

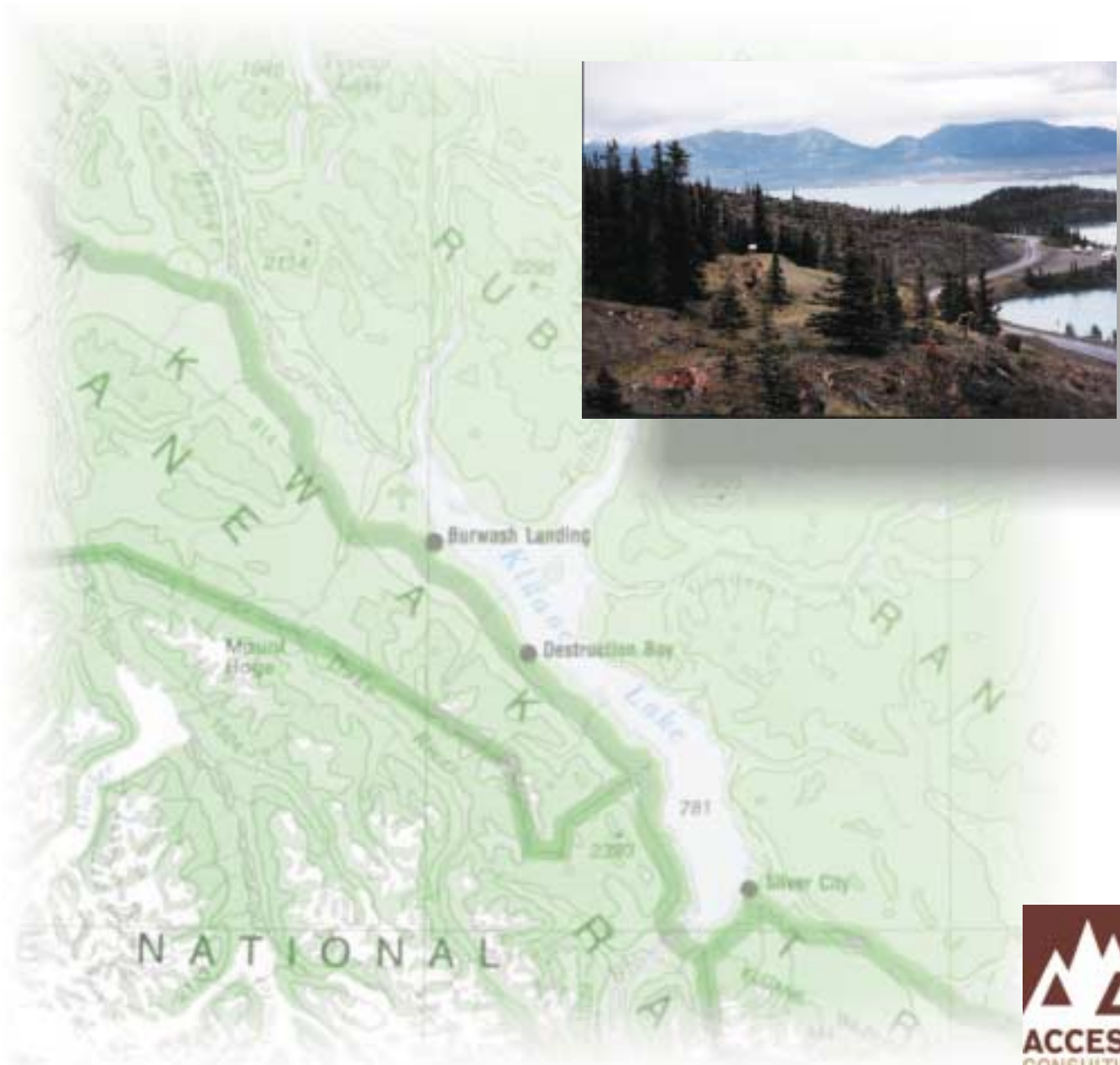


Community and Transportation Services  
Transportation Engineering Branch

# Shakwak Highway Project Environmental Assessment Update

Km 1664.5 - 1788.5 Alaska Highway #1

## Volume II, Study Maps



February, 2000





**Community & Transportation Services  
Transportation Engineering Branch**

**SHAKWAK HIGHWAY PROJECT  
ENVIRONMENTAL ASSESSMENT UPDATE  
Km 1664.5 - 1788.5 ALASKA HIGHWAY #1**

**VOLUME II – STUDY MAPS**

**February, 2000**

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[www.accessconsulting.yk.ca](http://www.accessconsulting.yk.ca)**

**STUDY MAPS**  
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## **INTRODUCTION**

The study maps prepared for in this report present the salient components of the results of each discipline specific study, while providing the reader with a reasonably detailed understanding of the results of each of the studies.

There are fifty seven (57) maps in this report in total, comprised of forty nine (49) 1:60,000 scale study-specific corridor maps, and eight other maps at various scales presenting general location and larger scale overviews or smaller scale enlargements of specific features.

The study area has been subdivided into seven segments; each segment representing one base map. The base maps and their linear coverage are listed below:

- Base Map 1 (Figure 1-3, Volume II) extends from km 1664.5 to km 1684;
- Base Map 2 (Figure 1-4, Volume II) extends from km 1683 to km 1713;
- Base Map 3 (Figure 1-5, Volume II) extends from km 1700 to km 1725;
- Base Map 4 (Figure 1-6, Volume II) extends from km 1727 to km 1747;
- Base Map 5 (Figure 1-7, Volume II) extends from km 1749 to km 1770;
- Base Map 6 (Figure 1-8, Volume II) extends from km 1770 to km 1788.5;
- Base Map 7 (Figure 1-9, Volume II) extends from km 1700 to km 1709 (Slims River/Sheep Mountain).

The base mapping for these maps was obtained from digital topography prepared by Natural Resources Canada. Results of the discipline specific field investigations have been georeferenced to the stationing established by Community & Transportation Services, Transportation Engineering Branch, Yukon Government (through a contract to McElhanney Engineering Ltd.)

All base maps and study maps include potential borrow sites and field camp locations. These sites are numbered sequentially starting from Jarvis River (km 1664.5). The numerical designation also indicates whether the site is a potential borrow source (“B”) or potential field camp (“C”) location. As no detailed field inspection and geotechnical information has been

**SHAKWAK HIGHWAY PROJECT - ENVIRONMENTAL ASSESSMENT UPDATE**  
**Km 1664.5 - 1788.5, Alaska Highway #1**  
**VOLUME II – STUDY MAPS**

