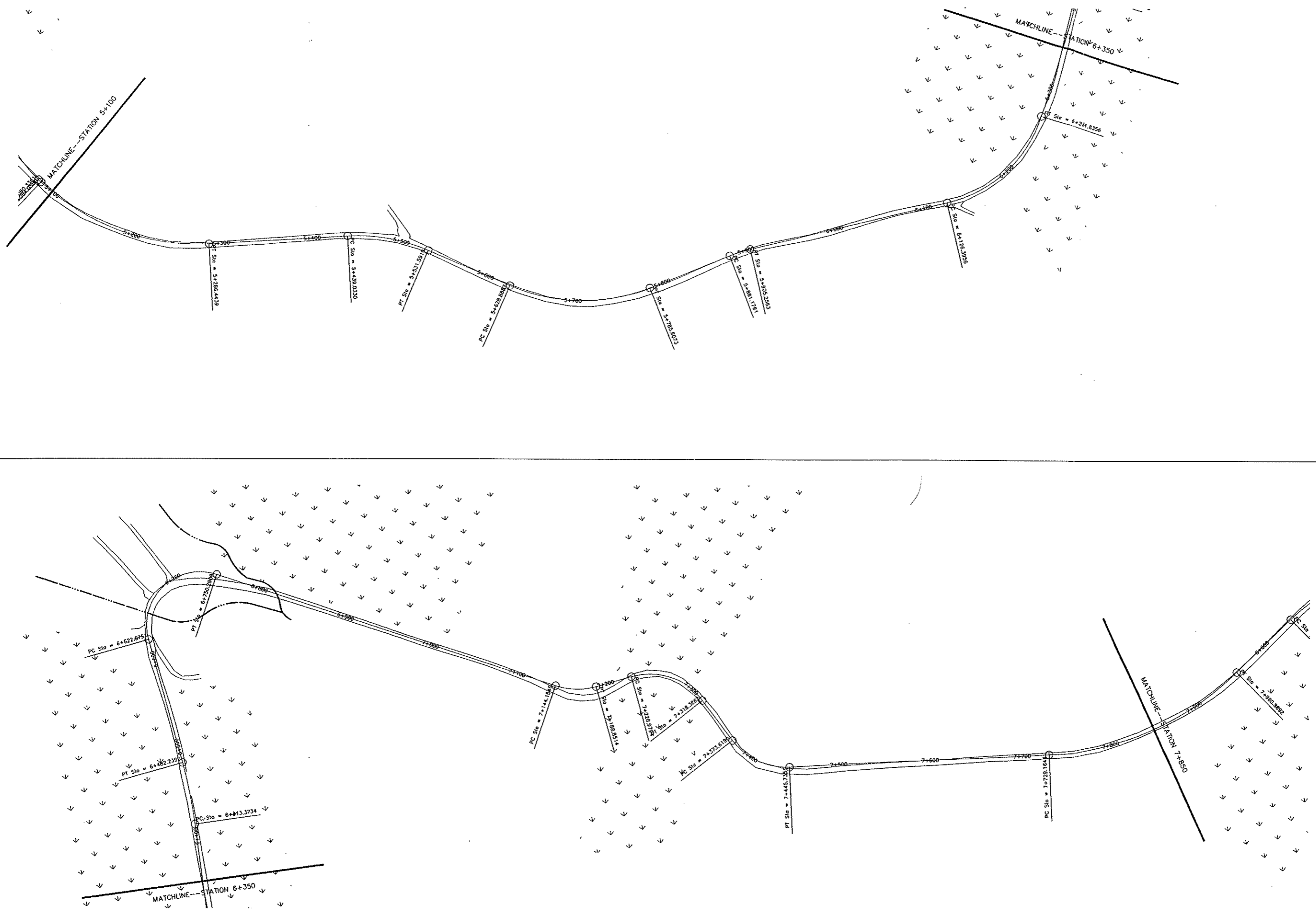




TAYLOR HIGHWAY MP 64.5  
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WETLAND DELINEATION  
FIGURE 3

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TO THE  
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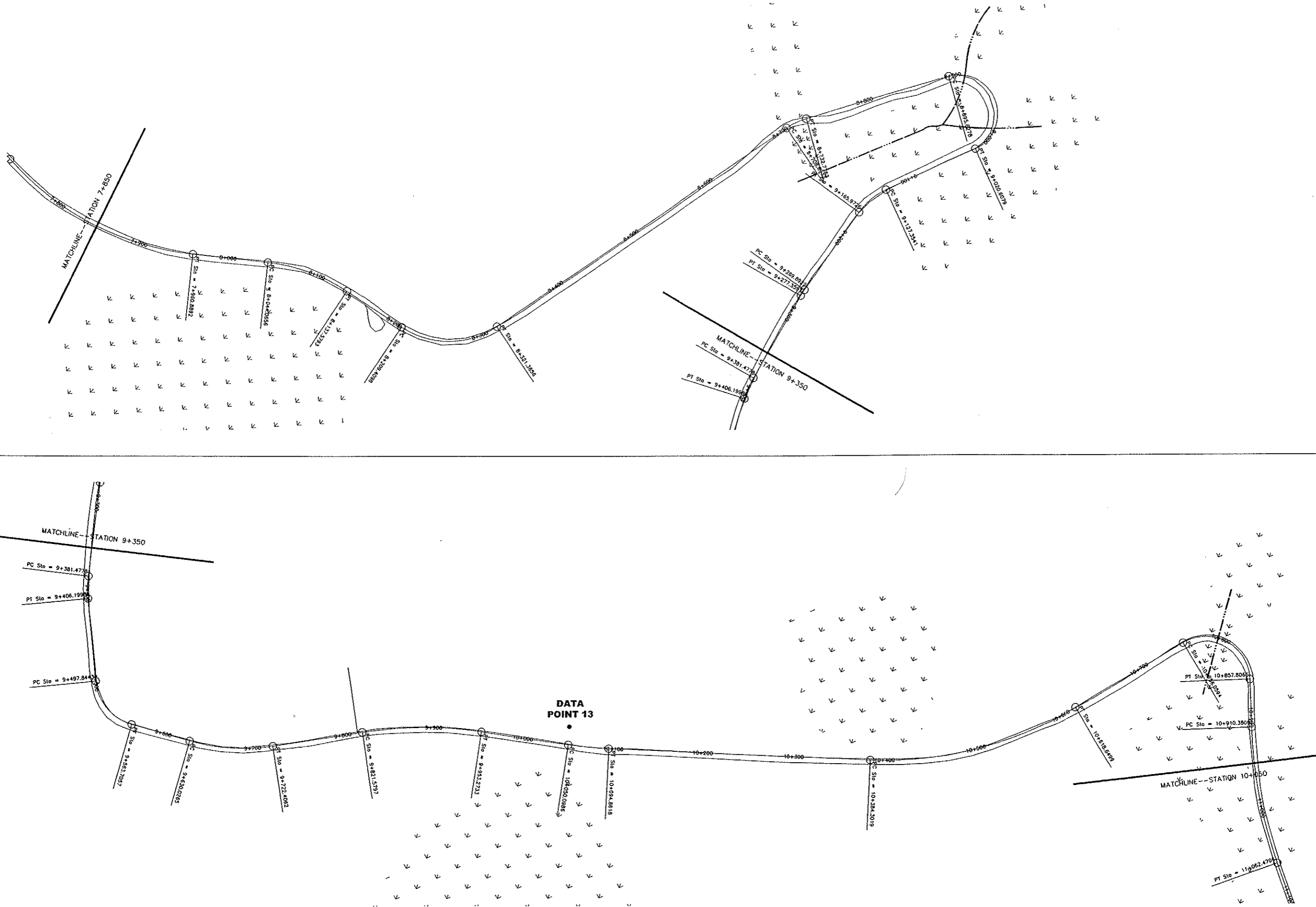
WETLAND DELINEATION  
FIGURE 4

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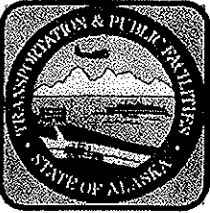
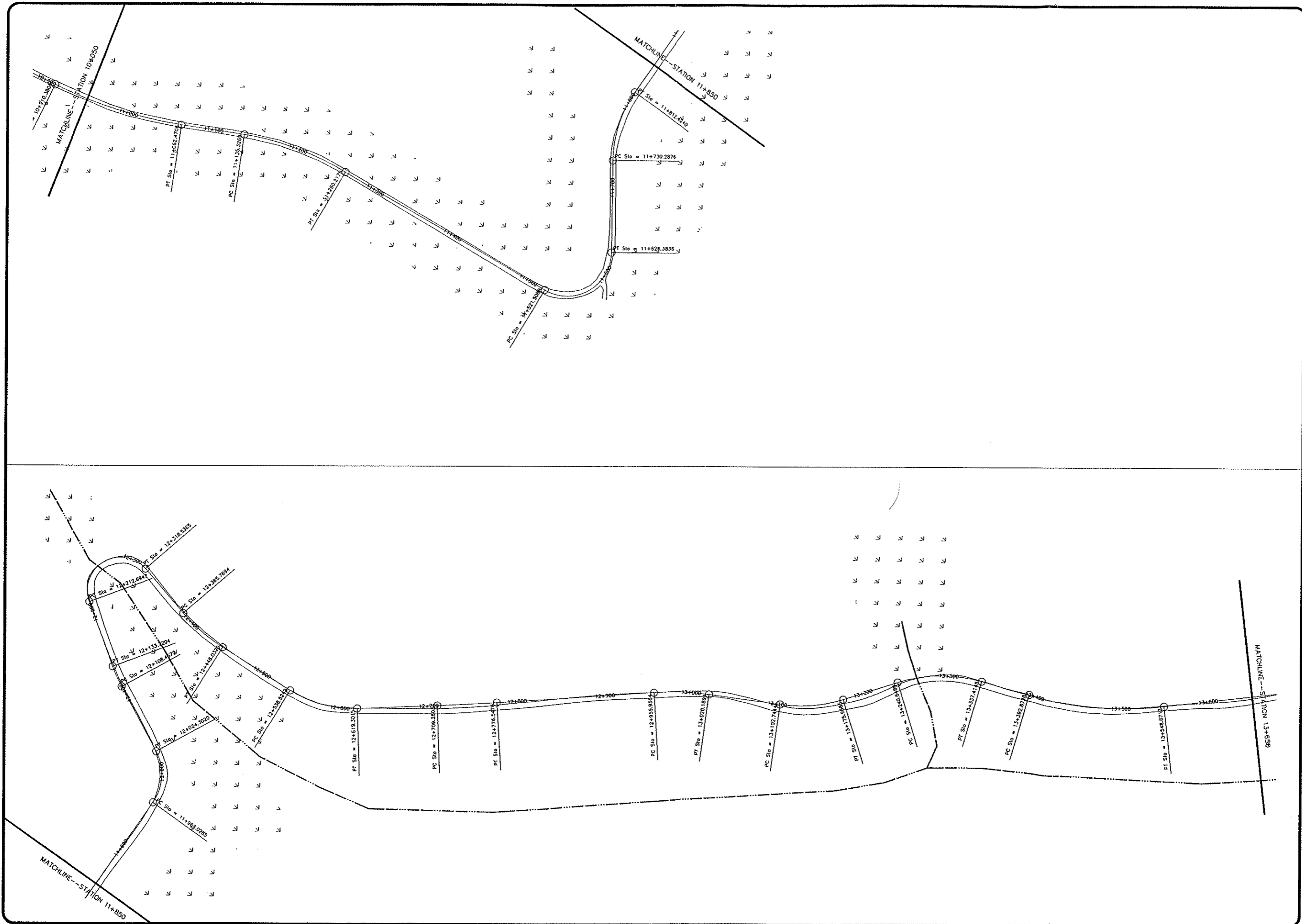
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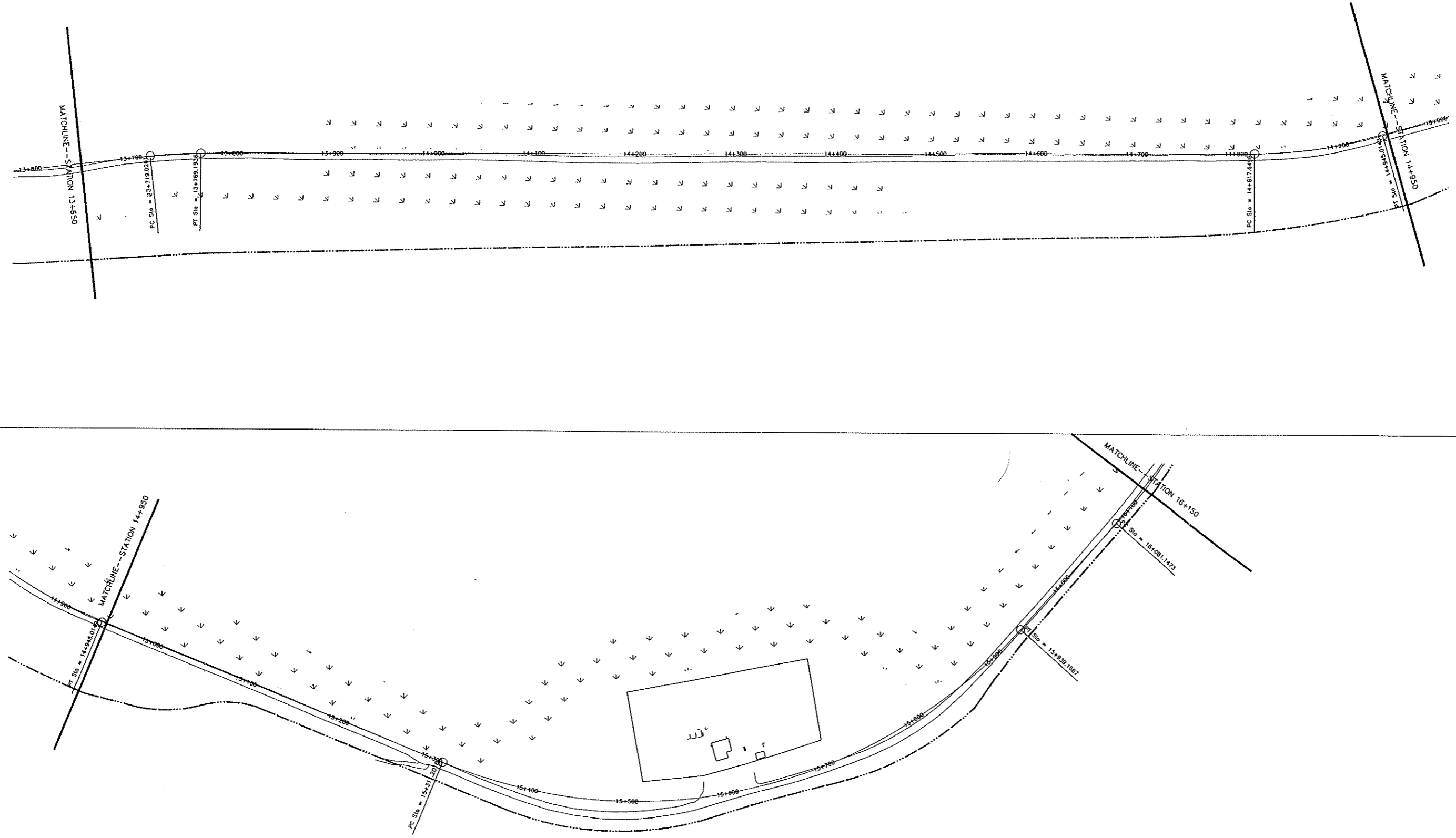


TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 5

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TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 6

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TO THE  
CANADIAN BORDER

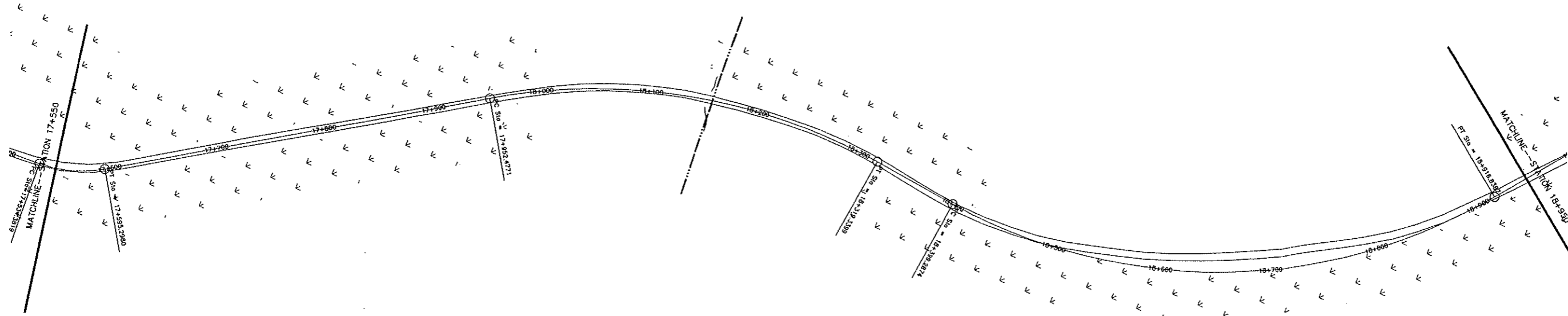
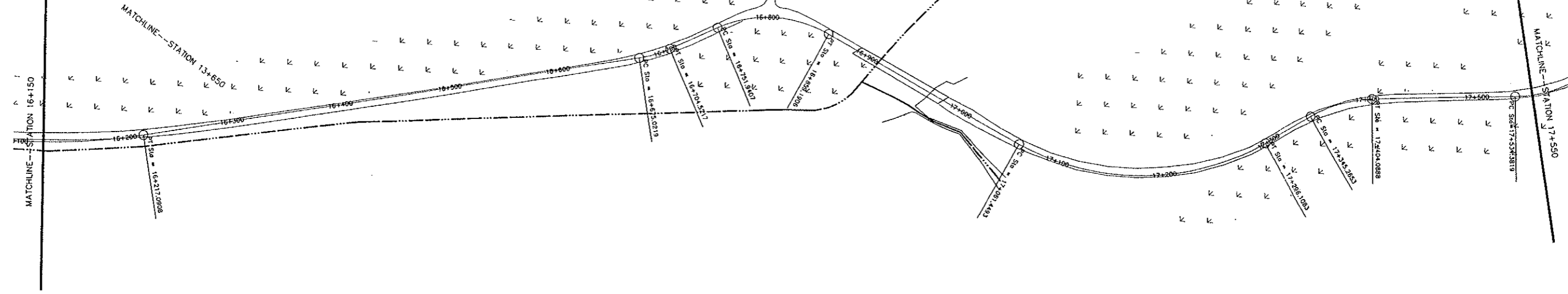
WETLAND DELINEATION  
FIGURE 7

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DRAWN BY: DRM

CHECKED BY: XXX





TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 8

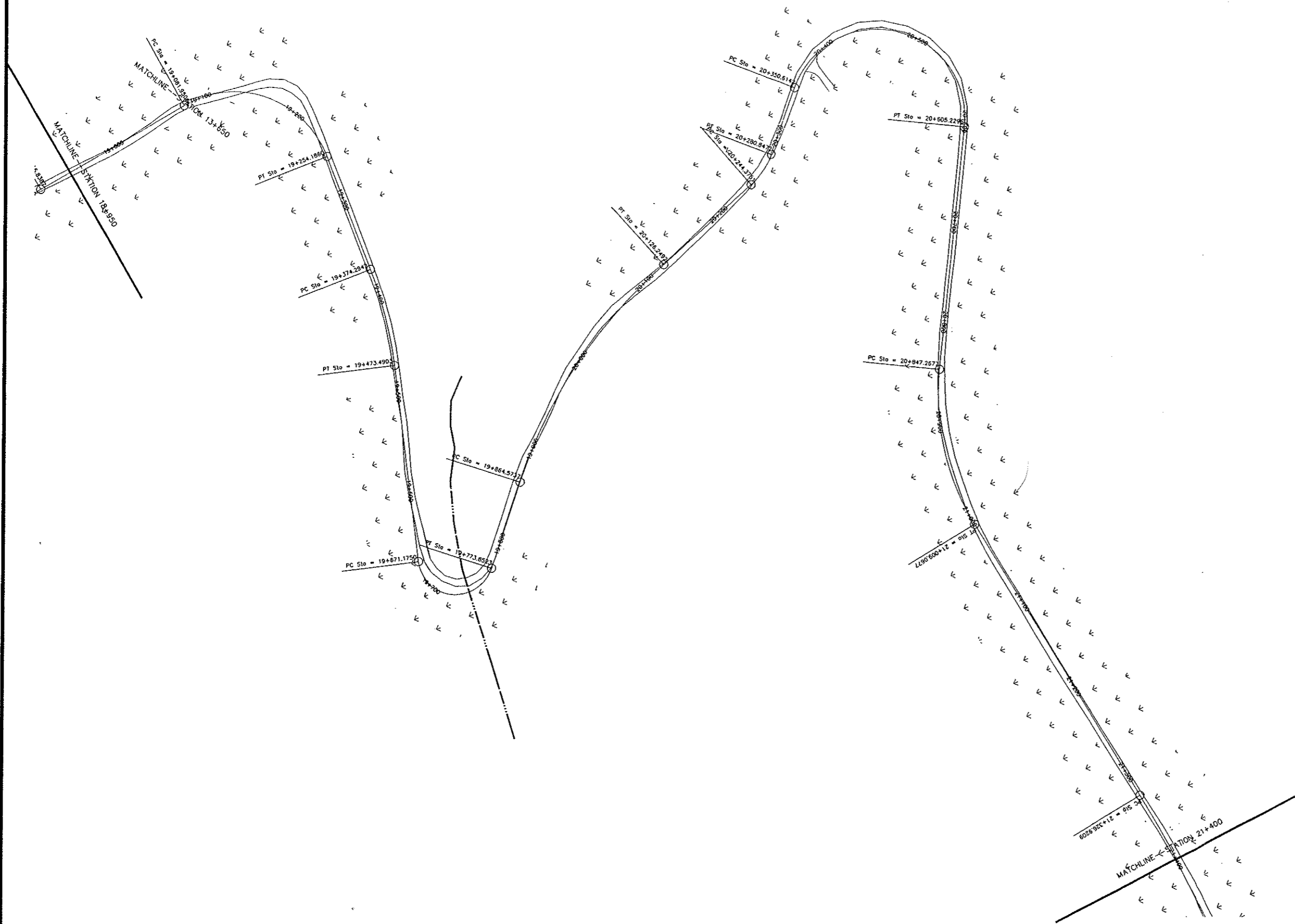
JOB NO: 4328

DATE: 10/21/02

DRAWN BY: DRM

CHECKED BY: XXX

DWG FILE: K:\00B1110\4444 - Taylor Hwy EA\Acad\CD download\Wetland.dwg







TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

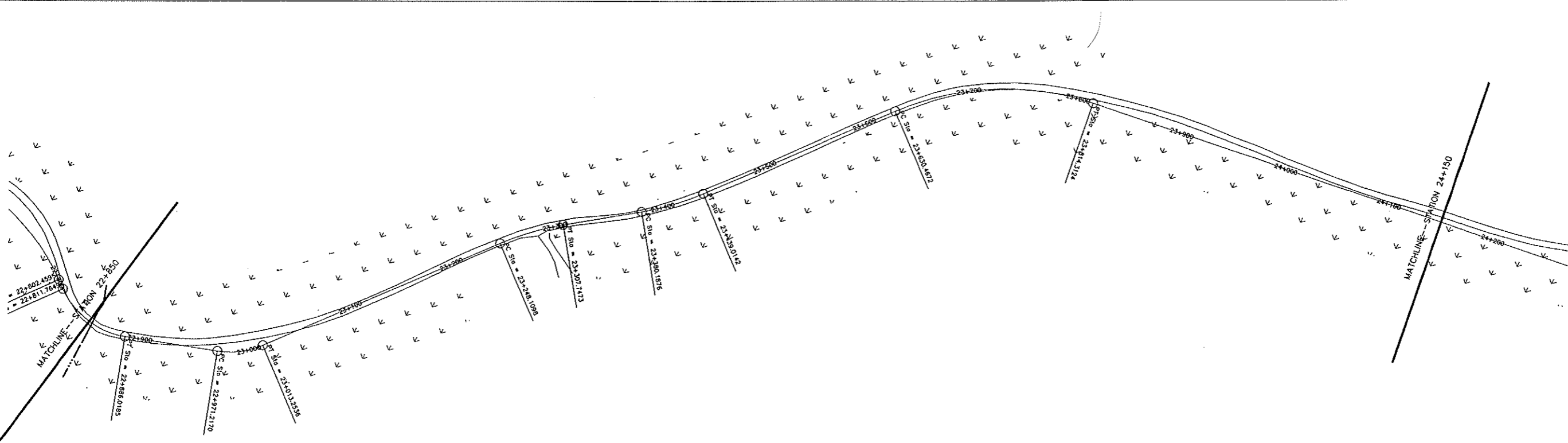
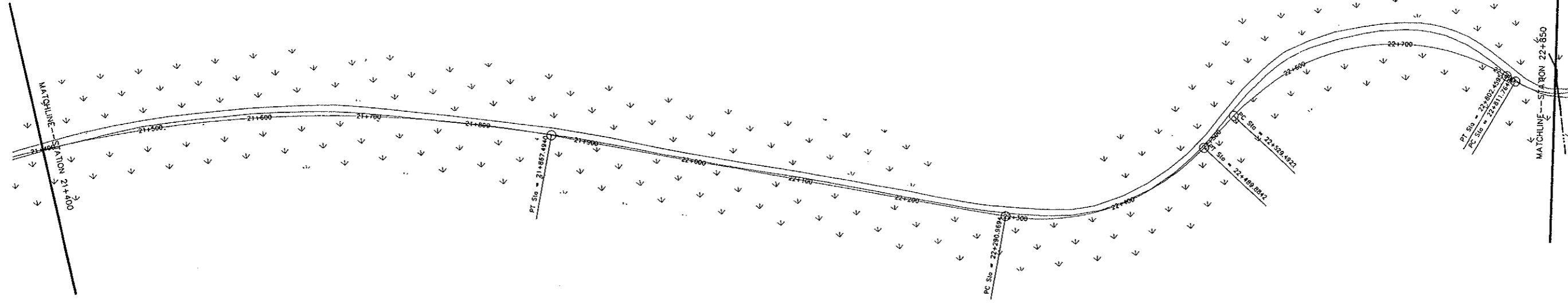
WETLAND DELINEATION  
FIGURE 9

JOB NO: 4328

DATE: 10/21/02

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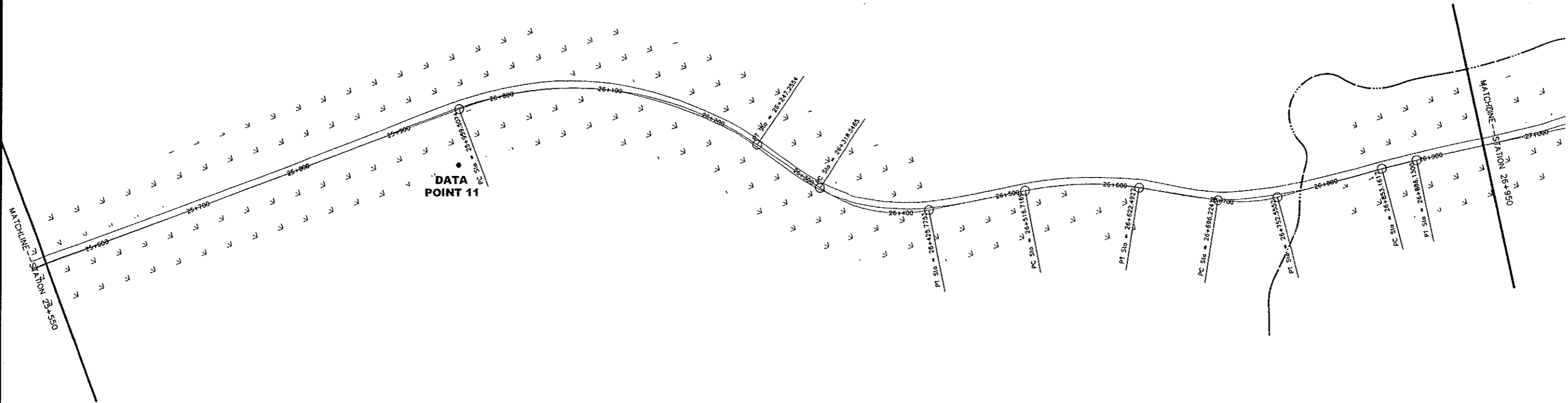
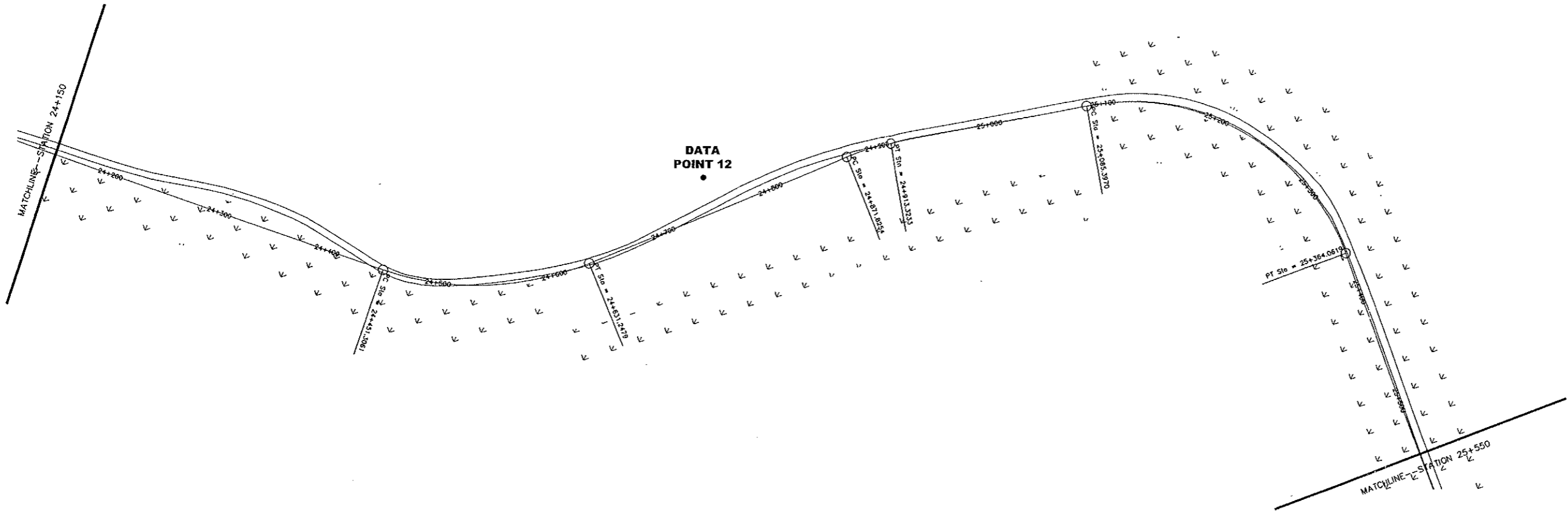


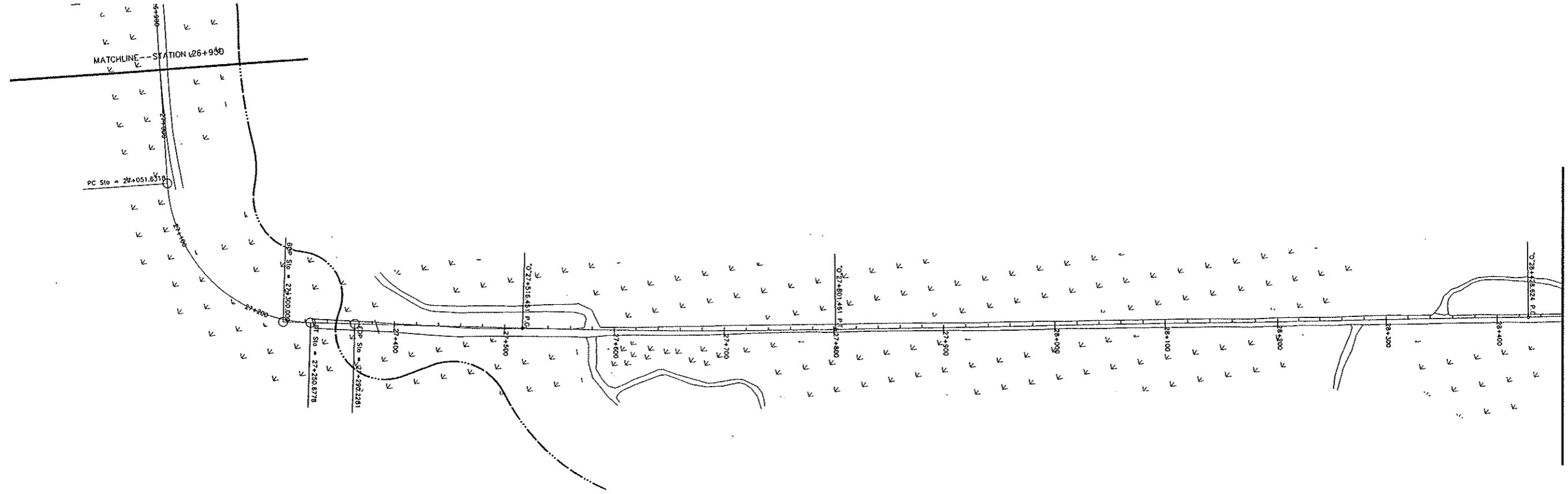
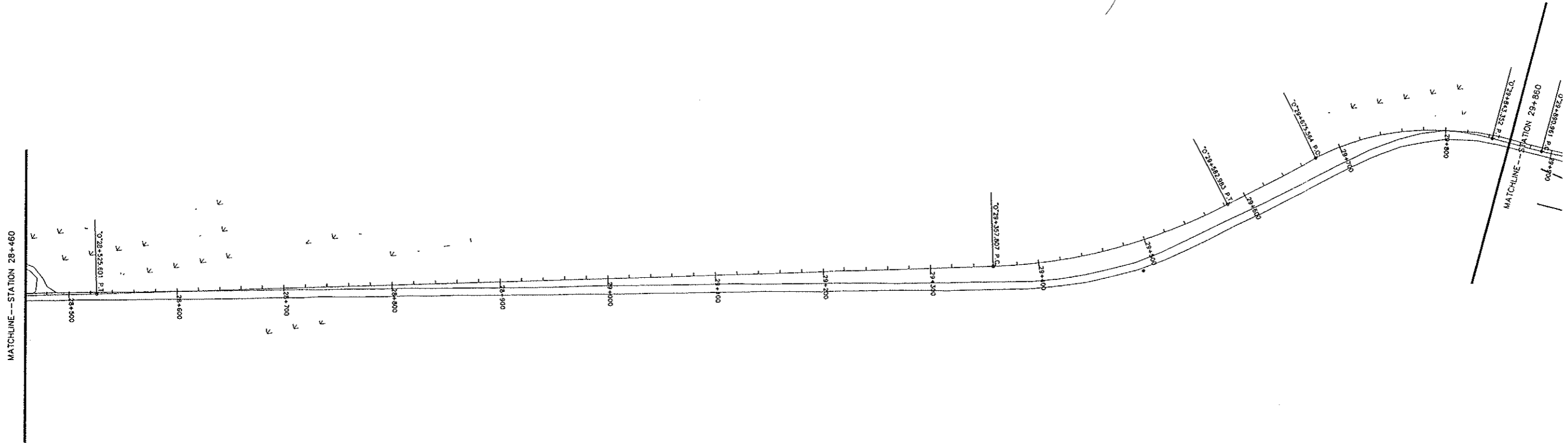


TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 10

JOB NO:	4328
DATE:	10/21/02
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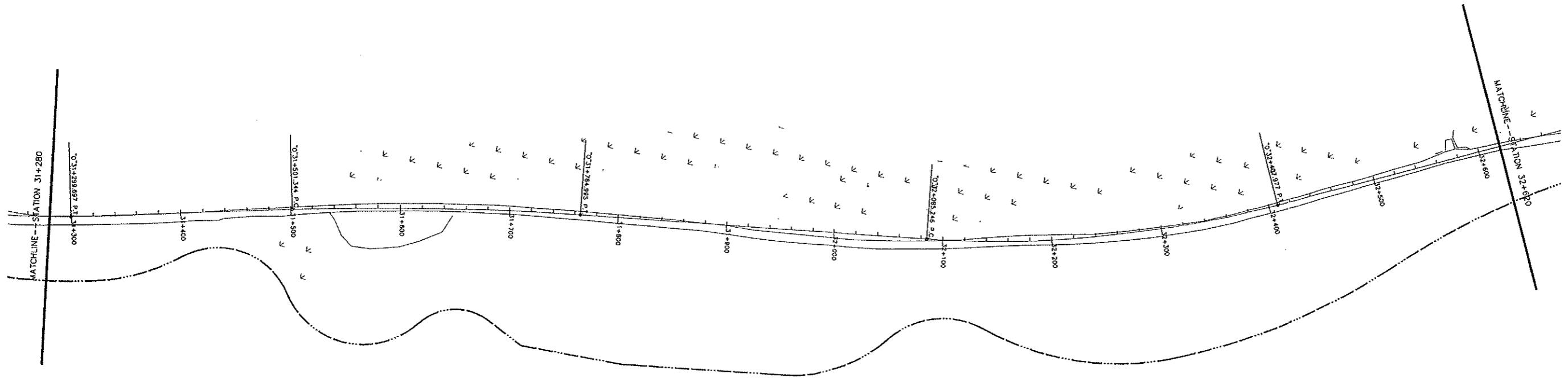
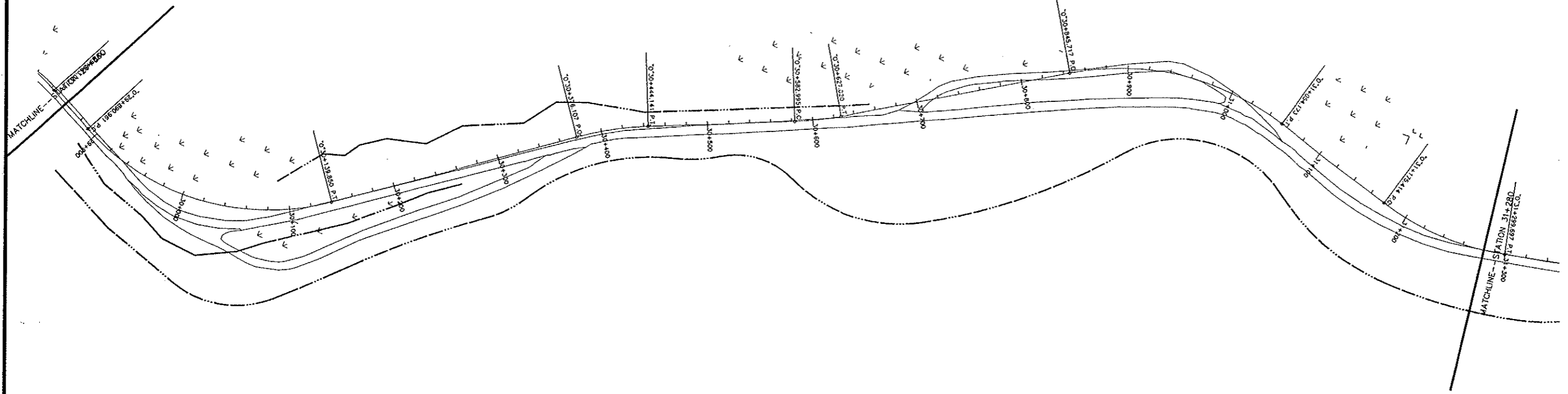




TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 11

JOB NO:	4328
DATE:	10/21/02
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TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 12

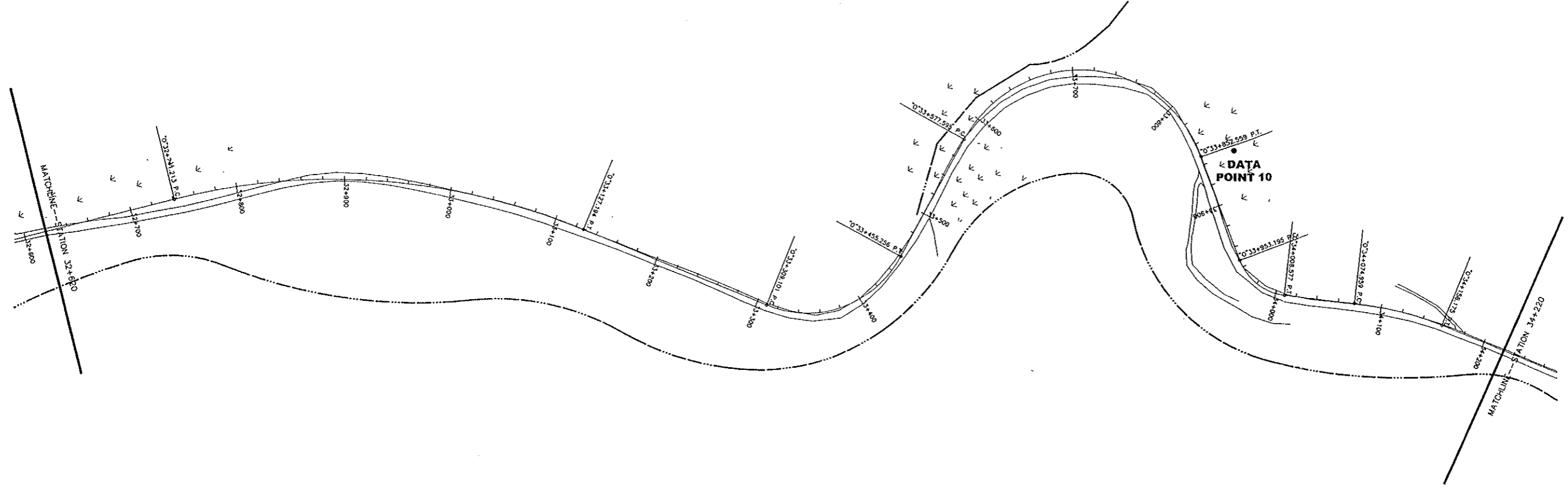
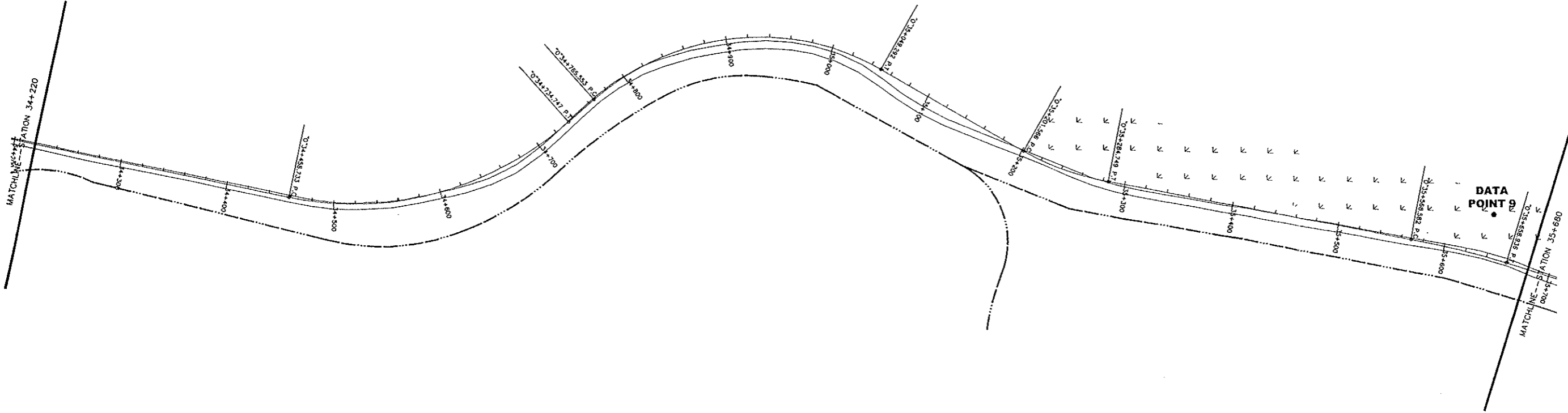
JOB NO: 4328

DATE: 10/21/02

DRAWN BY: DRM

CHECKED BY: XXX

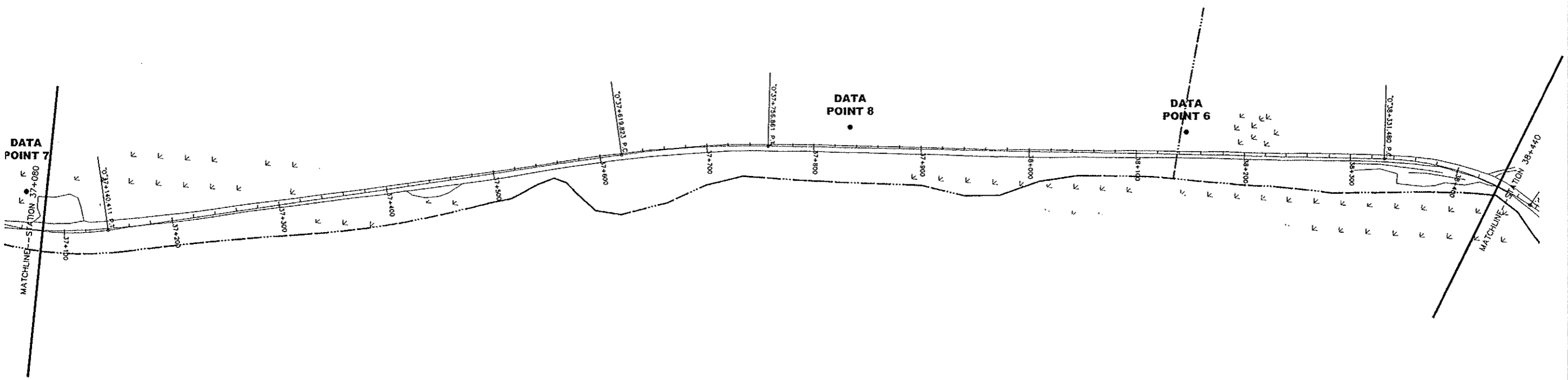
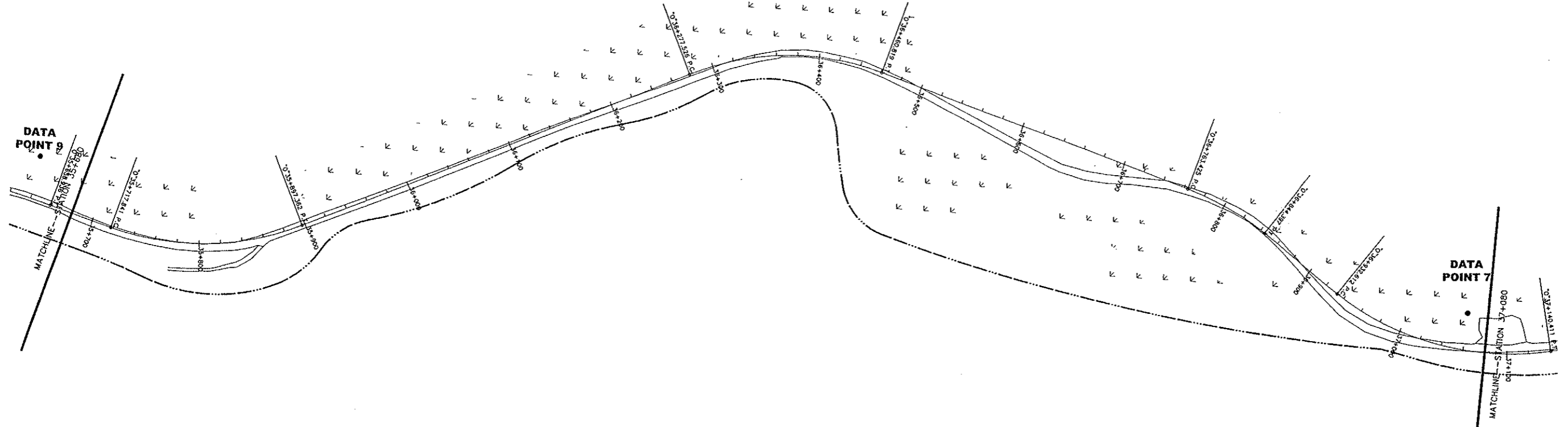




TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 13

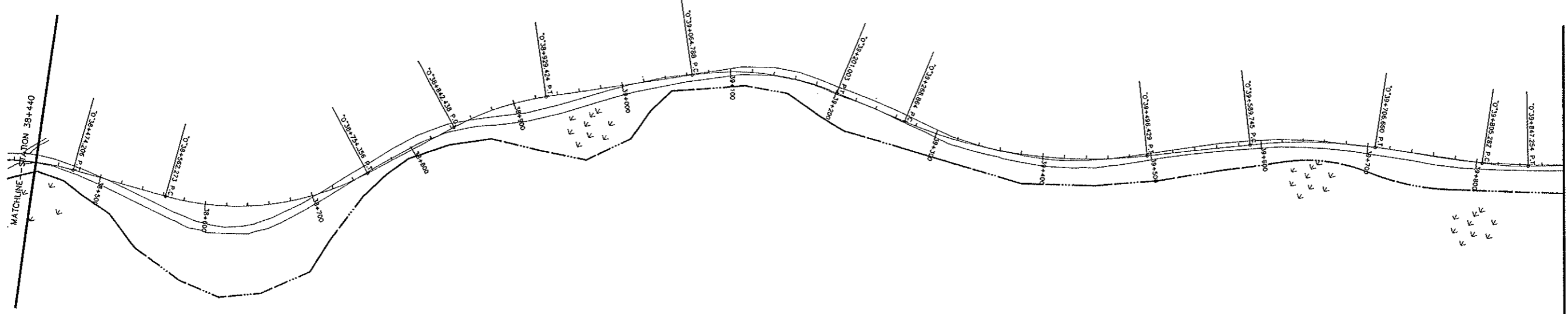
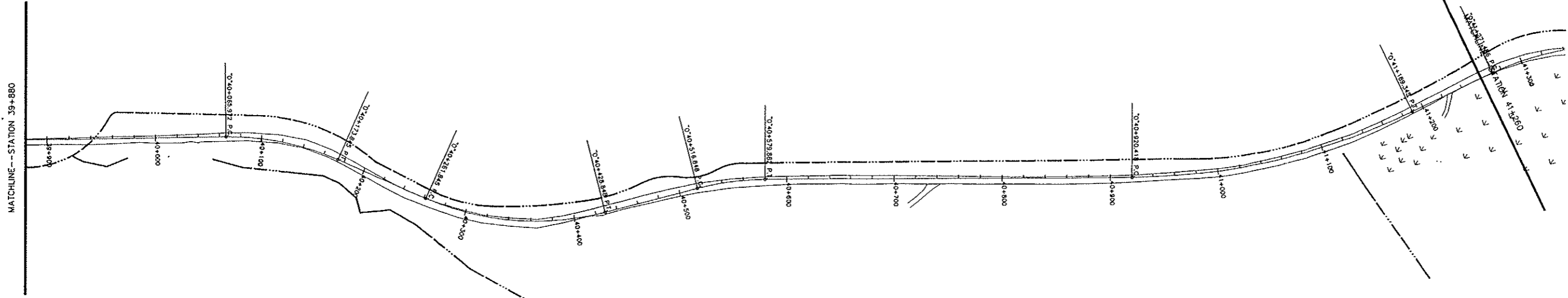
JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 14

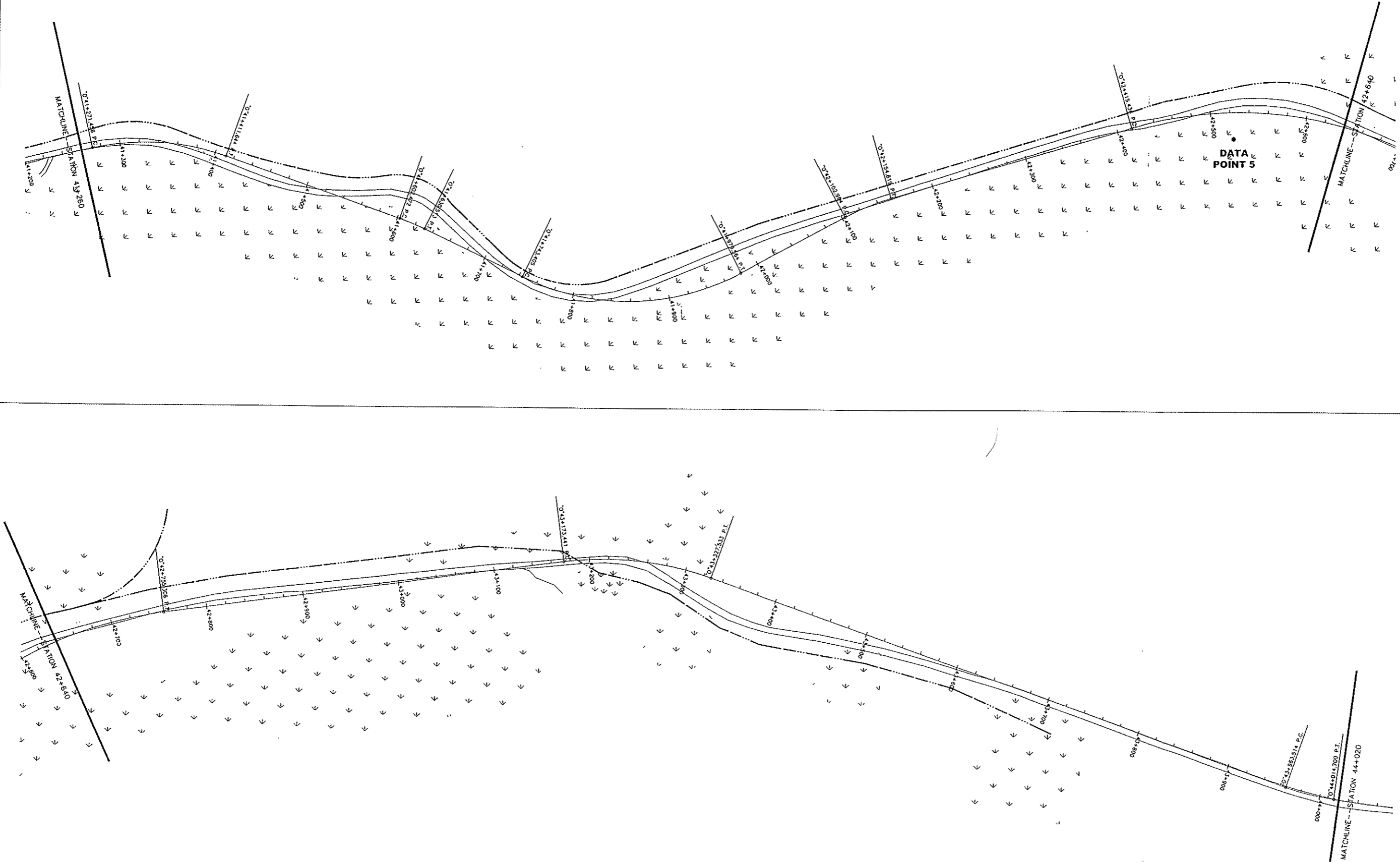
JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



**TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER**

**WETLAND DELINEATION  
FIGURE 15**

JOB NO:	4328
DATE:	10/21/02
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CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 16

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XX





TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

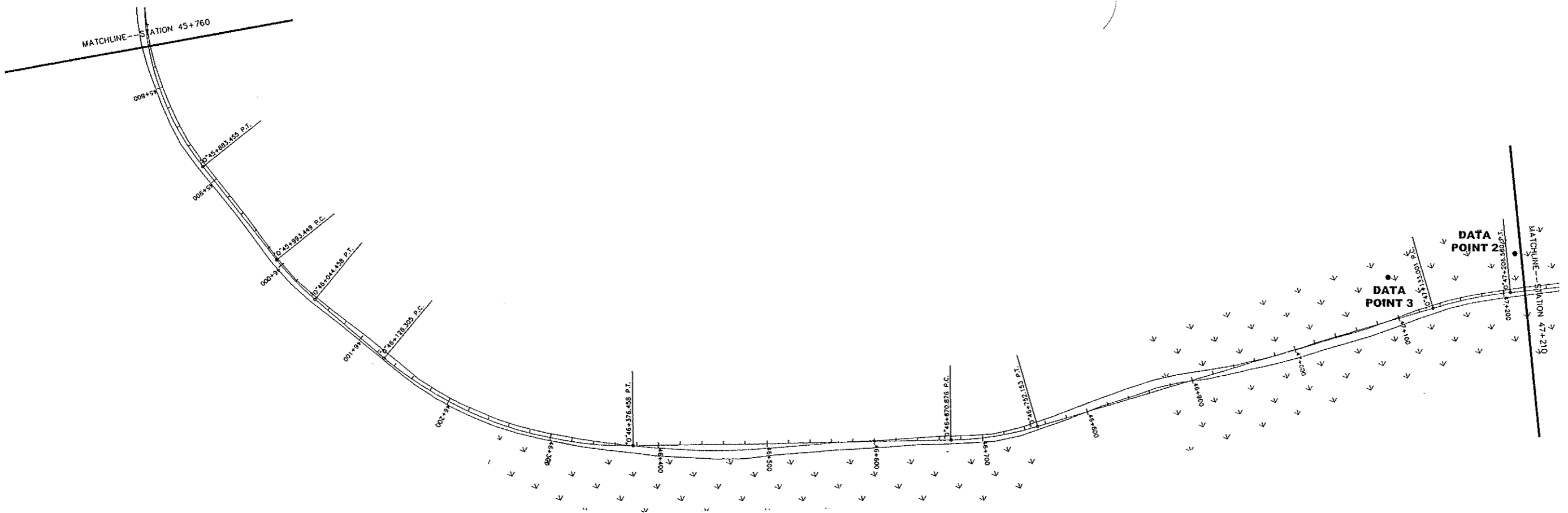
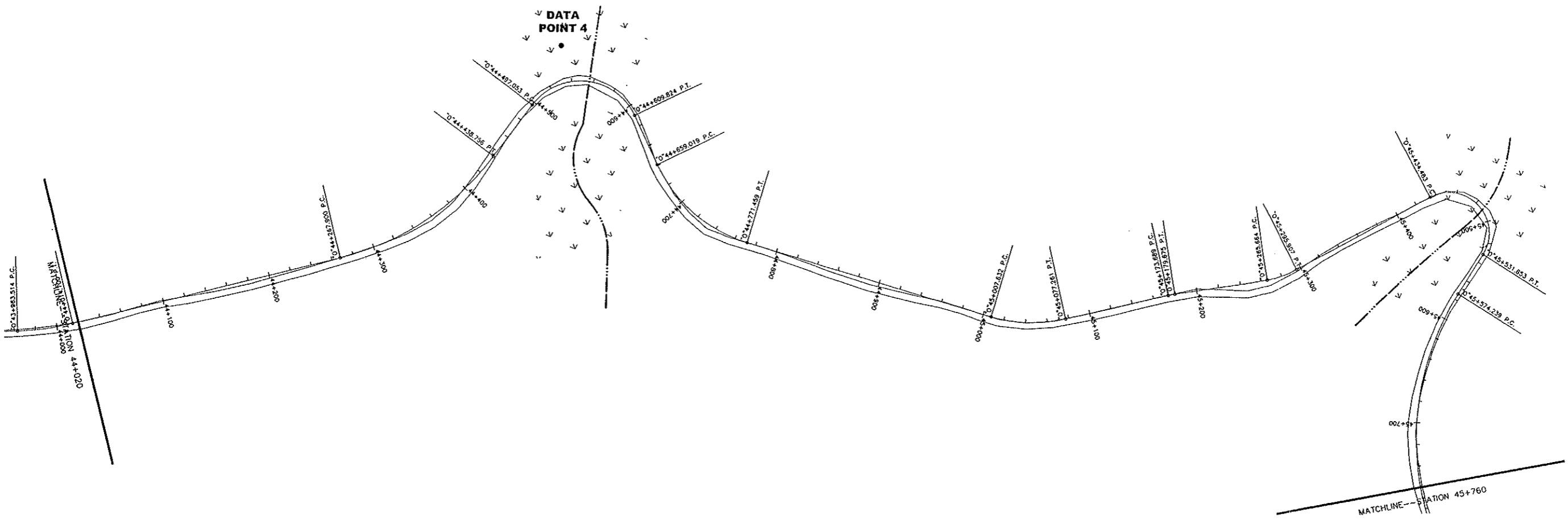
WETLAND DELINEATION  
FIGURE 17

JOB NO: 4328

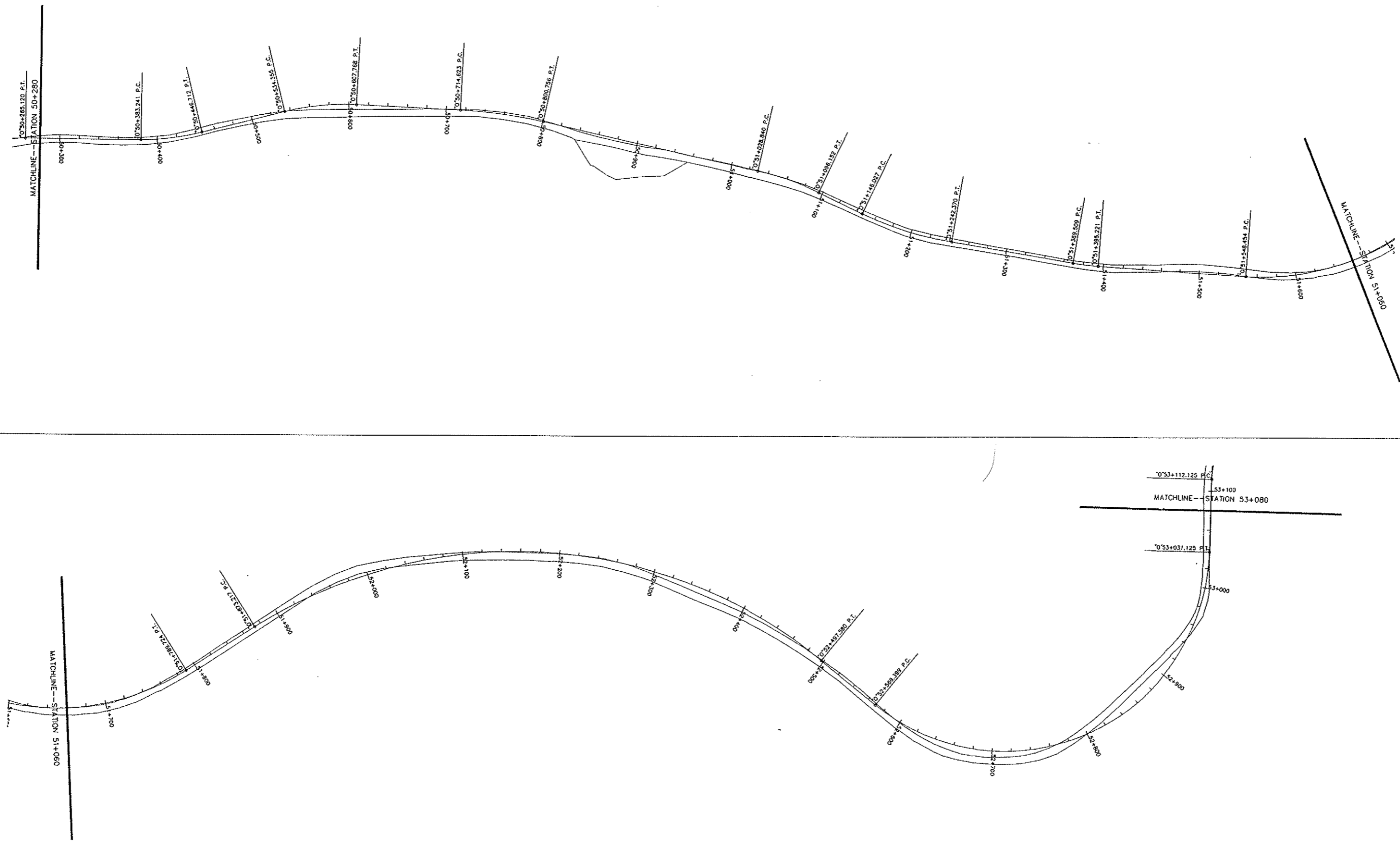
DATE: 10/21/02

DRAWN BY: DRM

CHECKED BY: XXX







TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 19

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

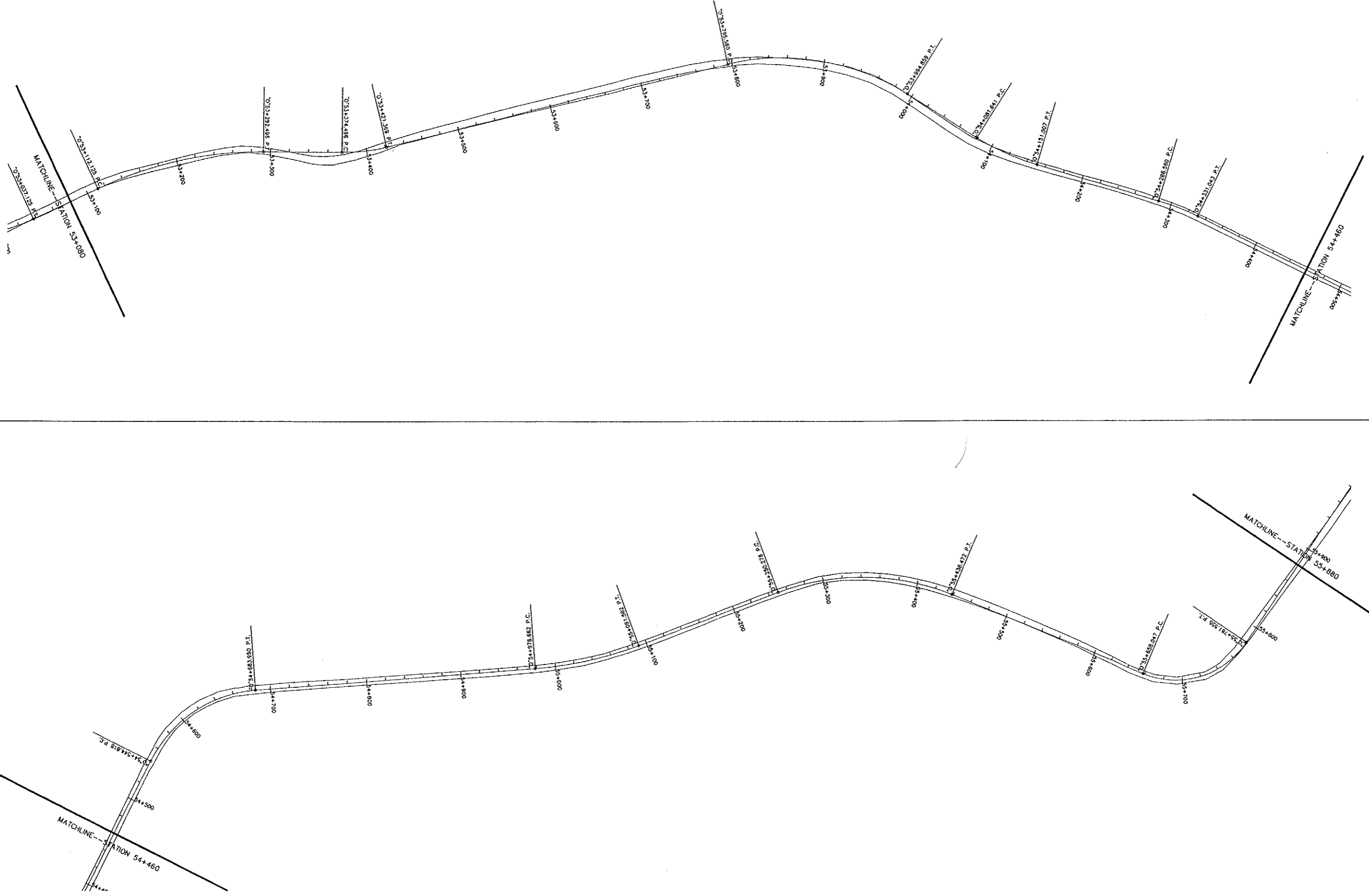
WETLAND DELINEATION  
FIGURE 20

JOB NO: 4328

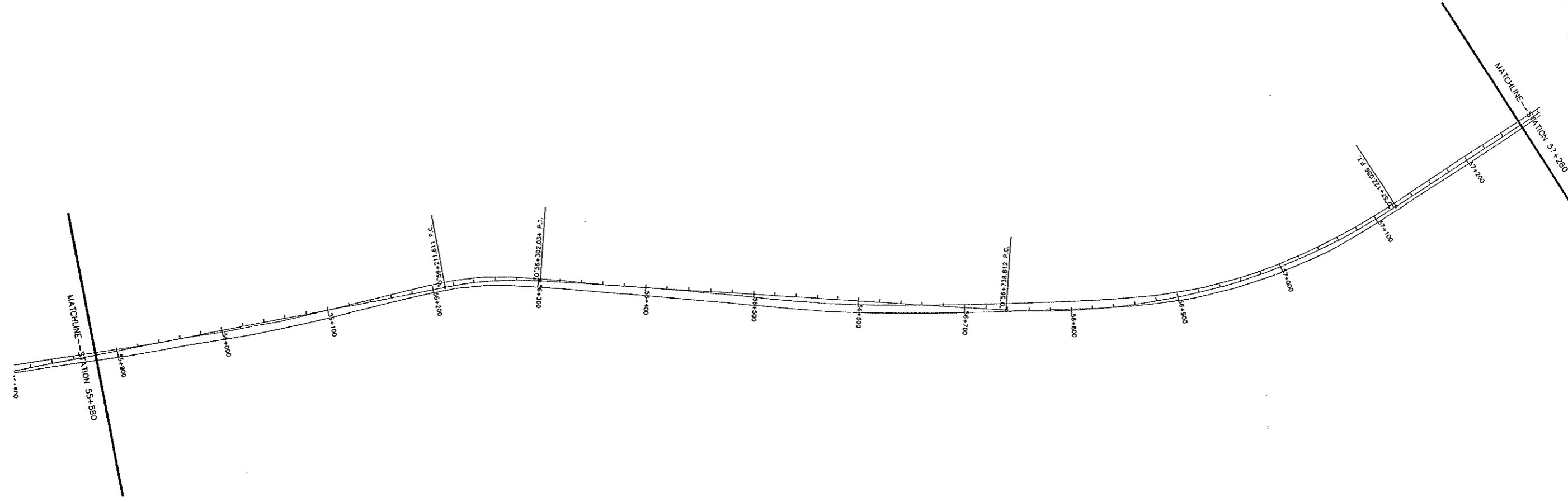
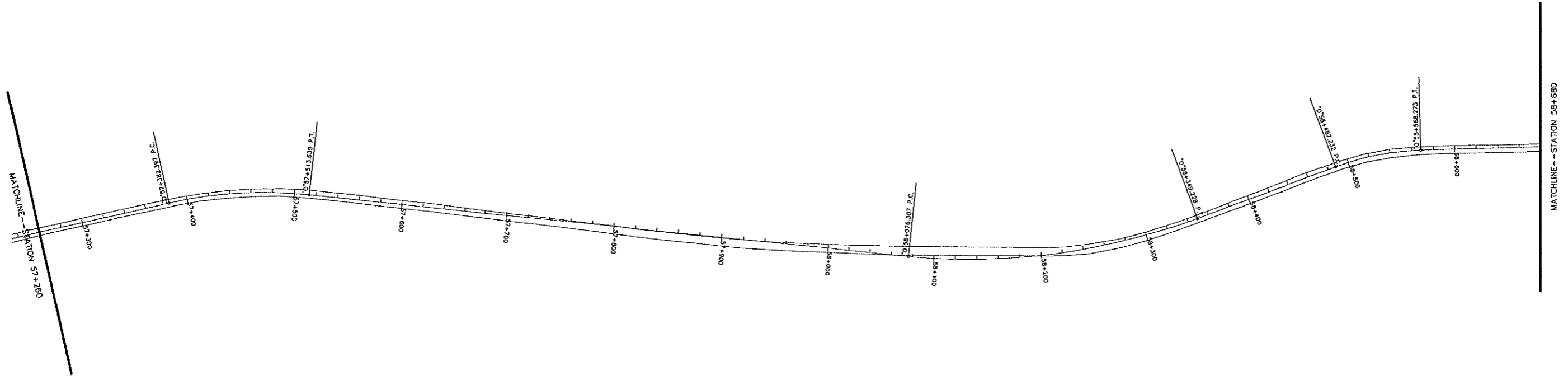
DATE: 10/21/02

DRAWN BY: DRM

CHECKED BY: XXX



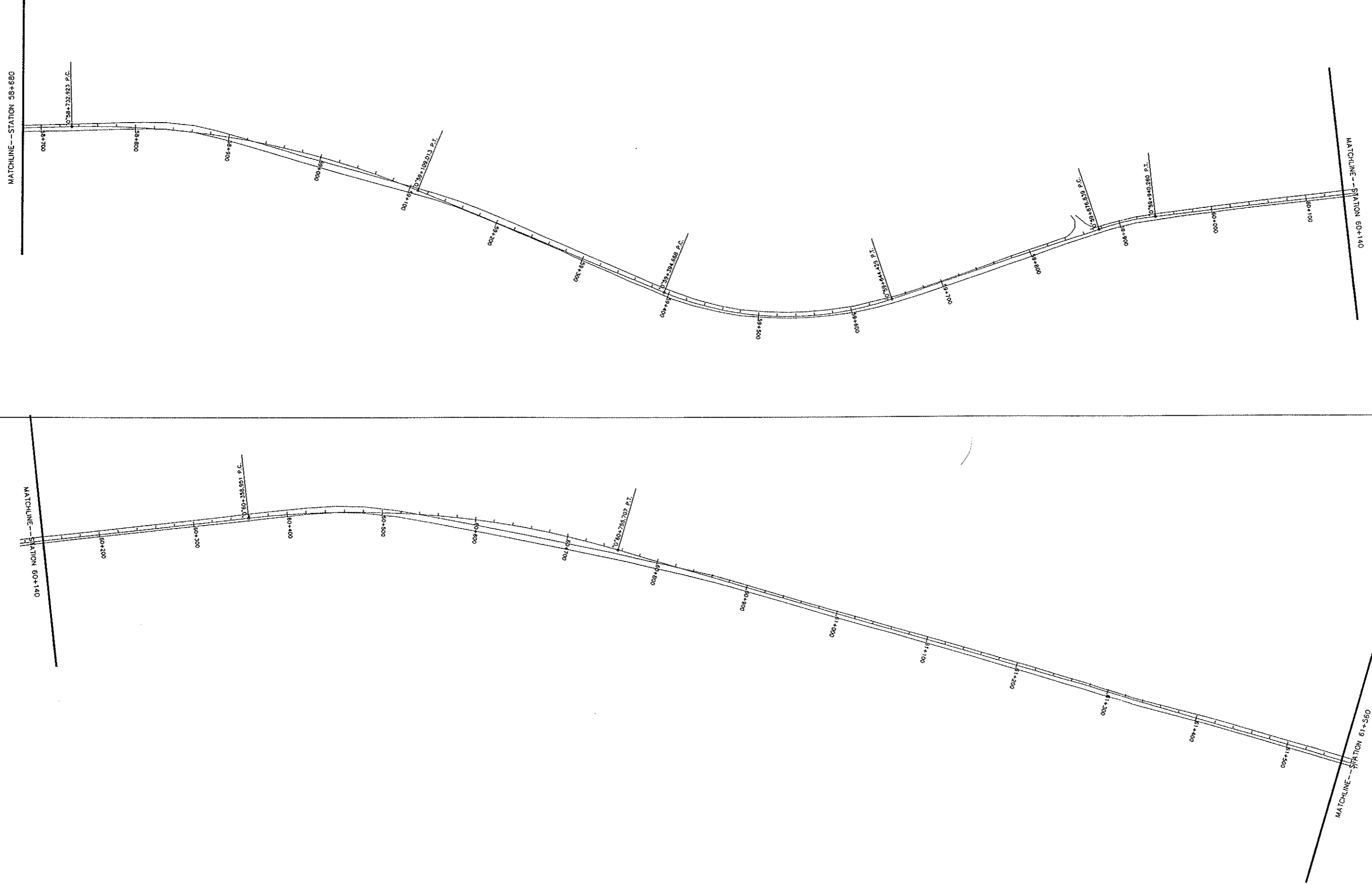




TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 21

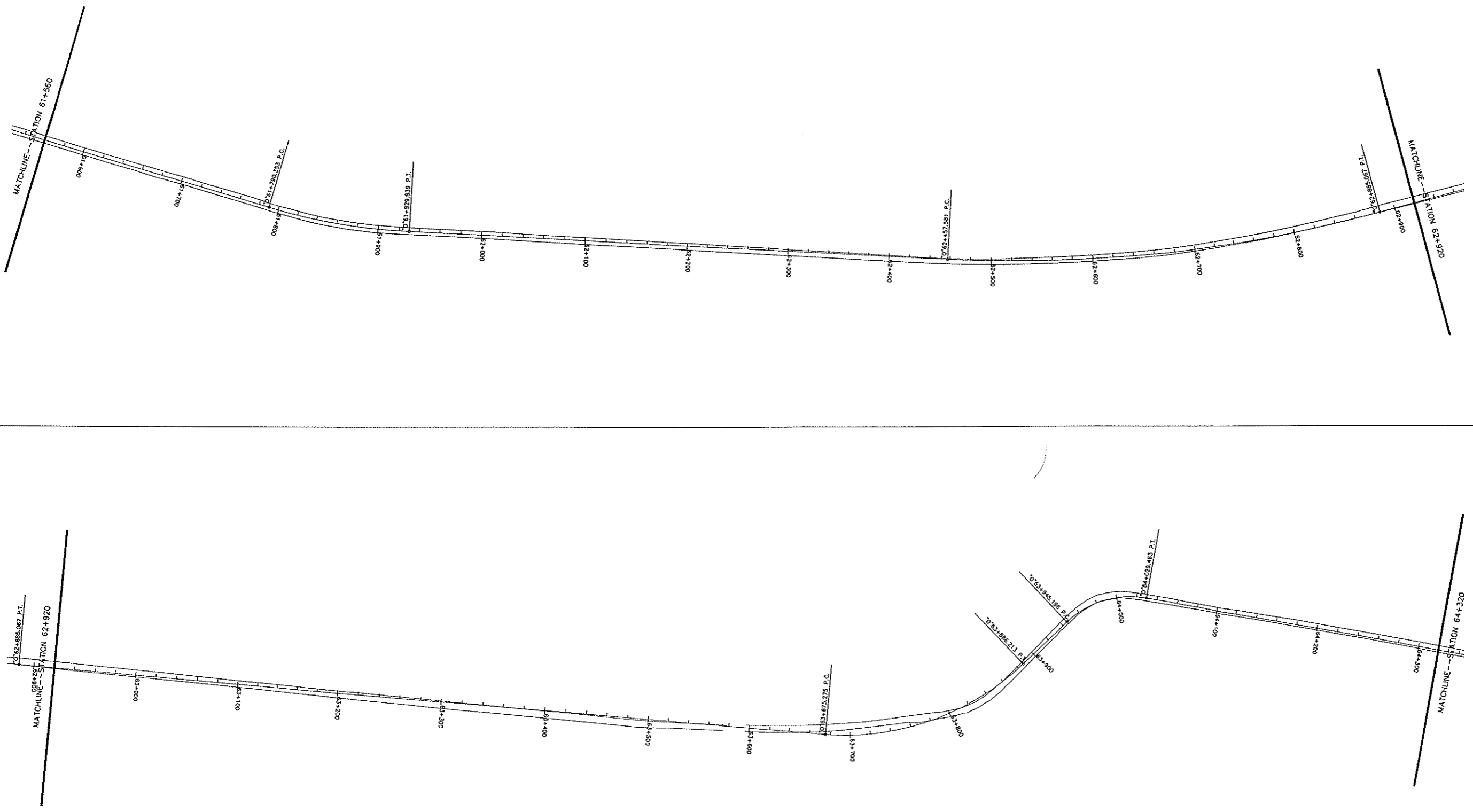
JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 22

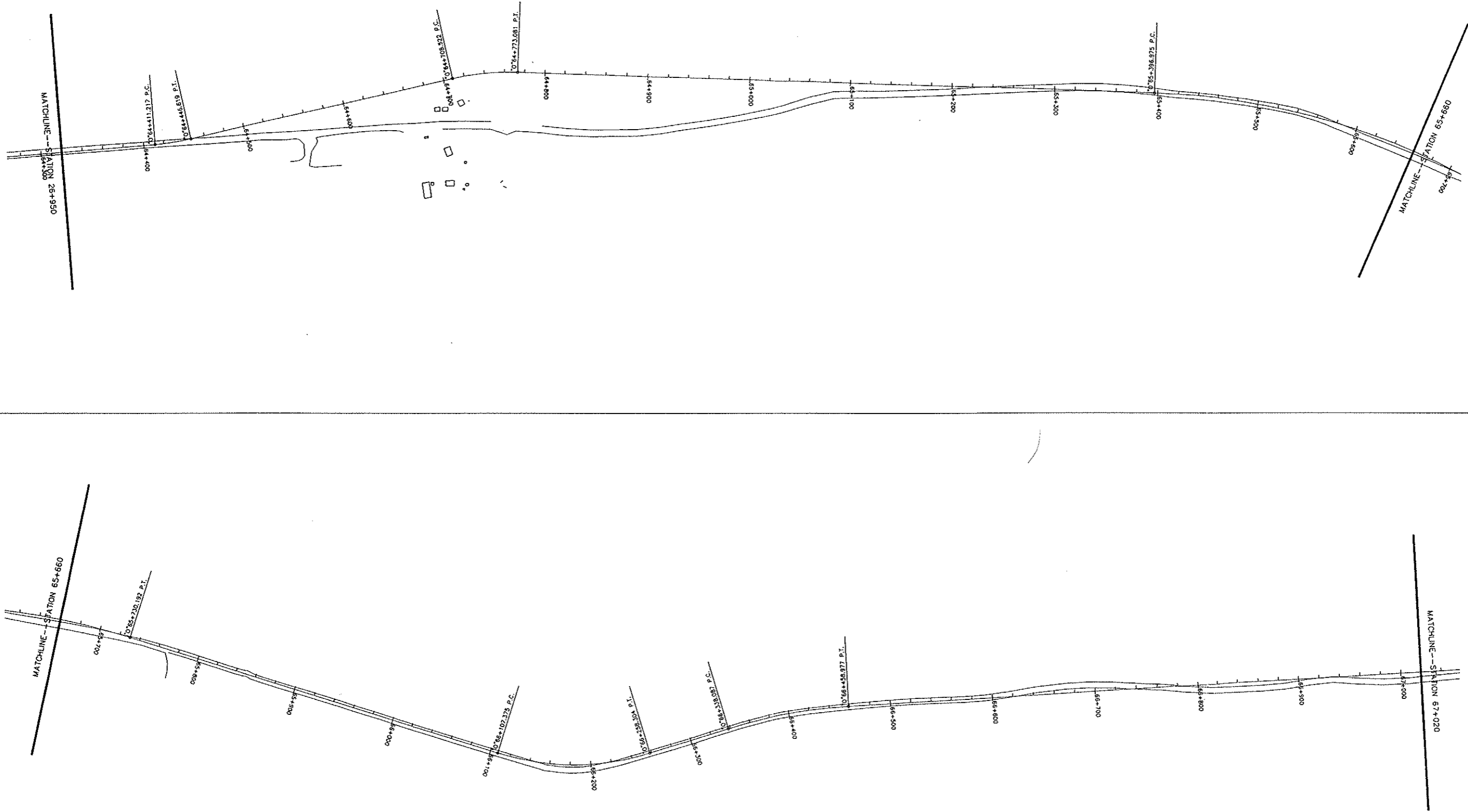
JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 23