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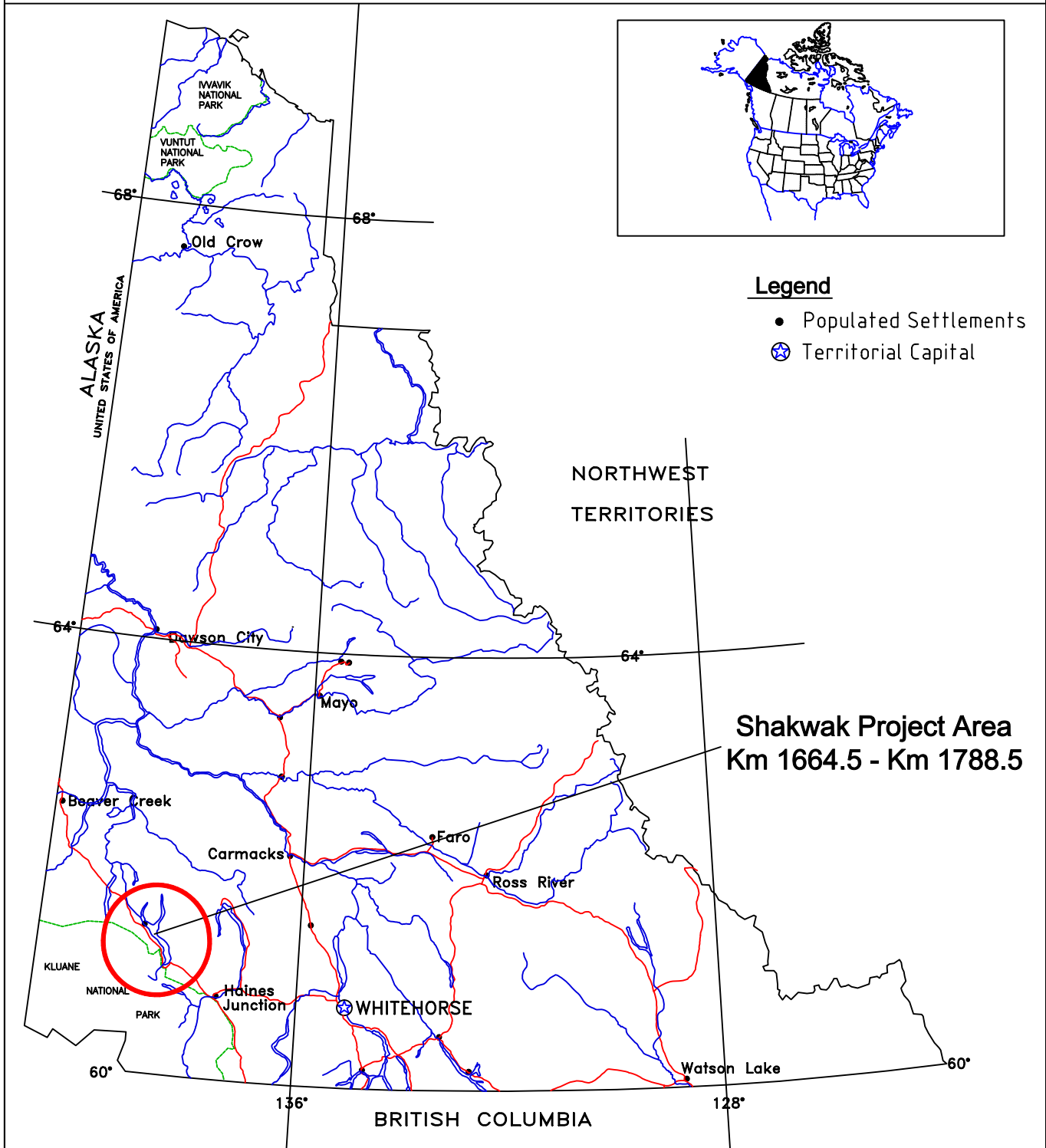
collected from these sites, they were considered potential areas for investigation for the purpose of the various discipline specific studies.

Base and study maps provide highway kilometer locations with specific reference to the reconstructed highway alignment. These highway chainages are based on the reconstructed highway alignment center line, with the Center Line route option used (see Volume II, Figure 1-9).

As noted on the base maps, various highway center line alignment options exist, particularly in the vicinity of the Slims River Delta. Volume II, Figure 1-9 outlines the existing highway alignment and the four other highway reconstruction center line alignment options (A1, A2, B1, and Center Line), as identified by Yukon Government, Community & Transportation Services, Transportation Engineering Branch.

Highway chainage equations for reconstruction survey purposes are shown on Figures 1-6 and 1-8, Volume II.

# Yukon Territory



## Legend

- Populated Settlements
- ★ Territorial Capital

**Shkwak Project Area**  
**Km 1664.5 - Km 1788.5**



**Yukon**  
 Community and Transportation Services  
 Transportation Engineering Branch



Lambert Conformal Conic Projection  
 with Standard Parallels at 49°N and 77°N

Shkwak Project Environmental Assessment  
 Update 1999 Km 1664.5 - Km 1788.5

## General Location Map (Map of Yukon)

DRAWN BY: LDR	CHECKED BY: DDC
DATE: 16/02/2000	Scale 1: 6,000,000

**Figure 1-1**

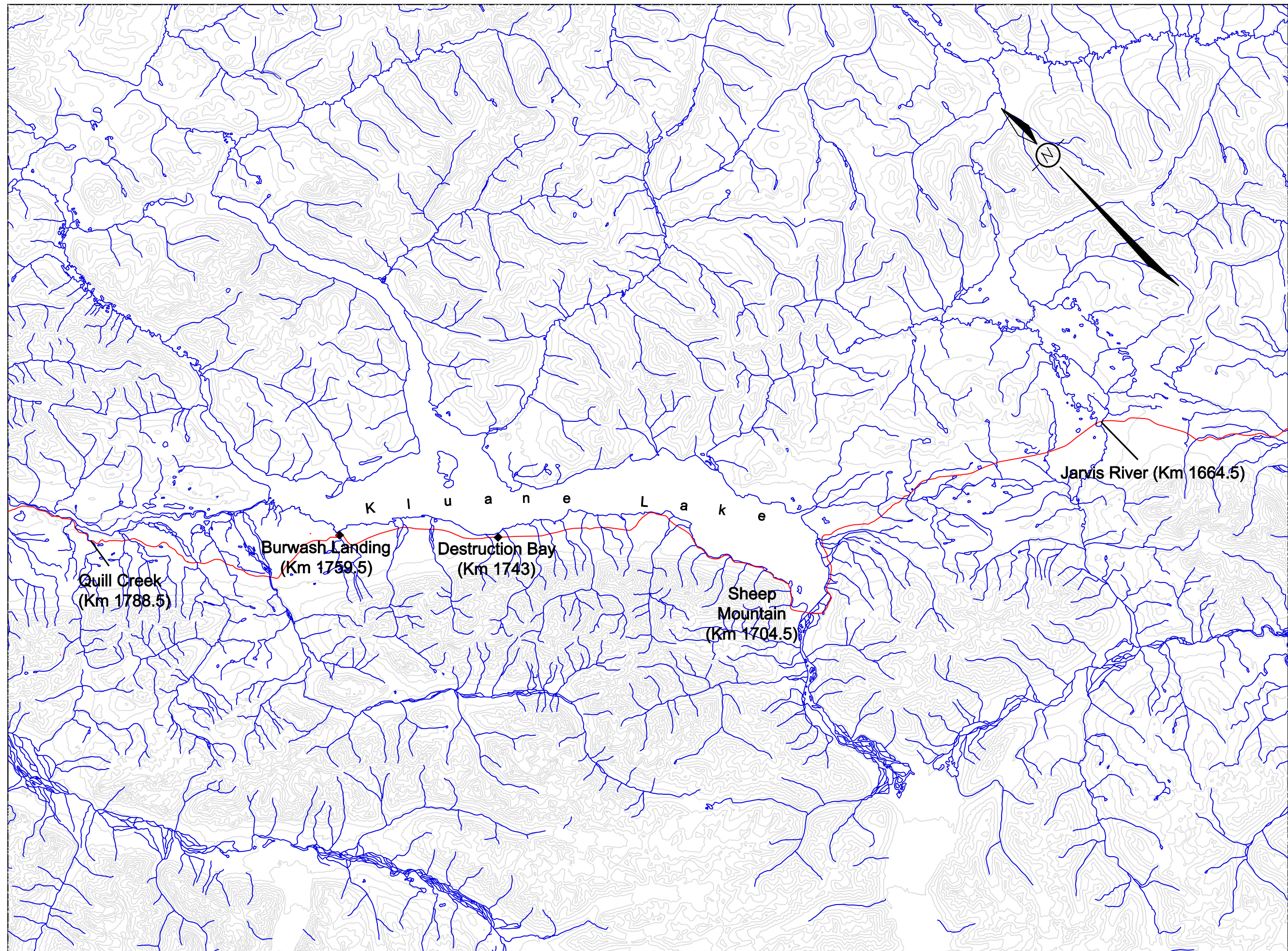
Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km



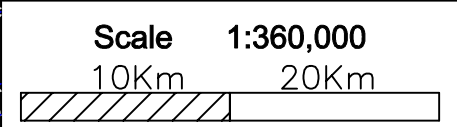
Community and Transportation Services  
Transportation Engineering Branch

**Legend**

- Existing Alaska Highway
- Contours at 500ft intervals
- Watercourse



**STUDY AREA OVERVIEW**



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DATE: 17/02/2000

**Fig. No. 1-2**

Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

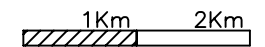


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

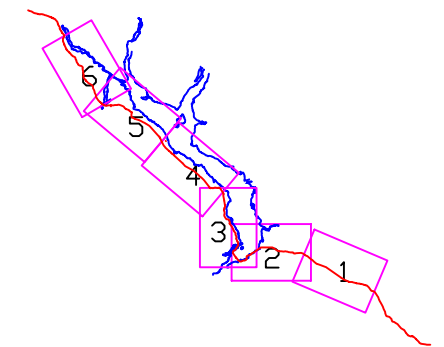
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Base Map 1**

**Map Key**



Sheet 1



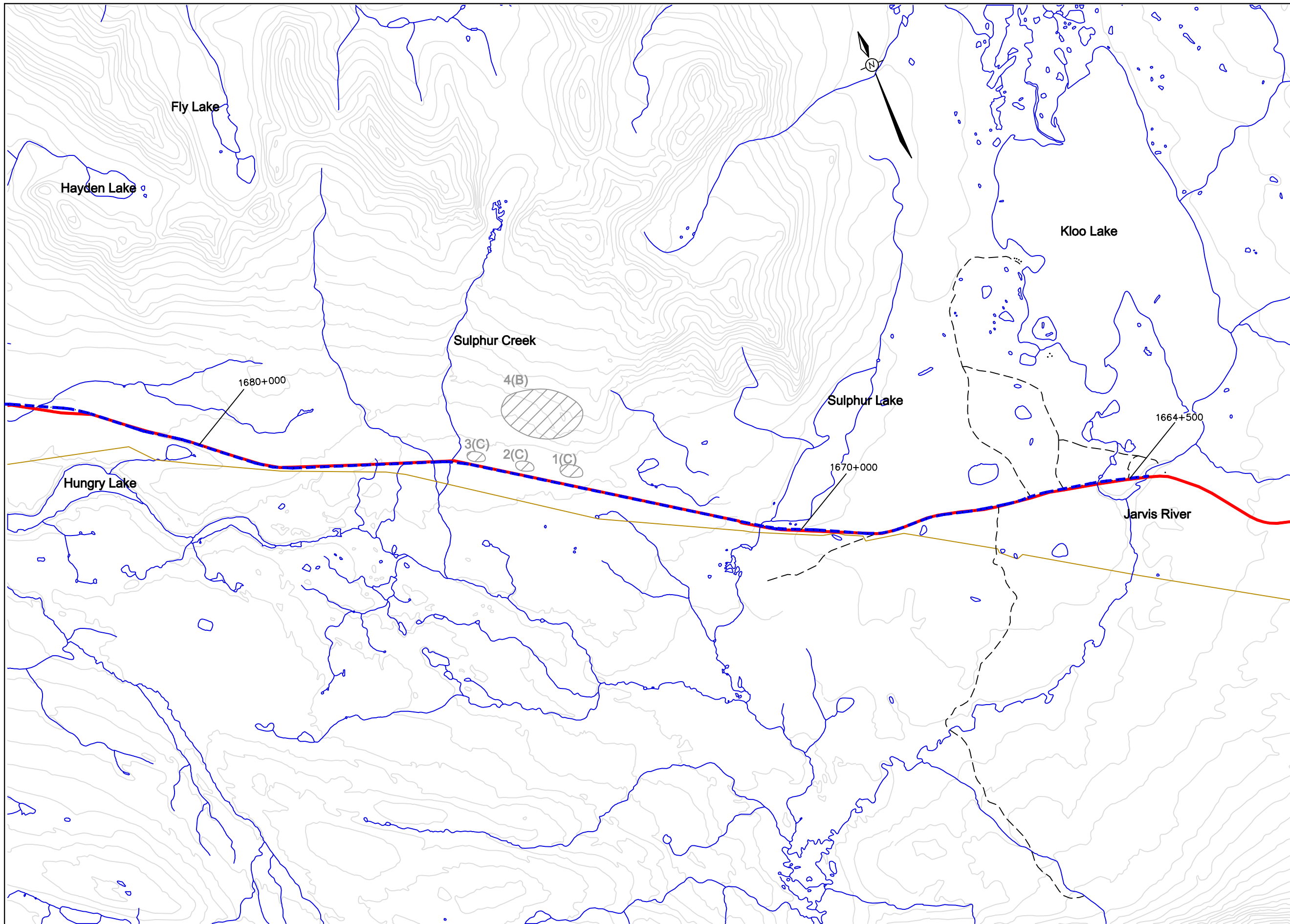
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DATE: 16/02/2000

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**Fig. No. 1-3**



Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

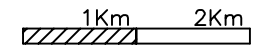


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

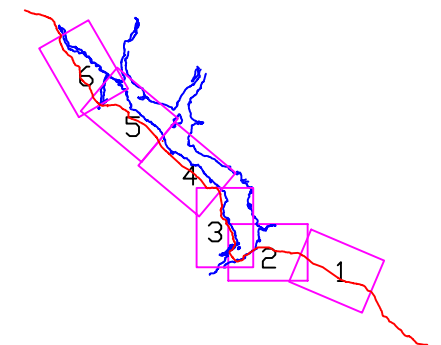
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Base Map 2**