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 24

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX



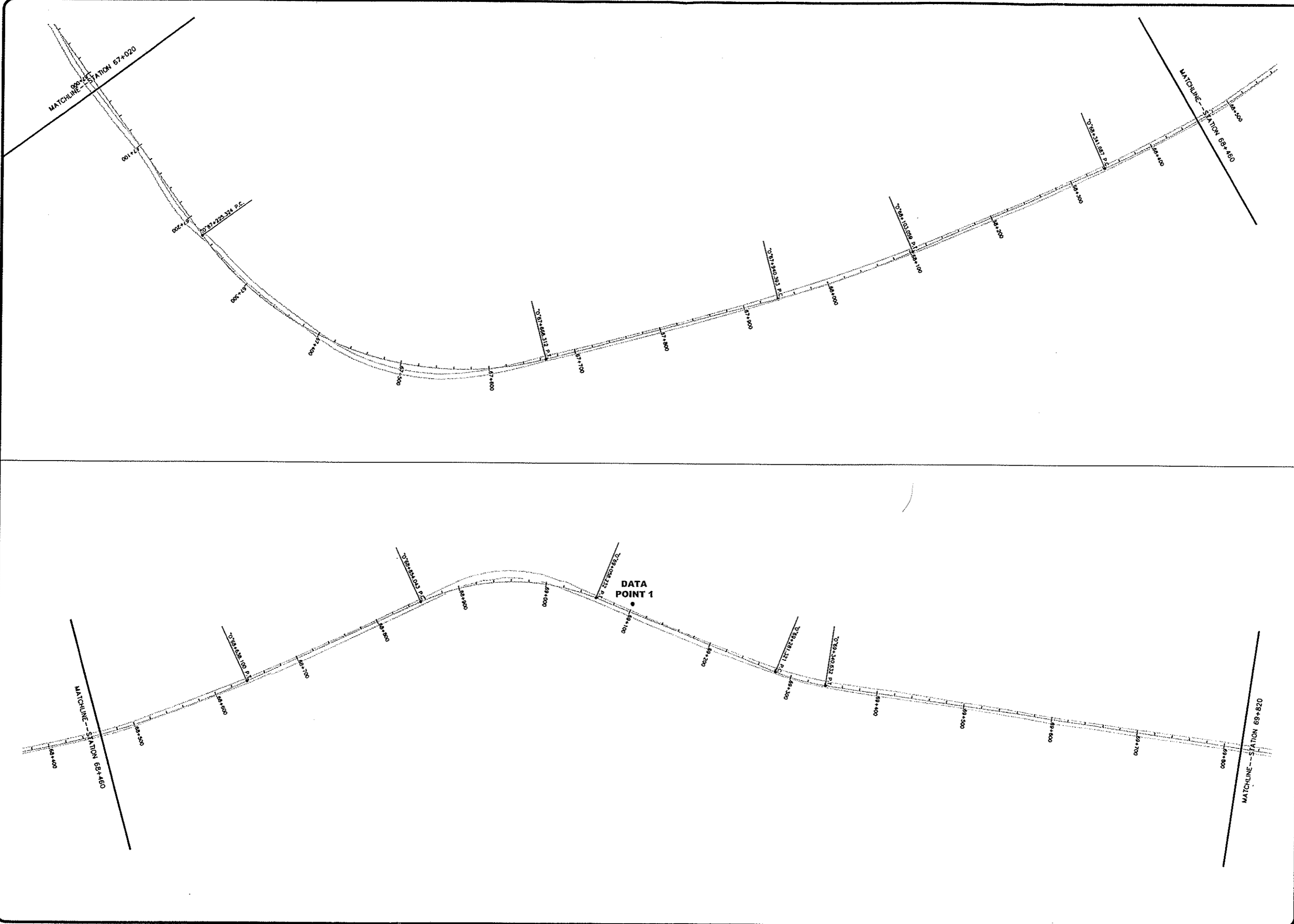


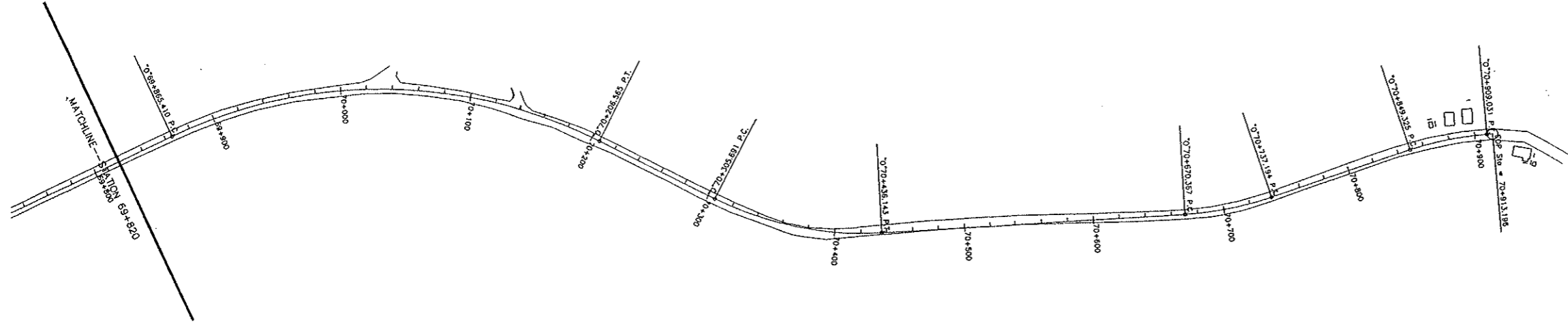
TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 25

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX

DWG FILE: K:\0581110444 - Taylor Hwy EAA\cd\download\Wetland.dwg





TAYLOR HIGHWAY MP 64.5  
TO THE  
CANADIAN BORDER

WETLAND DELINEATION  
FIGURE 26

JOB NO:	4328
DATE:	10/21/02
DRAWN BY:	DRM
CHECKED BY:	XXX

**APPENDIX C**  
**WETLAND FIELD DATA SHEETS**

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Top of World</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>Kwaller B Miller</u> Job #: _____	Date: <u>9-11-02</u> City: _____ County: _____ State: <u>Ak</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	<u>1.3 from border</u>

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Utricularia</u>		<u>30</u>	<u>FAC</u>	1. _____			
2. <u>Salix reticulata</u>		<u>10</u>	<u>FAC</u>	2. _____			
3. <u>Empetrum nigrum</u>		<u>15</u>	<u>FAC</u>	3. _____			
4. <u>Pedicularis</u>		<u>25</u>	<u>—</u>	4. _____			
5. <u>Moss</u>		<u>60</u>	<u>—</u>	5. _____			
6. <u>Lupinus</u>		<u>3</u>	<u>—</u>	6. _____			
7. <u>Scilla maritima</u>		<u>3</u>	<u>—</u>	7. _____			
8. <u>Salix glauca</u>		<u>20+</u>	<u>FACW</u>	8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<p>Recorded Data (Describe in Remarks):</p> <p><input type="checkbox"/> Stream, Lake, or Tide Gage</p> <p><input type="checkbox"/> Aerial Photograph</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> No Recorded Data Available</p>	<p><b>Wetland Hydrology Indicators</b></p> <p><input type="checkbox"/> Inundated</p> <p><input checked="" type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Water Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage Patterns in Wetlands</p> <p><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: _____ (in.)</p> <p>Depth to Free Water in Pit: <u>10</u> (in.)</p> <p>Depth to Saturated Soil: <u>sur face</u> (in.)</p>	
<p>Remarks:</p>	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-12+	10YR 4/3	-	-	G SL
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: <i>not hydric coloration</i>				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?    Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soils Present?    Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present?    Yes <input type="radio"/> No <input checked="" type="radio"/>	Is this Data Point Within a Wetland?    Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <i>although H<sub>2</sub>O present now perhaps during the growing season it is drier in this area</i>	

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K Walker B Miller</u> Job #: _____	Date: <u>9-11-02</u> City: _____ County: _____ State: <u>AL</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>moss</u>		<u>60</u>	<u>-</u>	1. _____			
2. <u>Carex spp</u>		<u>40</u>	<u>-</u>	2. _____			
3. <u>Salix planifolia</u>	<u>20</u>	<u>20</u>	<u>FACW</u>	3. _____			
4. <u>Equisetum</u>			<u>-</u>	4. _____			
5. <u>Redon grandiflora</u>		<u>10</u>	<u>FACW</u>	5. _____			
6. <u>Poa</u>		<u>20</u>	<u>-</u>	6. _____			
7. <u>Epilobium angustifolium</u>		<u>-</u>	<u>-</u>	7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b>  <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b>  Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-1	10YR <sup>2</sup> /1	_____	_____	Highly organic SL
1-2	10YR <sup>4</sup> /4	_____	_____	SL
2-10+	2.5Y <sup>3</sup> /2	_____	6SL	6SL
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes    No
Hydric Soils Present?	Yes	No	
Wetland Hydrology Present?	Yes	No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Highway</u> Applicant/Owner: <u>ASC6/ADOT</u> Investigator: <u>KWalter B.M.Her</u> Job #: _____	Date: <u>7-11-02</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Lythrum nigra</u>	<u>h</u>	<u>20</u>	<u>fac</u>	1. _____	_____	_____	_____
2. <u>Salix pentandria</u>	<u>s</u>	<u>20</u>	<u>facw</u>	2. _____	_____	_____	_____
3. <u>Picea mariana</u>	<u>t</u>	<u>20</u>	<u>facw</u>	3. _____	_____	_____	_____
4. <u>Vaccinium uliginosum</u>	<u>s</u>	<u>20</u>	<u>fac</u>	4. _____	_____	_____	_____
5. <u>mossy</u>	<u>h</u>	_____	_____	5. _____	_____	_____	_____
6. _____	_____	_____	_____	6. _____	_____	_____	_____
7. _____	_____	_____	_____	7. _____	_____	_____	_____
8. _____	_____	_____	_____	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks:	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
_____	10YR 2/1	_____	_____	peat
_____	10YR 3/2	_____	_____	SL
_____	10Y 2.5/0	7.5YR 3/4	few distinct	fine SL
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks:   				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Remarks:   	

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K Walker B Miller</u> Job #: _____	Date: <u>9-11-01</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Picea Mariana</u>	<u>T</u>	<u>20</u>	<u>FACW</u>	1. <u>Potentilla</u>			
2. <u>Salix sep</u>	<u>S</u>	<u>15</u>	<u>-</u>	2. _____			
3. <u>Hamam obtusum</u>	<u>S</u>	<u>20</u>	<u>FACW</u>	3. _____			
4. <u>Naccosus oxycoccus</u>	<u>b</u>	<u>20</u>	<u>Obl</u>	4. _____			
5. <u>Salix (decumbent)</u>	<u>S</u>	<u>15</u>	<u>-</u>	5. _____			
6. <u>Urtica groenlandica</u>	<u>S</u>	<u>10</u>	<u>FACW</u>	6. _____			
7. <u>Betula</u>	<u>S</u>	<u>10</u>	<u>-</u>	7. _____			
8. <u>MOSS</u>	<u>h</u>	<u>80</u>	<u>-</u>	8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b>  <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>7</u> (in.) Depth to Free Water in Pit: <u>11</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-10	_____	_____	_____	decomposing material
10-16	10YR <sup>2</sup> /1	_____	_____	mud
16+	10YR <sup>3</sup> /1	_____	_____	sl
<b>Hydric Soil Indicators:</b>				
<input checked="" type="checkbox"/> Histosol	<input type="checkbox"/> Concretions			
<input checked="" type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking			
<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Hydric Soils Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Highway</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K. Walter Bruller</u> Job #: _____	Date: <u>9-11-02</u> City: _____ County: _____ State: <u>AZ</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Lythrum decumbens</u>		<u>30</u>	<u>FACW</u>	1. _____			
2. <u>Picea mariana</u>		<u>20</u>	<u>FACW</u>	2. _____			
3. <u>Betula nana</u>		<u>15</u>	<u>FAC</u>	3. _____			
4. <u>Quercus pyramidalis</u>		<u>20</u>	<u>OBI</u>	4. _____			
5. <u>herbs</u>		<u>50</u>	—	5. _____			
6. <u>mosses</u>		<u>60</u>	—	6. _____			
7. <u>liverworts</u>		<u>25</u>	—	7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 2/100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<p>Recorded Data (Describe in Remarks):</p> <p><input type="checkbox"/> Stream, Lake, or Tide Gage</p> <p><input type="checkbox"/> Aerial Photograph</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> No Recorded Data Available</p>	<p><b>Wetland Hydrology Indicators</b></p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Water Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage Patterns in Wetlands</p> <p><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: _____ (in.)</p> <p>Depth to Free Water in Pit: <u>7"</u> (in.)</p> <p>Depth to Saturated Soil: <u>Surface</u> (in.)</p>	
<p>Remarks:</p>	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-7	10YR <sup>2/1</sup>	_____	_____	peat
7+	10YR <sup>3/2</sup>	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions			
<input checked="" type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking			
<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes    No
Hydric Soils Present?	Yes	No	
Wetland Hydrology Present?	Yes	No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>Walter B Miller</u> Job #: _____	Date: <u>9-11-02</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Blue joint</u>				1. _____			
2. <u>Artemisia filifolia</u>			<u>NE</u>	2. _____			
3. <u>Picea maritima</u>		<u>5</u>	<u>FACW</u>	3. _____			
4. <u>Populus balsamifera</u>			<u>FACU</u>	4. _____			
5. <u>Willow</u>				5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 50

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b>  Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: <u>Surface</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-3	10YR 2/1	—	—	some organics SL
3-15+	7.5YR 3/1	none		SL
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland?    Yes <b>No</b>
Hydric Soils Present?	Yes	No	
Wetland Hydrology Present?	Yes	No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>A DOT</u> Investigator: <u>K. Miller B. Miller</u> Job #: _____	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>Ala</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Carex spp.</u>		<u>20</u>	<u>-</u>	1. _____			
2. <u>Moss</u>		<u>60</u>	<u>-</u>	2. _____			
3. <u>Salix planifolia</u>		<u>15</u>	<u>facw</u>	3. _____			
4. <u>Spartina virginiana?</u>		<u>10</u>	<u>facw</u>	4. _____			
5. <u>Pectica ? spp</u>		<u>10</u>	<u>-</u>	5. _____			
6. _____				6. _____			
7. _____				7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b>  <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b>  Depth of Surface Water: <u>    -    </u> (in.) Depth to Free Water in Pit: <u>    9    </u> (in.) Depth to Saturated Soil: <u>    Surface    </u> (in.)	
Remarks:	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations		
		Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-15+	10YR 3/2	7.5YR 5/6	few diffuse	SL organic lenses
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input checked="" type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Probable Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer <input type="checkbox"/> Organic Streaking <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland? <input checked="" type="checkbox"/> Yes    No
Hydric Soils Present?	Yes	No	
Wetland Hydrology Present?	Yes	No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>Kwikker B Miller</u> Job #: _____	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>AL</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Bahia pasiflora</u>	<u>S</u>	<u>20</u>	<u>FACW</u>	1. _____	_____	_____	_____
2. <u>Salix planifolia</u>	<u>S</u>	<u>20</u>	<u>FACW</u>	2. _____	_____	_____	_____
3. _____	_____	_____	_____	3. _____	_____	_____	_____
4. _____	_____	_____	_____	4. _____	_____	_____	_____
5. _____	_____	_____	_____	5. _____	_____	_____	_____
6. _____	_____	_____	_____	6. _____	_____	_____	_____
7. _____	_____	_____	_____	7. _____	_____	_____	_____
8. _____	_____	_____	_____	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*Dominant species. 50

Cowardin Classification: \_\_\_\_\_

Remarks: \_\_\_\_\_

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b>  Depth of Surface Water: <u>1"</u> (in.) Depth to Free Water in Pit: <u>surface</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks: _____	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
<u>0-8+</u>	<u>10YR 4/4</u>	_____	_____	<u>fs</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Probable Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer <input type="checkbox"/> Organic Streaking <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input checked="" type="radio"/> No	Is this Data Point Within a Wetland?    Yes <input checked="" type="radio"/> No
Hydric Soils Present?	Yes	<input checked="" type="radio"/> No	
Wetland Hydrology Present?	? Yes	<input checked="" type="radio"/> No	
Remarks: <i>hydrology appears to be new recent road changes may impound water - (and heavy rainfall), wetland conditions may develop over time if this is not rectified</i>			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Highway</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>R. Walter, B. Miller</u> Job #: _____	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. Labrador Tea	A	20	facw	1. _____	_____	_____	_____
2. Narrow Leaf Labrador Tea	A	50	facw	2. _____	_____	_____	_____
3. Blueberry	<del>A</del>	40	fac	3. _____	_____	_____	_____
4. Moss	_____	100	_____	4. _____	_____	_____	_____
5. Salix planifolia	<del>A</del>	20	facw	5. _____	_____	_____	_____
6. Picea Mariana	T	20	facw	6. _____	_____	_____	_____
7. Carex sp.	H	20	_____	7. _____	_____	_____	_____
8. Botrychium fruticosum	S	15	fac	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*Dominant species. 100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>surface</u> (in.) Depth to Free Water in Pit: <u>16</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks:	



**SOILS**

DP-9

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations		
		Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-8	10YR 2/2			muck w/ silt
8-14	10YR 3/2 and 3/3			sand lense
14+	10YR 3/1			high organic silt loam
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Probable Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer <input type="checkbox"/> Organic Streaking <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Hydric Soils Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K. Walter, B. Miller</u> Job #: _____	Date: <u>9-12-67</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Salix planifolia</u>	<u>S</u>		<u>Facw</u>	1. _____			
2. <u>Picea Mariana</u>	<u>T</u>	<u>30</u>	<u>Facw</u>	2. _____			
3. <u>Carex (aquatic?)</u>	<u>H</u>	<u>20</u>	<u>obl</u>	3. _____			
4. <u>Ranunculus aquatilis</u>		<u>40</u>	<u>Facw</u>	4. _____			
5. <u>Calamagrostis</u>	<u>H</u>	<u>30</u>	<u>-</u>	5. _____			
6. <u>Carex flaccida?</u>	<u>H</u>	<u>20</u>	<u>obl</u>	6. _____			
7. <u>Moss</u>		<u>20</u>	<u>-</u>	7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 1.100

Cowardin Classification: \_\_\_\_\_

Remarks: ss wetland

**HYDROLOGY**

Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input checked="" type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b>  <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Water Lines - <u>± 6"</u> of H <sub>2</sub> O stand in wetland at times <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>none</u> (in.) Depth to Free Water in Pit: <u>none</u> (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks: <u>evidence of previous inundation some local ponding ~ 6-12 inches</u>	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
<u>0-6</u>	_____	_____	_____	<u>peaty organic</u>
<u>6-16</u>	<u>10YR 3/1</u>	_____	_____	<u>highly organic silt loam</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking			
<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)			
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Hydric Soils Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Remarks: <u>water</u>			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Highway</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K. Walker &amp; Miller</u> Job #: _____	Date: <u>7-12-02</u> City: _____ County: _____ State: <u>AK</u> <u>Above Walker Creek</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Sphagnum</u>		<u>80%</u>	<u>ob/NL</u>	1. _____			
2. <u>Lythrum palustre</u>		<u>20</u>	<u>FACW</u>	2. _____			
3. <u>Vaccinium vitis-idaea</u>		<u>15</u>	<u>FAC</u>	3. _____			
4. <u>Salix planifolia</u>		<u>15</u>	<u>FACW</u>	4. _____			
5. <u>Picea mariana</u>		<u>20</u>	<u>FACW</u>	5. _____			
6. <u>Vaccinium uliginosum</u>			<u>FAC</u>	6. _____			
7. _____				7. _____			
8. _____				8. _____			

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*Dominant species. 4.100

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: <u>surface</u> (in.)	
Remarks:	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-7	_____	_____	_____	rock part
7-11+	10YR 3/2	_____	_____	SIL
_____	_____	_____	_____	S
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: h.f per ma frost at about 11" water seeping in at 67"				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland? <input checked="" type="radio"/> Yes    No
Hydric Soils Present?	Yes	No	
Wetland Hydrology Present?	Yes	No	
Remarks:			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Highway</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K. Walker B. Miller</u> Job #: _____	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area: <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Betula papyrifera</u>	<u>T...</u>	<u>20</u>	<u>FACV</u>	1. _____	_____	_____	_____
2. <u>Alnus incana</u>	<u>T</u>	<u>20</u>	<u>FAC</u>	2. _____	_____	_____	_____
3. <u>grass Carex magostis?</u>	<u>h</u>	<u>30</u>	<u>---</u>	3. _____	_____	_____	_____
4. _____	_____	_____	_____	4. _____	_____	_____	_____
5. _____	_____	_____	_____	5. _____	_____	_____	_____
6. _____	_____	_____	_____	6. _____	_____	_____	_____
7. _____	_____	_____	_____	7. _____	_____	_____	_____
8. _____	_____	_____	_____	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*-Dominant species. 75.0

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b>  <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
Field Observations:  Depth of Surface Water: <u>7</u> (in.) Depth to Free Water in Pit: <u>11</u> (in.) Depth to Saturated Soil: <u>1</u> (in.)	
Remarks:	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-4"	_____	_____	_____	df
4-14"	10YR 3/2	_____	_____	SL
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input checked="" type="radio"/> No	Is this Data Point Within a Wetland?    Yes <input checked="" type="radio"/> No
Hydric Soils Present?	Yes	<input checked="" type="radio"/> No	
Wetland Hydrology Present?	Yes	<input checked="" type="radio"/> No	
Remarks: _____			

**DATA FORM  
ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>K. Walker B. Miller</u> Job #: _____	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>A</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Salix planifolia</u>	<u>20</u>	<u>S</u>	<u>FACW</u>	1. <u>Equisetum arvense</u>	<u>S</u>	<u>S</u>	<u>FACW</u>
2. <u>Betula papyrifera</u>	<u>30</u>	<u>T</u>	<u>FACV</u>	2. _____	_____	_____	_____
3. <u>Picea mariana</u>	<u>10</u>	<u>T</u>	<u>FACW</u>	3. _____	_____	_____	_____
4. <u>Arctostaphylos uva-ursi</u>	<u>40</u>	<u>S</u>	<u>FACW</u>	4. _____	_____	_____	_____
5. <u>Shepherdia canadensis</u>	<u>15</u>	<u>S</u>	<u>NI</u>	5. _____	_____	_____	_____
6. <u>Ledum groenlandicum</u>	<u>15</u>	<u>S</u>	<u>FACW</u>	6. _____	_____	_____	_____
7. <u>Vaccinium uliginosum</u>	<u>15</u>	<u>S</u>	<u>FAC</u>	7. _____	_____	_____	_____
8. <u>Vaccinium vitis-idaea</u>	<u>30</u>	<u>A</u>	<u>FAC</u>	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*Dominant species. 1.50

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gage ___ Aerial Photograph ___ Other ___ No Recorded Data Available	<b>Wetland Hydrology Indicators</b> ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Water Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>dry</u>	



**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
0-12	7.5YR 2/1	_____	_____	highly organic sil
12-16+	10YR 3/1	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Probable Aquic Moisture Regime	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer	<input type="checkbox"/> Organic Streaking	<input type="checkbox"/> Listed on Local Hydric Soils List
	<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	<input checked="" type="radio"/> No	Is this Data Point Within a Wetland?    Yes <input checked="" type="radio"/> No
Hydric Soils Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Remarks: _____			

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**

Project/Site: <u>Taylor Hwy</u> Applicant/Owner: <u>ADOT</u> Investigator: <u>KLWalter B Miller Job #: 21-1</u>	Date: <u>9-12-02</u> City: _____ County: _____ State: <u>AK</u>
Have vegetation, soils, or hydrology been disturbed: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential Problem Area: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If needed, explain on reverse.)	

**VEGETATION**

Dominant Plant Species	Stratum	% Cover	Indicator	Dominant Plant Species	Stratum	% Cover	Indicator
1. <u>Betula dwarf</u>	<u>50</u>	<u>5</u>	<u>—</u>	1. _____	_____	_____	_____
2. <u>Moss</u>	<u>40</u>	<u>h</u>	<u>—</u>	2. _____	_____	_____	_____
3. <u>Grass</u>	<u>20</u>	<u>h</u>	<u>—</u>	3. _____	_____	_____	_____
4. <u>Poa</u>	<u>20</u>	<u>h</u>	<u>—</u>	4. _____	_____	_____	_____
5. <u>Shrubby cinquefoil</u>	<u>20</u>	<u>3</u>	<u>—</u>	5. _____	_____	_____	_____
6. _____	_____	_____	_____	6. _____	_____	_____	_____
7. _____	_____	_____	_____	7. _____	_____	_____	_____
8. _____	_____	_____	_____	8. _____	_____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (except FAC-). \*Dominant species. \_\_\_\_\_

Cowardin Classification: \_\_\_\_\_

Remarks:

**HYDROLOGY**

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gage <input type="checkbox"/> Aerial Photograph <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Water Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks:	

**SOILS**

Map Unit Name: _____		Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations		
		Confirm Mapped Type?    Yes    No		
<b>Profile Description:</b>				
Depth (inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Rhizospheres, etc.
_____	_____	_____	_____	_____
_____	10YR3/1	_____	_____	Organic SIL
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>Hydric Soil Indicators:</b>				
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Probable Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer <input type="checkbox"/> Organic Streaking <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)		
Remarks: _____				

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes	No	Is this Data Point Within a Wetland?    Yes <u>No</u>
Hydric Soils Present?	Yes	<u>No</u>	
Wetland Hydrology Present?	Yes	<u>No</u>	
Remarks: _____			

**APPENDIX D**

**IMPORTANT INFORMATION ABOUT YOUR  
WETLAND DELINEATION/MITIGATION AND/OR  
STREAM CLASSIFICATION REPORT**





Date: May 16, 2003  
To: ASCG, Inc.  
Anchorage, Alaska

## **IMPORTANT INFORMATION ABOUT YOUR WETLAND DELINEATION/MITIGATION AND/OR STREAM CLASSIFICATION REPORT**

### **A WETLAND/STREAM REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.**

Wetland delineation/mitigation and stream classification reports are based on a unique set of project-specific factors. These typically include the general nature of the project and property involved, its size, and its configuration; historical use and practice; the location of the project on the site and its orientation; and the level of additional risk the client assumed by virtue of limitations imposed upon the exploratory program. The jurisdiction of any particular wetland/stream is determined by the regulatory authority(s) issuing the permit(s). As a result, one or more agencies will have jurisdiction over a particular wetland or stream with sometimes confusing regulations. It is necessary to involve a consultant who understands which agency(s) has jurisdiction over a particular wetland/stream and what the agency(s) permitting requirements are for that wetland/stream. To help reduce or avoid potential costly problems, have the consultant determine how any factors or regulations (which can change subsequent to the report) may affect the recommendations.

Unless your consultant indicates otherwise, your report should not be used:

- ▶ If the size or configuration of the proposed project is altered.
- ▶ If the location or orientation of the proposed project is modified.
- ▶ If there is a change of ownership.
- ▶ For application to an adjacent site.
- ▶ For construction at an adjacent site or on site.
- ▶ Following floods, earthquakes, or other acts of nature.

Wetland/stream consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of our final report.

Wetland boundaries identified and stream classifications made by Shannon & Wilson are considered preliminary until validated by the U.S. Army Corps of Engineers (Corps) and/or the local jurisdictional agency. Validation by the regulating agency(s) provides a certification, usually written, that the wetland boundaries verified are the boundaries that will be regulated by the agency(s) until a specified date, or until the regulations are modified, and that the stream has been properly classified. Only the regulating agency(s) can provide this certification.

### **MOST WETLAND/STREAM "FINDINGS" ARE PROFESSIONAL ESTIMATES.**

Site exploration identifies wetland/stream conditions at only those points where samples are taken and when they are taken, but the physical means of obtaining data preclude the determination of precise conditions. Consequently, the information obtained is intended to be sufficiently accurate for design, but is subject to interpretation. Additionally, data derived through sampling and subsequent laboratory testing are extrapolated by the consultant who then renders an opinion about overall conditions, the likely reaction to proposed construction activity, and/or appropriate design. Even under optimal circumstances, actual conditions may differ from those thought to exist because no consultant, no matter how qualified, and no exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock, and time. Nothing can be done to prevent the unanticipated, but steps can be taken to help reduce their impacts. For this reason, most experienced owners retain their consultants through the construction or wetland mitigation/stream classification stage to identify variances, to conduct additional evaluations that may be needed, and to recommend solutions to problems encountered on site.

### **WETLAND/STREAM CONDITIONS CAN CHANGE.**

Since natural systems are dynamic systems affected by both natural processes and human activities, changes in wetland boundaries and stream conditions may be expected. Therefore, delineated wetland boundaries and stream classifications cannot remain valid for an indefinite period of time. The Corps typically recognizes the validity of wetland delineations for a period of five years after completion. Some city and county agencies recognize the validity of wetland delineations for a period of two years. If a period of years have passed since the wetland/stream report was completed, the owner is advised to have the consultant reexamine the wetland/stream to determine if the classification is still accurate.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or water fluctuations may also affect conditions and, thus, the continuing adequacy of the wetland/stream report. The consultant should be kept apprised of any such events and should be consulted to determine if additional evaluation is necessary.

### **THE WETLAND/STREAM REPORT IS SUBJECT TO MISINTERPRETATION.**

Costly problems can occur when plans are developed based on misinterpretation of a wetland/stream report. To help avoid these problems, the consultant should be retained to work with other appropriate professionals to explain relevant wetland, stream, geological, and other findings, and to review the adequacy of plans and specifications relative to these issues.

### **DATA FORMS SHOULD NOT BE SEPARATED FROM THE REPORT.**

Final data forms are developed by the consultant based on interpretation of field sheets (assembled by site personnel) and laboratory evaluation of field samples. Only final data forms customarily are included in a report. These data forms should not, under any circumstances, be drawn for inclusion in other drawings because drafters may commit errors or omissions in the transfer process. Although photographic reproduction eliminates this problem, it does nothing to reduce the possibility of misinterpreting the forms. When this occurs, delays, disputes, and unanticipated costs are frequently the result.

To reduce the likelihood of data form misinterpretation, contractors, engineers, and planners should be given ready access to the complete report. Those who do not provide such access may proceed under the mistaken impression that simply disclaiming responsibility for the accuracy of information always insulates them from attendant liability. Providing the best available information to contractors, engineers, and planners helps prevent costly problems and the adversarial attitudes that aggravate them to a disproportionate scale.

### **READ RESPONSIBILITY CLAUSES CLOSELY.**

Because a wetland delineation/stream classification is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in written transmittals. These are not exculpatory clauses designed to foist the consultant's liabilities onto someone else; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

### **THERE MAY BE OTHER STEPS YOU CAN TAKE TO REDUCE RISK.**

Your consultant will be pleased to discuss other techniques or designs that can be employed to mitigate the risk of delays and to provide a variety of alternatives that may be beneficial to your project.

Contact your consultant for further information.

**APPENDIX D**

**BLM PRELIMINARY SECTION 7 EVALUATION**



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Fortymile Team  
Tok Field Station  
P.O. Box 309  
Tok, Alaska 99780  
Phone: (907) 883-5121  
Fax: (907) 883-5123

Date: BETH MILLER, ASCG, Tay Hwy Project  
To: 5-8-03 FAX 339-5329

From:

Mary Maggie Randy Nancy Kevan Kent  
Jeff Heath Steve Shane

Regarding: Preliminary Sec. 7 Finding - Tay Hwy Proj-

Place x in box if Confidential

Message:

Per our telephone call this morning,  
this is still considered a draft until  
signed.

*Nancy Miller, Realty Specialist*

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**DRAFT**

May 8, 2003

**Preliminary Finding (BLM) Pursuant to Section 7 of the  
Wild and Scenic Rivers Act  
For the Proposed Taylor Highway Project  
(MP 64 near Chicken, Alaska, north to the Canadian Border)**

**Proposed Action**

The State of Alaska Department of Transportation and Public Facilities (ADOTPF) proposes to upgrade the portion of the Taylor Highway that parallels Wade Creek. The purpose of the project is to improve the safety of those traveling the highway, lower scheduled maintenance costs, and reduce the negative effects of flooding on the highway and the waters of the area. As of April 2003 the project has not been precisely described by design drawings. The detailed design will only be prepared following approval of the National Environmental Policy Act (NEPA) process and if funding is obtained for the project.

The following are descriptive excerpts from the scoping documents provided by ADOTPF:

**“Alignment –** *The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain between MP 84 and 85. The proposed highway realignments at corners average 0 to 15 meters (0 to 50 feet) from the existing highway centerline. Along Wade Creek, the maximum shift is 30 meters (0 to 100 feet) from the centerline. The road will be improved by widening the road to 28 feet with two 10-foot lanes and 4-foot shoulders and surfaced with “high float asphalt”. Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road.”*

**“Material and Disposal Sites –** *Material for road construction will come from road cuts/unclassified excavation and tailings from Wade Creek. There are also nine state-owned material sites available if they are needed during construction. Figures 1 and 2 show the locations of material sites. Additional unclassified excavation will be used as slope flattening in non-wetland areas. Disposal sites have not yet been identified. A Storm Water Pollution Prevention Plan and all necessary permits and clearances for material and disposal sites will be obtained prior to construction.”*

**“Impacts to Water bodies –** *Streams within the project corridor that could be temporarily affected by road rehabilitation include: Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, and several unnamed tributaries to Wade Creek. The Chicken Creek bridge will be replaced with a single span bridge. In-water work will be required at the Chicken Creek bridge for replacement of the old bridge. Approach and bridge railing work will be performed on the South Fork and Walker Fork bridges. In-water work will be required at the South Fork Bridge to repair a concrete pier. Work will be conducted at and below the water line. No reclamation of the Wade Creek floodplain will occur as outlined in previous*

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*project plans. An ADF&G habitat permit will be required for work in fish bearing streams including Chicken Creek and South Fork.* ”

*“Culverts-Culverts will also be installed at numerous locations to maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions and prevent restriction of fish passage. Culvert design and installation will follow guidance outlined in the "Memorandum of Agreement – Design, Permitting and Construction of Culverts for Fish Passage" between the ADOT&PF and ADF&G”*

*“Flood Plain Management – There are no Federal Emergency Management Agency Flood maps for the project area. The Alaska Community Flood Hazard Information website did not have flood information for Chicken or Boundary. According to a BLM publication Water Resources of the Fortymile National Wild & Scenic River, Alaska, the Mosquito Fork is subject to flooding during moderate to high water, the South Fork is subject to flooding only during extreme high water, and the Walker Fork is subject to flooding during moderate to high water. During the site visit there was evidence of erosion from high water of the Taylor Highway along Wade Creek at approximately MP 83 and 84. The proposed project will move portions of the Taylor Highway out of the Wade Creek floodplain.”*

*“Wetlands – There are no National Wetlands Inventory Maps available for the project area. A wetlands delineation based on aerial photography and field verification was conducted on September 10 to 13, 2002. A wetlands delineation report is currently being prepared. Preliminary information indicates that most areas with black spruce forest are considered wetlands along the Taylor Highway. Changes in the road footprint will likely result in impacts to the forested spruce wetlands. There are also scrub shrub and emergent wetlands associated with Wade and Walker Creeks along the road right of way. These wetlands have been highly disturbed by mining activities. It is likely that a Section 404 permit would be needed from the USACE for the proposed project.”*

### **Background Information**

Wade Creek is a component of the Fortymile National Wild and Scenic River (FNWSR) system, and is managed as a recreational river area. Walker Fork and South Fork are also part of the FNWSR managed as scenic river areas. The proposed upgrade of the highway will require the placement of fill and riprap that could restrict the ability of the Wade Creek channel to meander naturally within its valley. Because of this direct impact on the “free-flow” of the stream, the Bureau of Land Management as federal manager of the wild and scenic river area is required to determine whether or not the proposed action will have a “direct and adverse” impact on the values for which Wade Creek was added to the national system pursuant to Section 7 of the Wild and Scenic Rivers Act. As mentioned above, we lack detailed and final information about the project. We do not know exactly how much fill or riprap will be used or exactly where the road will be moved from its existing location, nor do we know where the existing stream lies relative

P. 4/4  
**DRAFT**

to the road. However, we do know that the project will likely result in improved water quality in Wade Creek, a more stable roadbed, and that when the roadbed is realigned, it will likely move away from the creek rather than towards it. This draft finding was prepared based on preliminary working drawings and tabular information, incomplete surveys, and discussions with DOT staff.

One interesting fact which is quite unusual for wild and scenic river areas, is that throughout the project area Wade Creek does not flow in a "natural" channel. Instead, the stream has been moved about for decades by miners whose rights under the mining laws supersede the protections provided by the Wild and Scenic Rivers Act. Miners had rights that also predated the right-of-way for the road and routinely rerouted the highway and stream in the process of mining their claims. Miners have left over 650 acres of river bottom land in unstable condition (moving approximately 1,140,000 cubic yards of material in the process), buried dozens of acre-feet of silt in former settling ponds, and created piles of tailings containing many thousands of cubic yards of rock. These practices have decreased the average depth and sinuosity of Wade Creek and increased turbidity and bedload creating a situation where the channel has been unstable since at least the early 1900's. This unstable channel led to persistent flood damage to the Walker Fork Tent Campground that was been closed as a result by BLM. The instability of the channel and floodplain has also contributed to periodic washouts of the Taylor Highway causing episodes of impaired water quality during the flood events and during reconstruction activities.

### Affected Environment

#### **Direct alteration to within-channel conditions**

The proposal includes several areas where the current channel runs right along the road. In these areas, the road would be moved away from the creek. This would have the effect of moving the artificial stream bank provided by the existing road fill that would effectively widen the flood plain. While new stream channel would not be constructed during the project, it is likely that the stream would become more sinuous and that channel slope, depth, and velocity would all decrease in these areas. Removal of roadway materials from the floodplain in those areas where realignment occurs would create short-term disturbance, primarily erosion and sedimentation during construction, but the additional space created within the Wade Creek floodway would help minimize long-term effects of flooding.

The improvements to channel stability conditions could be greatly enhanced if the road were moved above the floodplain and if the mining tailing piles and capped settling ponds were more fully reclaimed.

While removal of material from the floodplain would create short-term disturbance to the Wade Creek floodplain during construction, the additional space created within the floodway would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream. Blending the former tailings piles to create better drainage as well as seeding to promote revegetation would be an improvement over the existing unreclaimed tailings piles scattered along the floodplain.

**DRAFT****Changes to water quality as a direct result of the project**

Currently the natural drainage patterns are disrupted by past mining activities, the existing road, and the lack of culverts working to divert, impede, or block flow in stream channels. Blockages or diversions resulting from insufficient flow capacity can result in seasonal or permanent impoundments. Diverting stream flow can also result in increased bank or shoreline erosion and sedimentation as well as potential thermokarst where permafrost is present. Proper siting and adequate design capacity of culverts and bridges will minimize these impacts. Any short-term disturbance, primarily erosion and sedimentation during construction, would be offset by the reduction in the flood damage that occurs annually within the watershed from the current deranged drainage and inadequate culverts.

During the construction phase water quality would decrease due to soil disturbance. In the mid- to long-term, water quality should improve somewhat due to the decrease in average velocity and control of runoff through improved road design and improved culvert design and installation.

**Changes to fish habitat as a direct result of the project**

Walker Fork currently supports an Arctic grayling fishery. Slimy sculpin, longnose sucker and whitefish species are present as well. There are no anadromous fish migrating, spawning, or rearing in Walker Fork. Arctic grayling and slimy sculpin may migrate into Wade Creek during the summer months to take advantage of feeding opportunities in its tributaries.

The proposed activity is unlikely to have negative impacts and may benefit the fish using Walker Fork and Wade Creek. Wade Creek currently has little suitable habitat (spawning or rearing) to support a resident fish population.

If the project included moving the road out of the floodplain, and reclamation of mining impacts, the beneficial impacts would be maximized. Floodplain restoration and revegetation would create new habitat and enhance the small resident fishery.

**Changes to navigability of the stream as a direct result of the project**

To the best of our knowledge, Wade Creek is not suited for boating due to lack of adequate depth except during flood events. The proposal would not affect navigability during normal or flood flows.

**Direct alteration to riparian and floodplain conditions**

The plan and profile annotated by ADOT engineers indicates that up to approximately 3.5 miles of road at an average shift of 28 feet will require realignment along Wade Creek. Bank armoring (possibly including riprap) may be required along approximately two miles of road. Construction or other activities (such as material sites, equipment storage, and construction camp sites) that could affect the streambanks, floodplain, or remove protective shoreline vegetation might disturb up to double the area of road realignment or up to 25 acres during construction.

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The bridgework proposed by ADOT involves no surface disturbing activities in the floodplain due to the use of pier coffer dams, boating the crews to the work area, and supply lines running from the top of the bridge structure. Thus, there should be minimal impacts during construction and no impacts afterwards. Other than a short stretch of roadway near the South Fork ADOT camp where the river is currently eroding the road, no realignments are proposed within the FNW&SR corridor except at Wade Creek. The maximum shift of the road alignment estimated to be less than 150 feet from the existing centerline will definitely not be sufficient to move any existing portion of the road out of the Wade Creek floodplain. The additional space created within the floodway by shifting the road away from the creek an average of 28 feet would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains.

ADOT does require an Erosion and Sediment Control Plan (ESCP) to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary and permanent seeding, mulching, geotextiles, vegetative buffer strips, protection of trees, preservation of mature vegetation, construction phasing, and other appropriate measures. The surfaces of the existing embankment slopes are coarse gravel. Temporary stabilization practices may include temporary seeding, surface roughening, construction of mulching, and construction phasing. Permanent stabilization practices consist of limited areas of permanent seeding. Structural practices that may be implemented to divert flows from exposed soils, store flows, or limit runoff and discharge of pollutants from the exposed areas of the site may include silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Temporary structural practices shall include straw bale barriers, silt fences, temporary shoulder berms, brush barriers, sediment traps, check dams, and temporary pipe outlet protection. The ESCP also requires that steps be taken during the construction process to control pollutants in storm water discharges that may occur after construction operations have been completed. These measures may be subject to Section 404 of the Clean Water

This project would create over 12 acres of additional floodplain adjacent to Wade Creek after construction is completed. This area would act as an additional buffer strip, separating the creek from the road. The increase in floodway width would help minimize effects of flooding such as erosion and sedimentation that currently impact the stream whenever it rains. Regrading and blending the former roadbed to create more direct drainage as well as revegetation of the newly created floodplain would be a great improvement over existing conditions.

High-value wetlands—those that provide critical aquatic habitat to fish, birds, or mammals for feeding, nesting, or habitation—are almost nonexistent within the project area. The ponds and marshes adjacent to the road along Wade Creek resulted from ground disturbance during past placer mining. Many are either old settling ponds or small stream diversions that collect storm runoff but cannot drain due to mining berms or roadbed that block the drainage. Clearing the berms, road realignment, new culverts, and



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proper regrading will help restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.

**Direct alteration to upland conditions particularly outstandingly remarkable values**  
The proposed action as described is unlikely to affect upland conditions significantly so long as standard stipulations to preserve historic and cultural resources are followed. Evidence of historic human activity in the area is one of the values for which the area was designated and should be protected adequately by site specific cultural reviews and standard stipulations required by the State Historic Preservation Officer.

### Relationship of the project to river management goals

Most of the project involves reconstruction of the current roadway and replacement of existing culverts so impacts should be minimal using proper sediment control during construction. The bridgework proposed by ADOTPF involves no surface disturbing activities to the channel or stream banks so should have minimal impacts during construction and none afterwards. The road realignment for the Wade Creek section of the project involves a total of up to 3.5 miles of road at an average shift of 28 feet and could cause up to 25 acres of disturbance to the Wade Creek floodplain. Short-term disturbances, primarily removal of vegetation and erosion and sedimentation during construction, would occur in areas where Wade Creek is adjacent to the road. However, ADOT does require an Erosion and Sediment Control Plan to ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. After construction is completed, the additional space created by moving the road away from the creek would create over 12 acres floodplain to act as a buffer strip, separating the creek from the road. This additional space within the floodway would help minimize long-term impacts of flooding, such as erosion and sedimentation that currently impact the stream whenever it rains. The new culverts should also reduce the flood damage from the current lack of proper drainage and inadequately sized and spaced culverts. The project should improve public safety and generally improve environmental conditions in the stream and floodplain which is consistent with the BLM's wild and scenic river management mandate to protect and enhance free-flow, water quality and outstanding values of the river area. The proposed project would not avoid all impacts to the river area because of constrained funding sources for small improvements to alignment rather than wholesale relocation. There will still be confinement of the stream particularly during floods, and there will still be impacts to water quality due to runoff from the road area and adjacent mining disturbance.