**Map Key**

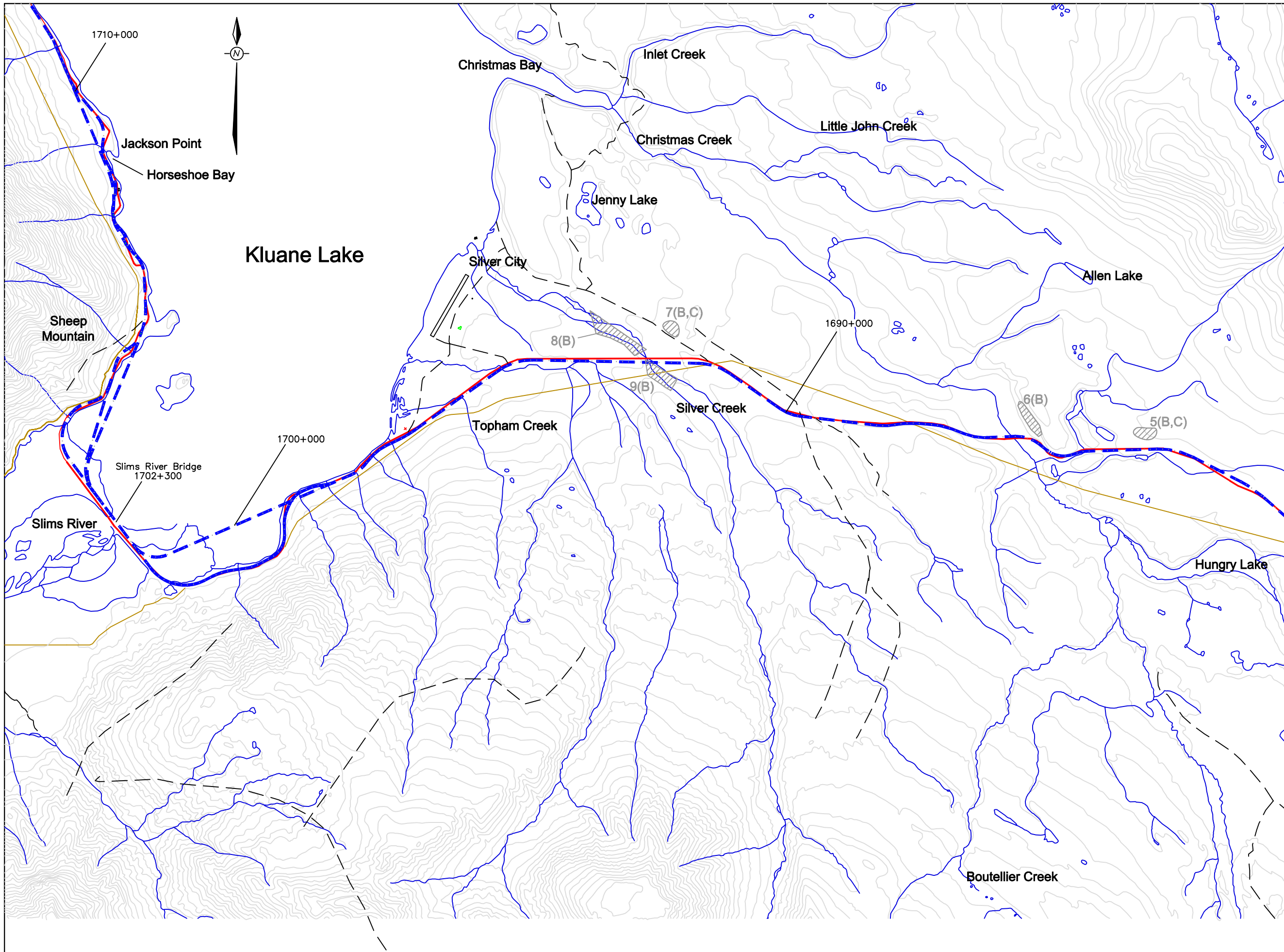


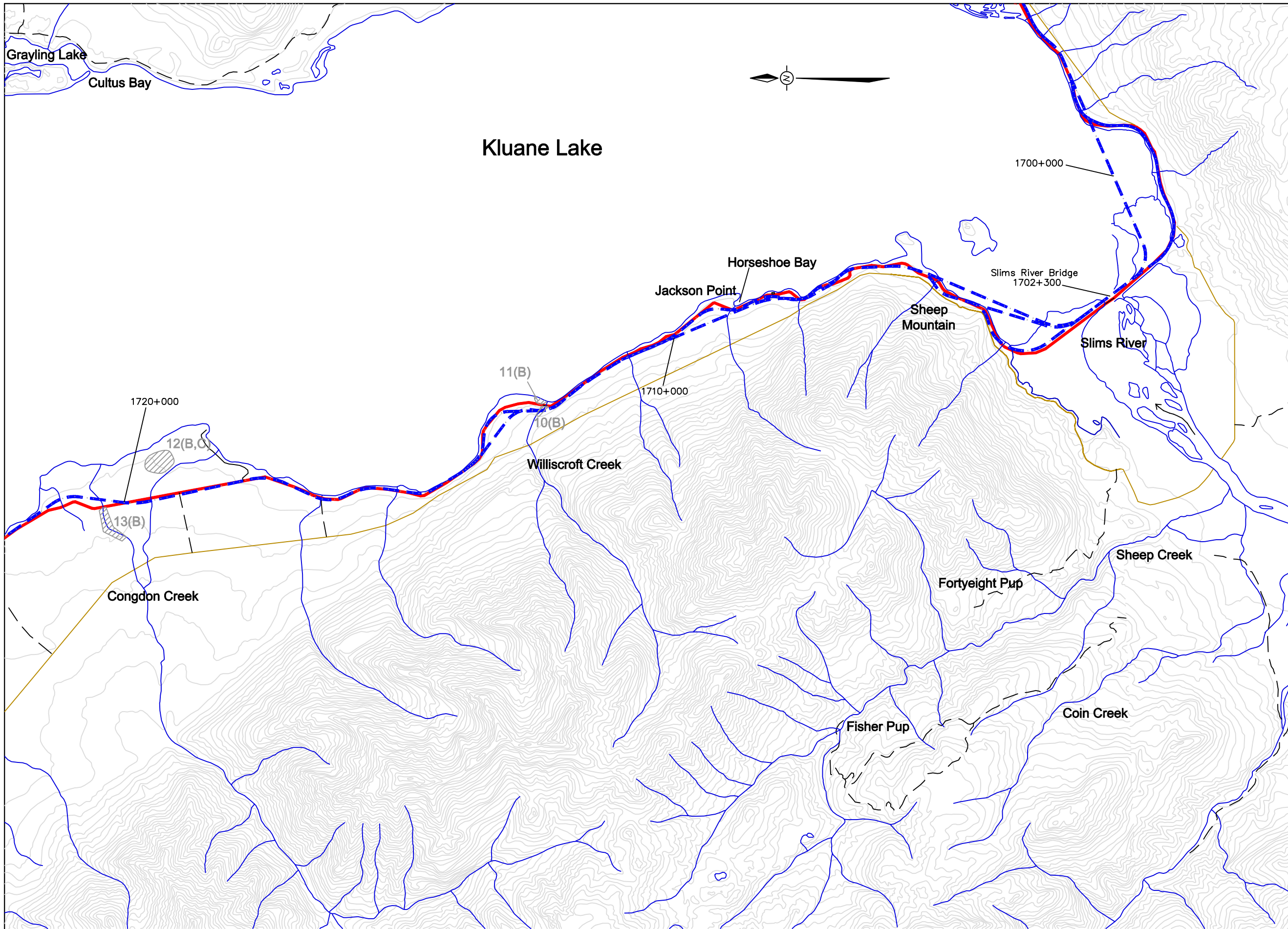
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DATE: 17/02/2000	Ref: shak99bsm2.dwg

**Fig. No. 1-4**





Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

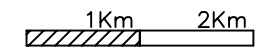


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

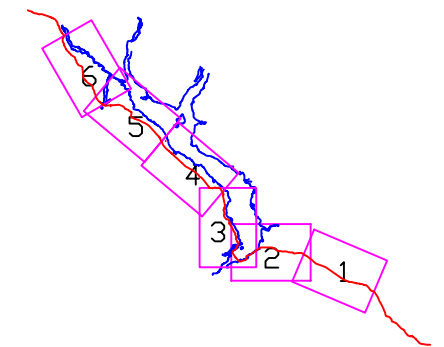
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contour lines Contours at 100ft intervals
- Pipeline Route
- Blue lines Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Base Map 3**

**Map Key**



**Sheet 3**









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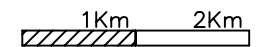


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**Legend**

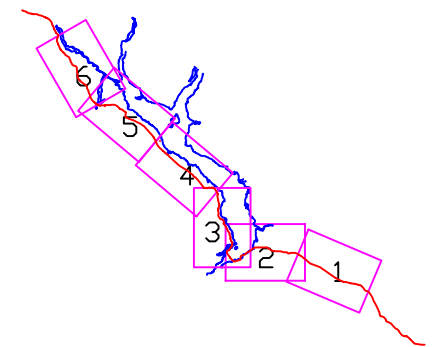
-  Alaska Highway
-  Secondary Road
-  Contours at 100ft intervals
-  Pipeline Route
-  Creeks, Lakes & Rivers
-  Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



Base Map 4

Map Key

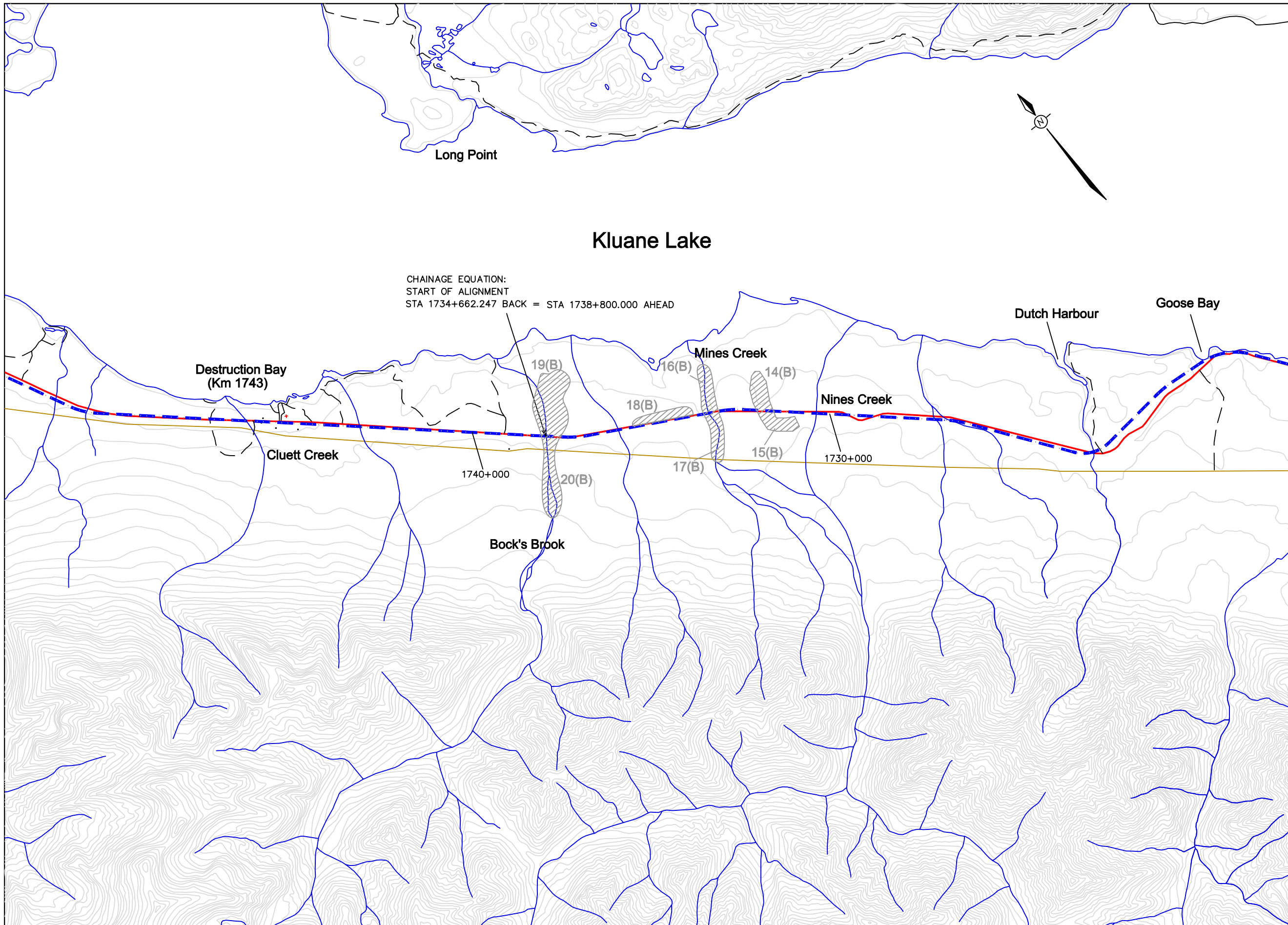


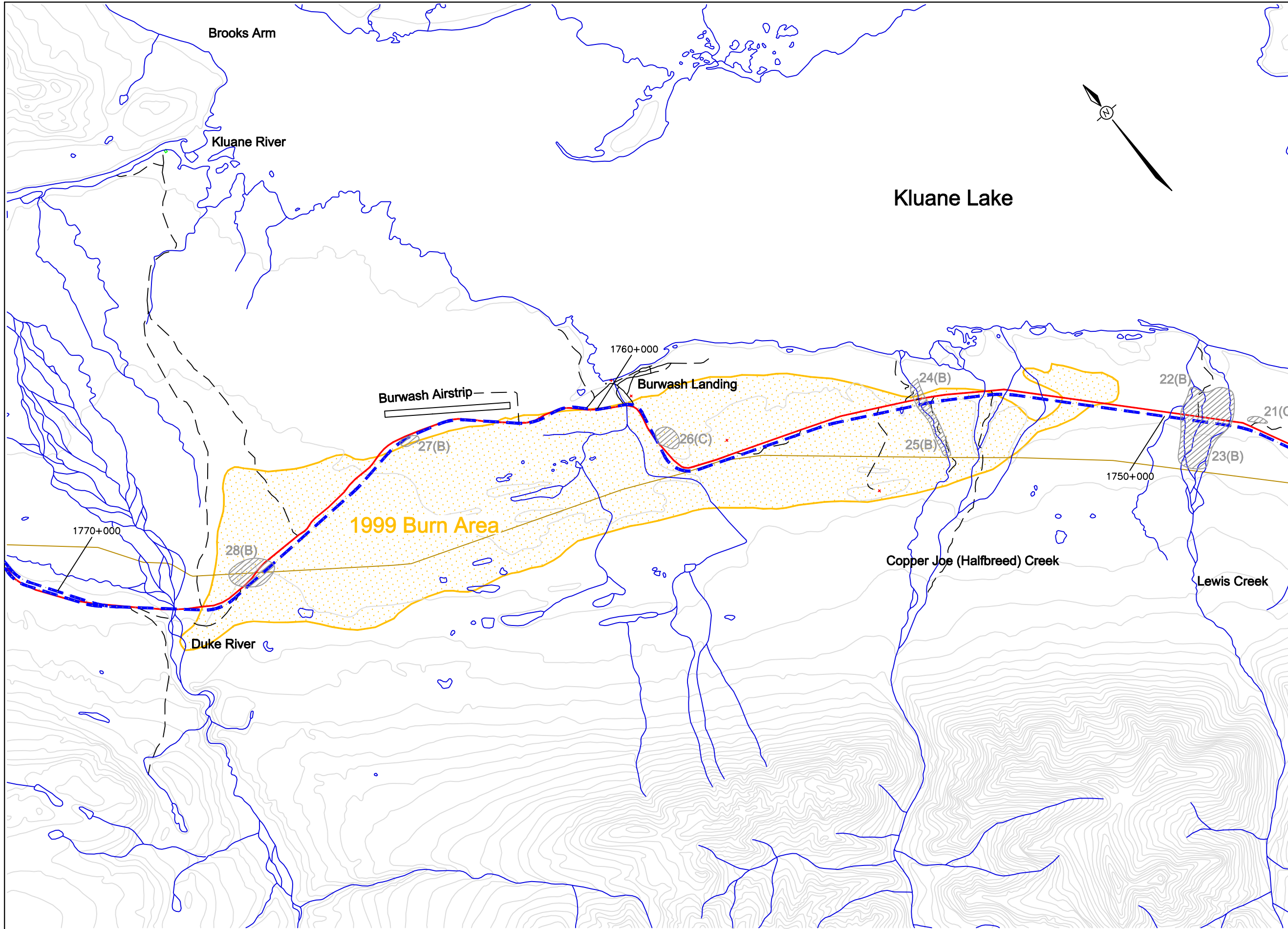
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**Fig. No. 1-6**