Since the existing roadway adjacent to Wade Creek currently poses significant problems, due to the diversions, impoundments, and increased sediment runoff whenever it rains, moving the road as far as possible away from the creek would have the greatest single reduction in impacts to the water resources. Clearing the berms, road realignment, new culverts, and proper regrading would help to restore the natural drainage pattern. Revegetation associated with the road reconstruction may eventually restore some of the seasonally flooded marshy and riparian areas adjacent to the creek.

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**Section 7 finding**

**Our preliminary finding is that the proposed project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system. Given the fact that the project has yet to be designed in detail, we can only make a preliminary Section 7 finding based on the scoping information and informal discussions we have held with ADOTPF staff.**

**The above determination was analyzed by the following individuals from the Northern Field Office and the Fortymile Management Team:**

- Hydrologist - Jon Kostohrys**
- Outdoor Recreation Planner - Lon Kelly**
- Fisheries Biologist - Ingrid McSweeny**
- Fortymile Team Manager -- Mary Figarelle**

**I concur with the preliminary finding that the proposed Taylor Highway project would not have a direct and adverse effect on the potentially impacted components of the Fortymile National Wild and Scenic River system.**

**Date:** \_\_\_\_\_

**Robert W. Schneider, Manager**

**Bureau of Land Management  
Northern Field Office  
1150 University Avenue  
Fairbanks, AK 99709-3844**

**APPENDIX E**

**ANILCA 810 EVALUATION**

## ANILCA Section 810 Subsistence Evaluation

Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) requires evaluation of proposed withdrawals of federal public lands in Alaska to determine if the proposed activity will significantly restrict subsistence uses or access to subsistence in an area. This project involves the Fortymile Wild and Scenic River Withdrawal managed by the Bureau of Land Management.

The project area lies within Game Management Unit (GMU) 20E and potential harvestable resources are regulated by the Alaska Board of Game, Alaska Board of Fisheries, and the Federal Subsistence Board. Federal subsistence land in the project area includes the Fortymile Wild and Scenic River Withdrawal. In the project area there are several species recognized as subsistence species through determinations by the State or Federal Board. These species include black bear, brown bear, caribou, sheep, moose, bison (*Bison bison*), coyote, fox, hare, lynx, wolf, wolverine (*Gulo gulo*), grouse, ptarmigan, beaver, coyote, marten, and otter. Of these species only moose and caribou have a specific federal determination and establishment of a federal season, which provides for preferential access to the resource by subsistence users. The winter hunting season for Fortymile caribou begins on November 1 on federal lands. During the caribou hunting season, hunters drive the Taylor Highway as far as possible and then hunt from snowmachines. Moose seasons in GMU 20E are August 20-28 and September 1-15 (Gronquist, 2003). Other harvestable resources, which may be used in a subsistence manner include fish and berries. Utilization of the project area for subsistence and non-subsistence use is high for local and non-local moose and caribou hunting (Marcotte, 1991, Gronquist, 2003). Residents of Tanacross, Tok, Tetlin, Northway, and Dot Lake frequently use the area for subsistence hunting. According to the Alaska Department of Fish and Game (ADFG), the area around Chicken and Jack Wade Junction are intensively used caribou, moose and bear hunting areas. During construction, access will be maintained for subsistence and non-subsistence use. Short term (2-4 hour) road closures may be required during certain construction activities. If road closures are necessary, they will be coordinated with BLM, ADNR Office of Habitat Management and Permitting (OHMP), ADFG, and USFWS.

The nature of the proposed project, rehabilitation of an existing highway, will not likely result in a significant reduction of subsistence uses or increased competition due to: direct impacts on the

resource or habitat; changes in availability of the resource; or limitations on access to the resource.

Therefore, the proposed action will not result in significant restrictions of subsistence uses.

### **References**

Gronquist, Ruth, 2003. BLM Wildlife Biologist. Email correspondence with E. Miller, ASCG Incorporated, February 28.

Marcotte, J.R. 1991. *Wild Fish and Game Harvest and Use by Residents of Five Upper Tanana Communities, Alaska 1987-88*. Alaska Department of Fish and Game.



## **CORRESPONDENCE**

## Miller, Beth

---

**From:** Donald\_Mike@fws.gov  
**Sent:** Tuesday, February 11, 2003 7:35 AM  
**To:** Miller, Beth  
**Cc:** Pete\_DeMatteo@fws.gov; Ruth\_Gronquist@ak.blm.gov; Polly\_Wheeler@fws.gov  
**Subject:** Re: Subsistence use along the Taylor Highway

Beth,

Yes, we do have federal lands on the Taylor Highway corridor area. The Mosquito Fork drainage is part of the Fortymile Wild and Scenic River managed by the BLM. The Taylor Highway has caribou and moose seasons open for federally qualified subsistence users. For biological and harvest information please contact Pete DeMatteo, Eastern Interior Team Biologist for the Office of Subsistence Management or Ruth Gronquist the BLM wildlife biologist. You may also contact Craig Gardner, ADFG Biologist. Craig was the area biologist out of Tok and has since moved to Fairbanks. This should get you started.

Donald Mike  
Council Coordinator  
U.S. Fish & Wildlife Service  
Office of Subsistence Management  
3601 C Street, Suite 1030  
Anchorage, AK 99503  
Tel: (907) 786-3629  
Fax: (907) 786-3898  
email: donald\_mike@fws.gov

"Miller, Beth"  
<bmillier@ascg.com>

To: <Donald\_mike@fws.gov>  
cc:  
Subject: Subsistence use along the Taylor

Highway

02/10/03 04:31  
PM

Hi Donald,

I got your name from the internet as being the eastern interior regional subsistence coordinator. ASCG is working with ADOT Northern Region on an EA to upgrade the Taylor Highway from MP 64.5 (Mosquito Fork) to the Canadian Border (Quad maps Eagle A-1 and A-2). The highway will remain on virtually the same alignment with some minor realignment near Wade Creek to move the highway out of the floodplain. The road is going to be widened, drainage will be improved, and high float asphalt will be laid down. I have a couple of subsistence questions that I am hoping you can answer or can direct me to someone that could.

Are there federal subsistence areas within our project area?

What are the main subsistence species?

Do you have any information on the amount of use?

Any other information that you think might be helpful would be great. I have contacted James Simon at ADFG and he gave me some good information, but he also suggested I talk to federal staff.

Thanks.

Beth Miller

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ASCG Inc.

3900 C Street, Suite 501

Anchorage, AK 99503-5967

Phone (907) 339-6554

Fax (907) 339-5329

## Miller, Beth

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**From:** Ruth\_Gronquist@ak.blm.gov  
**Sent:** Friday, February 28, 2003 2:41 PM  
**To:** Miller, Beth  
**Subject:** Re: Taylor Highway Subsistence Use

The Taylor Highway is a heavily used corridor for subsistence hunters, especially for caribou. Any road work or closures for construction from August 10 - September 30 would impact the subsistence harvest activities. Fortymile caribou do cross the Taylor during this time, although in the last few years the major portion of the herd has remained in the western portion of the range within the Steese National Conservation Area, which is bisected by the Steese Highway. A winter season for Fortymile Caribou begins November 1 on federal lands. Hunters may drive the Taylor as far as conditions allow and then hunt from snow machines.

Moose seasons in the area of your proposed action within Game Management Unit 20E are August 20- 28 and September 1 - 15. Although the Taylor Highway offers access for moose hunters, hunting occurs away from the highway. Any construction closures of the road at this time would impact subsistence moose hunters. Most other subsistence activities occur during the winter months, likely after work has halted on construction for the year.

Alaska Department of Fish and Game has published a few Technical bulletins with information on subsistence uses in the area. They offer some information about use, timing, and subsistence areas. Often they are a snap shot in time and don't answer all our questions. They are in some cases the only published references we have.

Here is the document I reference for NEPA actions within the area.

Marcotte, J. 1991. Wild Fish and Game Harvest and Uses by Residents of Five Upper Tanana Communities, Alaska, 1987 - 88. Alaska Department of Fish and Game. Division of Subsistence. Technical Paper No. 168. 200p.

Ruth M. Gronquist  
Wildlife Biologist  
1150 University Avenue  
Fairbanks, AK 99709  
(907)474-2377

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| To: <Ruth\_Gronquist@ak.blm.gov>  
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| cc:  
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| Subject: Taylor Highway Subsistence Use  
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Hi Ruth,

Donald Mike gave me your name as a contact for subsistence information on the Taylor Highway corridor. ASCG is working with ADOT on an EA to upgrade the Taylor Highway from the Mosquito Fork (MP 64.5) to the Canadian Border. Do you have any information on the amount of subsistence use the area gets?

Thanks.

Beth Miller

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Anchorage, AK 99503-5967

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Fax (907) 339-5329



## **APPENDIX F**

### **GENERAL CORRESPONDENCE WITH STATE AND FEDERAL AGENCIES**

- Conversation Log with the U.S. Coast Guard Dated December 5, 2002
- U.S. Fish & Wildlife Service Email Dated July 29, 2003
- BLM Email Dated March 10, 2003
- Alaska Department of Natural Resources Email Dated March 14, 2003
- ADOT&PF Memo Dated May 15, 2003

# ASCG

## CONVERSATION LOG

**INCORPORATED**

**Job / Task No:** 4444/0100  
**Project:** Taylor Highway EA

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<b>Time:</b>	2000	<b>Date:</b>	December 5, 2002
<b>To:</b>	Jim Helfinstine	<b>From:</b>	Kim Stricklan
<b>Firm:</b>	US Coast Guard	<b>Firm:</b>	ASCG, Inc.
<b>Phone No.:</b>	N/A	<b>Phone No.:</b>	907-339-6568

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**Subject:** Taylor Highway Reconstruction EA, U.S. Coast Guard Permitting Requirements

### **Summary of Conversation:**

Mr. Helfinstine, with the office of Aids to Navigation, attended the subject meeting. After the meeting, I asked him what type of coordination we would need to complete with the U.S. Coast Guard, since there will be some in-water work at the South Fork Bridge to repair concrete damage/spalling on the piers. In addition, in-water work will occur at Chicken Creek during bridge replacement.

As background, the U.S. Army Corps of Engineers (USACE) Navigable Waters web page indicates there are no navigable waters within the proposed project area. However, the Draft Upper Yukon Area Plan identifies the South Fork as navigable and it is also likely that Chicken Creek is considered navigable. Therefore, we wanted to ensure we were coordinating as needed with the U.S. Coast Guard.

According to Mr. Helfinstine, although the South Fork and Chicken Creek may be considered navigable, the activity would qualify for an exemption. He was choosing not to make a determination either way as to the navigability of either water body. He confirmed there was no need to submit a request for a "Navigability Determination" and no U.S. Coast Guard permit would be required.

## Miller, Beth

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**From:** JimZelenak@fws.gov  
**Sent:** Tuesday, July 29, 2003 5:17 PM  
**To:** Miller, Beth  
**Subject:** Taylor Highway Raptors

Hi Beth,

Larry Bright asked me to get back to you regarding your request for info on raptors along the Dalton highway. Our data are probably very similar to those from ABR. I only found two peregrine falcon nest sites within a mile of the road along the section you specified. Their locations (lat./long. degrees:minutes:seconds) are:

1. [redacted], this nest is about 0.6 miles WNW of the road where it switches back at the mine site about 2 road-miles east of the South Fork crossing.
2. [redacted] this nest is about 0.6 miles WNW of the road where it crosses from Eagle A-2 quad into Eagle A-3 quad at the west end of the proposed project area.

Generally we are not concerned with work that occurs on the existing road surface, but there may be other issues such as gravel mine sites that could be close to raptor nest sites. Such data would be useful in the EA. Also, we would like to see habitat mapping and quantification of wetland habitats that will be impacted by the project. We look forward to reviewing the draft EA when it is available. Thanks. Call or write if questions.

-jim

Jim Zelenak  
U.S. Fish and Wildlife Service  
101 12th Ave., Box 19  
Fairbanks, AK 99701  
ph: (907) 456-0354  
fax: (907) 456-0208  
jim\_zelenak@fws.gov

## Miller, Beth

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**From:** Nancy\_Whicker@ak.blm.gov  
**Sent:** Monday, March 10, 2003 3:18 PM  
**To:** Miller, Beth  
**Subject:** Re: Taylor Highway and WSR Information

In response to your email and telephone inquiry last week:

1. My understanding from our conversation is that FHWA/ADOT will receive a 200 foot easement deed for the Taylor highway and that within the ROW ADOT controls the land. They can perform maintenance and minor realignments without needing anything further from BLM as long as they remain with their 200 foot ROW.

Yes and No..... The Taylor Highway was quit claimed to the State of Alaska at statehood (Omnibus Act; PL 86-70). It was classified as a secondary highway, Class A, which meant a 100 foot from centerline right of way (200 feet total). The Wade Creek Junction to the Canadian Border is classified as a feeder road with a 50 foot from centerline right of way (100 feet total). The right of way is for highway and highway material use only which would include maintenance and minor alignment adjustment. BLM is the management agency for the land the right of way sits on, therefore BLM can issue other right of ways within or across the existing highway right of way (with the State of Alaska Dept. of Transportation and Public Facilities' concurrence) if the new authorizations do not cause conflict with highway purposes.

BUT, the FHWA is involved because the DOT&PF proposal is a Federal-Aid Highway project using federal dollars. Thus, FHWA will be making a formal request for appropriation of BLM-managed public lands needed for the proposed highway project. When BLM processes the request, FHWA in turn will issue AK DOT&PF a Right of Way (Highway Easement Deed) for the lands appropriated for Federal-Aid highway purposes. There has not been such a request nor is there presently an easement deed from FHWA to DOT&PF for the Taylor Highway from MP 64 to the Canadian border. Administration of highway-related issues on public lands within a Federal-Aid right of way rests with the FHWA with BLM continuing to administer the land for uses not related to the Federal-Aid highway system.

2. My understanding on river work is that BLM manages the water in the Fortymile Wild and Scenic River and any work ADOT proposed below ordinary high water would need concurrence from BLM. Is this correct?

Yes and No.... BLM administratively determined the South Fork River navigable (although delineated as a "Scenic" segment of the Fortymile Wild and Scenic River system) which means the State retains ownership of the riverbed between the ordinary high water marks. BUT, any action that could affect the "free flowing condition" and other outstanding resource values within the Wild and Scenic River corridor would need an analysis and determination of effect from the BLM as the managing agency.

Wade Creek ("Recreational"), Mosquito Fork at the bridge and Walker Fork ("Scenic") were administratively determined by BLM to be non-navigable so BLM retains the management of those waters. Any effect to the "free flowing condition" of these streams would also need analysis and a determination of effect from BLM.

**Miller, Beth**

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**From:** Frank Maxwell [frank\_maxwell@dnr.state.ak.us]  
**Sent:** Friday, March 14, 2003 10:15 AM  
**To:** Miller, Beth  
**Subject:** Re: Taylor Highway

The bridge is within the Wild and Scenic River Corridor managed by BLM. The area between the ordinary high water banks is state land by virtue of navigability. In a cursory search, I can't find any records here regarding the right-of-way, but it is likely to be 100' or greater in width, thus the small coffer dams will be well within the existing right-of-way and no action on our part is necessary.

Call me if you have any questions.

Frank 907.451.2728

"Miller, Beth" wrote:

The bridge is located at MP 75.3 of the Taylor Highway. It is about 10 miles east of the MosquitoForkBridge. The coffer dams will be approximately 2-3 feet larger than the piers and the piers are about 3 feet in diameter. Workers will access the piers by boat.

Thanks.

Beth

-----Original Message-----

**From:** Frank Maxwell [mailto:frank\_maxwell@dnr.state.ak.us]  
**Sent:** Wednesday, March 12, 2003 5:42 PM  
**To:** Miller, Beth  
**Subject:** Re: Taylor Highway

Beth, Sorry about the delay in responding- I was away on emergency leave and am catching up on email, etc. Is this the bridge located near the Mosquito Fork Wayside shown in our Upper Yukon Plan? Once I get it located, I can look up the right-of-way and see if it is wide enough to accommodate the work. Do you have any dimensions for the coffer dam and associated work area?

I suspect that there is enough room to not require any permit on our part, but if that is not the case, we will issue a right-of-way for this.

Frank 451-2728

"Miller, Beth" wrote:

Hi Frank,

I am working on the Environmental Assessment for the Taylor Highway rehabilitation from MP 64.5 to the Canadian Border. I am wondering if we are going to need any permits from DNR for bridge work that will be conducted on the SouthForkBridge. According to the Draft Upper Yukon Area Plan the South Fork is considered navigable. The work will entail repairing concrete spalling on the bridge piers. The work will most likely be conducted by building a wooden coffer dam around the pier and pumping it out to repair the pier. If you need any additional information let me know.

Thanks,  
Beth



# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

### DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION

FRANK H. MURKOWSKI, GOVERNOR

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5399  
TELEPHONE: (907) 451-2274  
TDD: (907) 451-2363  
FAX: (907) 451-5126

Post-it® Fax Note: 7671	Date 2/04/04	# of pages 1
To B. Fa Miller	From Tim Woster	
Co./Dept. ASCG	Co. DOT SPA	
Phone # 339-6554	Phone # 451-2288	
Fax # 339-5329	Fax # 451-5126	

May 15, 2003

Re: Taylor Highway MP 64 to Canadian  
Border Wade Creek Right of Way &  
Section 4(f) Analysis

Mr. Tim A. Haugh  
Environment & Right-of-Way  
Programs Manager / Team Leader  
Federal Highway Administration  
P.O. Box 21648  
Juneau, AK 99802-1648

Dear Mr. Haugh:

This letter transmits a copy of a memorandum from John F. Bennett, Right of Way Chief for the Northern Region of the Alaska Department of Transportation and Public Facilities. The memorandum was developed at your request, made during a teleconference involving Mr. Bennett, Mr. Tim Woster, Ms. Melissa Parker, Mr. Tiff Vincent and Mr. Ed DeCleva.

The memorandum summarizes the opinion of Mr. Bennett about the status of the Taylor Highway Right-of-Way between Walker Fork and Jack Wade Junction, with special attention given to the portion along Wade Creek that is subject to federal mining claims. The purpose is to clarify the scope of the Section 4(f) analysis that is required to complete the Environmental Document for the Taylor Highway, MP 64 to Canadian Border project.

As summarized in Mr. Bennett's memorandum, we believe the Taylor Highway has a 200-foot wide right of way along Wade Creek, even though that right of way is subject federal mining claims that existed before the Taylor Highway right of way was established. Since federal mining claims are a private property right, we believe the project will not cause right of way impacts to the Recreational Segment of the Wild and Scenic River corridor unless project work impacts land outside the 200-foot right of way. As a result, requirements for Section 4(f) analysis apply only to those impacts that extend beyond that 200-foot wide corridor.

Please review the attached memorandum and let us know whether you concur with Mr. Bennett's opinion.

Sincerely,



David T. Bloom, P.E.  
Preconstruction Engineer  
Northern Region

TW/cw

Enclosure: As stated

V:\May\6644 (Clinton)\Haugh for 3-16

CONCUR Tim Ayl 2-03-04

Tim Ayl ENV/ROW program manager

**MEMORANDUM****State of Alaska**  
**Department of Transportation & Public Facilities**  
**Northern Region Design & Engineering Services****TO:** Tim Woster, PE  
Design Project Manager  
Northern Region**DATE:** 5/8/03**FILE NO:**  
**TELEPHONE NO:** 451-5423  
**FAX NO:** 451-5411**FROM:** John F. Bennett, PLS, SR/WA  
Chief, Right of Way  
Northern Region**SUBJECT:** Taylor Hwy. Right of Way  
Walker Fork to Canada Border  
STP -0785(11)/66446  
Section 4(f) - ROW Impact

The purpose of this memo is to review the basis of the existing right of way for the Taylor Highway and its relationship with the Section 4(f) evaluation that is required due to the Wild and Scenic River land classifications along the project corridor.

The Walker Fork to Canada Border portion of the project commences at milepost 82 and extends 26.5 miles in an easterly direction to the Canada Border. More than half of the segment from Walker Fork to Jack Wade Junction is subject to federal mining claims. This memo will focus on the section of existing highway right of way that passes through lands that are both subject to existing federal mining claims and Wild and Scenic River classifications (PL 96-487). With respect to the rectangular system, this includes Sections 19, 18, 17, 8, 9, 4, 3, & 2 within Township 27 North, Range 20 East and Sections 35 & 36 within Township 28 North, Range 20 East, Copper River Meridian. The land status includes the following elements: The townships in question have been tentatively approved (TA'd) for conveyance to the State of Alaska excluding those lands subject to valid federal mining claims. The mining claims constitute a private interest with the potential of going to patent and conveyance of fee title. Until patent is issued, the fee estate underlying the claims is retained by the federal government. A right-of-way easement interest for the Taylor highway is held by the State of Alaska.

The Fortymile Mining District is the second oldest district in Alaska with gold first being discovered in the district in 1886. Alaska Road Commission Maps of the Eagle District dating from 1925 indicate a road/trail network throughout the Fortymile mining area. Routes and work performed are noted beginning in the 1926 ARC Annual Report. Locations route survey maps dating between 1947-1949 provide plan & profile data for the proposed Tok-Eagle road. The DOT&PF 1977 EIS for the Taylor Highway - Tetlin Junction to Canadian Border states that "the Taylor Highway was constructed from June 1946 to October 1953." It evolved from the trail system connecting Chicken, Eagle and the gold placers of the Fortymile region to the Alaska Highway.

Much of the existing right of way for the Taylor Highway is based upon federal Public Land Orders. These rights of way for highway purposes were established across unreserved federal lands under the authority of the Departments of the Interior and Commerce between 1942 and 1958. The PLO right of way constitutes the majority of varying interests in the DOT&PF inventory. At statehood, the federal government transferred 5,400 miles of these rights of way to

Taylor Highway ROW

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the State of Alaska<sup>1</sup>. Although most of these rights of way were initially established as withdrawals, subsequent PLO's converted them to easement status<sup>2</sup>. PLO 601, dated August 10, 1949, withdrew certain lands for highway purposes. Among these was the Tok-Eagle Road that was classified as a "feeder road" with a width of 200 feet. Prior to PLO 601 the only basis for a public right of way across the unreserved public lands would have been under the federal RS-2477 law. Where applicable, the width of an RS-2477 trail right of way would have been limited to "ditch to ditch" or that area necessary to construct and operate the road. PLO 757 and Secretarial Order 2665, both dated October 16, 1951 revoked prior highway withdrawals (including PLO 601) and established easements for certain "through, feeder and local" roads. The Taylor highway was specifically named as a "feeder" road in SO 2665 with an easement width of 100 feet on each side of centerline.

As of August 10, 1949, those portions of the Taylor (Tok-Eagle) road which had been surveyed or constructed across unreserved, unappropriated federal lands were subject to a 200-foot wide right of way. However, valid existing federal mining claims would not have been considered "unreserved" federal lands and PLO 601 and its subsequent modifications would have been subject to those claims unless they were relinquished and the lands returned to the public domain. The effect of the 200-foot wide PLO reservation for the Taylor Highway would depend upon the ultimate disposition of the federal mining claims. There are two possible scenarios:

1. Mining claimants successfully receive patent: In this scenario, the claimants eventually receive fee title to their claim. If the mining location that led to patent preceded PLO 601 in time, it would not be subject to the highway right of way. After patent, the state would only be able to claim a "ditch to ditch" width right of way either by prescription (adverse possession against the private interest) or under the RS-2477 grant.
2. The mining claims are relinquished or invalidated: In this scenario, the claimant never obtains a patent and the claims return to the public domain. In this case, the PLO reserving the highway right of way no longer is subject to the prior existing claims and may be fully asserted.

However, while the underlying federal and the mining claim interests co-exist, the State would assert the proposition that PLO 601 was not defeated on August 10, 1949 where

<sup>1</sup> On June 30, 1959, pursuant to section 21(a) of the Alaska Omnibus Act, the Secretary of Commerce issued a quitclaim deed to the State of Alaska in which all rights, title and interest in the real properties owned and administered by the Department of Commerce in connection with the activities of the Bureau of Public Roads were conveyed to the State of Alaska. The Taylor Highway was designated as Federal Aid Secondary Class "A" Route 185 and described as follows:

From FAP Route 62 (Alaska Hwy.) at Tetlin Junction approximately 80 miles west of Alaska-Canada Border; thence northeasterly to the Yukon River at Eagle.  
Constructed mileage - 161.0 miles.

<sup>2</sup> Whether or not the State received a fee or easement interest had been a subject of debate for several years. On February 19, 1993 the Attorney General's Office issued an opinion concluding that "under the Alaska Omnibus Act and resulting Quitclaim Deed, the State of Alaska received, in general, easements for its roads at statehood."

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federal lands were reserved by mining claims. We assert that PLO 601 and subsequent PLOs were impressed on the lands along the Taylor highway commencing in 1949. They do however, lie dormant with regard to the private mining interest that preceded them. On the other hand, we believe that the PLO's are effective against the underlying federal interest both today and in the future should the claims be relinquished.

A 1998 U.S. District Court case State of Alaska vs. David B. Harrison, et al.<sup>3</sup> supports the proposition that PLO 601 survived the reserved land status across the Taylor highway mining claims when it was enacted in 1949. This case involved the Chickaloon River Road and lands that were reserved by a railroad townsite in 1917 and subsequently claimed under a native allotment. With regard to the road right of way, the court found the following:

*"The State of Alaska asserts that it possesses a right-of-way for Chickaloon River Road. According to the State of Alaska, this right-of-way was first created for the benefit of the United States in 1949 by Public Land Order 601 which withdrew and reserved fifty feet on each side of the centerline of all 'local roads' including the Chickaloon River Road. The United States then quitclaimed the right-of-way to the State of Alaska in 1959 as part of the Alaska Omnibus Act.*

*The Harrison defendants contend that the reservation under PLO 601 did not apply to Chickaloon River Road because the land which it traverses was land withdrawn from the public domain as part of the 1917 railroad townsite withdrawal. Thus it could not also be reserved as a 'local road' under Public Land Order 601.*

*There is no inconsistency or conflict between the railroad townsite withdrawal and Public Land Order 601. The latter was expressly made subject to the former. When in 1955, the Department of the Interior revoked the 1917 railroad townsite withdrawal, the Department of Interior did so without purporting to affect the right-of-way created by Public Land Order 601.....Therefore, the court finds that a right-of-way for Chickaloon River Road was first created for the benefit of the United States in 1949 and was later quitclaimed to the State of Alaska in 1959."*

The 200-foot wide right of way created by PLO continues to exist with respect to the remaining federal interest underlying the Taylor Highway mining claims. It is my understanding that 4(f) impacts would not be considered over private land interests and that they need not be considered to the extent that the proposed project would be located within the existing right of way for the Taylor Highway. For the purpose of evaluating the 4(f) impacts across these mining claims, the existing right of way corridor should be held as being 200 feet in width, 100 feet on each side of the road centerline. Therefore, project use of land within the 200-foot right of way corridor is not subject to 4(f).

<sup>3</sup> Case No. A94-0464-CV Order on Motion for Partial Summary Judgment dated October 28, 1998.

## **APPENDIX G**

### **SECTION 106 CONSULTATION**

- Jack Wade Dredge Memorandum of Agreement
- Alaska Department of Natural Resources Letter Dated October 30, 2003
- ADOT&PF Letter Dated October 2, 2003
- BLM Letter Dated June 5, 2003
- ADOT&PF Letter Dated May 19, 2003 - BLM
- Tribal 106 Consultation Mailing List for Taylor Highway MP 64 to Border
- ADOT&PF Letter Dated May 19, 2003 – Dot Lake Village Council, and corresponding phone contact logs



**MEMORANDUM OF AGREEMENT  
AMONG  
THE BUREAU OF LAND MANAGEMENT  
AND  
THE ALASKA STATE HISTORIC PRESERVATION OFFICER  
REGARDING  
MITIGATING THE ADVERSE EFFECTS  
OF  
DISMANTLING THE JACK WADE DREDGE (EAG-00050)**

WHEREAS, the Bureau of Land Management proposes to dismantle of the Jack Wade Dredge (EAG-00050) located at mile 86 of the Taylor Highway in eastern Alaska; and

WHEREAS, the Bureau of Land Management has consulted with the Alaska State Historic Preservation Officer (AKSHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and Section 110(f) of this Act, 16 U.S.C. 470h-2(f); and has determined that these undertakings will have an adverse effect on the Jack Wade Dredge; and

WHEREAS, the Bureau of Land Management has notified the Advisory Council on Historic Preservation (Council) regarding the adverse effects, and the Council has declined to participate; and

WHEREAS, the Bureau of Land Management has consulted with the Joanne Beck, First Chief of the Eagle Village IRA Council, and she/they has declined to participate; and

WHEREAS, the Bureau of Land Management will provide the public with an opportunity to comment on this undertaking; and

WHEREAS, the Bureau of Land Management has confirmed from the National Park Service (Bonnie Houston, NPS HABS/HAER coordinator for Alaska Region) that there already exists a HABS Level III recordation of the Jack Wade Dredge in the Library of Congress (personal communication, April 23, 2003), consisting of appropriate HABS level photographs, transparencies and data forms; and

NOW, THEREFORE, the Bureau of Land Management and the AKSHPO agree that the proposed dismantling of the Jack Wade Dredge shall be administered in accordance with the following stipulations to satisfy the Bureau of Land Management's Section 106 responsibilities.

**STIPULATIONS**

The Bureau of Land Management will ensure the following measures are carried out:

**I. APPLICABILITY**

A. This MOA applies only to mitigation resulting from the dismantling of the Jack Wade Dredge or as amended per Section VIII below.

B. This MOA shall be effective from the date of the signatories, below, through September 30, 2013 or until completion of the Submittals in Stipulation III, below.

## II. MITIGATION

A. The Bureau of Land Management shall ensure mitigation activities are completed.

1. The Bureau of Land Management shall ensure that materials are prepared to provide for the public interpretation of Jack Wade Dredge prior to its dismantling.

a. Public Brochure.

I) In consultation with the AKSHPO, the Bureau of Land Management is currently developing a public brochure in our *Adventures in the Past* series that will address the Jack Wade Dredge as it relates to the history of dredging in the Fortymile River drainage.

II) The brochure is anticipated to be between 12 and 20 well illustrated pages, consistent with other brochures in the *Adventures in the Past* series.

b. Interpretive Panels.

I) In consultation with the AKSHPO, the Bureau of Land Management shall develop interpretive panels for placement at an appropriate mining setting somewhere on BLM-managed land in the Fortymile River drainage, either along Jack Wade Creek (circa Milepost 81-90 of the Taylor Highway), at the mouth of Jack Wade Creek across from the BLM Walker Fork Campground (circa Milepost 81 of the Taylor Highway), or across from the BLM Chicken Field Station (circa Milepost 69 of the Taylor Highway) that will address Jack Wade Dredge as it relates to mining and the history of the Fortymile.

II) Location of the interpretive panels shall be coordinated with AKSHPO. As above, at minimum the panels shall probably be located at one of the three sites designated in II.A.1.a.I, above.

III) Content of the interpretive panels shall be coordinated with AKSHPO. At minimum, panels shall contain a concise history of the Jack Wade Dredge, historical and contemporary photographs, and schematics illustrating the working mechanics of the various mechanical components of the dredge that will also be displayed at the panel site (see II.A.1.c, below).

IV) The number of the interpretive panels shall be coordinated with AKSHPO. At minimum, the number of panels shall be three.

c. Displaying Jack Wade Dredge Machinery/ Equipment

I) In consultation with the AKSHPO, the Bureau of Land Management shall select certain remaining interpretive-quality pieces of the dredge machinery or equipment to be displayed at the future Interpretive Panel site (see II.A.1.b, above).

II) At minimum, six pieces of remaining machinery will be removed from the dredge during its dismantling, and set aside for eventual public display at the future Interpretive Panel site. The six pieces planned are the rotating screen or trommel, a large 5' diameter pulley wheel, a large wood burning boiler, the hand-lever controls, a large piece of floor-mounted machinery with geared wheels and pulley wheels, and a large multi-wheeled gear-box machinery. These pieces have been selected owing to public safety concerns, what equipment currently remain after decades of scavenging, visual display properties of the pieces, intactness of equipment, and role played by the piece in the workings of a placer gold dredge.

III) The Interpretive Panels and the dredge machinery shall be coordinated, so that the panels in part illustrate and explain the workings of the dredge equipment on display.

d. Review and submittal procedures for these products are outlined in Stipulation III.A.1.

### III. SUBMITTALS

A. The Bureau of Land Management shall ensure the products of mitigation activities are submitted for comment and verification of completion.

1. Public Interpretation.

a. Public Brochure.

i. Copies of the draft outline of the proposed public brochure shall be submitted to AKSHPO no later than one (1) year after this MOA takes effect. Upon receipt, AKSHPO shall provide the Bureau of Land Management with review comments no later than 30 days.

ii. Copies of the draft public brochure shall be submitted to AKSHPO no later than one (1) year after receipt of comments on draft outline. Upon receipt of the draft, AKSHPO shall provide the Bureau of Land Management with review comments no later than 30 days.

iii. Final submittal of the public brochure shall be made to AKSHPO no later than 120 days after receipt of comments. Final submittal shall take into consideration AKSHPO review comments.

iv. Distribution of Final Brochure.

A) AKSHPO and the Bureau of Land Management each to receive 500 copies.

B) State Depository Library Clerk at the Alaska State Library to receive 20 copies.

b. Interpretive Panels.

i. Draft interpretive panels shall be submitted to AKSHPO no later than three (3) years after this MOA takes effect. Upon receipt, AKSHPO shall provide the Bureau of Land Management with review comments no later than 30 days.

ii. A second submittal shall take into consideration review comments and be made to

AKSHPO no later than one (1) year after receipt of comments. AKSHPO shall provide the Bureau of Land Management comments no later than 30 days after receipt of the second submittal.

iii. Final submittal shall take into consideration AKSHPO review comments. The Bureau of Land Management placement of the interpretive panels shall be no later than one (1) year after receiving final submittal comments.

#### **IV. PROFESSIONAL STANDARDS**

A. All work pursuant to this MOA will be developed by or under the supervision of a person or persons with appropriate professional qualifications. Historians, Archeologists, Architects, Historical Architects employed to implement the stipulations of this agreement shall meet the professional qualifications included in "Secretary of the Interior's Historic Preservation Professional Qualification Standards" (Federal Register Vol. 62, No.119, pp. 33719).

#### **V. ANNUAL REPORTING REQUIREMENT**

A. For the duration of this MOA, the Bureau of Land Management will provide the signatories an annual report that summarizes Bureau of Land Management activities or actions under this MOA. The annual report will be due by March 1<sup>st</sup>.

1. Annual reports will include the following information.

a. Summary of all actions taken under this MOA, including actions taken to meet Stipulations II and Stipulation III.

b. Status of meeting each and all stipulations of this MOA.

c. Identification of historic resource action was taken on.

d. Date mitigation action was completed.

e. Date of project completion.

f. Summary of any photographs that document actions taken.

g. Projected list of projects scheduled for coming year.

h. Maintenance of products under agreement.

i. Signature of preparer of the document.

j. Recommendations to amend this MOA or improve communications among the parties.

2. Review of Annual Report: The AKSHPO may review each report and provide review comments to the Bureau of Land Management.

a. The AKSHPO may request additional documentation or further explanations from the Bureau of Land Management.

b. AKSHPO comments and/or request for additional documentation must occur within 30 calendar days of receipt of the Bureau of Land Management report, otherwise, acceptance will be presumed. Received comments will be used by the Bureau of Land Management to determine if MOA requires amendment.

## **VI. REVIEW**

A. The Bureau of Land Management, through the AKSHPO shall provide for review of this MOA annually. This review will occur after the comment period provided in Stipulation V.A for the annual report.

1. Any amendments to this MOA recommended during the review shall be considered in accordance with Stipulation VIII.

2. If the annual review results in a recommendation to terminate the MOA, termination of the MOA shall be considered in accordance with Stipulation IX.

## **VII. RESOLVING OBJECTIONS**

A. Should any signatory to this MOA object in writing to the Bureau of Land Management regarding any action carried out or proposed with respect to the implementation of this MOA, the Bureau of Land Management shall consult with the objecting party.

1. If after initiating such consultation the Bureau of Land Management determines that the objection cannot be resolved through consultation, it shall forward all documentation relevant to the objection to the Council, the Bureau of Land Management's proposed response to the objection.

2. Within 30 calendar days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

a. Advise the Bureau of Land Management that the Council concurs in the Bureau of Land Management's proposed response to the objection, whereupon the Bureau of Land Management will respond to the objection accordingly.

b. Provide the Bureau of Land Management with recommendations, which the Bureau of Land Management shall take into account in reaching a final decision regarding its response to the objection.

c. Notify the Bureau of Land Management that the objection will be referred to the Council membership for formal comment and proceed to refer the objection and comment within 45 calendar days.

d. The Bureau of Land Management in accordance with Section 110(l) of the NHPA shall take the resulting comment into account.



3. Should the Council not exercise one of the above options within 30 calendar days after receipt of the pertinent documentation, the Bureau of Land Management may assume the Council's concurrence in its proposed response to the objections.

B. The Bureau of Land Management shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the Bureau of Land Management's responsibility to carry out all actions under this MOA that are not the subjects of the objection shall remain unchanged.

C. At any time during implementation of any stipulation in this MOA, should an objection to any such stipulation or its manner of implementation be raised by a member of the public, the Bureau of Land Management shall take the objection into account and consult as needed with the objecting party, the Council and the AKSHPO to address the objection.

## **VIII. AMENDMENT**

A. The Bureau of Land Management or the AKSHPO may request that this MOA be amended, whereupon they will consult in accordance with 36 CFR § 800 to consider such amendment.

1. No amendment shall take effect until it has been executed by the Council and AKSHPO.

## **IX. TERMINATION**

A. The Bureau of Land Management or AKSHPO may propose to terminate this MOA by providing 30-calendar days notice to the other two and other signatories explaining the reasons for the proposed termination.

1. The AKSHPO and the Bureau of Land Management will consult during this period to seek agreement on amendments or other actions that will avoid termination.

2. In the event of termination, the Bureau of Land Management will comply with 36 CFR Part 800 with regard to individual undertakings covered by this MOA and not completed at time of termination.

## **X. FAILURE TO CARRY OUT AGREEMENT**

A. In the event the Bureau of Land Management does not carry out the terms of this MOA or if the Council determines under 36 CFR § 800.14(b)(2)(v) that the terms of this MOA are not being carried out, the Bureau of Land Management will comply with 36 CFR § 800.3 through 800.7 with regard to individual undertakings covered by this MOA.

B. In the event that the Bureau of Land Management finds that there are insufficient funds to carry out any terms of this agreement, then the Bureau of Land Management is obligated to reinstate consultation to develop a new agreement. This includes notification to the Council, public notification, and opportunity for public participation.

## **XI. ANTI-DEFICIENCY ACT**

A. All requirements set forth in this MOA requiring the expenditure of Bureau of Land Management funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. Section 1341). No obligation undertaken by the Bureau of Land Management under the terms of this MOA will require or be interpreted to require a commitment to expend funds not obligated for a particular purpose.

1. If the Bureau of Land Management cannot perform any obligations set forth in the MOA due to the unavailability of funds, the Bureau of Land Management, the SHPO, and the Council intend the remainder of the agreement to be executed.

2. In the event that any obligation under the MOA cannot be performed due to the unavailability of funds, the Bureau of Land Management agrees to utilize its best efforts to renegotiate the provision, and may require that the parties initiate consultation to develop an amendment to this MOA when appropriate.

## **XII. DURATION**

A. This MOA shall become effective upon execution by the Bureau of Land Management or the AKSHPO and shall remain in effect until terminated in accordance with Stipulation III or 10 years after it becomes effective.

**EXECUTION AND IMPLEMENTATION** of this Memorandum of Agreement evidences that the Bureau of Land Management has satisfied its Section 106 and Section 110(f) responsibilities for all undertakings in this program.

IDENTIFY FEDERAL AGENCY/RESPONSIBLE AGENCY OFFICIAL

BY: Thomas R. Edgerton DATE: 10/21/03  
(Thomas Edgerton; Supervisory Team Manager, Bureau of Land Management-Northern Field Office)

**ALASKA STATE HISTORIC PRESERVATION OFFICER**

BY: Judith Bittner DATE: 10/27/03  
(Judith Bittner, Alaska State Historic Preservation Officer)

# STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

## DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION  
OFFICE OF HISTORY AND ARCHAEOLOGY

550 W. 7th Ave., SUITE 1310  
ANCHORAGE, ALASKA 99501-3565  
PHONE: (907) 269-8721  
FAX: (907) 269-8908

October 30, 2003

File No.: 3130-2R DOT  
3330-6 EAG-12, EAG-305  
3330-6N EAG-13, EAG-405, EAG-406

SUBJECT: Taylor Highway, Milepost 64.5 to Canadian Border  
Project 66446

Patricia Wightman  
Environmental Coordinator  
Department of Transportation and Public Facilities  
2301 Peger Road  
Fairbanks, AK 99709-5316

Dear Ms. Wightman,

We have reviewed your correspondence (received October 6, 2003) regarding the referenced project for conflicts with cultural resources under Section 106 of the National Historic Preservation Act. Based on our records and the report *Cultural Resource Survey of the Taylor Highway MP 64.5-95.6 and the Top of the World Highway MP 0.0 -13.5 (Jack Wade Junction to the U. S.- Canadian Border)*, Project No. 66446 (Rolfe Buzzell 2003), we concur with the following:

- Jack Wade Camp at Mile 89.9 (EAG-12) is eligible for the National Register of Historic Places (NRHP) as an historic district under Criterion A.
- The Twenty-four Inch Diameter F. E. Company Water Pipeline (EAG-305) is eligible for the NRHP within the Chicken Historic District (EAG-8) as a contributing property but is not eligible outside of the district.
- The following sites are not eligible for the NRHP:
  - Joe Dankin Cabin Ruins (EAG-13)
  - Frame Cabin (EAG-405)
  - Frame Cabin (EAG-406)
- The following cultural remains are either isolated artifacts or too recent to be assigned AHRs numbers or considered for eligibility to the NRHP:
  - Small Depression, Two Boards, and a No. 10 Can
  - Old Road Bed

- Vehicle Maintenance Site
- Steam Boiler
- Canadian Customs Residence
- Two Log Cabins at Poker Creek Border Crossing
- Quartz Fragment/ Possible Artifact

We also concur that no historic properties will be affected by this undertaking provided that any road widening or staging areas in the vicinity of Jack Wade Camp (EAG-12) or Jack Wade Dredge (EAG-50) occur on the opposite side of the present highway from EAG-12 and EAG-50. A buffer of trees should also be maintained between EAG-12 and the highway.

Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner  
State Historic Preservation Officer

JEB:sl



# STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION

FRANK H. MURKOWSKI, GOVERNOR

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FAX: (907) 451-5103  
EMail: [melissa\\_parker@dot.state.ak.us](mailto:melissa_parker@dot.state.ak.us)

October 2, 2003

Re: Taylor Highway MP 64.5 to the Canadian  
Border - Project No. 66446  
**Section 106 Consultation Determination  
of Eligibility and Finding of Affect**

Ms. Judith Bittner  
State Historic Preservation Officer  
Department of Natural Resources  
Office of History and Archeology  
500 W. 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, Alaska 99501-3565

Dear Ms. Bittner:

The Alaska Department of Transportation and Public Facilities (ADOT&PF) in cooperation with the Federal Highway Administration (FHWA) is proposing to upgrade the Taylor Highway from the Mosquito Fork Bridge (Milepost 64.5) north to the Canadian Border. ASCG Incorporated (ASCG) is assisting ADOT&PF with the preparation of the environmental documents.

The project begins at the Mosquito Fork Bridge and ends at the Canadian Border. The project is located on U.S. Geological Survey quad maps Eagle A-1 and A-2 (see enclosed report for figures of the project area). The work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, wayside, and parking area construction; and highway sign installations. Approximately 70.8 kilometers (44 miles) of highway are affected. BLM is the principal land manager in the Fortymile area.

## SECTION 106 COMPLIANCE AND ACTION TAKEN

The FHWA is providing funding for this project and ADOT&PF is managing the project. This letter summarizes the actions taken to comply with Section 106 of the National Historic Preservation Act and requests your concurrence with our conclusions on behalf of the FHWA.

Development of this project is being coordinated with all pertinent federal, state, and local agencies.

The Office of History and Archaeology (OHA) was contracted by ADOT&PF to complete a cultural resource survey of the project area in 2002. Prior to the 2002 survey, state archaeologists had conducted six surveys along the Taylor Highway. OHA completed the field work along the proposed alignment and material sites August 19-23, 2002. Their report is enclosed with this letter. BLM reviewed the findings in the draft OHA report and concurred with the findings. The BLM letter is also enclosed for your reference.

Based on research presented in the OHA Report *Cultural Resource Survey of the Taylor Highway MP 64.5 - 95.6 and the Top of the World Highway MP 0.0 - 13.5* the project is not expected to adversely impact known historical, architectural, archaeological, or cultural resources. The rationale for this decision is discussed below.

The Area of Potential Effect (APE) has been defined as 150 feet from the centerline of the proposed road improvements based on expected possible project impacts and input from OHA and BLM. ADOT&PF has identified two sites within the APE, Jack Wade Dredge at MP 86 (EAG-050) and Jack Wade Camp at MP 89.9 (EAG-012).

**Jack Wade Dredge** – The Jack Wade Dredge was determined eligible for the NRHP under Criteria A by the U.S. Bureau of Land Management, with concurrence of the State Historic Preservation Officer on July 16, 1999. Currently, BLM is completing a memorandum of agreement with the Alaska State Historic Preservation Office for dismantling the Jack Wade Dredge. According to BLM, it is likely the dredge will be dismantled before reconstruction of the road; therefore negating any impact from ADOT&PF's proposed project. Currently, dismantlement of the dredge by BLM is planned for fall 2003 or summer 2004. Previously, a wayside was planned at this location, but due to dismantlement of the dredge the wayside was removed as part of the ADOT&PF Taylor Highway project. If the dredge has not been dismantled before road reconstruction (currently scheduled for 2007), ADOT&PF does not expect any adverse impacts to the site because the roadway will stay within the existing footprint adjacent to the dredge, and be widened on the other side of the road, away from the dredge.

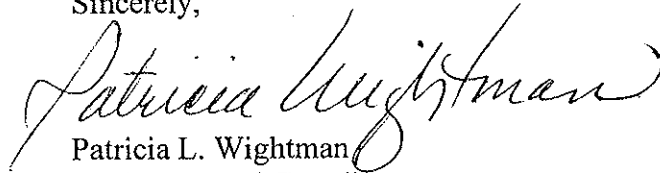
**Jack Wade Camp** – The Jack Wade Camp at Mile 89.9 meets the eligibility criteria for the NRHP as a historic district under Criteria A. At Jack Wade Camp ADOT&PF plans to shift the road alignment away from the mining camp. The mining camp is currently 140 feet north of the Taylor Highway. The vegetation blocking the camp from the road will not be disturbed, as requested by BLM.

BLM has concurred that a boiler located in Wade Creek at MP 87.6 does not qualify for the National Register of Historic Places, but requested that it be salvaged if the site is disturbed during construction. Currently no disturbance is anticipated.

In addition to the Jack Wade Dredge and Jack Wade Camp, OHA identified seven sites outside the APE and twelve sites that did not meet the eligibility criteria for the National Register of Historic Places (NRHP). The full report is enclosed for your review.

At this time, we are seeking your concurrence of eligibility for the two sites within the APE and a "Finding of No Historic Properties Affected" by this project. Please indicate your concurrence by signing or stamping the signature line below. Thank you for reviewing this project and we look forward to your input on this matter. If you have any questions or concerns, please feel free to contact Melissa Parker, Environmental Analyst, at (907) 451-5293 or e-mail to [melissa\\_parker@dot.state.ak.us](mailto:melissa_parker@dot.state.ak.us).

Sincerely,

  
Patricia L. Wightman  
Environmental Coordinator

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Judith Bittner  
State Historic Preservation Officer

Date

MP/dt

Enclosures: OHA Report *Cultural Resource Survey of the Taylor Highway MP 64.5 - 95.6 and the Top of the World Highway MP 0.0 - 13.5*  
BLM Cultural Review Correspondence

cc:

Tim Woster, P.E., Engineering Mgr., DOT&PF, 2301 Peger Rd., Fairbanks, AK 99709  
Kim Stricklan, P.E., Arctic Slope Consulting Group, 301 Danner Ave., Anchorage, AK 99518  
Edward J. DeCleva, Northern Region Liaison, FHWA, P.O. Box 21648, Juneau, AK 99802



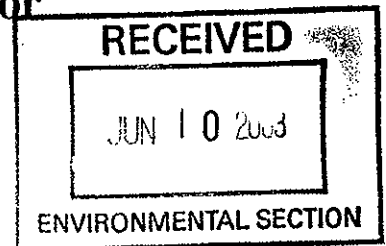
# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NORTHERN FIELD OFFICE

1150 University Avenue

Fairbanks, Alaska 99709-3899



In reply refer to:  
8111.6(AK-026)

**JUN 05 2003**

Melissa Parker, Environmental Analyst  
State of Alaska Department of Transportation & Public Facilities  
Design & Engineering Services Division, Northern Region  
2301 Peger Rd.  
Fairbanks, AK 99709-5316

Dear Ms. Parker:

Working under a contract for the Alaska Department of Transportation & Public Facilities (AKDOT&PF), Office of History & Archaeology (OHA) personnel (Rolfe Buzzell, Charles Holmes) surveyed along the Taylor Highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 for cultural resources. The results of their investigations have been submitted to AKDOT as a draft report for review (Rolfe G. Buzzell, 2003, DRAFT, Cultural Resource Survey of the Taylor Highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 (To the U.S. – Canadian Border), Project 66446, Office of History and Archaeology Report No. 94, Alaska Department of Natural Resources, Anchorage), which in turn has been forwarded to myself for review of those cultural sites falling on Bureau of Land Management lands in the area of the proposed action. Amongst the cultural sites identified during the project, Buzzell identifies seven cultural sites on BLM-managed lands that are within or very close to the area of potential effect (APE), that is, within the associated ROW's.

The Fortymile Area geographic team of the BLM-Northern Field Office concurs with their general findings, that four of the sites do not meet eligibility requirements for the NRHP:

1. small depression with two boards and a No. 10 can, no AHRS no., Taylor MP 68.0;
2. EAG-00013 Joe Dankin Cabin ruins, Taylor MP 74.7;
3. steam boiler, no AHRS no., Taylor MP 87.6;
4. 1960s-1970s Mining Camp Site, possibly EAG-00056, Taylor MP 83.0.

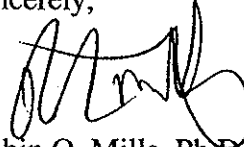
A fifth site (EAG-00060), a prehistoric site, does not currently exist and was likely destroyed prior to the original 1975 discovery survey (Bowers et al. 1975). A sixth site (EAG-00050 Jack Wade Dredge, Taylor MP 86.0) has already been determined eligible for nomination to the

NRHP in 1999. We further concur with Buzzell's (2003) recommendation that the seventh, and last site, EAG-00012, Jack Wade Camp, located at Taylor MP 89.9, appears to meet the eligibility criteria for the NRHP as an historic district under Criteria A.

Please see the enclosed "Assessment of Archaeological and Historic Resources" form, which outlines in more detail the rationale for these concurrences. Please note in particular those comments associated with the steam boiler (#3, above), the Jack Wade Dredge (#6, above), and the Jack Wade Camp (#7, above) in that enclosed document.

Please feel free to contact me (907-474-2359, Robin\_Mills@ak.blm.gov) at any time if you have questions regarding this matter.

Sincerely,



Robin O. Mills, Ph.D.  
Archaeologist

1 Enclosure 1

1 - Assessment of Archaeological and Historic Resources, Robin Mills BLM-NFO AK026  
Archaeologist, June 2003

cc: with enclosure

Mary Figarelle, Supervisory Team Manager, Tok Field Office, BLM.

Tom Edgerton, Supervisory Team Manager, Northern Field Office, BLM.

Rolfe Buzzell, Historian, Office of History and Archaeology, Alaska Department of Natural Resources.

Patricia Wightman, Environmental Coordinator, State of Alaska Department of Transportation & Public Facilities Design & Engineering Services Division, Northern Region.

Stefanie Ludwig, Archaeologist II, Office of History and Archaeology, Alaska Department of Natural Resources.



**ASSESSMENT OF ARCHAEOLOGICAL AND HISTORIC RESOURCES**

<b>Serial Number</b>	N/A
<b>EA Number</b>	N/A
<b>Applicant</b>	Alaska Department of Transportation, C/O Melissa Parker, Environmental Analyst
<b>Date</b>	06/04/03

**Location:**

BLM-managed land along Taylor Highway Milepost 64.5 – 95.6. Primarily where the Taylor Highway traverses through BLM-managed lands within the Fortymile Wild and Scenic River Corridor along (1) the South Fork of the Fortymile River (circa Taylor MP 72.5-76), (2) Wade Creek (circa Taylor MP 82.0-92.0), and (3) a small piece of land alongside Mosquito Creek (circa Taylor MP 67.8-68.5).

**Description of Proposed Action:**

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), plans to rehabilitate and improve the structural integrity of the Taylor Highway from Milepost 64.5 to MP 95.6 (Jack Wade Junction) and the Top of the World highway MP 0.0-13.5 (to the U.S.-Canadian border). This work entails minor road realignments, roadway widening and surface treatment, bridge replacement and repair, drainage improvements, turnouts, waysides and parking area construction, and highway sign installation.

Portions of this work occur on lands managed by the Bureau of Land Management (BLM), primarily those within the Fortymile Wild and Scenic River Corridor (FWSRC) along (1) the South Fork of the Fortymile River (circa Taylor MP 72.5-76), (2) Wade Creek (circa Taylor MP 82.0-92.0), and (3) a small piece of land alongside the Mosquito Fork (circa Taylor MP 67.8-68.5).

Portions of the proposed work occur outside of the 100' right-of-way (ROW) boundaries from the existing Taylor Highway centerline.

**OFFICE REVIEW**

**Existing data review and Description of past inventory work in the area**

For the sections of BLM-managed land outlined above, two previous systematic archaeological surveys have taken place: (1) Bowers, Turney and Cole (1975) surveyed along Taylor Hwy Mile 0.0 and 96 in 1975, and (2) Buzzell (2003) and Holmes visited the area in 2002 in direct conjunction with this current AKDOT&PF project, outlined briefly above in the Proposed Action. **THEIR DRAFT REPORT** (Rolfe G. Buzzell, 2003, DRAFT, Cultural Resource Survey of the Taylor Highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 (To the U.S. – Canadian Border), Project 66446, Office of History and Archaeology Report No. 94, Alaska Department of Natural Resources, Anchorage) **IS HERE BEING EVALUATED HERE, FOR THOSE LANDS SPECIFICALLY MANAGED BY THE BLM ALONG THIS ROUTE.**

Non-systematic testing by BLM archaeologist John P. Cook also occurred in the early 1980s in the area of the

Proposed Action now managed by BLM. Sites found by these efforts (EAG-00146; EAG-00154), which are alongside the Taylor Hwy but outside of the 100 ft. ROW and the APE, in the vicinity of the Walker Fork Bridge at Taylor MP 82.0, will not be further considered here.

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## FIELD EXAMINATION

### **Description of the area surveyed**

Bowers et al. (1975) and Buzzell (2003) surveyed primarily within a couple hundred feet of the Taylor Hwy, and both conducted their work as a direct result of intended construction on the Taylor Highway. The area is located within the U.S. Geological Survey Eagle quadrangle (A-1 and A-2). As summarized by Buzzell (2003:3), "The vegetation of the area's gently rolling, well drained hills and ridges is typically upland spruce and hardwood forest (mixed white and black spruce, birch and aspen) with low brush bog and muskeg in the drainage valleys and lower elevations. In the swales and depressions between hills, low growing forests consist of black spruce interspersed with tamarack, paper birch, and willows. Alpine tundra occupies the sites of highest elevation. ... There is evidence of old and new forest fire burns."

Much commercial placer gold mining has occurred since the late-19<sup>th</sup> century throughout the Fortymile drainage, and in our Project Area. As a result, much mining tailings piles and disturbed ground occurs adjacent to the rivers and creeks, which the Taylor Hwy accompanies for portions of the area examined here, along the Mosquito Fork, South Fork, and particularly Wade Creek. Corresponding thick disturbance vegetation (willows, birch, alders) occurs in these areas.

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### **Survey methodology**

Bowers et al. (1975) utilized a number of research methods in their investigation, including historic and archaeological literature review, aerial photos, discussions with professional colleagues, a literature and map review of the USGS quads, extensive oral histories with residents of the Taylor Hwy region, and select on-the-ground reconnaissance and testing of specific re-alignment locales and material sources.

Buzzell (2003:31) utilized a number of research methods in their investigation, including reviewing reports of previous cultural resource surveys (including Bowers et al. 1975) and the Alaska Heritage Resources Survey. The researchers also walked "both sides of the right-of-way in a zig-zag pattern on selected portions of the proposed alignment changes. Some portions were not walked because the steep cut banks above and below the existing road way, or recent development made site potential non-existent. The investigators also examined seven proposed material sites adjacent to the proposed alignment. ... The investigators also did historical research, including informal interviews with people knowledgeable about the local area, to understand the development of the area and the uses of each of the sites." The investigators also examined the Alaska Resources Library and Information Services Center (Anchorage), the Z.L. Loussac Library (Anchorage), and photo collections at the Anchorage Museum of History and Art, the Rasmuson Library at the University of Alaska Fairbanks, and the State Library in Juneau. "The scope of the work called for a survey to locate, identify and evaluate for significance any cultural resources found along the proposed alignment and on proposed material sites that might be used during construction of the project" (Buzzell 2003:4). Historic significance of sites was evaluated using the four criteria of significance identified in 36 CFR 60.4 (i.e., in sum, those sites associated with significance events, significant persons, embodying distinctive architectural characteristics, and/or those sites that have or have the potential to yield important historic or prehistoric data).

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### **Results of survey**

Bowers, Turney and Cole (1975), surveyed along Taylor Hwy Mile 0.0 and 96, and examined 28 material sources, 12 realignment sections, and six proposed bridge projects, and examined and recorded in varying degrees 28 historic sites, two paleontology sites, and two prehistoric sites.

Buzzell (2003) and Holmes visited the area in 2002 in direct conjunction with this current AKDOT&PF project, outlined briefly above in the Proposed Action. They investigated 21 buildings, historic buildings, structures or sites

of potential interest.

One site visited by Bowers et al. (1975) but not reported on *specifically* in Buzzell (2003) is EAG-00056 (misidentified in Bowers et al. 1975 as EAG-00075), which also falls on BLM managed land and is close to the APE along Wade Creek. However, see reference to Buzzell's (2003) "1960s-1970s Mining Camp Site" below, and how these two sites are likely one and the same.

In addition, I am personally aware of a variety of pieces of dredge equipment and/or metal hardware, purportedly from the Jack Wade Dredge (EAG-00050) from when it was refurbished in the 1930s and moved to its present Wade Creek locale at MP 86.0 (Bob Burritt, retired BLM Tok manager, personal communication September 1999). These pieces reportedly lie amongst the tailings and willows immediately north of the Taylor Hwy just past the BLM Walker Fork Campground, approximately MP 82.5 – 82.9. Also, known Jack Wade Dredge equipment pieces also exist immediately north and off of the Taylor Hwy just past MP 88, on an old mining claim that just became null and void and reverted back to sole BLM management.

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## RESULTS

### Anticipated impacts to cultural resources

Based primarily upon the efforts of the Bowers et al. (1975) and Buzzell (2003) reports, the following sites are known to be located within or immediately adjacent to the ROW, for that land specifically managed by the BLM within the survey area described above, and might be impacted by the Proposed Action: (1) the Jack Wade Dredge (EAG-00050) at MP 86.0, (2) the Jack Wade Camp (EAG-00012) at MP 89.9, (3) a small depression, two boards and a No. 10 can at MP 68.0, (4) the Joe Dankin Cabin Ruins (EAG-00013) at MP 74.7, (5) a steam boiler in the creek of Wade Creek at MP 87.6, and (6) 1960s-1970s Mining Camp site (possibly EAG-00056) just past MP 83.0.

In addition, Buzzell (2003:38) indicates that a prehistoric site (EAG-00060) used to exist immediately adjacent to an old material site (F-21286) located at MP 73.6 on BLM-managed lands, and originally reported in Bowers et al. (1975). Site artifacts identified by Bowers comprised two prehistoric lithic artifacts (a biface, and a worked quartzite piece) found in a disturbed area at the upper edge of the material site. Twenty test pits in 1975 failed to reveal evidence of further undisturbed remains in the vicinity. The site area was visited by Buzzell (2003: 38) in 2002, but no further artifacts were noticed.

As above (Results of Survey), I am aware of a number of pieces of dredge equipment and metal hardware, purportedly from the refurbishment of the Jack Wade Dredge (EAG-00050) in the 1930s, immediately alongside the Taylor Hwy at MP 82.5 – 82.9 and MP 88. The items are close to but likely fall just outside of the highway's ROW. In addition, AKDOT engineering sheets for Project F-M-0617(5) (dated 2002) that were supplied to me for the purposes of this review, indicate NO planned deviation from the right-of-way for these stretches of the road. If this remains the case for the duration of the project, then no impacts to these cultural remains are anticipated by the present project.

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### National Register eligibility

The BLM-Northern Field Office concurs with the general recommendations outlined in the Buzzell report (2003):

1. small depression with two boards and a No. 10 can; no AHRS no.; Taylor MP 68.0; see Buzzell (2003:37-38). Not eligible to the National Register of Historic Places (NRHP).
2. EAG-00013, Joe Dankin Cabin ruins; Taylor MP 74.7; see Buzzell (2003:38-39). Not eligible to the NRHP.
3. steam boiler; no AHRS no.; Taylor MP 87.6; see Buzzell (2003:45). Not eligible to the NRHP.

However, this complete, large steam boiler, although a cultural isolate out of original behavioral and functional context, symbolizes continuous active mining along Wade Creek since 1895. Although lots of tailings exist along

this creek, few actual vestiges of mining equipment remain to this day, excepting those few that are mentioned in this letter (i.e., Jack Wade Dredge pieces at various locales; dredge pieces and mining equipment at the Jack Wade Camp, EAG-00012; the Jack Wade Dredge itself, EAG-00050; this boiler at MP87.6). Although no disturbance of this boiler is apparently planned after reviewing the AKDOT Engineering plans for this project (sheet #22), I am aware that these plans are not finalized. If disturbance or destruction of this boiler is anticipated at a future date by this project, then I recommend that this boiler be removed to another location for public display and interpretation. This work would be done in consultation with the active mine claimant on whose claim this boiler currently lies. BLM is planning other similar public mining interpretation sites with mining equipment in the Fortymile Drainage, and this boiler could easily be made part of one of these outdoor public displays.

4. EAG-00050, Jack Wade Dredge; Taylor MP 86.0); see Buzzell (2003:43-45). EAG-00050 has already been determined eligible for determination to the NRHP in 1999, via consultation and concurrence between the BLM and the Alaska State Historic Preservation Office (AKSHPO).

However, in spring 2003 BLM management decided that the severely dilapidated state of the Jack Wade Dredge posed a threat to public safety, which could not be otherwise addressed except by dismantling and removal of the structure. On May 12, 2003 the AKSHPO concurred with BLM's determination that a dismantling of the Jack Wade Dredge (EAG-00050) will have an adverse effect on historic properties. The AKSHPO and the BLM, at this time (June 2003) are drafting a memorandum of agreement (MOA) to mitigate the adverse effects of dismantling the dredge. Thus, once this MOA is written and signed (anticipated: Late June -Early July 2003), the issue of mitigating any impact to the dredge from road construction by the proposed re-alignment project becomes a moot point, as the dredge will already be dismantled (planned: fall 2003 - summer 2004) and removed by the time the AKDOT re-alignment project begins.

HOWEVER, if plans for the dismantling and removal of the dredge do not take place as anticipated, and remain standing at the time of road re-alignment at MP 86.0, impact to this NRHP-eligible property must be avoided. In a letter from Patricia Wightman (AKDOT Environmental Coordinator) to myself, dated May 19, 2003 (re: Taylor Highway Project No. 66446, Section 106 Consultation), this sentiment of avoidance is clearly implied: "At the Jack Wade Dredge the roadway will stay within the existing footprint adjacent to the dredge, and widened on the other side of the road, away from the dredge."

5. We concur with Buzzell's (2003) recommendation that EAG-00012, Jack Wade Camp, located at Taylor MP 89.9, appears to meet the eligibility criteria for the NRHP as an historic district under Criteria A. For a background discussion on EAG-00012, the Jack Wade Camp, at Taylor MP 89.9, see Buzzell (2003:45-52).

Although the Jack Wade Camp is 140 feet from the Taylor Highway centerline and is technically outside of the ROW, I still concur with Buzzell (2003:62) that it is physically close enough to fall within the APE to warrant concern. I concur with him that the 10 historic standing buildings (EAG-00392, EAG-00393, EAG-00394, EAG-00395, EAG-00396, EAG-00397, EAG-00398, EAG-00400, EAG-00402, EAG-00403), two ruins (EAG-399; EAG-00404), one structure (EAG-00401) and numerous historic mining-related artifacts at the site meet the eligibility criteria for the NRHP as an historic district under Criteria A. IN ADDITION, I would add one additional ruin to be included with the proposed historic district, a semi-subterranean depression of unknown function (no AHRS no.) dug into the hillside and located immediately southwest of the Cook Shack Cabin (EAG-00393) I concur that EAG-00012 is associated with (local) events that have made a significant contribution to the broad patterns of our (local and regional Alaskan) history (36 CFR 60.4). As per Buzzell (2003:62), and after visiting, mapping and recording the camp myself in 2001, I feel that the camp has integrity of location, design, setting, materials, workmanship, feeling, and association.

As with the Jack Wade Dredge discussion above (#4), AKDOT in the same letter to me dated May 19, 2003 agrees with the Buzzell recommendation to avoid impacting this site, either directly, or visually by not impacting the current line of vegetation that exists between the site and the Taylor Hwy: "At the Jack Wade Mining Camp [EAG-00012] we plan to shift the road alignment away from the mining camp."

6. As suggested in Bowers et al. (1975) and reconfirmed in Buzzell (2003:38), a prehistoric site (EAG-00060) used to exist immediately adjacent to an old material site (F-21286) located at MP 73.6 on BLM-managed lands. Two prehistoric artifacts were found in a disturbed area at the upper edge of the material site in 1975. Twenty test pits in

1975 failed to reveal evidence of further undisturbed remains in the vicinity. The site area was visited by Buzzell (2003: 38) in 2002, but no further artifacts were noticed. I concur that the site was likely destroyed prior to Bowers' 1975 survey, and that they located only disturbed remnant artifacts from the site during their survey. As a result, I concur that the current AKDOT project will not impact this site.

7. possibly EAG-00056 (cabin) / 1960s-1970s Mining Camp Site; Taylor MP 83.0; see Buzzell (2003:42). Not eligible to the NRHP.

Buzzell's (2003:42) "Mining Camp Site", consisting of a scatter of 1960s-1970s era artifacts, boards, ruins of a meat cache, depression filled with water, and two relatively flat areas where tents may have been used, are all located about 540 feet north of the Taylor Highway just past MP 83.0. The trash is scattered over a roughly 75 ft. area. This is the same place where Bowers et al. (1975) report EAG-00056, "a cabin with vertical plank siding" of about 15 x 10 feet. As per Bowers' report, "The cabin has been occupied recently [note the 1975 survey date], and there is a great deal of litter in the area. The cabin is less than one-eighth of a mile off the west side of the Taylor Highway" (Bowers et al. 1975).

These two descriptions, corresponding to the same locale, seem to match, and since the artifacts date to roughly the same era, it would seem that either (1) the plank cabin reported by Bowers et al. was misidentified by Buzzell as a meat cache, (2) the meat cache ruins identified by Buzzell were misidentified by Bowers as a cabin, or (3) the cabin has since been removed from the site between 1975 and 2002, the times of the two surveys.

REGARDLESS, we concur with Buzzell's (2003:42) general impression that owing to the relatively recent occupation of this site area, the site is not eligible to the NRHP.

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#### Conclusions & Recommendations

Working under a contract for the Alaska Department of Transportation & Public Facilities (AKDOT&PF), Office of History & Archaeology (OHA) personnel (Rolfe Buzzell, Charles Holmes) surveyed along the Taylor Highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 for cultural resources. The results of their investigations have been submitted as a draft report for review (Buzzell 2003). Certain portions of the highway right-of-way (ROW) traverse through Bureau of Land Management land. Amongst the cultural sites identified during the project, Buzzell (2003) identifies seven cultural sites on BLM-managed lands that are within or very close to the area of potential effect (APE), that is, within the associated ROW's.

The Fortymile Area geographic team of the BLM-Northern Field Office concurs with their general findings, that four of the sites (1. small depression with two boards and a No. 10 can, Taylor MP 68.0; 2. EAG-00013 Joe Dankin Cabin ruins, Taylor MP 74.7; 3. steam boiler, Taylor MP 87.6; 4. 1960s-1970s Mining Camp Site, Taylor MP 83.0) do not meet eligibility requirements for the NRHP. A fifth site (EAG-00060), a prehistoric site, does not currently exist and was likely destroyed prior to the original 1975 discovery survey (Bowers et al. 1975). A sixth site (EAG-00050 Jack Wade Dredge, Taylor MP 86.0) has already been determined eligible for nomination to the NRHP in 1999. We further concur with Buzzell's (2003) recommendation that the seventh, and last site, EAG-00012, Jack Wade Camp, located at Taylor MP 89.9, appears to meet the eligibility criteria for the NRHP as an historic district under Criteria A.

---



Robin O. Mills  
Archaeologist

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#### References Cited

Bowers, Peter M., John H. Turney, and Terrence Cole  
1975 Archaeological and Historical Investigations Along the Taylor Highway. Miscellaneous Publications, History and



Archaeology Series No. 13, Alaska Division of Parks, Anchorage, Alaska.

Buzzell, Rolfe G.

2003 . DRAFT REPORT: Cultural Resource Survey of the Taylor highway MP 64.5 – 95.6 and the Top of the World Highway MP 0.0 – 13.5 (To the US – Canadian Border), Project 66446. Office of History and Archaeology Report No. 94, Division of Parks and Outdoor Recreation, Anchorage, Alaska.

# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION

FRANK H. MURKOWSKI, GOVERNOR

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EMail: melissa\_parker@dot.state.ak.us

May 19, 2003

Re: Taylor Highway MP 64  
to Canadian Border  
Project Nos. 66446  
**Section 106 Consultation**

Mr. Robin Mills  
Bureau of Land Management  
1150 University Avenue  
Fairbanks, Alaska 99709

Dear Mr. Mills:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), plans to rehabilitate and improve the structural integrity of the Taylor Highway from Milepost 64.5 to MP 95.6 (Jack Wade Junction) and the Top of the World Highway MP 0.0 – 13.5 (to the U.S. Canadian Border) Sheet 1. This work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, waysides, and parking area construction; and highway sign installation.

As part of the Section 106 process, ADOT&PF has contracted with the Office of History and Archaeology (OHA) to conduct a Cultural Resource Survey for this project. A draft copy of this report is enclosed for your review. Location maps of all potential material sites for this project are provided on Sheets 2 and 3. As you requested, we have also enclosed detailed plan sheets of the proposed road realignment and footprint changes along Wade Creek (Sheet 4). These are not final design plan sheets, but a maximum estimate of potential project impacts along this section of highway. These plan sheets show each location where we anticipate project development outside of the existing right-of-way (ROW) with the maximum number of feet estimated for each location. There are two types of ROW boundaries along the road alignment that parallels Wade Creek: 1) BLM land with 100' on either side of centerline, and 2) Mining Claim Lands with ROW from toe to toe of the existing roadway. Land rights and ROW boundaries are marked on each plan sheet.

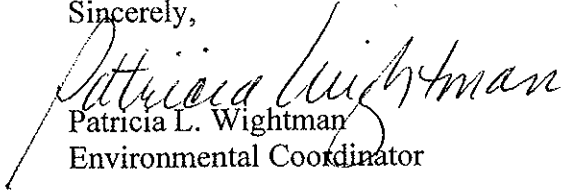
In the Cultural Survey Report, OHA identified two properties within the area of potential effect (APE) that were determined eligible or appear to meet the eligibility criteria for the National Register of Historic Places (NRHP). These properties are the Jack Wade Dredge and Jack Wade Camp. At the Jack Wade Dredge the roadway will stay within the existing



footprint adjacent to the dredge, and widened on the other side of the road, away from the dredge (Sheet 12 and 13). In coordination with BLM, we also plan to construct a pullout with two interpretative signs adjacent to the dredge. The exact location and footprint of this pullout is unknown at this time. At the Jack Creek Mining Camp we plan to shift the road alignment away from the mining camp.

As part of the 106 Consultation process, we appreciate any comments you might have to ensure we have identified all historic or archeological properties potentially impacted by this project. If you require additional information please contact Melissa Parker, Environmental Analyst, at (907) 451-5293, or by e-mail at [Melissa\\_Parker@dot.state.ak.us](mailto:Melissa_Parker@dot.state.ak.us).

Sincerely,



Patricia L. Wightman  
Environmental Coordinator

MP

Enclosures: As stated

cc: Tim Woster, P.E., Design Project Manager, ADOT&PF, Northern Region  
Kim Stricklin, ASCG, Environmental Consultant, Anchorage, AK  
Ed DeCleva, Legislative Liaison, FHWA, P.O. Box 21648, Juneau, AK 99802  
Nancy Whicker, Team Leader, BLM, Tok, AK

# STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

*DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION*

**FRANK H. MURKOWSKI, GOVERNOR**

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5316

TELEPHONE: (907) 451-5293

TDD: (907) 451-2363

FAX: (907) 451-5103

E-Mail: [melissa\\_parker@dot.state.ak.us](mailto:melissa_parker@dot.state.ak.us)

May 19, 2003

Re: Taylor Highway MP 64  
to Canadian Border  
Project No. 66446  
**Section 106 Consultation**

Dot Lake Village Council  
P.O. Box 2279  
Dot lake, AK 99737-2279

Dear Sir/Madam:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), plans to rehabilitate and improve the structural integrity of the Taylor Highway from Milepost 64.5 (Mosquito Fork Bridge) to MP 95.6 (Jack Wade Junction) and the Top of the World Highway MP 0.0 – 13.5 (to the U.S. Canadian Border) Sheet 1. This work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, waysides, and parking area construction; and highway sign installation. Location maps of all potential material sites for this project are provided on Sheets 2 and 3.

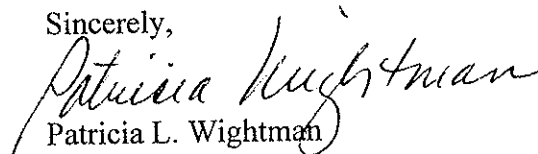
The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from Wade Creek floodplain between MP 84 and 85. The maximum proposed highway realignment at corners is 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 100 feet from centerline. The road will be improved by widening the road to 28 feet with two 12-foot lanes and 2-foot shoulders, and surfaced with "high float asphalt." Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road. A wayside will be constructed at Walker Fork (MP82). The Walker Fork wayside will be located on the southeast side of the road and will have outhouses, interpretive signing, and possible picnic tables. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the eastside of the road and MP 78 on the northwest side of the road. A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within ADOT&PF right of way. The parking area will have no

facilities. Highway signing will also be installed, including milepost markers and standard highway signs for direction and safety information.

As part of the Section 106 process, ADOT&PF has contracted with the Office of History and Archaeology (OHA) to conduct a Cultural Resource Survey for this project. A draft copy of this report is available at your request. In the Cultural Survey Report, OHA identified two properties within the area of potential effect (APE) that were determined eligible or appear to meet the eligibility criteria for the National Register of Historic Places (NRHP). These properties are the Jack Wade Dredge and Jack Wade Camp. At the Jack Wade Dredge the roadway will stay within the existing footprint adjacent to the dredge, and widened on the other side of the road, away from the dredge. In coordination with BLM, we also plan to construct a pullout with two interpretative signs adjacent to the dredge. The exact location and footprint of this pullout is not known at this time. At the Jack Creek Mining Camp we plan to shift the road alignment away from the mining camp.

As part of the 106 Consultation process, we appreciate any comments or additional information you might have to insure we have identified all historic or archeological properties potentially impacted by this project. If you questions please contact Melissa Parker, Environmental Analyst (907) 451-5293, or e-mail [melissa\\_parker@dot.state.ak.us](mailto:melissa_parker@dot.state.ak.us).

Sincerely,

  
Patricia L. Wightman  
Environmental Coordinator

MP

Enclosures: As stated

cc: Tim Woster, P.E., Design Project Manager, ADOT&PF, Northern Region  
Kim Stricklin, ASCG, Environmental Consultant, Anchorage, AK  
Ed DeCleva, Legislative Liaison, FHWA, P.O. Box 21648, Juneau, AK 99802



**Tribal 106 Consultation Mailing List for Taylor Highway MP 64 to Border**

**Ms. Lorraine Titus, President  
Northway Village Council  
P.O. Box 516  
Northway, AK 99764**

**Mr. Jerry Issac, President  
Tanacross Village Council  
P.O. Box 76009  
Tanacross, AK 99776**

**Tanacross, Inc.  
P.O. Box 76029  
Tanacross, AK 99776**

**Mr. Donald Adams, President  
Tetlin Tribal Council  
P.O. Box TTL  
Tetlin, AK 99779**

**Tok Native Association  
P.O. Box 372  
Tok, AK 99780**

**Dot Lake Village Council  
P.O. Box 2279  
Dot lake, AK 99737-2279**

**Mr. Norm Phillips  
Doyon Limited  
1 Doyon Place, Suite 300  
Fairbanks, AK 99701**

**Mr. Donald Adams  
Tetlin Village Council  
P.O. Box TTL  
Tetlin, AK 99779**

**Village of Eagle  
P.O. Box 19  
Eagle, AK 99738**

# STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION

FRANK H. MURKOWSKI, GOVERNOR

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5316  
TELEPHONE: (907) 451-5293  
TDD: (907) 451-2363  
FAX: (907) 451-5103  
EMail: melissa\_parker@dot.state.ak.us

May 19, 2003

Re: Taylor Highway MP 64  
to Canadian Border  
Project No. 66446  
**Section 106 Consultation**

Dot Lake Village Council  
P.O. Box 2279  
Dot lake, AK 99737-2279

Dear Sir/Madam:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), plans to rehabilitate and improve the structural integrity of the Taylor Highway from Milepost 64.5 (Mosquito Fork Bridge) to MP 95.6 (Jack Wade Junction) and the Top of the World Highway MP 0.0 – 13.5 (to the U.S. Canadian Border) Sheet 1. This work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, waysides, and parking area construction; and highway sign installation. Location maps of all potential material sites for this project are provided on Sheets 2 and 3.

The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from Wade Creek floodplain between MP 84 and 85. The maximum proposed highway realignment at corners is 50 feet from the existing highway centerline. Along Wade Creek, the maximum shift is 100 feet from centerline. The road will be improved by widening the road to 28 feet with two 12-foot lanes and 2-foot shoulders, and surfaced with "high float asphalt." Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road. A wayside will be constructed at Walker Fork (MP82). The Walker Fork wayside will be located on the southeast side of the road and will have outhouses, interpretive signing, and possible picnic tables. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the eastside of the road and MP 78 on the northwest side of the road. A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within ADOT&PF right of way. The parking area will have no

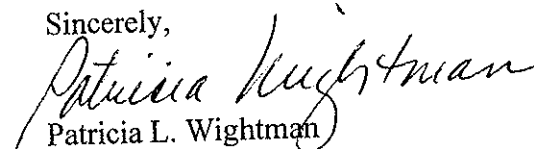
May 19, 2003

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As part of the Section 106 process, ADOT&PF has contracted with the Office of History and Archaeology (OHA) to conduct a Cultural Resource Survey for this project. A draft copy of this report is available at your request. In the Cultural Survey Report, OHA identified two properties within the area of potential effect (APE) that were determined eligible or appear to meet the eligibility criteria for the National Register of Historic Places (NRHP). These properties are the Jack Wade Dredge and Jack Wade Camp. At the Jack Wade Dredge the roadway will stay within the existing footprint adjacent to the dredge, and widened on the other side of the road, away from the dredge. In coordination with BLM, we also plan to construct a pullout with two interpretative signs adjacent to the dredge. The exact location and footprint of this pullout is not known at this time. At the Jack Creek Mining Camp we plan to shift the road alignment away from the mining camp.

As part of the 106 Consultation process, we appreciate any comments or additional information you might have to insure we have identified all historic or archeological properties potentially impacted by this project. If you questions please contact Melissa Parker, Environmental Analyst (907) 451-5293, or e-mail [melissa\\_parker@dot.state.ak.us](mailto:melissa_parker@dot.state.ak.us).