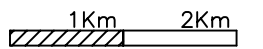
**Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km**

**Yukon**  
Community and Transportation Services  
Transportation Engineering Branch

**Legend**

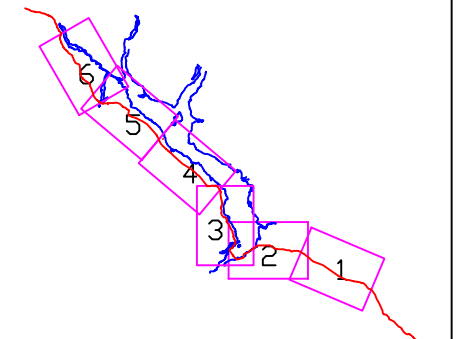
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



Base Map 5

Map Key



Sheet 5



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DATE: 01/02/2000      Ref: shakbsm5.dwg

**Fig. No. 1-7**

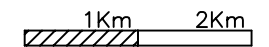


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

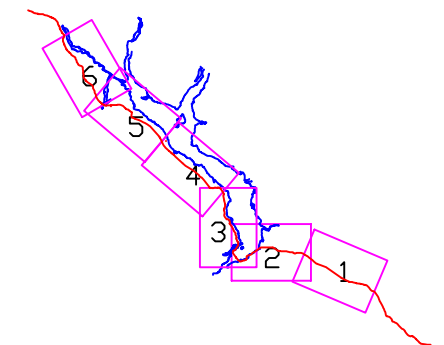
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



Base Map 6

Map Key



Sheet 6



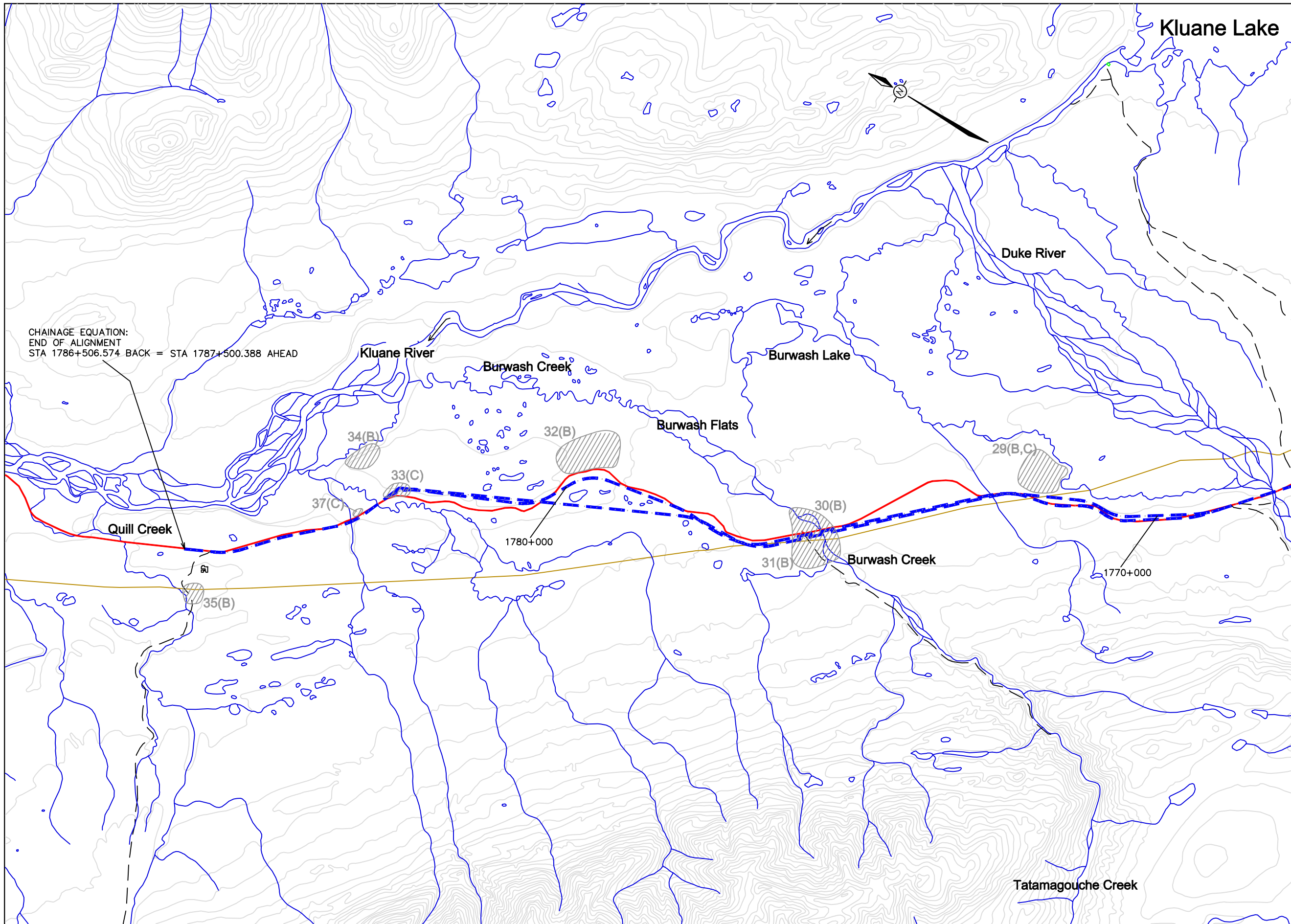
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DATE: 01/02/2000

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**Fig. No. 1-8**








CHAINAGE EQUATION:  
 END OF ALIGNMENT  
 STA 1786+506.574 BACK = STA 1787+500.388 AHEAD

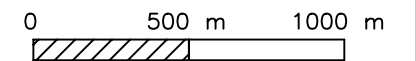


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**Legend**

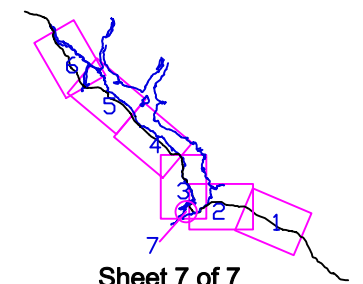
-  Alaska Highway
-  Proposed New Alignment
-  Contours at 100ft intervals
-  Pipeline Route
-  Creeks, Lakes & Rivers

Scale 1 to 23,500



**Slims River Detail**

**Map Key**

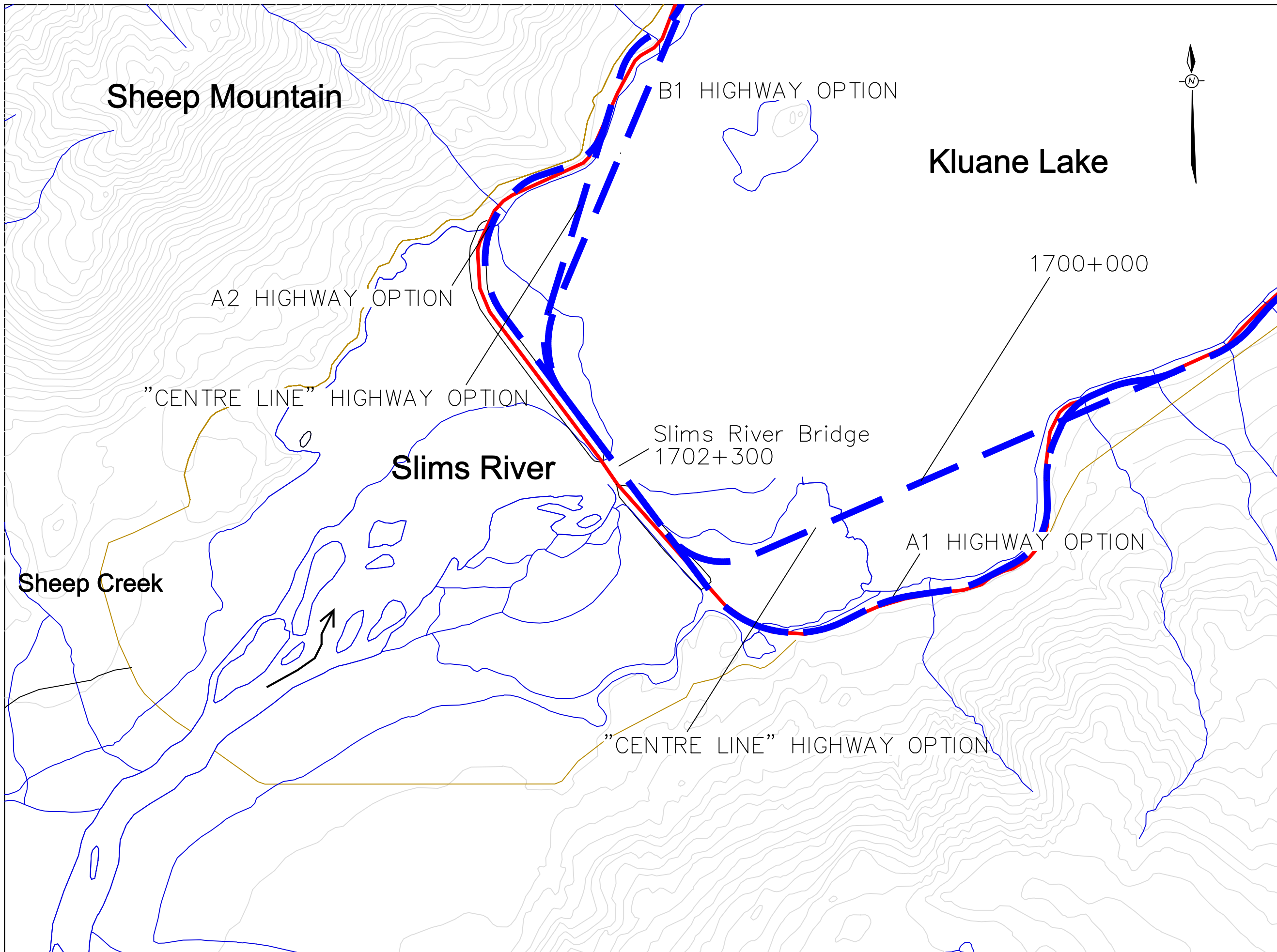


Sheet 7 of 7



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**Fig No. 1-9**



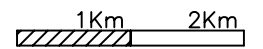


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**Legend**

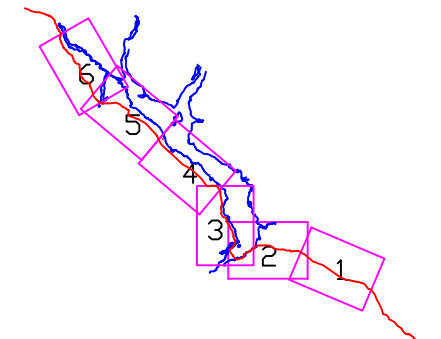
- Alaska Highway
- Traditional Trails (historical routes)
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- HR1 Reference Points (desc. below)
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