Sincerely,

  
Patricia L. Wightman  
Environmental Coordinator

MP

Enclosures: As stated

cc: Tim Woster, P.E., Design Project Manager, ADOT&PF, Northern Region  
Kim Stricklin, ASCG, Environmental Consultant, Anchorage, AK  
Ed DeCleva, Legislative Liaison, FHWA, P.O. Box 21648, Juneau, AK 99802

**Tribal 106 Consultation Mailing List for Taylor Highway MP 64 to Border**

**Ms. Lorraine Titus, President  
Northway Village Council  
P.O. Box 516  
Northway, AK 99764**

907-778-2311, Contact Gerald Albert

**Mr. Jerry Issac, President  
Tanacross Village Council  
P.O. Box 76009  
Tanacross, AK 99776**

907-883-5024, Contact Jerry Issac

**Tanacross, Inc.  
P.O. Box 76029  
Tanacross, AK 99776**

907-883-4130

**Mr. Donald Adams, President  
Tetlin Tribal Council  
P.O. Box TTL  
Tetlin, AK 99779**

907-324-2130, Left message

✓ **Tok Native Association  
P.O. Box 372  
Tok, AK 99780**

907-883-3718, Liz Weber  
883-5185 ←

**Dot Lake Village Council  
P.O. Box 2279  
Dot lake, AK 99737-2279**

907-882-2695  
Bill or Chuck Miller

**Mr. Norm Phillips  
Doyon Limited  
1 Doyon Place, Suite 300  
Fairbanks, AK 99701**

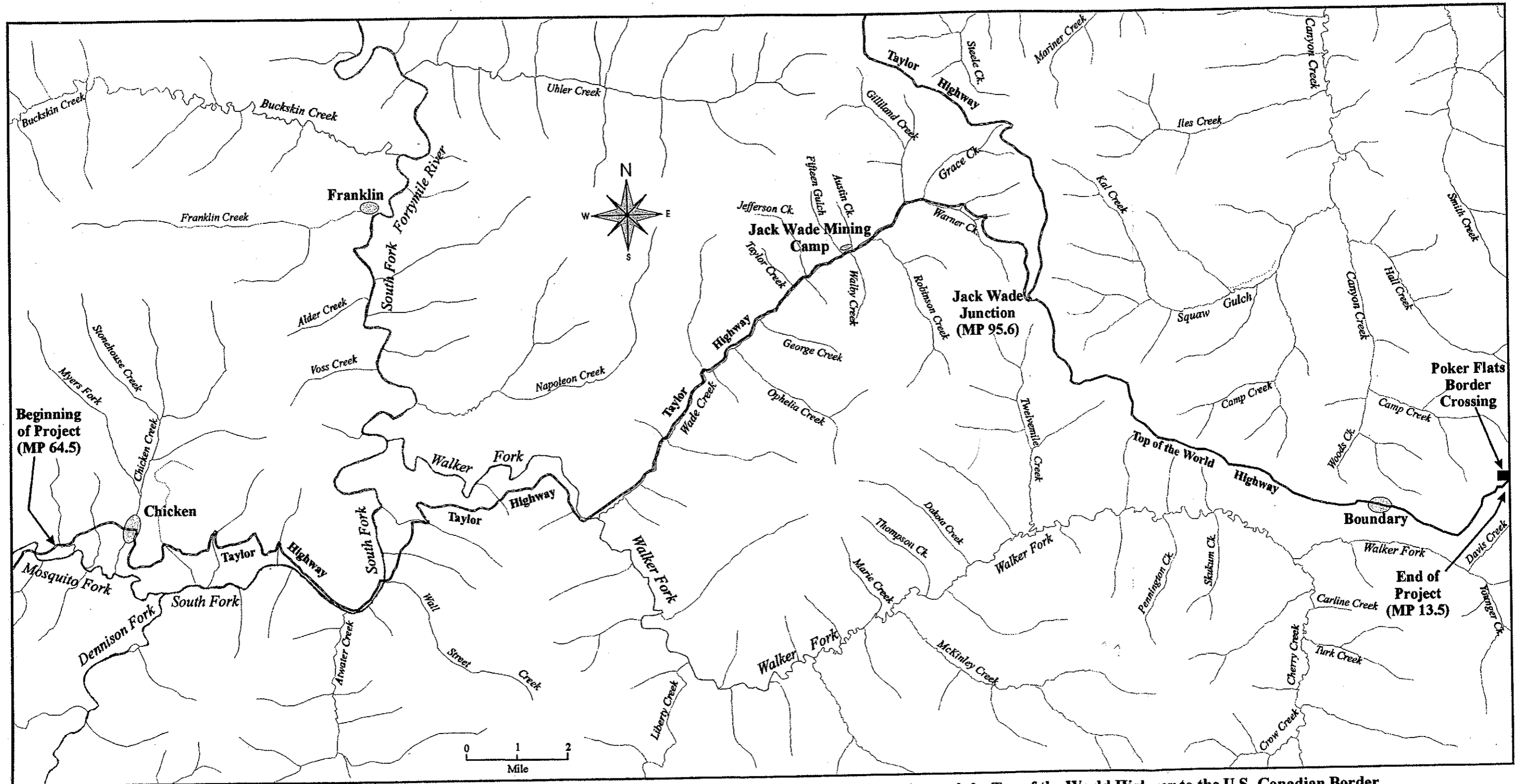
459-2000, left message

**Mr. Donald Adams  
Tetlin Village Council  
P.O. Box TTL  
Tetlin, AK 99779**

907-324-2130, Left message

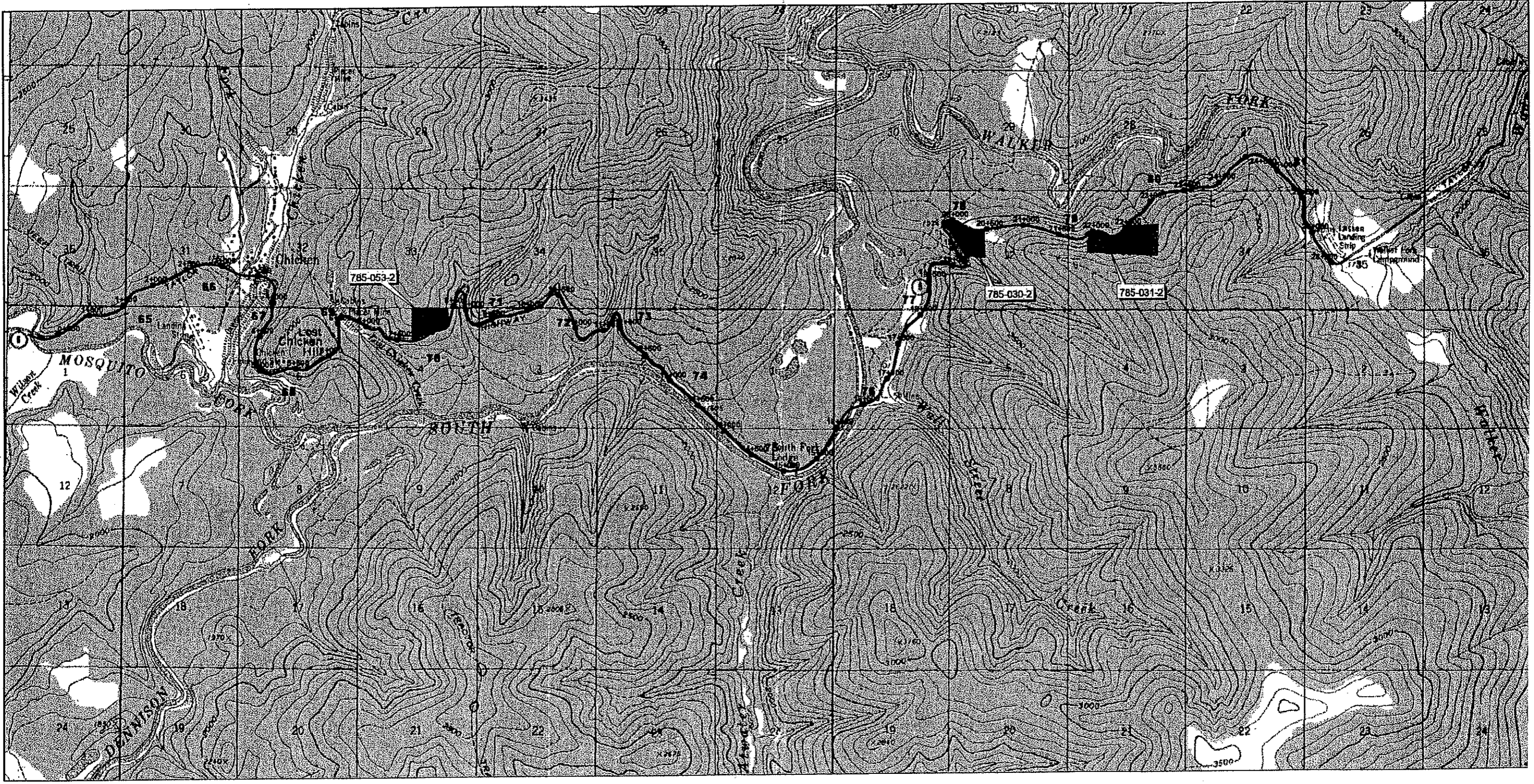
**Village of Eagle  
P.O. Box 19  
Eagle, AK 99738**

907-547-2271  
547-2281 (Council) left message



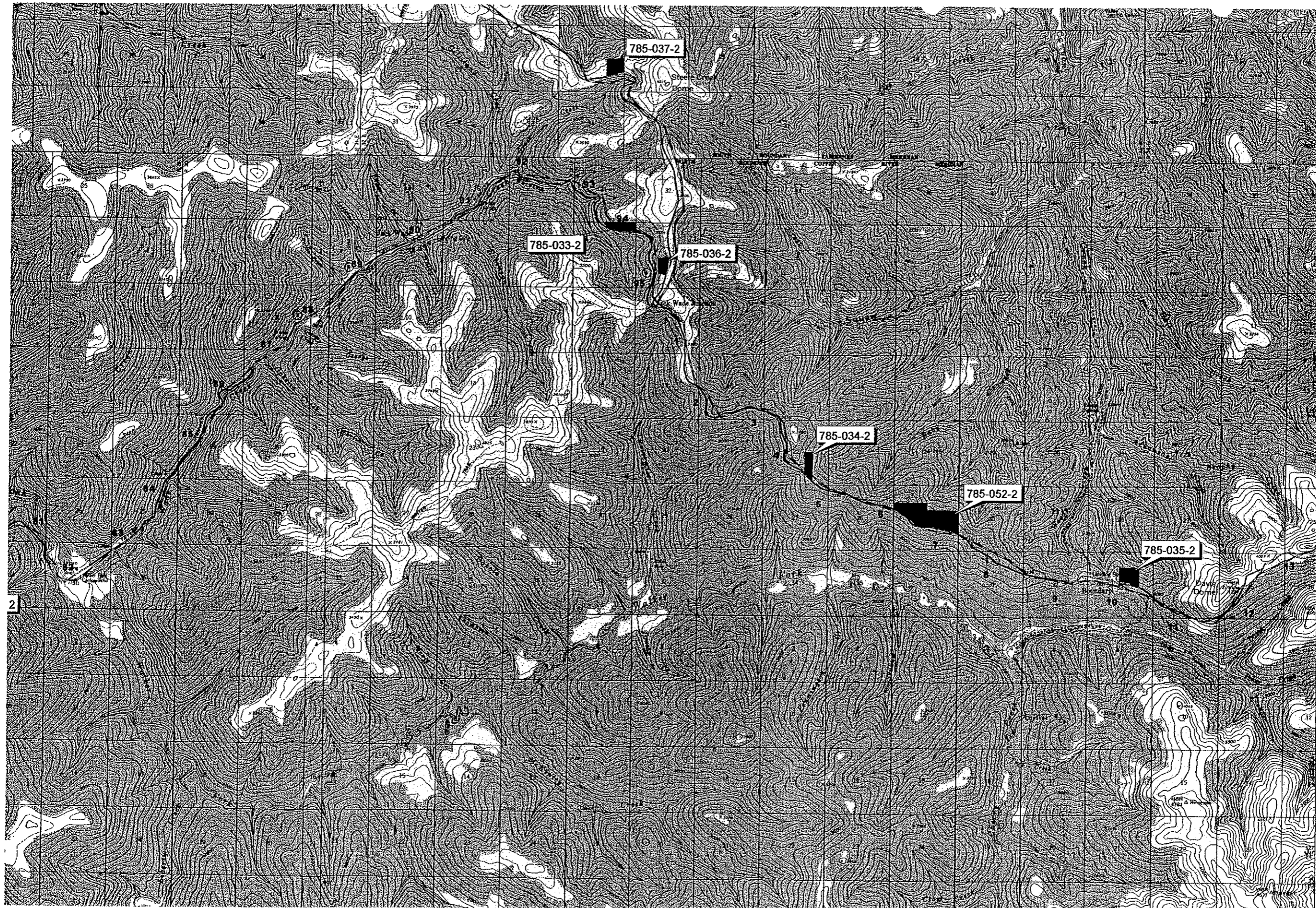
Map of project area, including the Taylor Highway from Mile 64 to Jack Wade Junction and the Top of the World Highway to the U.S.-Canadian Border.





Approx. 1:40,000







**STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND  
PUBLIC FACILITIES  
DESIGN AND ENGINEERING SERVICES**

**TELEPHONE LOG  
FROM THE DESK OF MELISSA PARKER  
ENVIRONMENTAL ANALYST**

**Project Name:** Taylor hwy MP 64-Border  
**Project No.:** STP-0785 (11)/66446

**Who:** Liz Web, Tok Native Association.  
**With:** Melissa Parker, ADOT&PF  
**Phone:** 883-5185

**Topics:**

I asked Liz Web if she had received the 106 Consultation letter we sent on May 19, 2003, and she said yes she had.

Liz asked, if we were aware of the Native Allotments along the Taylor Highway, and I said yes, our ROW department is aware of land status along the alignment.

Liz had no additional comments, except that she thought it was a good worthwhile project.

I gave her my number and said if has any additional comments or question to call me at 451-5293.

## **APPENDIX H**

### **SCOPING SUMMARY**

- Mailing List
- Scoping Letter
- Response to Scoping
- Newspaper Affidavits
- Public Meeting Summary and Sign-in-Sheet

## **Mailing List**



**Taylor Highway MP 64.5 to the Canadian Border Scoping Mailing List**

Mr./Ms.	First	Last	Title	Division	Organization	Address	City	State	Zip
Ms.	Mary	Figarelle			US Bureau of Land Management	P.O. Box 309	Tok	AK	99780
Mr.	Leroy	Phillips		CEPOA-CO-R Regulatory Branch	U.S. Army Corps of Engineers	P.O. Box 6898	Elmendorf AFB	AK	99506-6898
Mr.	Pat	Sousa			U.S. Fish and Wildlife Service	101 12th Avenue, Box 19	Fairbanks	AK	99701
Ms.	Jeanne	Hansen			National Marine Fisheries Service	222 West 7th Avenue, Box 43	Anchorage	AK	99513-7577
Ms.	Judith	Leckrone-Lee			U.S. Environmental Protection Agency	1200 6th Avenue (MSECO-088)	Seattle	WA	98101-1128
Mr.	Bill	Smyth			Alaska Department of Environmental Conservation	610 University Avenue	Fairbanks	AK	99709
Mr.	Alan	Wien			Alaska Department of Environmental Conservation	P.O. Box 871064	Wasilla	AK	99687
Mr.	Frank	Maxwell		Division of Mining, Land and Water Management	Alaska Department of Natural Resources	3700 Airport Way	Fairbanks	AK	99709-4699
Ms.	Judith	Bitner		Division of History and Archeology	Alaska Department of Natural Resources	550 W. 7th Avenue, Suite 1310	Anchorage	AK	99501-3565
Dr.	Al	Ott		Habitat and Restoration Division	Alaska Department of Fish and Game	1300 College Road	Fairbanks	AK	99701-1599
Ms.	Irene	Catalone			Alaska Department of Community and Economic Development	209 Forty Mile Avenue	Fairbanks	AK	99701
Mr.	Norm	Phillips		Lands Department	Doyon, Limited	1 Doyon Place, Suite 300	Fairbanks	AK	99701
Mr.	Jim	Helfinstine		Office of Aids to Navigation	U.S. Coast Guard	P.O. Box 25517	Juneau	AK	99802-5517
Ms.	Bobby	Lounsbury	President		Alaska Women in Mining	P.O. Box 70983	Fairbanks	AK	99707
					Tanacross Village Council	P.O. Box 76009	Tanacross	AK	99776
					Tanacross Village Corporation	P.O. Box 76029	Tanacross	AK	99776

Taylor Highway MP 64.5 to the Canadian Border Scoping Mailing List

Mr./Ms.	First	Last	Title	Division	Organization	Address	City	State	Zip
					Tetlin Tribal Council	P.O. Box TTL	Tetlin	AK	99779
					Alaska Gateway Schools	P.O. Box 226	Tok	AK	99780
					Tok Chamber of Commerce	P.O. Box 389	Tok	AK	99780
					Tok Community Umbrella Corp.	P.O. Box 547	Tok	AK	99780
					Tok Native Association	P.O. Box 372	Tok	AK	99780
					United Crow Band, Inc.	P.O. Box 2279	Dot Lake	AK	99737-2279
					Northway Village Council	P.O. Box 516	Northway	AK	99764
Mr.	Steve	Borell	Executive Director		Alaska Miners Association	305 Arctic Boulevard, Suite 20	Anchorage	AK	99503
Mr.	Bill	Jeffress			Alaska Miners Association	P.O. Box 73726	Fairbanks	AK	99707
Mr.	Jeff	Owen	President		40-Mile Miners Association	3000 E. Stillwater Way	Redding	CA	96003
Mr.	David	Likins	past president of 40-mile miners association			P.O. Box 106	Eagle	AK	99738

## **Scoping Letter**

# STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION, NORTHERN REGION

FRANK H. MURKOWSKI, GOVERNOR

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5316  
TELEPHONE: (907) 451-5293  
TDD: (907) 451-2363  
FAX: (907) 451-5103

December 4, 2002

Re: Taylor Highway, Milepost 64.5 to  
the Canadian Border  
Project No. 66446

Mr. Donald Adams  
President  
Tetlin Tribal Council  
P. O. Box TTL  
Tetlin, Alaska 99779

Dear Mr. Adams:

The Alaska Department of Transportation and Public Facilities (ADOT&PF), in cooperation with the Federal Highway Administration (FHWA), is soliciting comments and information on a proposal to rehabilitate and improve the structural integrity of the Taylor Highway from the Mosquito Fork Bridge (Milepost 64.5) north to the Canadian Border. ASCG, Inc. (ASCG) is assisting ADOT&PF with the preparation of the environmental document.

A number of years have passed since the project was first proposed and varying degrees of coordination have been conducted. At this point, we have decided to avoid confusion by beginning the environmental process as though this were a new project.

## **Proposed Action**

The project begins at the Mosquito Fork Bridge and ends at the Canadian Border. The project is located on the U.S. Geological Survey quad maps Eagle A-1 and A-2. Sections, Townships, Ranges, and Meridian are included in Attachment 1. A location and vicinity map is presented as Figures 1 and 2. The work entails minor road realignments; roadway widening and surface treatment; bridge replacement and repair; drainage improvements; turnout, wayside, and parking area construction; and highway sign installations. Approximately 70.8 kilometers (44 miles) of highway are affected.

The present highway alignment will be maintained except for minor realignments to reduce curvature on corners and shifting the highway away from the Wade Creek floodplain between MP 84 and 85. The proposed highway realignments at corners average 0 to 15 meters (0 to 50 feet) from the existing highway centerline. Along Wade Creek, the maximum shift is 30 meters (0 to 100 feet) from the centerline. The road will be improved by widening the road to 28 feet with two 12-foot lanes and 2-foot shoulders, and surfaced with a "high float asphalt". Drainage will be improved to convey water away from the road by ditching parallel to the road and installing cross-drainage under the road.

Waysides will be constructed at two locations: Walker Fork (MP 82) and Jack Wade Dredge (MP 86). The Jack Wade Dredge wayside will be located on the southeast side of the road and will have parking and interpretive signing. The Walker Fork wayside will also be located on the southeast side of the road and will have outhouses, interpretive signing, and possible picnic tables. Scenic turnouts are planned where the new road will accommodate using the old road for turnouts at MP 77 on the east side of the road and MP 78 on the northwest side of the road. A trailhead parking area is planned for the Mosquito Fork Dredge Hiking Trail (MP 68) on the south side of the highway within ADOT&PF right-of-way. The parking area will have no facilities. See Figures 1 and 2 for the locations of the waysides, turnouts, and parking area. Highway signing will also be installed, including milepost markers and standard highway signs for direction and safety information.


The current one lane bridge over Chicken Creek will be replaced during project construction by a two lane single span bridge. The new bridge will be located at the same location as the current bridge. A temporary crossing will be installed during construction of the new bridge. Bridge approach railing and bridge deck railing will also be installed on the South Fork and Walker Fork bridges. In addition, there will be pier work on the South Fork bridge to repair concrete spalling.

Culverts will also be installed at numerous locations to maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions and prevent restriction of fish passage. Culvert design and installation will follow guidance outlined in the "Memorandum of Agreement-Design, Permitting and Construction of Culverts for Fish Passage" between the ADOT&PF and ADF&G.

Preliminary research results that will be addressed in our Environmental Assessment document are provided in Appendix A.

If you have any comments regarding this project and the information provided, please submit written comments by **January 6, 2003**, addressed to Melissa Parker, Environmental Analyst, for the ADOT&PF Environmental Section.

If you any questions, please contact Scott Leigh, P.E., ADOT&PF Project Designer at (907) 451-5389 or email [scott\\_leigh@dot.state.ak.us](mailto:scott_leigh@dot.state.ak.us) or Kim Stricklan, ASCG Project Manager, at (907) 339-6500 or [kstricklan@ascg.com](mailto:kstricklan@ascg.com).

Sincerely,  
  
Patricia L. Wightman  
For Environmental Coordinator

KS/MP/dt

Enclosures: Figures 1 and 2  
Attachment 1

cc: Scott Leigh, P.E, Project Designer, DOT&PF, 2301 Peger Rd., Fbks., AK 99709  
Kim Stricklan, P.E., ASCG Project Mgr., 301 Arctic Slope Ave., Anchorage, AK 99518  
Tim Woster, P.E, Engineering Manager, DOT&PF, 2301 Peger Rd., Fbks., AK 99709



## ATTACHMENT 1

The project is located in:

- Sections 1, 2, 3, 4, 5, and 12, Township 26 North, Range 18 East;
- Sections 31, 32, 33, 34, Township 27 North, Range 18 East;
- Section 6, Township 26 North, Range 19 East;
- Sections 24, 25, 27, 28, 31, 32, 33, 34, 35, Township 27 North, Range 19 East;
- Sections 2, 3, 4, 8, 9, 17, 18, 19, Township 27 North, Range 20 East;
- Sections 35 and 36, Township 28 North, Range 20 East;
- Section 31, Township 28 North, Range 21 East;
- Sections 5, 6, 8, 16, 17, 22, 25, 26, 27, Township 27 North, Range 21 East;
- Sections 25, 31, 32, 33, 34, 35, 36, Township 27 North, Range 22 East;
- Section 3, Township 26 North, Range 22 East, Fairbanks Meridian.

The project is found on U.S. Geologic Survey quad maps Eagle A-1 and A-2.

## Agency Scoping Questions

### USACE

Do you have any information and/or data with respect to the base floodplains, regulatory floodways, and/or special flood hazard areas of drainages that may be affected by the proposed project?

Are there any navigable waters of the U.S. in the project vicinity over which the U.S. Army Corps of Engineers has Section 10 authority?

Please identify any permits and/or clearances to be obtained from your agency for the proposed project.

### USFWS

We have researched the U.S. Fish and Wildlife Service (USFWS) website with respect to known threatened and/or endangered species and their habitat for the project area and our findings are identified in Appendix A. If you have any other information and/or data on threatened and/or endangered species in the project area that might potentially be affected by the proposal please provide that information.

Please provide information or data on important fish and wildlife habitats or migration corridors potentially affected by the proposed project.

Please provide information on known active or inactive eagle nests in the project area.

We have researched the USFWS website with respect to identifying National Wildlife Refuge lands in or adjacent to the project area and our findings are identified in Appendix A. If you know of any other existing or proposed refuge lands in the vicinity of the project, and can identify any refuge objectives or activities that may conflict with the proposed project please provide that information.

Please identify any permits and or clearances to be obtained from your agency for the project.

### NMFS

We have researched the National Marine Fisheries Service (NMFS) website with respect to known threatened and/or endangered species and their habitat for the project area and our findings are identified in Appendix A. If you have any other information and/or data on threatened and/or endangered species in the project area that might potentially be affected by the proposed project please provide that information.

We have researched the NMFS website to determine if essential fish habitat (EFH) pursuant to the Magnuson Act will be impacted by the proposed project and our findings are identified in Appendix A. If you have any other information on EFH species or habitat please provide that information.

## **EPA**

Please identify any sole source or principal drinking water sources that may be affected by the proposed project.

We have researched the ADEC Contaminated Sites, Spills and LUST program databases and our findings are identified in Appendix A. If you know of any other confirmed or suspected contaminated sites, spills and any registered underground or above ground fuel storage tanks that may affect or be affected by the proposed project please provide that information.

Please identify any permits and/or clearances to be obtained from your agency for the proposed project.

## **ADEC**

We have researched the ADEC Contaminated Sites, Spills and LUST program databases and our findings are identified in Appendix A. If you know of any other confirmed or suspected contaminated sites, spills and any registered underground or above ground fuel storage tanks that may affect or be affected by the proposed project please provide that information.

Please identify any water quality concerns.

Please provide information and/or data on existing (permitted or unpermitted) solid waste landfills, dumps, discharges, or sewage lagoons in the project area.

Please provide information and/or data on existing drinking water supplies in the project area.

Please identify any permits and/or clearances to be obtained from your agency for the proposed project.

## **ADNR**

We have researched the Draft Upper Yukon Area Plan for the project area and our findings are in Appendix A. If you know of any other existing or proposed land use plans and can identify any land use objectives that may conflict with the proposed project please provide that information.

We have researched the Alaska Heritage Resources Survey (AHRS) for the project area and our findings are identified in Appendix A. If you know of any other confirmed or potential archaeological, historical, and/or cultural sites in the vicinity of the proposed project please provide that information.

## **ADFG**

We have researched the ADF&G's An Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes and our findings are identified in Appendix A. If you have any other information and/or data on anadromous or resident fish streams in the vicinity of the proposed project, including spawning/rearing habitat and migration corridors please provide that information.

Please identify any fish species within the project boundaries that may be used for subsistence.

Please provide information on wildlife other than fish in the vicinity of the proposed project.

Would the project affect wildlife migration or bisect/segment wildlife habitat?

Please identify any permits and/or clearances to be obtained from your agency for the proposed project.

## Preliminary Research Results

- **Contaminated Sites, Spills and Leaking Underground Storage Tanks** – A search of the Alaska Department of Environmental Conservation (ADEC) leaking underground storage tank database indicated there were leaking underground storage tanks at Milepost (MP) 74 of the Taylor Highway at the Alaska Department of Transportation and Public Facilities (ADOT&PF) South Fork Maintenance and Operation Station (Facility ID No. 1765). The tanks were removed in 1998 and soil was excavated and stockpiled on site, but gasoline range organics contamination remains beneath the dispenser island. This location is outside of the project corridor and will not be affected by the proposed project.

A review of the ADEC contaminated sites database indicated there were no documented contaminated sites in the project corridor.

A review of the ADEC spill database indicated there was one spill in 1994 at MP 92-96. 200 gallons of diesel were spilled during a truck rollover. The case was closed on July 2, 1996.

A 12 foot by 10 foot area of stained soil was observed during the site visit on September 12, 2002 at MP 83.7 on the north side of the road. In addition to the stained soil there were miscellaneous metal debris and partially buried drums. This area is outside of the project corridor and will not be affected by the proposed project.

Along the project corridor there are numerous areas with old mining equipment, miscellaneous metal debris, tires, and old vehicles. There is also metal debris in Wade Creek and ponded areas adjacent to the current road.

- **Landfills** – The ADEC list of *Solid Waste Sites: Interior Region* identifies a closed Class III landfill at MP 77 of the Taylor Highway. No other landfills are identified in the project corridor.
- **Anadromous Fish Streams** – In a search of Alaska Department of Fish and Game's (ADF&G) *An Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* no anadromous fish streams were identified in the project area. Resident fish in the project area include arctic grayling, sheefish, longnose sucker, round whitefish, and slimy sculpin.
- **State Refuges, Critical Habitat Areas and Sanctuaries** – A review of the ADF&G publication *State of Alaska Refuges, Critical Habitat Areas and Sanctuaries* indicated there are no State Refuges, Critical Habitat Areas or Sanctuaries in the project area.



- **State Land Use Plans** – The Alaska Department of Natural Resources (ADNR) has published a *Draft Upper Yukon Area Plan*. There is also a *River Management Plan for the Fortymile National Wild and Scenic River* and *Fortymile, A Minimum Personnel Contact Visitor Management Program* both managed by the Bureau of Land Management (BLM). The proposed project is consistent with all three plans.
- **Historical, Archeological and Cultural Properties** – A review of the Alaska Heritage Survey in September 2002 identified 17 potential historic sites in the project vicinity. A cultural resource survey is being conducted by the State Historic Preservation Office to determine whether or not the proposed project will affect any historic sites.
- **Coastal Zone Management** – A review of the Coastal Zone Boundaries map showed that the project is not located within a designated Coastal Zone.
- **Federal Recreation Areas** – There are no Federal Recreation Areas in the project area.
- **Navigability**– The U.S. Army Corps of Engineers (USACE) Navigable Waters web page indicates there are no navigable waters within the proposed project area. However, the *Draft Upper Yukon Area Plan* identifies the South Fork, Walker Fork, and Mosquito Fork as navigable waters. It is also likely that Chicken Creek is considered navigable. Approach and bridge railing work will occur at the South Fork (MP 75.3) and Walker Fork (MP 81.9) bridges. In-water work will occur at the South Fork Bridge to repair concrete damage/spalling on the piers. In-water work will occur at Chicken Creek during bridge replacement. A USACE Section 404/10 permit and coordination with the U.S. Coast Guard will be required for work on the South Fork and Chicken Creek bridges.
- **Flood Plain Management** – There are no Federal Emergency Management Agency Flood maps for the project area. The Alaska Community Flood Hazard Information website did not have flood information for Chicken or Boundary. According to a BLM publication *Water Resources of the Fortymile National Wild & Scenic River, Alaska* the Mosquito Fork is subject to flooding during moderate to high water, the South Fork is subject to flooding only during extreme high water, and the Walker Fork is subject to flooding during moderate to high water. During the site visit there was evidence of erosion from high water of the Taylor Highway along Wade Creek at approximately MP 83 and 84. The proposed project will move portions of the Taylor Highway out of the Wade Creek floodplain.
- **Wetlands** – There are no National Wetlands Inventory Maps available for the project area. A wetlands delineation based on aerial photography and field verification was conducted on September 10 to 13, 2002. A wetlands delineation report is currently being prepared. Preliminary information indicates that most

areas with black spruce forest are considered wetlands along the Taylor Highway. Changes in the road footprint will likely result in impacts to the forested spruce wetlands. There are also scrub shrub and emergent wetlands associated with Wade and Walker Creeks along the road right of way. These wetlands have been highly disturbed by mining activities. It is likely that a Section 404 permit would be needed from the USACE for the proposed project.

- **Threatened and Endangered Species** – Neither the National Marine Fisheries Service (NMFS) or the U.S. Fish and Wildlife Service (USFWS) web sites indicated threatened or endangered species existing in the project area. The USFWS indicated in a letter dated March 27, 2000 that the American peregrine falcon is likely to be present in the project area. The American peregrine falcon was removed from the list of threatened and endangered species in 1999, but could be emergency listed at any time.
- **Eagles** – Although bald eagles are not considered endangered or threatened under the Endangered Species Act in the State of Alaska, they still benefit from the protection of the Bald Eagle Protection Act and Migratory Bird Treaty Act. ADOT&PF will coordinate with USFWS to determine if bald eagles are present in the project area.
- **Essential Fish Habitat** – Based on ADF&G Anadromous Fish Stream Maps and the National Marine Fisheries (NMFS) website there is no Essential Fish Habitat in the project area.
- **National Wildlife Refuges** – The USFWS web site indicates there are no National Wildlife Refuges in the project area. The closest National Wildlife Refuge is the Tetlin National Wildlife Refuge located approximately 100 kilometers (60 miles) south of the project area near the Alaska Highway.
- **National Parks, Preserves, Monuments and Wild and Scenic Rivers** – The Fortymile River and certain tributaries were designated as part of the Wild and Scenic Rivers System in 1980. The Mosquito Fork is designated as Wild north of the Taylor Highway Bridge from Ingle Creek upstream to the confluence of Kechumstuk Creek. Rivers in the project area that are designated as Scenic include the Mosquito Fork north of the Taylor Highway Bridge to Ingle Creek and south of the Taylor Highway Bridge, South Fork, and Walker Fork. Wade Creek is classified as Recreational. The project is within the Wild and Scenic River Corridor for 26.6 kilometers (16.5 miles). For 7.2 kilometers (4.5 miles) the Taylor Highway parallels the Wild and Scenic Boundary between South Fork and Walker Fork.
- **Material and Disposal Sites** – Material for road construction will come from road cuts/unclassified excavation and tailings from Wade Creek. There are also nine state-owned material sites available if they are needed during construction. Figures 1 and 2 shows the locations of material sites. Additional unclassified

excavation will be used as slope flattening in non-wetland areas. Disposal sites have not yet been identified. A Storm Water Pollution Prevention Plan and all necessary permits and clearances for material and disposal sites will be obtained prior to construction.

- **Impacts to Waterbodies** – Streams within the project corridor that could be temporarily affected by road rehabilitation include: Chicken Creek, Lost Chicken Creek, South Fork, Walker Fork, Wade Creek, Warner Creek, Gilliland Creek, and several unnamed tributaries to Wade Creek. The Chicken Creek bridge will be replaced with a single span bridge. In-water work will be required at the Chicken Creek bridge for replacement of the old bridge. Approach and bridge railing work will be performed on the South Fork and Walker Fork bridges. In-water work will be required at the South Fork Bridge to repair a concrete pier. Work will be conducted at and below the water line. No reclamation of the Wade Creek floodplain will occur as outlined in previous project plans. An ADF&G habitat permit will be required for work in fish bearing streams including Chicken Creek and South Fork.

Culverts will also be installed at numerous locations to maintain natural drainage patterns. All culverts will be sized and installed to maintain water flow during high-water conditions and prevent restriction of fish passage. Culvert design and installation will follow guidance outlined in the “Memorandum of Agreement – Design, Permitting and Construction of Culverts for Fish Passage” between the ADOT&PF and ADF&G.

- **Right-of-Way** - Right of Way (ROW) status for the Taylor Highway, MP 64 to the Canadian Border project is complex. There are no current ROW Plans for this portion of the Taylor Highway and Boundary Spur. Public Land Orders and Secretarial Orders dating from 1949 and 1951 established a ROW for the Taylor Highway (referred to as the Tok-Eagle Road in historical documents) at 200 feet wide. The Boundary Spur road ROW is 100 feet wide as established by the same Orders. However, these ROWs are subject to valid existing rights, including federal mining claims, homesteads, and trade and manufacturing sites that may predate the establishment of the ROW for the Taylor Highway and Boundary Spur. In such areas, the ROW claim is likely to be limited to "ditch-to-ditch", or the actual prism occupied by the road and necessary for its ongoing maintenance.

Unpatented federal mining claims exist in the area of the Jack Wade dredge, but they appear to be subject to a 200-foot wide ROW along the current alignment of the Taylor Highway. Realignment of the road in a southeasterly direction and construction of a new wayside will likely place the new facility in an unpatented federal mining claim. ROW acquisition would then be required from both the holder of the mineral rights and the BLM.

## **Response to Scoping**

**Miller, Beth**

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**From:** Lawrence R. Peltz [Lawrence.Peltz@noaa.gov]  
**Sent:** Tuesday, December 10, 2002 2:06 PM  
**To:** Melissa Parker  
**Subject:** Taylor Highway Rehabilitation



Card for Lawrence  
Peltz (501 B...

Melissa,

I have reviewed the Agency Scoping Letter for the Taylor Highway Rehabilitation Project from the Mosquito Fork Bridge to the Canadian border. The described action will not result in any adverse effect to EFH. No EFH Assessment is required and NMFS does not offer any EFH Conservation Recommendations. Further EFH consultation is not necessary. NMFS has no objection to the project. Please contact me if you have any questions. Thanks.





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

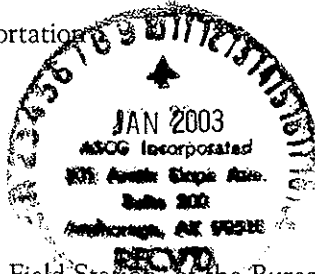
Northern Field Office  
Fortymile Management Team

P.O. Box 309  
Tok, Alaska 99780  
(907) 883-5121  
Fax: (907) 883-5123

IN REPLY REFER TO:  
DOTPF/2800

Ms. Melissa Parker  
Environmental Analyst  
State of Alaska Dept. of Transportation  
and Public Facilities  
2301 Peger Road  
Fairbanks, AK 99709-5316

JAN 3 2003



Dear Ms. Parker:

The Northern Field Office, Tok Field Station, of the Bureau of Land Management wishes to respond to your scoping letter concerning the Taylor Highway Proposal (Mosquito Fork Bridge to the Canadian Border). As you have noted, the highway that you are proposing work on crosses the Fortymile National Wild and Scenic River (NWSR) corridor which BLM manages. The Wild and Scenic River Act declared it a policy of the United States that "selected rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be protected in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

There are a few specific comments at this time on the brief overview you have presented. Please note the following concerns:

1. Format/editorial:
  - a. Map attachment: The Mosquito Fork Bridge directional arrow should point to the bridge crossing over the Mosquito Fork River, not the creek drainage near the Chicken airport;
  - b. Page 2, 3<sup>rd</sup> bullet under "Preliminary Research Results": the Fortymile National Wild and Scenic River Management Plan is a federal land use plan operating under federal law and regulations, not a state plan as written; and
  - c. "Turnaout" as indicated on the topographic map near the South Fork would be "turnout" without the "a".
2. Cultural: No additional comment at this time as the SHPO has been contacted and appears to be directly involved in the process.
3. Subsistence: ANILCA requires a finding and evaluation of the impacts of any land use action using federal dollars and/or land. The contractor and DOT&PF will need to research and include an ANILCA 810 Finding and Evaluation in the appendix. If you follow the same CEQ guidelines we do, a subsistence discussion will need to be included in the affected environment and consequences sections.
4. T&E: The proposal letter and Appendix A indicate that you will be within compliance on T&E and the Bald Eagle Protection Act. The Migratory Bird Treaty Act Executive Order (EO) may require additional sections with mitigation. Some agencies are nearing completion on MOUs on how to comply with the EO (including BLM).

5. Signing: If realignment or placement of turnouts and waysides displaces any of the BLM signing indicating that one is entering or leaving the NWSR corridor for the purpose of federal subsistence hunting, then the signs will need replacing at the new crossing points.
6. Visitor Enhancements/Recreation: An updated listing of turnouts/pullouts and waysides will be mailed next week to Jerry Rafson, DOTP&F Planner, with a copy to Scott Leigh, DOTP&PF Project Designer.
7. Lands: It appears that right-of-way authorization may be needed from the BLM for MP 84-85 realignment. The turnouts/pullouts designated for MP 77 and 78 and the site along the Goat Trail above Walker Fork appear to be within the existing road right-of-way at this time.
8. Water: An internal Section 7 (Wild and Scenic Rivers Act) analysis must be done by BLM to insure that the free-flowing condition of the watershed within the corridor will not be impacted. The recommendations from this analysis need to be included in your environmental document.

In conclusion, our specialists have indicated a need for additional detailed information before they can make more specific recommendations on the proposed action. This includes specific alignment changes, material pits and crusher sites, construction camp sites, culvert/bridge dimensions and locations, and other structures/facilities that could affect the natural resources. Specifically, any and all technical water channel/flow/quality information is required for us to answer some of our Section 7 questions.

Please contact Nancy Whicker, Realty Specialist, ([nancy\\_whicker@ak.blm.gov](mailto:nancy_whicker@ak.blm.gov)) or myself at (907) 883-5121 for more information.

Sincerely,



Mary L. Figarelle  
Fortymile Team Manager

cc: Kim Stricklan, P.E., ASCG Project Mgr. ✓  
Scott Leigh P.E., Project Designer, DOTP&F  
Tim Woster, P.E., Engineering Manager, DOTP&F

NWhicker: Realty\AK DOTPF\Correspondence\Hwy propose comment ltr 010203.doc

**Miller, Beth**

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**From:** Wien, Alan [Alan\_Wien@envircon.state.ak.us]  
**Sent:** Tuesday, December 03, 2002 3:24 PM  
**To:** 'melissa\_parker@dot.state.ak.us'  
**Subject:** Taylor Highway, Project 66446

- > This is in response to the questions to DEC in the scoping letter for
- > the referenced project:
- >
- > 1. Identify any contaminated sites, spills, or registered underground
- > or above ground fuel storage tanks in the project area.
- > The database you have already researched is the best source for the
- > information requested.
- >
- > 2. Identify any water quality concerns.
- > DEC water quality concerns will be addressed in conjunction with COE
- > permitting.
- >
- > 3. Provide info/data on existing solid waste landfills, dumps,
- > discharges, or sewage lagoons in the project area.
- > This level of research is a service this department does not provide.
- > Our facility and property files are available for public review.
- > You or your contractor are welcome to visit the Fairbanks office to
- > review these files. Please have property legal descriptions and/or
- > facility names for the correct files to be located for you.
- >
- > 4. Provide information and/or data on existing drinking water
- > supplies in the project area.
- > This level of research is a service this department does not provide.
- > Our facility and property files are available for public review.
- > You or your contractor are welcome to visit the Fairbanks office to
- > review these files. Please have property legal descriptions and/or
- > facility names for the correct files to be located for you.
- >
- > 5. Identify any permits and/or clearances to be obtained from your
- > agency for the proposed project.
- > To help you determine if any other DEC approvals are needed for your
- > project, please check out our on-line Permit Questionnaire at
- > <http://www.dec.state.ak.us/sps/questionintro.asp>.
- >
- >
- > Alan Wien

# STATE OF ALASKA

## DEPARTMENT OF FISH AND GAME

### HABITAT AND RESTORATION DIVISION

FRANK MURKOWSKI, GOVERNOR

1300 COLLEGE RD.  
FAIRBANKS, AK 97701  
PHONE: (907) 459-7289  
FAX: (907) 456-3091

December 4, 2002

Ms. Patricia L. Wightman  
Alaska Department of Transportation and Public Facilities  
2301 Peper Road  
Fairbanks, AK 99709-5399

Dear Ms. Wightman:

RE: Taylor Highway MP 64.5 to Canadian Border; Project No. 66446.

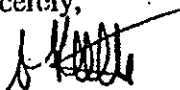
The Alaska Department of Fish and Game (ADF&G) has reviewed your November 29, 2002, Agency Scoping Request for the referenced project. We concur with the preliminary findings outlined in the scoping request. For your information, a copy of the fish stream log for the Taylor Highway and Boundary Spur is enclosed.

Within the project reach, the general areas surrounding Chicken and Jack Wade Junction are intensively used caribou, moose and bear hunting areas. Under the current levels of highway use, the proposed road upgrades are not anticipated to affect wildlife migrations or negatively bisect critical wildlife habitats.

An ADF&G Fish Habitat Permit may be required for activities affecting fish-bearing waterbodies if ADF&G determines that the proposed activity could impede the free and efficient passage of fish. ADF&G will make that determination once plans and specifications are available for review.

If there are any additional questions please contact Mac McLean at 907-459-7281.

Sincerely,

  
Alvin G. Ott, Regional Supervisor  
Habitat and Restoration Division

Enclosure (1)

AGO/mac

Post-it® Fax Note	7671	Date	12/11/02	# of pages	5
To	Kim Strickland	From	Tom Woster		
Co./Dept.	ASCG	Co.	DOT/AF		
Phone #	339-6568	Phone #	451-2288		
Fax #	339-5329	Fax #	451-5126		

# Taylor Highway - Fish Stream Log

Y = Yes, field surveys completed  
 P = Professional judgement.. No known fish surveys have been conducted.

Waterbody	Mile Post	STA	Channel Slope	Estimated Upstream Habitat (miles)	Surveyed (Y/P)	Fish Species	NOTES
	27	42+841	3.0%	0.8	P	AG	
	28.5	45+401	11.4%	N/A	P	Non-Fish	
	30	47+886	17.0%	N/A	P	Non-Fish	
	32	50+815	17.0%	N/A	P	Non-Fish	
	33.5	52+909	9.5%	N/A	P	Non-Fish	
	36	57+356	8.5%	N/A	P	Non-Fish	
	41	64+728	8.0%	N/A	P	Non-Fish	
	41.5	65+276	10.4%	N/A	P	Non-Fish	
	42.5	67+143	3.8%	1.2	P	AG	
	78		7.9%		P	Non-Fish	Channel slope at upper limit for AG (8%) Doesn't cross Taylor Hwy. Enters S.F. immediately south of highway.
Wall Street	76.1		3.8%	2.1	Y	AG	
	76.6		9.5%	N/A	P	Non-Fish	Channel slope steeper than upper limit for AG (8%)
	77.8		12.6%	N/A	P	Non-Fish	Channel slope steeper than upper limit for AG (8%)
	81.7		12.6%	N/A	P	Non-Fish	
	82.1	27+556		N/A	P	Non-Fish	Cross Drainage Structure
	82.3	27+800?		N/A	P	Non-Fish	Cross Drainage Structure
	83.0	28+871		N/A	P	Non-Fish	Cross Drainage Structure
	83.6	29+850		N/A	P	Non-Fish	Cross Drainage Structure
	84.3	31+435	35.0%	N/A	P	Non-Fish	
	85.4	32+600	18.0%	N/A	P	Non-Fish	
	85.9	33+340?	5.4%	1.9	P	AG	
	87.1	35+140	38.0%	N/A	P	Non-Fish	
	87.4	35+700	38.0%	N/A	P	Non-Fish	
	88.0	36+500	18.9%	N/A	P	Non-Fish	
	88.4	37+300?	28.4%	N/A	P	Non-Fish	



# Taylor Highway - Fish Stream Log

Y = Yes, field surveys completed  
 P = Professional judgement. No known fish surveys have been conducted.

Waterbody	Mile Post	STA	Channel Slope	Estimated Upstream Habitat (miles)	Surveyed (Y/P)	Fish Species	NOTES
Taylor Creek	88.7		6.3%	0.8	P	AG	Not listed by ADOT&PF.
Jefferson Creek	88.8	37+800?	5.4%	1.1	P	AG	
	89.1	38+270	38.0%	N/A	P	Non-Fish	
Fifteen Gulch	89.3	38+580	38.0%	N/A	P	Non-Fish	
	89.3	39+615	38.0%	N/A	P	Non-Fish	
	90.0	39+630	9.5%	N/A	P	Non-Fish	
Austin Creek	90.6	40+680	3.2%	2.4	P	AG	
Robinson Creek	90.8	40+900		N/A	P	Non-Fish	Cross Drainage Structure
	90.8	40+980		N/A	P	Non-Fish	Cross Drainage Structure
	91.0	41+220		N/A	P	Non-Fish	Cross Drainage Structure
	91.1	41+550		N/A	P	Non-Fish	Cross Drainage Structure
	91.2	41+730		N/A	P	Non-Fish	Cross Drainage Structure
	91.3	41+920		N/A	P	Non-Fish	Cross Drainage Structure
	91.5	42+160		N/A	P	Non-Fish	Cross Drainage Structure
	91.6	42+960		N/A	P	Non-Fish	Cross Drainage Structure
	91.6	43+000		N/A	P	Non-Fish	Cross Drainage Structure
	Warner Creek	91.9		4.2%	2.0	P	AG
92.7		44+275	11.3%	N/A	P	Non-Fish	Channel slope steeper than upper limit for AG (8%)
93.3		44+825	6.3%	0.2	P	AG?	Near upper slope limit (8%)
93.4		45+025		N/A	P	Non-Fish	
94.0		46+250		N/A	P	Non-Fish	
94.1		46+530		N/A	P	Non-Fish	
94.3		47+010		N/A	P	Non-Fish	
94.4	47+150		N/A	P	Non-Fish		
94.6	47+630		N/A	P	Non-Fish		
95.0	47+900		N/A	P	Non-Fish		
95.1	48+630		N/A	P	Non-Fish		

### Taylor Highway - Fish Stream Log

Y = Yes, field surveys completed  
 P = Professional judgement. No known fish surveys have been conducted.

Waterbody	Mile Post	STA	Channel Slope	Estimated Upstream Habitat (miles)	Surveyed (Y/P)	Fish Species	NOTES
	95.1	48+670		N/A	P		
	95.2	48+810		N/A	P		
	95.2	48+940		N/A	P		
	95.3	49+175		N/A	P		
	95.7	50+150		N/A	P		
	95.8	50+400		N/A	P		
	95.9	50+650		N/A	P		
<b>Boundary Spur</b>							
	1.3	51+400		N/A	P	Non-Fish	
	1.6	51+775		N/A	P	Non-Fish	
	1.7	51+920		N/A	P	Non-Fish	
	2.1	52+500		N/A	P	Non-Fish	
	2.1	52+565		N/A	P	Non-Fish	
	2.6	53+200		N/A	P	Non-Fish	
	2.7	53+300		N/A	P	Non-Fish	
	3.2	54+120		N/A	P	Non-Fish	
	3.4	54+425		N/A	P	Non-Fish	
	3.7	54+950		N/A	P	Non-Fish	
	4.0	55+560		N/A	P	Non-Fish	
	4.0	55+600		N/A	P	Non-Fish	
	4.6	56+385		N/A	P	Non-Fish	
	5.1	57+030		N/A	P	Non-Fish	
	5.5	57+630		N/A	P	Non-Fish	
	6.0	58+400		N/A	P	Non-Fish	
	6.0	58+500		N/A	P	Non-Fish	

### Taylor Highway - Fish Stream Log

Y = Yes, field surveys completed  
 P = Professional judgement. No known fish-surveys have been conducted.

Waterbody	Mile Post	STA	Channel Slope	Estimated Upstream Habitat (miles)	Surveyed (Y/P)	Fish Species	NOTES
	6.2	58+760		N/A	P	Non-Fish	
	6.4	59+110		N/A	P	Non-Fish	
	6.9	59+985		N/A	P	Non-Fish	
	7.2	60+415		N/A	P	Non-Fish	
	8.9	62+975		N/A	P	Non-Fish	
	9.1	63+440		N/A	P	Non-Fish	
	9.4	63+850		N/A	P	Non-Fish	
	9.6	64+275		N/A	P	Non-Fish	
	9.8	64+480		N/A	P	Non-Fish	
	10.0	64+750		N/A	P	Non-Fish	
	10.2	65+145		N/A	P	Non-Fish	
	10.3	65+350		N/A	P	Non-Fish	
	10.5	65+710		N/A	P	Non-Fish	
	10.9	66+175		N/A	P	Non-Fish	
	11.3	66+960		N/A	P	Non-Fish	
	11.5	67+305		N/A	P	Non-Fish	
	11.7	67+580		N/A	P	Non-Fish	
	12.0	68+000		N/A	P	Non-Fish	

# ASCG

**INCORPORATED**

## PHONE CONVERSATION LOG

**Job / Task No:**

**Project:** Taylor Highway MP 64.5 to the Border

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---

**Time:** 3:20 PM

**Date:** January 31, 2002

**To:** Frank Maxwell

**From:** Beth Miller

**Firm:** DNR

**Firm:** ASCG

**Phone No.:** 451-2740

**Phone No.:**

---

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**Subject:** Taylor Highway MP 64.5 to the Canadian Border

### **Summary of Conversation:**

Called regarding the scoping letter. He gave the letter to another member of his team and that person had just left. He will ask him if he had any comments and call back if they have any comments. He thinks they would have sent a letter if they had any comments.

No comments were received from DNR.

# ASCG

**INCORPORATED**

## PHONE CONVERSATION LOG

**Job / Task No:**

**Project:** Taylor Highway MP 64.5 to the Border

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---

**Time:** 3:30 PM

**Date:** January 31, 2002

**To:** Jim Helfinstine

**From:** Beth Miller

**Firm:** USCG

**Firm:** ASCG

**Phone No.:**

**Phone No.:**

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**Subject:** Taylor Highway MP 64.5 to the Canadian Border

**Summary of Conversation:**

I sent him an email asking if he had any comments regarding the scoping letter.

No comments were received from the USCG.



# ASCG

**INCORPORATED**

## PHONE CONVERSATION LOG

**Job / Task No:**

**Project:** Taylor Highway MP 64.5 to the Border

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**Time:** 3:15 PM

**Date:** January 31, 2002

**To:** Pat Sousa

**From:** Beth Miller

**Firm:** USFWS

**Firm:** ASCG

**Phone No.:** 456-0203

**Phone No.:**

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**Subject:** Taylor Highway MP 64.5 to the Canadian Border

**Summary of Conversation:**

Called regarding the scoping letter. Left a message asking if he had any comments.

No comments were received from USFWS.

# ASCG

**INCORPORATED**

## PHONE CONVERSATION LOG

**Job / Task No:**

**Project:** Taylor Highway MP 64.5 to the Border

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**Time:** 3:12 PM

**Date:** January 31, 2002

**To:** Leroy Philips

**From:** Beth Miller

**Firm:** USACE

**Firm:** ASCG

**Phone No.:** 753-2716

**Phone No.:**

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**Subject:** Taylor Highway MP 64.5 to the Canadian Border

**Summary of Conversation:**

Called regarding the scoping letter. Left a message asking if he had any comments.

2/03/03 7:50 am

Leroy returned my call regarding scoping. He never saw the letter, but said that no matter where we are on the Taylor Highway we will need a 404 permit. He said to make sure our material sites are well identified and that a good reclamation plan is written for them. He said that within the last year material sites have become a key issue with the agencies.

**Miller, Beth**

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**From:** Stricklan, Kim  
**Sent:** Sunday, December 01, 2002 2:39 PM  
**To:** Miller, Beth  
**Subject:** FW: Taylor Highway Reconstruction Inter-agency Scoping

Beth,

Please print this and otherwise log it in as agency comments. Doesn't look like we have a lot of interest so far.

-----Original Message-----

**From:** Phillips, G Leroy POA02 [mailto:Gilbert.L.Phillips@poa02.usace.army.mil]  
**Sent:** Wed 11/27/2002 8:49 AM  
**To:** Stricklan, Kim  
**Cc:**  
**Subject:** RE: Taylor Highway Reconstruction Inter-agency Scoping

I will be the project manager for this one. Due to budget restraints in place at this time I will be unable to attend the scoping meeting. Please send a copy of all related environmental documents as they are completed prior to permit application. Thank You.

Leroy

-----Original Message-----

**From:** Stricklan, Kim [mailto:kstricklan@ascg.com]  
**Sent:** Tuesday, November 26, 2002 1:07 PM  
**To:** al\_ott@fishgame.state.ak.us; alan\_wien@envircon.state.ak.us;  
bill\_smyth@envircon.state.ak.us; frank\_maxwell@dnr.state.ak.us;  
Gilbert.L.Phillips@poa02.usace.army.mil; irene\_catalone@dced.state.ak.us;  
jeanne.hanson@noaa.gov; jhelfinstine@cgalaska.uscg.mil; Lee.Judith@epa.gov;  
judy\_bittner@dnr.state.ak.us; mary\_figarelle@ak.blm.gov; Patrick\_Sousa@fws.gov; Tim Woster;  
Melissa Parker; Scott Leigh  
**Cc:** Miller, Beth  
**Subject:** Taylor Highway Reconstruction Inter-agency Scoping

The Alaska Department of Transportation and Public Facilities (ADOT&PF) is soliciting comments on the proposal to restore and improve the structural integrity of a portion of the Taylor Highway from the Mosquito Fork Bridge (Milepost 64.5) north to the Canadian Border. The work entails minor road realignment, roadway widening and surface treatment, bridge replacement and repair, drainage improvements, turnout construction, and signing. The proposed project is currently scheduled for construction in 2004.

Within the next few days, ADOT&PF will be distributing formal agency scoping letters to solicit information, comments, and recommendations regarding this project. In addition, if you are interested in attending a formal scoping meeting, ADOT&PF staff will be available on Wednesday, December 4, 2002 from 2:00pm to 4:00pm at the ADOT&PF office located at 2301 Peger Road.

For planning purposes, please RSVP to Kim Stricklan, ASCG Project Manager by Tuesday, December 3, 2002 at (907) 339-6568 or via email at [kstricklan@ascg.com](mailto:kstricklan@ascg.com) if you are interested in attending the formal scoping meeting. If there is no interest in a formal scoping meeting, written comments in response to the letter may also be submitted until

Thursday, December 31, 2002.  
Thank you for your time and consideration.  
Kim Stricklan, P.E.  
ASCG, Inc.  
new phone (907) 339-6568  
new fax (907) 339-5329

## **Newspaper Affidavits**

# AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA }  
STATE OF ALASKA } SS.  
FOURTH DISTRICT }

Before me, the undersigned, a notary public, this day personally appeared WENDY M. DAU, who, being first duly sworn, according to law, says that he/she is an Advertising Clerk of the Fairbanks Daily News-Miner, a newspaper (i) published in newspaper format, (ii) distributed daily more than 50 weeks per year, (iii) with a total circulation of more than 500 and more than 10% of the population of the Fourth Judicial District, (iv) holding a second class mailing permit from the United States Postal Service, (v) not published primarily to distribute advertising, and (vi) not intended for a particular professional or occupational group. The advertisement which is attached is a true copy of the advertisement published in said paper on the following day(s):

11/27/02  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

and that the rate charged thereon is not excess of the rate charged private individuals, with the usual discounts.

Wendy M. Dau

Subscribed and sworn to before me on this 30TH day of NOVEMBER, 20 02

[Signature]

Notary Public in and for the State Alaska.

My commission expires JANUARY 21, 2004

69039 Legal  
TAYLOR HIGHWAY  
IMPACT TO THE  
CANADIAN BORDER  
ADOT&PF  
Project No. 66446  
Notice of Intent to  
Begin Engineering and  
Environmental Studies  
Notice of Wetlands  
Involvement E.O. 11990  
Notice of Floodplain  
Involvement E.O. 11988  
and Public Meeting  
The Alaska Department  
of Transportation and  
Public Facilities  
(ADOT&PF) is soliciting  
comments on the  
proposal to restore and  
improve the structural in-  
tegrity of a portion of the  
Taylor Highway from the  
Mosquito Fork Bridge  
(Milepost 64.8) north to  
the Canadian Border.  
The work entails  
minor road realignment,  
roadway widening and  
surface treatment,  
bridge replacement and  
repair, drainage  
improvements, turnout  
construction, and signing.  
The proposed project is  
currently scheduled for  
construction in 2004.  
As presently envisioned,  
ADOT&PF anticipates en-  
vironmental impacts asso-  
ciated with the proposed  
project to include fill in  
wetlands, right-of-way  
acquisition from the  
Fortymile National Wild-  
and Scenic River System  
and in-water work at  
Chicken Creek and  
South Fork. Pursuant to  
Executive Order 11990,  
Protection of Wetlands  
and Executive  
Order 11988, Floodplain  
Involvement, notice is  
hereby given that this  
project will likely involve  
fill in wetlands and  
work in the Wade Creek/  
floodplain. A Corps of En-  
gineers' Section 10404  
permit will be required for  
work in the Wade Creek/  
floodplain. The Alaska State  
Coast Guard Commission  
will also be contacted for  
work in the South Fork  
broadsheet area. Environ-  
mental and other Chicken  
Creek broadsheet area nar-  
rowly defined boundaries  
for work in fish-bearing  
streams including  
Chicken Creek  
and South Fork

A public meeting will be held from 6:00p.m. to 8:00p.m. on Thursday, December 5, 2002 at the Tol Civic Center in Tok, Alaska. Project related information will be on hand for review and project staff will be available to answer your questions. The meeting will be held in open house format and interested individuals may attend at any time. Comments and recommendations may be submitted at the meeting. To ensure that all possible factors are considered in the design of the proposed project, ADOT&PF is requesting public comments and recommendations. Please provide written comments to the following address by Thursday, December 19, 2002.  
Jim Woster, PE  
Design Engineering  
Manager  
Alaska Department  
of Transportation &  
Public Facilities  
Design Section  
Room 311  
2301 Peger Road  
Fairbanks, Alaska  
99709-5309  
If you have any questions or require additional information please contact Scott Leigh, P.E., ADOT&PF, Project Designer, at 451-5389 or Kim Simcham, ASGG Project Manager, at 339-6600. Individuals with a hearing impairment can contact ADOT&PF at our Tele-Phone Device for the Deaf (TDD) number 451-2363. PUBLISH November 27, 2002



## **TAYLOR HIGHWAY MP 64 TO THE CANADIAN BORDER**

**ADOT&PF Project No. 66446  
Notice of Intent to Begin Engineering and Environmental Studies  
Notice of Wetlands Involvement E.O. 11990,  
Notice of Floodplain Involvement E.O. 11988 and Public Meeting**

The Alaska Department of Transportation and Public Facilities (ADOT&PF) is soliciting comments on the proposal to restore and improve the structural integrity of a portion of the Taylor Highway from the Mosquito Fork Bridge (Milepost 64.5) north to the Canadian Border. The work entails minor road realignment, roadway widening and surface treatment, bridge replacement and repair, drainage improvements, turnout construction, and signing. The proposed project is currently scheduled for construction in 2004.

As presently envisioned, ADOT&PF anticipates environmental impacts associated with the proposed project to include fill in wetlands, right-of-way acquisition from the Fortymile National Wild and Scenic River System, and in-water work at Chicken Creek and South Fork. Pursuant to Executive Order 11990, Protection of Wetlands and Executive Order 11988, Floodplain Involvement, notice is hereby given that this project will likely involve fill in wetlands and work in the Wade Creek floodplain. A Corps of Engineers Section 10/404 permit will be required to complete this project. U.S. Coast Guard coordination will also be required for work on the South Fork bridge piers and replacement of the Chicken Creek Bridge. A fish habitat permit will be required for work in fish bearing streams, including Chicken Creek and South Fork.

**A public meeting will be held from 6:00p.m. to 8:00p.m. on Thursday, December 5, 2002 at the Tok Civic Center in Tok, Alaska.** Project related information will be on hand for review and project staff will be available to answer your questions. The meeting will be held in open house format and interested individuals may attend at any time. Comments and recommendations may be submitted at the meeting.

To ensure that all possible factors are considered in the design of the proposed project, ADOT&PF is requesting public comments and recommendations. Please provide written comments to the following address by **Thursday, December 19, 2002.**

Tim Woster, P.E., Design Engineering Manager  
Alaska Department of Transportation & Public Facilities  
Design Section, Room 317, 2301 Peger Road, Fairbanks, Alaska 99709-5399

If you have any questions or require additional information, please contact Scott Leigh, P.E., ADOT&PF Project Designer, at 451-5389 or Kim Stricklan, ASCG Project Manager at 339-6500. Individuals with a hearing impairment can contact ADOT&PF at our Telephone Device for the Deaf (TDD) number, 451-2363.

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# AFFIDAVIT OF PUBLICATION

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FROM: Mukluk News  
PO Box 90  
Tok, AK 99780

TO: Asc M  
3900 C Street Suite 501  
Anchorage, ak 99503

Before me, the undersigned, a Notary Public this day personally appeared George Jacobs who, being first duly sworn, according to law, says that he is the Advertising Manager of the Mukluk News published at Tok in the state of Alaska and that the advertisement, of which the annexed is a true copy, was published in said publication on the 21<sup>st</sup> day of Nov., 1902 and thereafter for 0 consecutive issues, the last publication appearing on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, and that the rate charged thereon is not in excess of the rate charged private individuals.

George Jacobs  
\_\_\_\_\_

Subscribed and sworn to before me

This 21 day of November, ~~19~~ 2002

Kala Palla  
\_\_\_\_\_

Notary Public for State of AK

My Commission Expires 8-30-04

## **Public Meeting Summary**

# ASCG INCORPORATED

## MEMORANDUM

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**TO:** Tim Woster, Project File  
**FROM:** Beth Miller  
**DATE:** 12/9/02  
**SUBJECT:** Taylor Highway Public Meeting Summary, 12/5/02, Tok, Alaska

A public meeting was held on December 5, 2002 at the Tok Civic Center to collect public comments on a proposed project to rehabilitate the Taylor Highway. The proposed project will rehabilitate and improve the structural integrity of the Taylor Highway from the Mosquito Fork Bridge (Milepost 64.5) north to the Canadian Border. Attendees were: Tim Woster – ADOT, Scott Leigh – ADOT, Kim Stricklan – ASCG, Beth Miller – ASCG. In addition to the project team Jim Fehrenbacher – DOT Maintenance, Nancy Whicher – BLM, Debbie Muir – Tok Community Umbrella Corporation, and several local residents attended the meeting.

Issues discussed during the meeting include:

- A discussion at the beginning of the meeting described the NEPA process and why an Environmental Assessment is being prepared for this project.
- Design speed of the Taylor Hwy will be 40 mph from MP 64.5 to Walker Fork and 50 mph from Walker Fork to the Canadian Border.
- The proposed Walker Fork wayside is being constructed to alleviate the pressure on the Walker Fork Campground from buses using the campground restrooms. It is also difficult for the buses to make the sharp corners in the campground. More information is needed on the flooding potential of the proposed Walker Fork wayside. It was mentioned that the bottom of the Walker Fork Bridge was touching the water a couple of years ago during an especially high water event.
- The local residents at the meeting were concerned about where the money was going to come from to maintain the road after construction and what the cost difference is between maintaining a high-float asphalt road and a gravel road.
- It was mentioned that construction is planned for the Alaska Highway near Northway in 2004. It was suggested that DOT coordinate projects so that construction is not happening on both highways into the state at the same time.
- A temporary culvert will most likely be used during construction of the Chicken Creek Bridge to maintain traffic flow.
- Concern was expressed about areas of the road that have “glaciers” and how the high-float



- asphalt will hold up under these conditions.
- Currently, the project will be constructed in two phases with each phase taking two years. Phase I is from MP 82 to the Border and Phase II is from MP 64 to MP 82. There is a possibility the project will be constructed in three phases.
  - At Jack Wade Dredge, the pullout will be improved and drainage problems will be corrected, but no facilities will be installed. A question was asked about moving the dredge, but the condition is such that it would fall apart. BLM is letting the Jack Wade Dredge die a natural death, with no effort being put to preserve the dredge. The terms wayside and pullout were defined – wayside having restrooms facilities and pullout having no facilities.
  - Residents asked about how the project will affect land use.
  - A Chicken resident has requested an off road walkway from the bridge to the airport road. Scott thinks he will be able to put the walkway in the DOT ROW on the right side of the road. The walkway would be gravel.
  - Residents were concerned about Chicken Creek flooding and the effect of any riprap used during construction of the new bridge and if it could affect residents downstream. Residents mentioned new settling ponds from mining operations upstream that overflow during floods making the flooding on Chicken Creek worse than in the past. They also mentioned the Lost Chicken Creek dam adding to the flooding potential of Chicken Creek.
  - DOT is looking into the possibility of installing snow fences along portions of the highway.
  - Residents also asked about mining claims and how these would affect road construction. They asked if miners would still have the right to mine through the road after the high-float asphalt was laid down. They were told the miners would still have the right and that road construction should not affect the miner's access to their claims. However the road must be placed back as it was prior to the mining activities.
  - A question was asked about the 40-mile caribou herd and the effect of the project on them. It was discussed that a biological assessment is being prepared to evaluate the effects of the project on the herd.
  - The current schedule is to have a Draft EA to ADOT&PF by the end of February.

Jim Fehrenbacher submitted written comments regarding the following at the meeting:

- Mile 80 sink hole
- Need to stabilize base
- Need to armor Wade Creek
- ROW width 100 feet
- Chicken off-road walkway
- Glaciering – pavement
- Drifting on Boundary Road by customs



# Taylor Highway MP 64 to the Canadian Border

# Sign-in

ADOT&PF Project #66446

December 5, 2002

Name Jim Fehrenbacher  
Organization DOT  
(if any)  
Address PO Box 356  
  
Phone 883-5120  
Fax 883-5127  
E-mail \_\_\_\_\_

Name Debbie Muir  
Organization TOC  
(if any)  
Address P.O. Box 333  
TOC  
Phone 883-3080  
Fax \_\_\_\_\_  
E-mail dmuir@apt.alaska.net

Name Bonnie Samachman  
Organization Self  
(if any)  
Address P.O. Box 149  
TOC  
Phone 883-5887  
Fax \_\_\_\_\_  
E-mail JWGOLD@APTA/aska.net

Name Jeff Kowalczyk  
Organization \_\_\_\_\_  
(if any)  
Address POB 612 TOK  
Phone \_\_\_\_\_  
Fax \_\_\_\_\_  
E-mail jKowalczyk@aptalaska.net

Name CYRILDES-BURNS  
Organization \_\_\_\_\_  
(if any)  
Address Box 874, TOK  
Phone KOade  
Fax \_\_\_\_\_  
E-mail Br493, Tok

Name Nancy Whicker  
Organization BLM  
(if any)  
Address P.O. Box 309  
TOK, AK 99780  
Phone 907-883-5121  
Fax 883-5123  
E-mail Nancy\_whicker@ak.blm.gov



# Taylor Highway MP 64 to the Canadian Border

# Sign-in

ADOT&PF Project #66446

December 5, 2002

Name <u>Tim Woster</u>	Name _____
Organization <u>ADOT&amp;PF</u>	Organization _____
(if any)	(if any)
Address <u>2301 Peger Rd</u>	Address _____
<u>Forkland, AL</u>	_____
Phone <u>(907) 451-2288</u>	Phone _____
Fax <u>907 451-5126</u>	Fax _____
E-mail _____	E-mail _____
Name _____	Name _____
Organization _____	Organization _____
(if any)	(if any)
Address _____	Address _____
_____	_____
Phone _____	Phone _____
Fax _____	Fax _____
E-mail _____	E-mail _____
Name _____	Name _____
Organization _____	Organization _____
(if any)	(if any)
Address _____	Address _____
_____	_____
Phone _____	Phone _____
Fax _____	Fax _____
E-mail _____	E-mail _____

## **APPENDIX I**

### **CORRESPONDENCE WITH BLM**

- ADOT&PF Email to BLM Dated April 23, 2004
- BLM and ADOT&PF Meeting Notes Dated June 9, 2003
- ADOT&PF Field Trip Notes Dated June 10, 2003
- Conversation Phone Log with BLM Dated February 28, 2003
- ADOT&PF Email Dated February 20, 2003
- BLM Email Dated February 5, 2003
- BLM, Visitor Site Issues & Proposed Recommendations Taylor Road-Chicken to Border As of August 20, 2002
- BLM Letter Dated February 6, 2002
- Taylor Highway/Wade Creek Highway Realignment Project Meeting #2, BLM and ADOT&PF Draft Agenda Dated January 17, 2002
- BLM Draft Memo Dated January 23, 2002
- BLM Letter Dated October 5, 2001
- Letter of Agreement Between the ADOT&PF and BLM for Upgrade and Maintenance of Wayside Facilities on the Taylor Highway, Dated February 15, 2001
- ADOT&PF and BLM Meeting Agenda and Attendance List, December 16, 1999
- BLM Letter Dated February 19, 1998
- BLM Draft Wade Creek Field Trip Itinerary Dated August 7, 1996
- ADOT&PF Phone Log Dated October 11, 1995
- ADOT&PF Letter Dated April 28, 1995

## Stricklan, Kim

---

**From:** Tim Woster [tim\_woster@dot.state.ak.us]  
**Sent:** Friday, April 23, 2004 9:15 AM  
**To:** Nancy Whicker  
**Cc:** Melissa Parker; Stricklan, Kim  
**Subject:** Preliminary Section 7 Finding, Taylor Hwy MP 64-Border

Nancy,

As we discussed by telephone, we've noted two clarifications that are needed to the draft Section 7 finding that BLM has prepared for our Taylor Highway project. These are minor clarifications that do not affect the impacts of the project.

The last sentence of the "Proposed Action" paragraph reads "The detailed design will only be prepared if funding is obtained for the project." This sentence would be more precise if revised to read "The detailed design will only be prepared following approval of the NEPA process, and if funding is obtained for the project."

On the same page, the fourth sentence of the "Alignment" paragraph reads "The road will be improved by widening the road to 28 feet with two 12-foot lanes and 2-foot shoulders, and surfaced with high float asphalt." The width of the road is correct, but will be configured with 10-foot lanes and 4-foot shoulders. The rest of the description is correct.

Please let me know if these clarifications can be made to the Preliminary Finding. If making these clarifications is a problem, I may be able to document this communication by including a copy of this email with the correspondence attached to the Environmental Assessment.

Thanks for your help.

Tim Woster  
Design Manager

**Taylor Highway 3R Project**  
**Project Status Meeting**  
**BLM office, Tok, Alaska**  
**June 9, 2003**  
**1330 – 1600**

1315 – ASCG personnel (Kim Stricklan, Beth Miller) arrive at BLM office in Tok for project status meeting.

1330 – Meeting begins. Attendees include Nancy Wicker and Jeff Kowalczyk (BLM), Tiff Vincent and Melissa Parker (ADOT&PF), and Kim Stricklan and Beth Miller (ASCG).

A 4-page project update was distributed, showing project description, environmental consequences, and the next steps. The following impact categories were discussed in detail:

- ROW impacts – ASCG prepared a map showing places where the realignment will go outside the ROW in the Wade Creek area. These areas were also pinpointed on aerial photographs. Copies of the map were made for ADOT and BLM to take on a site visit conducted the next day. Per Melissa, John Bennet (ADOT) has been working with FHWA to obtain concurrence for a 200-foot ROW within the Wade Creek area. This would affect the Section 4(f) evaluation, which deals with taking of ROW for the project. This would not affect the commitments made by BLM in their Section 7 evaluation. The 200-foot ROW with respect to Section 4(f) is completely separate from the ROW with regards to each mining claim affected. With regards to each mining claim, the ROW would remain toe-to-toe, but with respect to BLM and the Section 4(f) evaluation, the 200-foot ROW would be applicable. Melissa explained that BLM would need to send a letter to ADOT concurring with the Section 4(f) evaluation, after reviewing the document. The document will be completed and submitted to ADOT/BLM within one week of obtaining approval from FHWA.
- Cultural Resources – There are two sites identified within the project corridor, Jack Wade Camp and the Jack Wade Dredge. Per Nancy, there is currently an old boiler located in the middle of the stream that BLM would like “left-in-place.” The project would not affect the boiler. This is the only BLM concern regarding cultural resources. They are currently preparing a letter for ADOT agreeing with the project approach. As soon as ADOT receives the letter, ASCG will prepare the Section 106 Concurrence letter for SHPO signature.
- Wetlands – Approximately 44 acres of low-value wetlands will be affected by the project.
- Water Body Involvement – There are three areas where work could affect water bodies: spalling repair on the South Fork bridge, guard rail repair on the Walker Fork bridge, and replacement of the Chicken Creek bridge. There was extensive discussion regarding the water work at South Fork. BLM would like to know what methods the contractor would use to conduct the work (i.e. how coffer dams

will be constructed, if the work will be conducted from the bridge, if equipment will be put into the river from the nearby boat ramp, etc.). The current boat ramp at South Fork is 7 to 8 feet wide and will not support heavy equipment. Melissa explained that the purpose of the EA was to provide an “umbrella of general information” regarding potential areas of environmental impact. ADOT&PF cannot proceed with the detailed design until the NEPA process is completed. In addition, specific methods for completing the water body work would be developed by the contractor doing the work. BLM requested information on how the work was completed on the Mosquito Fork bridge to get an idea on how this project would affect the water bodies.

- Floodplain impacts – The Wade Creek floodplain would be affected by the project. However, all changes in alignment would move the road further away from Wade Creek.
- Water Quality – Water quality would be affected during installation of culverts, riprap, and bridge repair. These issues were discussed along with water body involvement impacts. BLM would like more information regarding riprap in the South Fork area. There is a sand/gravel bar in the middle of the creek forcing the water to move closer to the highway. This area will be examined during the site visit. BLM would also like more information on the temporary crossing at Chicken Creek. Melissa recommended more discussion on the temporary crossing in the EA with regards to water body involvement.

The next item discussed was the Section 7 Evaluation. Nancy was not sure when the Section 7 should be signed. Melissa explained that the unsigned Section 7 would be submitted to FHWA with the draft EA. After FHWA approval, the EA would be signed and distributed to BLM for review during a 30-day comment period. BLM should get the Section 7 signed during this time, before the FONSI is prepared and signed. Since there was confusion regarding the timing of EA review, Section 7 signing, and Section 4(f) review (see ROW discussion above). ASCG offered to prepare a flow chart, showing each step of the NEPA process (flow chart attached) for distribution to all parties.

Jeff requested consideration for revegetating closed material sites along the highway to enhance the visual effects for recreational users. Specifically, the material site near the Walker Fork campground is an eyesore. BLM would like the berm in front of the site maintained and revegetated. He understood that money would be limited for construction, but would like these issues considered during the design. In addition, Jeff wanted to discuss each wayside/pullout with Tiff during the site visit.

The final item discussed was the schedule for the site visit.

1600 – Meeting adjourned.

Field NotesTaylor Highway 64-Border6/10/03

BLM asked if we could pave the Mosquito Fork Camp ground. This will not effect the environmental document, and will be decided by design.

MS 785-053-2- material site located next to entrance of the BLM Chicken station, approximately MP 70. BLM asked if we have a land use permit for this site. M&O currently uses this site. Does not effect environmental document.

Pullout at MP 70 (across from the BLM Chicken entrance) - Approach is a highway safety issue. Maybe have parking at material site 785-053-2 located across the road. The parking area is for the Mosquito Fork Dredge trailhead.

South Fork is designated as "scenic" Wild and Scenic river.

MP 74 there is a small material site on the north side of the road. Tiff suggested rehab with organic waste.

MP 77, oxbow pullout area, discussed upgrading and using cut material to make wider pullout.

MP 80-pullout to view the Forty Mile (upland).

Contractor should have campsite on DNR land not BLM. This does not effect the environmental document. It is information for the contractor during construction.

Purposed construction time line and phases:

FY05 Junction to Border

FY 06 Mosquito Fork to Walker Fork

FY07 Jack Wade to Walker Fork

Jack Wade Creek Dredge - level, and upgrade pull out. Maybe remove tailing pile, and widen. DOT will install metal bases for interpretive signs, and BLM will make and place interpretive signs. The road centerline will move away from dredge, which will allow RVs to use a larger pullout area.

MP 84.25 Glenn Couch- This is an old hazmat site, with some remaining junk, old cars, etc. We potentially are acquiring ROW at this location. Need to confirm w/ BLM hazmat folks that the area has been cleaned up. Contact Suzann Flora (Fairbanks) or Shan Walker (Forty Mile). Contaminated soil was supposedly excavated by BLM. Don't know exact history, Kevin Cooper was inspector during excavation.

MP 83.7, a potential pullout.



Need to look at material site report to determine potential crusher site, and material site expansion areas.

MP 81, material site above Walker Fork Camp ground could be a potential waste road cut disposal area. This would rehab pit as well as provide an area for waste disposal. Need to find out if MS is active or closed, and if M&O is still using pit. This material site is a visual impact to existing and proposed wayside, and if rehabed, and good mitigation opportunity.

MS 785-031-2 looks like from the road is located in a BK spruce wetland area.

MS 785-030-2 is good place for road cut waste. Level for a camping area. Material site was also a dump site for RVs, and in 94-95' was cleaned up by DEC. Need to find out about pit history, before proposing to rehab site. Also do miner use the access road that is in the pit? In other words, who uses the road and is it still actively used?

South Fork River Access- upgrade and crown access road, and replace outhouses. Use existing access on southeast side of bridge to access pier work area. At pier work area, use cofferdam and pump work area dry. Use boat to get to coffer dams. No heavy equipment in-water work is expected.

MP 75, road alignment will be shifted away from river. Although more riprap protection along the South Fork River is expected to protect road.

Chicken Creek Bridge replacement will widen and lengthen bridge. Crossing is narrow and will disturb gravel banks up and down stream of bridge. Stream banks are not vegetated/very disturbed.

## Action Items

- Look @ material site for expansion & closure (Rehab),
- Confirm pullat locations w/ Tiff (on vacation),
- Discuss jack hole pullat design w/ Ed DeCleva  
Regardj = historic properties.

# ASCG

## PHONE CONVERSATION LOG

**INCORPORATED**

**Job / Task No:** 4444  
**Project:** Taylor Highway

---

<b>Time:</b>	11:00 AM	<b>Date:</b>	February 28, 2003
<b>To:</b>	Nancy Whicker	<b>From:</b>	Beth Miller
<b>Firm:</b>	BLM - Tok	<b>Firm:</b>	ASCG
<b>Phone No.:</b>	883-5121	<b>Phone No.:</b>	

---

**Subject:** Section 7 and ROW

### **Summary of Conversation:**

Nancy called to check on the status of the EA. I told her we were looking to submit an informal draft EA to ADOT in the next couple of weeks.

She also asked about the Section 7 Evaluation and the conference call we were supposed to have had a month ago. She had not received any updates since January 27<sup>th</sup>. I told her Jon, Lon and Tiff have been working together on the information needed for the Section 7 and that we did not hold a conference call as originally scheduled. She wanted to make sure that the EA is consistent with the findings in the Section 7. She said that is one thing she will be looking for when she reviews the EA. She wanted to make sure the section 7 evaluation is discussed in the EA and that it is appended to the EA. As far as Nancy knows Mary makes the final decision on the Section 7 document. BLM Alaska has never completed a Section 7 so it is a learning experience for everyone.

The only federal money that she is aware of that has been spent in the Fortymile WSR is federal money for improvements to the Taylor Highway. No federal funds have been used from the list in the Programmatic 4(f). No money changed hands during the creation of the Fortymile WSR. BLM has always managed the Fortymile WSR.

11:35

Nancy called back to clarify the Section 7 Evaluation after she talked to Jon. He said they have a very productive working relationship with ADOT, but due to the FHWA process ADOT cannot provide some of the detailed design information that BLM needs for a final Section 7 Evaluation. BLM will not be able to produce a final Section 7 for the EA. They will complete a preliminary Section 7, but she is not sure they will append it to the EA. For the time being we will just put a statement in the EA saying BLM is in the process of preparing a Section 7. Nancy will keep in touch as to what they want to do.

**Miller, Beth**

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**From:** Tiff Vincent [tiff\_vincent@dot.state.ak.us]  
**Sent:** Thursday, February 20, 2003 10:48 AM  
**To:** Miller, Beth  
**Subject:** Re: Taylor

Beth,

I spent two days last week with Jon Kostohrys and Lon Kelly going over Wade Cr. impacts. Later today I hope to review Jon's assessment. As I do this I will try to estimate the quantity of riprap along Wade Cr. We could easily require riprap in some of the smaller creeks along the route, however I don't know at this moment. Worst case we could assume we would riprap any named creek! As far as the quantity I can only guess at this time. We will also need some riprap along the South Fork near the maintenance camp.

The contractor will most likely build a wooden coffer dam around the pier and pump it out to repair the spalling. They will likely travel to and from the coffer dam via a small boat.

Jon is nearly done with his write-up but Lon Kelly is out this week. I think we could hope for Jon and Lon to submit their assessments to Tok and their higher-ups at the end of next week (Feb. 28).

"Miller, Beth" wrote:

Hi Tiff,

I have a couple of questions for you. I am working on the wetlands section of the EA and we have to discuss the quantity of fill that will be placed in waters of the U.S. Do you know how much riprap will be placed along Wade Creek? Will ADOT be placing any fill or riprap in any other streams along the road corridor? If so, do you know how much? How will the pier work on the South Fork bridge be conducted? How is the Section 7 evaluation with BLM proceeding? Did they give a timeline for when they thought they would complete it?

Thanks.

Beth Miller

~~~~~

ASCG Inc.

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## Miller, Beth

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**From:** Jon\_Kostohrys@ak.blm.gov  
**Sent:** Wednesday, February 05, 2003 5:04 PM  
**To:** Miller, Beth  
**Subject:** Re: Phone Conf. 2/6

Beth: Lon Kelly and I met with Tiff Vincent and Tim Wooster for about 2 hours this afternoon. In the course of discussion on the alignment relocation and rip rap placement adjacent to Wade Creek, it became obvious that we needed either aerial photographs or drawings that showed the relationship of the creek to the proposed alignment. Tiff is going to put together as much of this information as he can. He suggested meeting with him so we can review the plans again on Mon. 2/10. Since we really won't have much to talk about until we have seen these additional photos and drawings, I suggest we postpone the teleconference until we have all the information we need to discuss this project fully. Thanks...Jon

**Visitor Site Issues  
&  
Proposed Recommendations  
Taylor Road - Chicken to Border  
Jeff Kowalczyk  
(As of 8/20/02)**

**MP 68.2 Mosquito Fork (Cowden) Dredge Overlook Trailhead:**

**Issue:** Inadequate and unsafe parking at a material pit for visitors wishing to access an existing developed and BLM-maintained hiking trail located across the highway. As a result, the public has to walk across a curved and humped section of the Taylor road to access the trail. In addition, parked vehicles are blocking access to an existing material pit.

**Proposed Action:** Move parking area to other side of road adjacent to trailhead. BLM to perform maintenance to site such as picking up loose litter and maintaining trailhead signs & bulletin board. Install "merging traffic" signs at appropriate locations on the road. High-float parking area if DOT agrees to perform pavement repairs as needed since BLM does not have the ability or equipment to do so. Install sign at site indicating location of nearby public restrooms. Install pad adjacent to new parking area to accommodate a picnic table and bulletin board.

**Alternative 1:** If existing parking and pedestrian safety concerns cannot be mitigated by the proposed action, keep existing parking area as is and install "pedestrian crossing" road signs at appropriate locations along the road. Address issue of vehicles blocking access to material pit.

**Alternative 2:** If there's any nearby interest, construct new trail from private property in Chicken to tie into BLM trail. Close current BLM trailhead and existing material pit parking area and direct traffic to Chicken with signage.

**Alternative 3:** No action, no improvements.

**Current Actions/Information Needed:** Write project plan. BLM environmental assessment. Public review/comment by DOT of T-21 proposals.

**MP 68.2 Material Pit (existing parking area for Mosquito Fork Dredge Overlook Trail):**

**Issue:** Determine if this is a BLM or DOT pit. BLM does have a current need for gravel out of this material pit. Regardless of ownership, ask DOT what's the condition/usefulness of the gravel and approximately how much more usable material remains in there.

**Current Actions/Information Needed:** Answer the above questions before making any recommendations/alternatives.

**Option:** If there's a need to keep the pit open for use, recommend re-contouring and re-vegetating pit on the side nearest the Taylor road to improve visual quality and leave south end open for removal of gravel.

### MP 75.3 South Fork Bridge Wayside:

**Issue:** Rains flood public parking area and does not drain. This is the most heavily used public access point to the Fortymile River. It's also a popular scenic viewing and picnic spot. The two existing outhouses are old and are due for replacement and both do not meet required universal accessibility standards.

**Proposed Action:** Raise, grade, and crown parking area to improve drainage of water and to decrease the need for regular maintenance to road/parking surfaces. Analyze the impacts and benefits associated with high-floating parking area or leaving it gravel. Replace the two aging single vault restrooms with one double universal accessible unit, with chase, for storage of T.P. and cleaning supplies.

**Alternative 1:** No action, no improvements.

**Current Actions/Information Needed:** Obtain a Letter of Non-Objection from DOT (encroachment permit) for the section of the wayside that's within their ROW (do one letter to cover all waysides where this may also be the case). Obtain a BLM ROW for sections of the developed wayside area located outside DOTs ROW. Write project plan. BLM environmental assessment. Public review/comment by DOT of T-21 proposals.

### Moose Pond Vehicle Pullout:

State land, state managed, and state maintained. Pass along to DOT that this site continues to be a popular scenic/wildlife-viewing stop for visitors. Moose are often observed in the ponds below. Recommend to DOT to continue providing and maintaining this existing vehicle pullout and wildlife viewing opportunity for the public.

### Goat Trail road section (between South Fork Wayside and Walker Fork Campground):

**Issue:** The majority of vehicle traffic slows down at this narrow section of road in an attempt to view the Fortymile River below. In addition, many vehicles at this location actually stop on the highway to take pictures. This popular and highly scenic viewpoint contains no vehicle pull-outs or road shoulder to allow vehicles to get out of the way of traffic which has resulted in a number of vehicles inadvertently going off the road and down the steep hill due to on-coming traffic, soft road shoulder, and/or not paying attention while sight-seeing. This location has great potential for future interpretation and scenic viewing opportunities relating to the Fortymile National Wild, Scenic & Recreation River. There are two material pits on state located within one half mile of this



area. State land, state managed, and state maintained.

**Proposed Action:** Recommend to DOT to construct a vehicle pullout within their ROW using the existing roadbed. For through traffic, cut a new and straight roadbed at a location where there's a slight outside bend around a hill. A vehicle pullout would allow visitors to safely pull off the road to site-see and take pictures.

### **MP 82 Walker Fork Campground:**

**Issues:** The site is basically a makeshift campground and day-use area built around what used to be an aircraft landing strip (Lassen Field). As a result, the site and facilities were not properly designed and engineered for the public uses occurring today. Past and current problems include: campsites not being about to accommodate larger and increasingly popular modern-day recreation vehicles; campground roads and camping pads do not drain after periods of rain; occasionally, approximately 40% of the site is underwater due to periodic high water events from the nearby Walker Fork Creek; and facilities do not meet universal accessibility requirements. This site has received very little maintenance and necessary improvements over the years but yet it remains the most visited developed camping site along the Taylor Road due to its location and scenic qualities.

Over the past four years, there's been a noticeable increase in the number of large commercial tour buses using the picnic facilities in the campground day-use area. As a result, increased bus traffic is significantly contributing to the deterioration of road surfaces. The curved campground entrance is not designed for large buses to safely enter and exit the Taylor road into the campground. Bus traffic continues to impact campers by creating dust and noise. Several times during the season, attempts are made by a road grader to remove numerous potholes in the campground roads caused by vehicle traffic on existing road surfaces that hold water due to lack of road elevation and crowning. In addition, there's currently insufficient road base remaining to perform any effective and lasting road grading. The campground day-use area is often used as over-flow camping when all spaces are full as well as a location to accommodate larger type recreation vehicles.

**Proposed Action:** To decrease on-going maintenance time and costs associated with recurring road grading and attempts to fill low spots in camping sites, work with engineers to mitigate existing drainage and flooding problems. Where appropriate, renovate existing facilities to be universally accessible as per the recommendations outlined in the 2002 Fortymile Accessibility Survey Team visit/report.

If wayside area goes in on the other side of the Taylor road, convert some or all of existing west day-use area into additional campsites to accommodate larger vehicles and increase camping spaces (see next proposal item). Install appropriate highway signing to inform road traffic of available camping, day-use, and bus facility and parking areas.

**Alternative 1:** If wayside cannot be put in on east side of highway, construct public

parking area within campground for visitors wishing to access and visit the east day-use area. Do not convert any of west day-use area into additional camping sites. Mitigate road drainage and campsite flooding problems. Improve bus egress and ingress into campground.

**Alternative 2:** No improvements to campsite drainage and road surfaces. Prohibit large tour buses from entering the campground.

**Alternative 3:** No action, no improvements.

**Current Actions/Information Needed:** Write project plan. BLM environmental assessment. Public review/comment by DOT of T-21 proposals.

**MP 82 Walker Fork Day Use-Area (Across the street from campground):**

**Issue:** Originally, this area was part of the Walker Fork Campground until BLM closed it off to camping due to occasional spring overflow to the east half of the site from the nearby Wade Creek. The west half of the site shows no visible signs of past spring flooding. In 1997, a makeshift footbridge over Wade Creek was washed out which provided public access to several BLM developed hiking trails. The public drinking water well at the site has since been closed and an old and unserviceable double vault toilet has been removed. Today, the site continues to be used by the public who are primarily seeking picnic, fishing, and hiking opportunities. The only existing public parking available at the site is along the Taylor Road and can only accommodate two vehicles. This location would be an ideal site for any future plans for interpretation and conveying area information. This proposed wayside is currently in the STIP.

**Proposed Action:** As outlined in the current STIP, convert portion of this site into wayside adjacent to Taylor road within DOT ROW to provide for public parking and a vehicle safety stop. Install one double universal accessible vault restroom to replace the old double vault unit removed by BLM. Install picnic area pad with shade structure adjacent to parking area. Install appropriate highway signing to identify camping, day-use, and wayside facilities. Determine if T-21 funds can be used to replace the nearby public foot bridge. High-float parking area if DOT agrees to perform any necessary pavement repairs since BLM doesn't have this capability.

**Alternative 1:** Do not convert area into a wayside. Install signing and construct public parking area across street in campground for visitors wishing to access and visit this site. Improve bus egress and ingress across the street into campground.

**Alternative 2:** No action, no improvements.

**Current Actions/Information Needed:** Determine where state ROW is. Write project plan. BLM environmental assessment. Robin Mills to do 106 clearance. Research MTP and Historical Index of site. If it's determined that site is withdrawn from mineral entry, obtain a BLM ROW before performing any site improvements. Get Letter of Non-

objection if wayside is approved. Public review/comment by DOT of T-21 proposals.

**MP 84 Abandoned Glen Couch Site:**

**Issue:** This site is an attractive nuisance containing extensive amounts of sharp metal debris posing a public safety hazard, much of which is within DOTs ROW. Removal of solid wastes, currently highly visible by the public, would improve visual qualities along the Taylor State Scenic Byway. Site clean up would prevent debris from being scattered to other locations along the Taylor road and nearby Public Lands. At this time, BLM plans to have all known hazardous materials (e.g. vehicle batteries, cat vehicle tires, and vehicle fluids) removed by summer 2003.

**Proposed Action:** To improve public safety and visual qualities to the area, request DOT to remove extensive solid scrap metal parts from within and adjacent to DOTs ROW.

**Proposal to Develop a Public Gold Panning Area (Wade Creek area):**

If proposal is still in STIP, get it removed. This new proposal has not been properly analyzed for potential impacts and any if there's any public interest. This issue will be addressed in future planning efforts and with visitor use surveys before making any decision.

**Septic Dump Station (Wade Creek area):**

If proposal is still in STIP, get it removed. A private business in Chicken is planning to construct a septic dump station in Chicken (Gold Panner Store, George Seuffert).

**MP 86 Jack Wade Dredge Wayside/Overlook Proposal:**

**Issue:** Most popular visitor site along the Taylor road. Dredge is located adjacent to an "S" turn in the highway. Parking is inadequate for the amount of daily vehicles wishing to stop and visit the site. Many vehicles stop on the highway without pulling over to take pictures of the dredge. As a result, traffic congestion is an ongoing issue.

Historic site is listed as "Eligible" on the National Register of Historic Places. BLM's current management policy for the dredge is: discourage people from climbing on and inside the dredge with the use of fencing, signing, and wire mesh covering all accessible structure openings; install support beam under stacker boom end to help with stabilization and protect new fencing; and let nature take its course.

This is the only undisturbed historic site on BLM-Managed Public Lands in the area easily accessible and available for the public to enjoy.

**Proposed Action:** Work with engineers to mitigate existing site parking/congestion issues. Install "traffic merging" signs at appropriate locations along the road. If required,

revise STIP.

**Alternative 1:** Close existing parking/vehicle access to the site.

**Alternative 2:** No action, no improvements.

**Current Actions/Information Needed:** If currently in the STIP, need to revise it (BLM no longer proposing moving parking area to east side of Wade Creek and creating a scenic overlook/interpretive site. DOT notified of this change by letter in 2002). Get the latest road re-construction timeline from DOT and current drawing for road realignment at this location. When possible, visit site with DOT road engineers. Research MTP and Historical Index of site. Determine current status of active mining claim at and/or near the site. Determine if site is withdrawn from mineral entry. If withdrawn from mineral entry and not on an active mining claim, seek Letter of Non-Objection from DOT before proceeding with any site planning and enhancements. Write project plan. BLM environmental assessment. Robin Mills to do 106 clearance. If determined that site is withdrawn from mineral entry, still need to get a ROW before performing any site improvements. Public review/comment by DOT of T-21 proposals.

**MP 12.5 of Boundary Spur - Davis Dome Wayside:**

**Issue:** Very popular visitor stop depicting a large and impressive Welcome to Alaska sign, scenic overlook deck, and two restrooms which don't meet universal accessible standards. The site is maintained by the BLM under an existing agreement with DOT.

**Proposed Action:** Remove two old single vault rest rooms and install one double universal accessible unit with chase.

**Alternative 1:** No action, no improvements.

**Current Actions/Information Needed:** Locate and review DOT/BLM wayside "management" agreement from the 1980s. Determine if BLM Operation dollars can be spent at waysides maintained by BLM under a state agreement on state land.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Northern Field Office

Fortymile Management Team

P.O. Box 309

Tok, Alaska 99780

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IN REPLY REFER TO:  
DOTPF/2800

Mr. Tim Woster, PE  
Project Manager  
State of Alaska Dept. of Transportation  
and Public Facilities  
2301 Peger Road  
Fairbanks, AK 99709-5316

FEB 6 2002

Dear Mr. Woster:

The BLM has decided not to pursue the Jack Wade Dredge wayside as proposed on the Alaska Statewide Transportation Plan (STP). The present highway alignment is acceptable. The existing dredge site pullout does need upgrading though. This information was relayed to Scott Leigh, the project engineer, by telephone today. Other STP enhancement proposals and possible new projects were also reviewed, but our recommendations will be as a single proposal at a later date.

Please be aware that our specialist's workloads have been prioritized to the National Petroleum Reserve in Alaska (NPR) environmental review process. This means the Taylor Highway Project (MP 64-Canadian Border) input from BLM may proceed slower than originally hoped.

Our specialists have indicated a need for more detailed information before they can make their recommendations on the environmental document. This includes alignment changes, material pit/crusher site/construction campsites, culvert/bridge, dimensions and locations, other structures/facilities that could affect the natural resources, and a 1:63,360 scale map showing these locations. The draft Environmental Assessment and the 4(f) document you have provided us are not adequate information at this time.

Again, the existing Jack Wade dredge pullout site is acceptable, BLM workload priorities are changing, and more detailed information is being requested. We appreciate the opportunity to work with you on this mutually beneficial project. If you have further questions, please contact Nancy Whicker, Realty Specialist, or myself at (907) 883-5121.

Sincerely,

  
Mary L. Figarelle  
Fortymile Team Manager

cc: Scott Leigh, Project Engineer  
Patti Wightman, Environmental Coordinator

Taylor Highway/Wade Creek Highway Realignment Project Meeting #2  
**DRAFT AGENDA**  
January 17, 2002 (9-11 am)  
Northern Field Office, Chandalar Conference Room

- A. **DOTPF** project status (Scott Leigh, Engineer, and Patti Wightman, Envir. Coord.)
1. Working plans, proposed project at the concept/planning stage
  2. Environmental process stage (NEPA, permits, cultural inventory)
    - a. Need draft EA to review
  3. Funding outlook
  4. Other questions from the team
  5. Communicating progress and needs

-----10 minute break-----

- B. **Review of team meeting #1 highlights** (Nancy)

- C. **Update on Taylor Highway right-of-way status** (Nancy)

1. Road history and land status
2. What is involved with a Fed Hwy Admin/AK DOTPF "right of way"?

- D. **Clarification of values BLM is managing FMNWSR for** (Team)

1. WSR Act mandate..."protect and enhance"
2. FM Mgmt Plan - manage in accord with classification criteria (wild, scenic, recreational) & 10 other objectives as in EIS (see attachment)

- E. **Identify issues** (concerns & potential benefits) concerning the values identified (Team)

1. Review issues already identified
  - a. Stream channel rehab, water quality, water resource impacts, the Wade Creek mining claim, historic and cultural sites, visitor management
2. Add any additional issues (land use permits/ROWs)

- F. **Address possible actions** to address identified issues (Team)

1. What needs to be further investigated and by whom
2. Section 7 determination requirement (can be included in EA)
  - a. Need Proposed Action and Alternatives as guide to impacts
  - b. Locations and enhancements requiring evaluation
3. NEPA requirement (as land manager)
  - a. Review of draft document by specialists
  - b. BLM to be co-signer on EA and will issue a separate Decision Record & FONSI

4. Topics for draft agenda and date for the next meeting (2/14/02?) *Jan*





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Northern Field Office  
 Fortymile Management Team  
 P.O. Box 309  
 Tok, Alaska 99780  
 (907) 883-5121  
 Fax: (907) 883-5123

IN REPLY REFER TO:  
 DOTPF/2800

### MEMORANDUM

- DRAFT -

To: File

Date: January 23, 2002

From: Realty Specialist

SUBJECT: Taylor Highway/Wade Creek Realignment BLM Project Team Meeting Notes (Draft)

Meeting Date: January 17, 2002

**Attendees:** Tok Field Office: Nancy Whicker, Lead/Realty Specialist; Jeff Kowalczyk, Outdoor Recreation Planner; and Kevan Cooper, Realty Technician.

Northern Field Office: Carol Hammond, Civil Engineer; Jon Kostohrys, Hydrologist; Robin Mills, Archeologist; Ingrid McSweeney, Fish Biologist; Susan Flora, HazMat; and Shelly Jacobson, Surface Protection Specialist (for Woodworth)

AK DOTPF: Scott Leigh, Engineer; Patti Wightman, Envir. Coordinator; and Tim Woster, Engineering Manager

**Absent:** Keith Woodworth, 3809/3715 NRS; Ruth Grondquist, Wildlife Biologist; Lon Kelly, Outdoor Recreation Planner

**Topics:** DOTPF project status, previous meeting review, right-of-way status and FHWA, Fortymile manager concerns, values managing for and associated issues. Focus on the issues, and methods to achieve required management objectives.

A. **DOTPF** project status (Scott Leigh, Engineer, Tim Woster, Project Manager, and Patti Wightman, Envir. Coord.)

1. **Engineering:**

a. Working plans, proposed project at the concept/planning stage *preliminary engineering*

(1) Project is now a 3R (stabilize & resurface) project rather than a 4R (reconstruction)

(a) This means that alternatives are more limited now than earlier in the project

(b) Example 4R projects were the bypass routes of the 1970's

(c) *Scott to send me the official definition of 3R*

b. Project planning needed now before the design engineering (the Design Study Report examples) can be started:

(1) Road profile refinement; min mat needs/sources; possible bridge needs; environmental considerations

- (2) DOTPF really needs to know on proposed dredge wayside because of the highway crossing the miner's claims and possible "bridge" construction planning
    - (a) Discussion: Is there a mining plan? Maybe a validity exam needed. The \$ value of the claim maybe affected by exam results
  - c. Design process happens after the environmental documentation is approved
    - (1) Timeframe: Approx a year to 18 mos. after environmental documentation completed
    - (2) Scott described the design process using a flow chart (Nancy has)
  - d. The ROW authorization from FHWA (Easement Deed to DOTPF) happens 9-12 mos. after NEPA
2. Environmental process
- a. Discussion: BLM needs a draft EA to review
    - (1) DOTPF provided a draft 4(f) document from March 1998 only (*attachment to agenda sent out*)
      - (a) Dept. of Transportation 4(f) regulations require DOTPF required to analyze resource impacts in special management areas and why it is essential the road go where proposed and not outside the area
    - (2) BLM specialists to provide input and review as needed so document meets our requirements
    - (3) BLM will issue our own Decision of Record and FONSI
  - b. Environmental process starts when BLM knows what we want to do (Alternatives)! And would take 9 mo. to a year to complete
  - c. First concurrence request (on the Purpose and Need) was sent out in Sept, 2001; only EPA not responded yet; BLM concurrence not required at this stage
    - (1) *I suggest we review the Purpose and Need as will be definite if all agencies concur*
  - d. Then Alternatives concurrence request sent out after the NEPA completed (before approval)
  - e. Their NEPA process is in three distinct parts, not one inclusive document like ours.
    - (1) Purpose and Need established and sent out for review and concurrence
    - (2) Alternatives established and sent out for review and a 2<sup>nd</sup> concurrence
    - (3) Approval and sign off
2. Funding schedule is determined by the environmental document completion
3. DOTPF asked us again about how long it will take for us to make our decisions on the wayside needs
4. Communicating progress and needs: Nancy is the BLM contact and Patti will be the primary DOTPF contact.

**B. Nancy reviewed the 12/06/01 team meeting highlights**

- 1. Section 7 determination requirement (can be included in EA or as an attachment to the EA)
- 2. Management concerns (WSR Act, Fortymile MFP, Fortymile River Mgmt Plan)
- 3. Updates:
  - a. Mining claims (tabled as missing Woody information that would help us delineate where the upper and lower limits are of the mining claims)
  - b. Land management: as we are the land manager, we issue own decision; insure adequate NEPA; and keep up with the recordkeeping

**C. Right-of-Way status of the Taylor Highway from Mosquito Fork Bridge to the Canadian border**

- 1. 16 ½ miles of the highway is within the WSR corridor
  - a. 1 ½ mi in Chicken area; 4 ½ mi in So Fork area; and 10 ½ mi Walker Fork to Warner Creek (Wade Creek area)
  - b. Also approximately 4 ½ mi right along corridor boundary between So Fork and Walker Fork.
  - c. Land status where Taylor Highway passes through from Mos Fk to Canada
    - 1. Federal (BLM) in the Fortymile WSR corridor
    - 2. Otherwise State Selected Tentative Approval lands surround the road (state management now)
      - (a) Is a 1/3 mi stretch east of So Fork that is still only a state selection which is still BLM management responsibility

2. Road history and status
  - a. Does a right-of-way exist on the Taylor Highway?
    1. Yes, as acquired at statehood in 1959 from the US Dept. of Commerce.
    2. Can we use the present alignment as the basis for the existing ROW?
      - (a) Yes; only the bridges and their approaches with waysides were changed in the late 1970's (authorized)
      - (b) Aerial photo comparisons (1954, 1975, 1986 and 1994/97) along with maps from 1956 and 1966) show the same routes for the Taylor Highway between Mos Fk and the border.
        - 1986 photos show a short stretch (maybe a mile) of Wade Creek area of temporary road change probably due to water erosion damage
3. What is involved with a Fed Hwy Admin/AK DOTPF "right-of-way"?
  - a. History: Taylor Highway was designated as a feeder road as an easement/right-of-way of 200 ft. in width (Secretarial Order 2665, 1951); Boundary Spur only 100 ft. of width as designated as a local road
    1. State of AK acquired the highway from the federal gov't at statehood (Omnibus Act quit claim deed, 1959)
    2. Included the right to construct and maintain for transportation uses within the easement/right-of-way
    3. Title to the land remains with the federal gov't (unless conveyed to state/natives) and is subject to use and disposal under the regulations (if not a highway use).
    4. Then the Fortymile WSR designation came out of ANILCA in 1980
  - b. Interagency Agreement (FHWA/BLM) is the controlling authority to authorize the ROW grant to AK DOTPF
  - c. Use to be authorized by BLM "Letter of Consent" (including terms and conditions necessary for proper resource protection) to FHWA for inclusion in their Easement Deed to AK DOTPF
    - a. Use is for highway/transportation only within the 200 ft. road width (including min mat pits needed for reconstruction)
    - b. Other right-of-way grant(s) would be issued for road changes outside that original width

#### D. Fortymile concerns

1. Consider all alternatives possible to cover our bases (don't want to shut down a construction crew because we forgot to analyze some issue)
2. Determination that present alignment is the same route as at statehood or there has been authorizations for changes
3. BLM cosign the environmental document and issue a separate Decision of Record and FONSI

#### E. Clarified values BLM is managing FMNWSR for

- A. WSR Act mandate..."protect and enhance"
- B. FM Mgmt Plan - manage in accord with classification criteria (wild, scenic, recreational) & 10 other objectives as list in the Fortymile WSR EIS

#### F. Identification of issues (concerns & potential benefits) concerning the values identified

1. Reviewed issues already identified in past documents and correspondence
  - a. Stream channel rehab, water quality, water resource impacts, the Wade Creek mining claim, historic and cultural sites, visitor management
  - b. There was a Section 319 Nonpoint Source grant proposal for restoration of Wade Creek submitted in 1995 to the Environmental Protection Agency
    - (1) Was not funded
    - (2) But the plan gives us rehabilitation direction
2. Additional issues
  - a. Right-of-way grants and land use permits needed for land use outside of the existing highway right-of-way

**G. Assignments for next meeting.....see draft agenda for 2/4/02 meeting**

1. Additional specialist presentations to help us understand and refocus on our management objectives by prioritizing issues of concern and benefit in our areas of expertise. Each team member will also indicate possible alternatives to address issues created by the highway project proposal in the WSR corridor.

---

Nancy Whicker  
Realty Specialist



**United States Department of the Interior**  
**BUREAU OF LAND MANAGEMENT**  
NORTHERN FIELD OFFICE



Tok Field Station  
P.O. Box 309  
Tok, Alaska 99780-0309  
(907) 883-5121  
FAX (907) 883-5123

In reply refer to:  
2800

October 5, 2001

State of Alaska  
Dept. of Transportation & Public Facilities  
Attn: John R. Mazzitello, Environmental Coordinator  
2301 Peger Road  
Fairbanks, Alaska 99709-5316

Dear Mr. Mazzitello,

The Bureau of Land Management is unable to concur at this time with your "Agency Scoping" letter, dated September 5, 2001, for the Taylor Highway, Milepost 64 to Canadian Border Project No. 66446. Your letter indicates that a number of years have past since the project was first proposed, and I assume since the project proposal was submitted to this office for review.

Unfortunately, we are unable to locate a comprehensive project proposal and any pre-construction designs defining where along highway the State intends to deviate outside of their existing right-of-way.

Review of this information is crucial, especially where it applies to those sections of the highway within the Fortymile Wild and Scenic River Corridor. This information will determine the level of environmental analysis, public scoping, and agency involvement that will need to occur.

Please forward this office copies of the project proposal and pre-construction designs for the above mentioned section of the highway, and this office will conduct an expedited review of the data. After we have completed that review we will provide you with a more informed response to your "Interagency Working Agreement Concurrence Form."

Thank you in advance for forwarding us those documents. Should you have any questions regarding this project, please contact me at (907) 883-5121, or by e-mail at: [mary\\_figarelle@blm.gov](mailto:mary_figarelle@blm.gov).

Sincerely,

Mary L. Figarelle  
Fortymile Team Manager

Enclosure (1)  
1 - Interagency Working Agreement Concurrent Form





**LETTER OF AGREEMENT  
BETWEEN  
THE ALASKA DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES (DOT&PF)  
AND  
THE US BUREAU OF LAND MANAGEMENT (BLM)  
FOR  
UPGRADE AND MAINTENANCE OF WAYSIDE FACILITIES ON  
THE TAYLOR HIGHWAY**

The above parties agree to cooperate in providing for the upgrade and future maintenance of transportation enhancement at campgrounds and waysides on Federal Lands along the Taylor Highway.

I. DOT&PF AGREES TO THE FOLLOWING:

DOT&PF will manage all design, engineering and construction contracting to upgrade campgrounds, waysides and related facilities along the Taylor Highway within the scope of this agreement. Project construction will include facilities at campgrounds and waysides agreed upon by both agencies on the Taylor Highway.

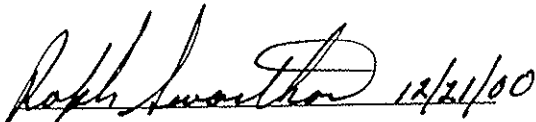
II. BLM AGREES TO THE FOLLOWING:

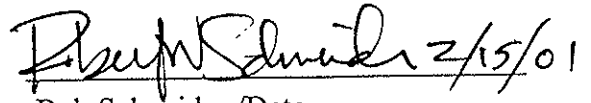
BLM will maintain the improvements constructed under this agreement including cleaning, stocking, and maintaining outhouses. BLM will also provide outhouse pumping and maintain water wells, as well as garbage removal and maintenance of picnic tables and fire-pits. No funding shall be obligated or exchanged between BLM and DOT&PF to maintain the facilities.

III. IT IS MUTUALLY AGREED THAT

- A. The effective date of this letter of agreement shall be from the date of final signature by the authorized officers of DOT&PF and BLM.
- B. This agreement shall remain in effect until terminated in writing by both parties. Intent to cancel this agreement requires a 30-day written notice.
- C. The amount of funding provided by each agency under this agreement shall be determined solely and independently by each agency.
- D. This letter of agreement may be revised with the mutual consent of both agencies, by issuance of a written amendment, signed and dated by both agencies.
- E. Agents and employees of each agency shall act in an independent capacity and not as officers, employees, or agents of the other agencies in performance of this agreement.

- F. Nothing in this agreement shall obligate the other agency's party to this agreement to the expenditure of funds or future payments of money in excess of those herein agreed upon or authorized by law.
- G. Each agency agrees that it will be responsible for its own acts and results thereof, and each agency shall not be responsible for the acts of the other agencies; and each agency agrees it will assume to itself risk and liability resulting in any manner under this agreement.
- H. No elected or appointed official of any agency party to this agreement shall be admitted to any share or part of the agreement or to any benefit that may arise therefrom, other than any benefit available to any member of the public.
- I. Each agency will comply with all applicable laws, regulations, and executive orders relative to Equal Employment Opportunity.
- J. Nothing herein is intended to conflict with federal, state, or local laws or regulations. If there are conflicts, this agreement will be amended at the first opportunity to bring it into conformance with conflicting laws or regulations.

  
Ralph Swarthout, P.E./Date  
Regional Director  
DOT&PF Northern Region

  
Bob Schneider /Date  
Northern District Office Manager  
BLM

# Taylor Highway 64-Border

ADOT/AF - BLM

12-16-99

|                  |     |          |
|------------------|-----|----------|
| Randy Horner     | DOT | 451-5292 |
| Jeff Kowalczyk   | BLM | 883-5121 |
| Rogers           | BLM | 474-2205 |
| Roger D. Delaney | BLM | 474-2313 |
| Fred Janley      | DOT | 451-5365 |
| Tim Woster       | DOT | 451-2288 |
| Curt Fortenberry | BLM | 474-2206 |
| Paul Cote        | BLM | 267-1217 |
| Tiff Vincent     | DOT | 451-5123 |

TAYLOR HIGHWAY  
Milepost 64 to Canadian Border

40 m. down BCS  
planning

- Project Purpose and Need *Project Development Schedule*
- Current right of way status *ph. 4 - current*

|           |      |
|-----------|------|
| 64-82     | 2002 |
| 82-Border | 2004 |

*row may be controlling - issue*
- Previous BLM coordination (Milepost 82 to Canadian Border) *need to get through EIA in a year*
  - Separate road from Wade Creek ✓
  - Wade Creek Reclamation *Some mitigation on this project ✓ mitigates for 4(4) acquisition on 95-160 project (4 to Eagle)*
  - Minimize sharp curves ✓
  - Separate road from Jack Wade dredge -
  - Turnouts for wayside and gold panning *Any proposed BLM projects we need to know about?*
- Current preliminary design focus (Milepost 64 to 82)
  - Possible additional Wild and Scenic River involvement
- Level of environmental documentation proposed (Milepost 64 to Canadian Border) *EA (with new issues and discussed)*
- Information needed for environmental analysis and design
  - Existing and proposed BLM facility locations: station, campground, wayside, trailhead, etc. *any facilities that need access?*
  - Current BLM land use and management plans *anything new since 1983*  
*Any current BLM projects being planned? BLM has wilderness management plan*
  - BLM NEPA guidelines *do they have something they'd like us to use*
  - Available inventories/surveys on wetlands, habitat, T&E species, historic and archaeological resources, hazardous waste *within road corridor*
  - Subsistence information, federal hunting boundaries, seasons, harvests
- New locations for recreation/scenic vista turnouts *new facilities - does BLM have any ideas? develop ideas - may need to review in the field next spring*
- New locations for information/direction signing
- Mining claim status

*Develop (transport) impacts road (look at outline in EIA process)*

*Field reviews (whether of delineation) (impact assessment) (baseline plans)*

ie AP will (get  
back to us in this)

will need a permit from BLM to <sup>temporary</sup> ~~temporary~~ we permit  
work in a design area (if in BLM land)

- Potential construction camp/staging area locations <sup>we have established for 82-200 der</sup>  
Chicken or South Fork? <sup>Is this still ok?</sup>  
ANILCA Title XI application form, instructions, filing procedure  
<sup>How do we do this?</sup> <sup>where is the form?</sup> <sup>who do we contact?</sup> Is So. Fork Mont. a BLM permit?
- Current BLM contacts, addresses  
- Jo ff will get BLM contact list to us
- What happens next

BLM commitment to monitor/coordinate project work in  
affected 4(f) areas -

what does BLM want for this?  
what is possible within budget / site AP constraints?

Design Site Map

Next Env. Step

(next thing we need to do)  
(next things we need from them)

(Next most serious contact & there will  
be Rec'd visit with them)

- Purpose of need
- Public Supp.

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND  
PUBLIC FACILITIES  
**Computations**

Item No. \_\_\_\_\_

DATE \_\_\_\_\_

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

Calc. by \_\_\_\_\_

Checked By \_\_\_\_\_

Visual Resource Management - Red Trip

BCM suggest runway ramps -

visitors has increased 16-20% last 2 years  
(vehicles has remained constant)

Public Forum - TOL in Chitkin or both (but maybe Eagle)  
early in

→ BCM can provide list of interested parties

BCM designed wayside at Wadsworth & wide Cr. Ave. Ave  
we hope to pick up where we left off

Revisit realignment ideas. Unimproved ~~low~~ Ave. Ave -  
Realign? or culverts to allow ~~to~~ to cross road?

Wadsworth Park Wayside

Dredge Wayside

Su. Park Bridge Wayside → Can it be replaced? ←

Wadsworth Park Compromised - Need RT ←





# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
NORTHERN DISTRICT  
FORTY MILE MANAGEMENT AREA

P.O. Box 309  
Tok, Alaska 99780  
(907) 883-5121  
FAX (907) 883-5123

IN REPLY REFER TO:  
8351 (020)

## ROUTING INSTRUCTIONS

B. Gannon \_\_\_\_\_  
E. Gerke \_\_\_\_\_  
R. Horner  \_\_\_\_\_  
T. Richards \_\_\_\_\_  
D. Wicken \_\_\_\_\_  
K. Maitlen \_\_\_\_\_  
C. Storey \_\_\_\_\_  
P. Wightman \_\_\_\_\_  
G. Zimmerman \_\_\_\_\_

DO THE FOLLOWING: \_\_\_\_\_

FEB 19 1998

David E. Bloom, PE  
Environmental / Geotech Engineering Manager  
State of Alaska, Department of Transportation and Public Facilities  
2301 Pagar Road  
Fairbanks, Alaska 99709-5399

Dear Mr. Bloom:

This letter is in response to your request for the BLM to review a draft Categorical Exclusion covering Taylor Highway MP 82 to the Canadian Border, Project No. 66446. We are pleased to inform you that this task has been accomplished and this letter serves to comment on the document.

As you indicated in your letter our offices have worked closely to coordinate the planning of the project where it passes through a recreational segment of the Fortymile Wild and Scenic River called Wade Creek. Members of our offices have met in the field and across the table to craft the best possible plan to protect and enhance the natural environment of Wade Creek while providing the public a safe and adequate road design. Your staff did an excellent job in writing the Categorical Exclusion explaining how these objectives can be met. Please refer to the attachment containing a few comments we suggest for use in the document, which may help clarify some of the points.

One of the most important aspects of the project is moving the road away from Wade Creek where practical. This measure would allow reasonable protection of the new roadway and an adequate flood plain for the creek. Separation between the road and creek is important for runoff water management and flood control while reducing pollution of Wade creek and restoring the creek to a functioning riparian area. Measures need to be taken to limit flood damage to the road and alteration of the creek. Increasing road and creek separation is paramount in protecting the road and enhancing the creek system.

Where possible the planning efforts have placed the road alignment and appurtenances in unreclaimed mining areas so disturbance of natural areas will be minimal. Removal and contouring mine tailings during road reconstruction will do much to improve the scenery and riparian environment. Realigning the road away from the Jack Wade dredge will help reduce the vandalism that still occurs while improving photographic and interpretive opportunities. The dredge is in disrepair and road relocation would provide a margin of safety and improved parking at a site that receives significant public use. New turnouts would provide additional recreational opportunities with safe parking.

We concur with the conclusion that there is "no feasible and prudent alternative" to avoiding each of the specific 4 (f) sites the "Proposed Action" as described in the draft Categorical Exclusion identified above. We also agree that every effort has been made in the planning process to minimize harm to each 4 (f) use in the Wild and Scenic River System and improve upon the existing environmental conditions to meet the protect and enhancement mandate of the Wild and Scenic Rivers Act.

Sincerely,

  
Robert C. Burritt, Fortymile Team Leader

# Memorandum

**To:** David E. Bloom, PE, Environmental /Geotech Engineering Manager, DOT&PF

**From:** Bob Burritt, Fortymile Team Leader, BLM, Northern District Office

**Date:** 02/19/98

**Re:** Project No. STP-0785 (11)/66446 (Taylor Hwy MP 82 to the Canadian Border) Categorical Exclusion Review Comments

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## Concerning Wade Creek

Recreational Segment of the Fortymile Wild and Scenic River System

The following comments may help to better inform the reader of the Categorical Exclusion. The underlined text would be new to the document.

Pg. 3, bottom of page: Mile post listings indicate which figure the site is located at such as -- "Milepost 82.3 (Fig. 4)" This would help the reader identify the site. See the annotations on sheet #1.

Planning Note: An existing roadbed, next to the main road, at about MP 83.8 (Fig. 5) will need approaches at both ends to be used as another turnout. See sheet #2.

Pg. 5, 2<sup>nd</sup> paragraph: This area is the most recently mined and has the least stable floodplain. The mining claims in this area were relinquished back to the BLM. ... Reclamation of 17.7 hectares (11 acres) of unreclaimed mine tailings, over the relinquished mining claims, will be accomplished as mitigation for ... See sheet #3.

Planning Note: At some point we need to come to a final agreement on what tailings will constitute the 11-acre reclamation areas. The BLM will provide DOT&PF a prioritized list of areas.

Pg. 6, XI, SHPO Clearance: One, the Jack Wade dredge, near milepost 86, is eligible as a National Register Site.

Pg. 6, XII, Local Government Review/Public Involvement: Part of the project between milepost 82 and about milepost 92 is located within a recreational segment of the Fortymile Wild and Scenic River System where the BLM is the land manager. Extensive planning and field work has been accomplished together by the BLM and DOTPF in order to limit disturbance ensure enhancement of the natural environment along Wade Creek segment.

Pg. 12, paragraph above "PROJECT IMPACT:" Mining has now ceased on claims along the lower portion of Wade Creek due to the relinquishment of the federal mining claims to the BLM.

February 19, 1998

Pg. 12, last paragraph: BLM has requested a turnout at Mile 82.3 for development as a wayside, picnic area and trailhead. At Mile 85.4... This area would provide a location for a crushing plant.

Planning Note: Areas needed along Wade Creek by the construction company for personnel campsites, construction camp and equipment yard may be provided by the BLM under its authorities. BLM has identified a site at mile 84.6 that was used previously as a mining camp as available for an equipment yard and construction camp.

Pg. 21, AVOIDANCE ALTERNATIVES paragraph: Also, easy access to existing recreation facilities and other cultural resources of interest to the traveling public along Wade Creek would be lost.

Pg. 25, MEASURES TO MINIMIZE HARM: Coordination with BLM has provided for all possible planning to minimize harm to Wade Creek Section 4 (f) property. The road design and planned reclamation has been focused at protecting and enhancing Wade Creek and its immediate environment in order to make long-lasting improvements.

GARY  
FYI

# FAX from Tok

Date: 5/7/97

**From:** Fortymile Management Area (AK-020)  
Bureau of Land Management, Northern District  
P.O. Box 309, Tok, Alaska 99780  
phone: (907) 883-5121 commercial  
fax: (907) 883-5123 commercial

**To:** Tiff Vincent  
DOTPF - FAIRBANKS  
FAX - 451 - 5126

**Message:**

Please Review the Attached;  
see what else we need to add to  
on change - I'll call Monday 5/12.  
Please coordinate w/ DOTPF Personnel...  
Thank you - BIV

# of pages, including this one:

3



7.2/3

Bureau of Land Management  
Northern District Office  
Fortymile Management Area  
P.O. Box 309 Tok, Alaska 99780  
(907) 883-5181

9100,8351(020)

DRAFT

From: Bob Burritt  
To: Trip Participants  
Date: Wed, Aug 7, 1996 0930

Subject: Wade Creek Field Trip (May 19 - 23, 1997)

The Bureau of Land Management (BLM) and the Alaska Department of Transportation and Public Facilities (DOT) met on April 3, 1997 to discuss the Wade Creek Project. During the meeting we decided to visit Wade Creek to enhance our understanding of the project area.

Wade Creek is located in the Fortymile Wild and Scenic River System. The project involves highway and recreation facility reconstruction, development of turnouts and mine reclamation along Wade Creek and the Taylor Highway between Mile posts 82 and 86. Additionally, there is interest in the active mining claim areas north of the Jack Wade Dredge. We need to work with the mine claimant concerning his plans to mine and placement of the creek in relation to the road. He will not be in Alaska until later in the season.

The purpose of this letter is to identify the participants, objectives, trip schedule and logistics.

Scheduled Participants

|                |             |          |                     |
|----------------|-------------|----------|---------------------|
| *Bob Burritt   | Tok, BLM    | 883-5121 | BLM liaison         |
| *Roger Evans   | Fbx, BLM    | 474-2205 | Engineer            |
| *Jon Kostohrys | Fbx, BLM    | 474-2358 | Hydrologist         |
| Dave Mickelson | Tok, BLM    | 883-5121 | Mining Specialist   |
| *Tiff Vincent  | FBX, DOTPF  | 452-5123 | Engineer            |
| *Randy Horner  | FBX, DOTPF  | 452-5292 | Environment Analyst |
| John Bennett   | FBX, DOTPF  |          | Geologist           |
| Mike Lee       | FBX, DOTPF  | 451-5465 | Right-of-Way Agent  |
| Don Rice       | Anc, C.O.E. |          | Project Manager     |

Objectives

1. Recreation Site visits between Walker Fork & Jack Wade Dredge.
2. Review current road and stream alignment and discuss changes.
3. Identify an area for the construction camp.
4. Identify camping areas for construction crew.

- 5. Identify crusher and material stockpile location.
- 6. Identify and proof tailings for crushing and roadbed use.
- 7. Identify organic material for spreading over excavation areas.
- 8. Ground truth aerial photo information.
- 9. Discuss tailing removal and contouring in conjunction with stream and road realignment.

Trip Schedule and Logistics

May 19, 1997:

No site visit planned on this day. Travel to Chicken and overnight at the BLM Chicken field station. Bring your own sleeping bag; bunks will be provided. No commercial lodging available in Chicken. Cooking facilities are available at the field station. The diner may be open at Chicken. Jon Kostohrys will not be able to be on site until May 21.

May 20, 1997: (What should we accomplish?)

Pack lunch for the road.

- Tour all recreation site between Walker Fork & Jack Wade Dredge and overview of project.
- Look at proposed area for the construction camp.
- Look at proposed areas for construction crew camping.
- Look at proposed crusher and material stockpile location.
- Review current road and stream alignment and discuss changes.

May 21, 1997: (What should we accomplish?)

Pack lunch for the road.

- Discuss tailing removal and contouring in conjunction with stream and road realignment.
- Ground truth aerial photo information.
- Identify and proof tailings for crushing and roadbed use.
- Identify organic material for spreading over excavation areas.

May 22, 1997: (What's left to do?)

Participants return to Tok, Anchorage and Fairbanks. Others who have additional work to do in the area can continue to use the Chicken facilities.

-----

Comments:

How should we plan food? Facilities at Chicken cannot easily accomodate several cooks preparing meals simultaneously.

Who should be involved in what parts of the schedule? I tried to use the 20th as a general overview day. On the 21st we could take care of more specific details or problem solving.

Lets discuss this itinerary and see how to improve it.



## TELEPHONE/CONFERENCE DATA

PEOPLE INVOLVED

REPRESENTING

Date: 10/11/95

Time: 2:30pm

Project No./Name \_\_\_\_\_

Dave Michelson BLM Tok 883-5121

Bob Durrvitt " " \_\_\_\_\_

Taylor


TOPICS: Taylor Hwy Walker Fork to Canada Border

Omnibus Right of way 100 ft each side of existing & additional Row required would have to be applied for by DOT. Should be no problem if road is being moved farther from creek thru Wade Creek BLM corridor.

1. Realignment of roadway away from the stream is consistent with BLM objectives.
2. Maintenance stockpiles ok if low profile versus high cones
3. Use of additional material on next project (Chickasaw to Walker Fork) ok. Priority is right side of roadway thru BLM Row to dredge

ACTION ITEMS: Discuss w/ Bill Zufelt. Stream regrading. determine tailing quantities - areas for reclamation

Copies To: T.//

Signature: 

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NORTHERN REGION, DESIGN AND CONSTRUCTION

2301 PEGER ROAD  
FAIRBANKS, ALASKA 99709-5399  
PHONE: (907) 451-5123  
TDD: (907) 451-2363

April 28, 1995

Re: STP-0785(11)/66446  
Taylor Highway  
Mile 64 to Canadian Border

Mr. Bob Burritt  
Manager, Tok Field Office  
Bureau of Land Management  
P.O. Box 309  
Tok, AK 99780

Dear Mr. Burritt:

As Gary Walklin discussed with Dave Mickelson of your office, we are planning a field trip to the Taylor Highway on May 24, 1995. The following objectives are proposed:

1. Locating the proposed sites for reclamation, and evaluating the scope of work at each site. Determining the survey information needed at each site.
2. Evaluating potential material sources and discussing the concerns and considerations for the mining plan at each site. Obtain material samples at each site.
3. Identify construction camp/office locations.
4. Locate proposed turnouts.
5. Field review of proposed highway improvements.

Included in our group will be Randy Horner, Environmental Analyst; John Bennett, Geologist; Lee Saylor, Location Engineer; Gary Walklin, Designer; and myself. We will be leaving Fairbanks May 23 and spending the night in Tok. We would like to meet you at your BLM field office in Chicken at 10:00 AM on May 24th. We will have the day of the 24th and the 25th if necessary to complete the necessary field work.

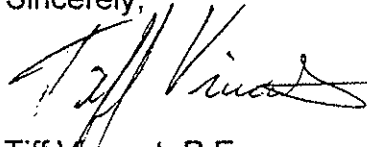
Mr. Bob Burritt

2

April 28, 1995

I am looking forward to a productive field review with your staff. If you have any questions, or if you have conflicts with the proposed dates, please call me at 451-5123, or Gary Walklin at 451-5381.

Sincerely,

A handwritten signature in black ink, appearing to read "Tiff Vincent". The signature is written in a cursive style with a large initial "T" and a long, sweeping underline.

Tiff Vincent, P.E.  
Acting Engineering Manager

GW/dc