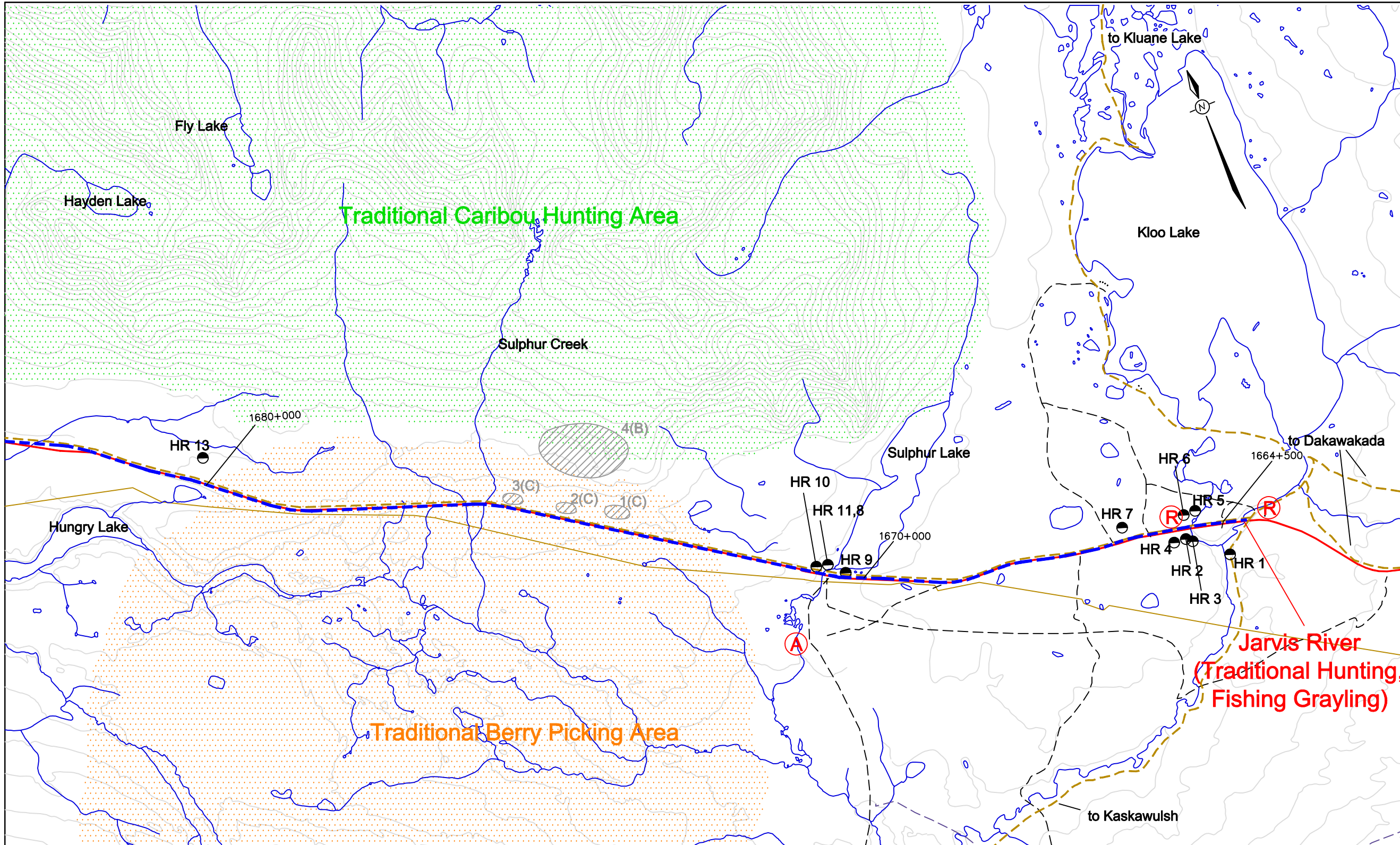


**Heritage Resource Map 1**

**Map Key**



Sheet 1



Reference Point Descriptions:

HR 1	Jarvis River old Alaska Hwy Bridge (1664+500)	HR 6	Jarvis River Cabins (1665+100)	HR 11	Fishing traps (1670+600)
HR 2	JfVI-2 (1665+100)	HR 7	Mr. Isaac Moose Cabin (1666+600)	HR 13	Jack Allen's Hunting Camp (1680+200)
HR 3	Kluane Wagon Road Section (1665+000)	HR 8	Sulphur Lake Fish Camp (1670+600)		Historic Alaska Hwy Camp
HR 4	Traditional camping area (1665+300)	HR 9	Sulphur Hunting/Trapping Camp - Mr. Moose (1670+300)		Historic Road House
HR 5	JfVI-1 (1664+900)	HR 10	JfVI-3 (1670+800)		Historic Canol Site



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**Fig. No. 2-1**

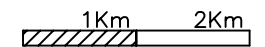


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**Legend**

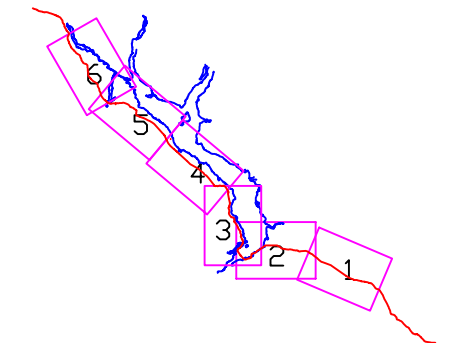
- Alaska Highway
- - - Traditional Trails (Historical Route)
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- HR1 Reference Points (desc. below)
- B Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

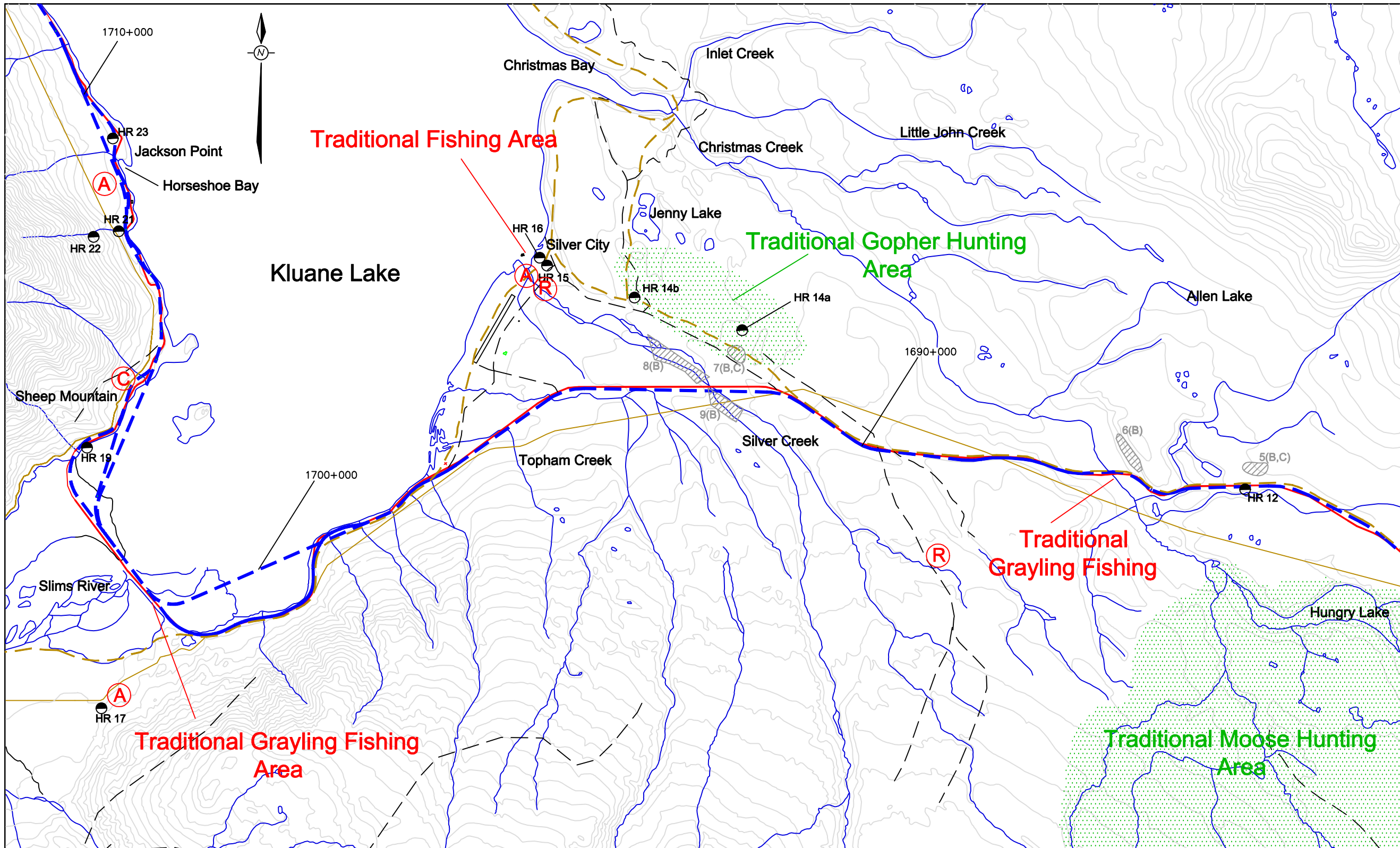


**Heritage Resource Map 2**

**Map Key**



Sheet 2

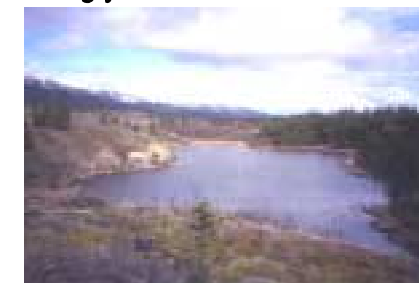


Reference Point Descriptions:

HR 12	New Archaeological Site (1684+200)	HR 17	Brush Camp Locations (1701+500)
HR 14a	New Archaeological Site - Silver Creek (1692+000)	HR 19	Fisher (Fromme) Cabin and Grave (1704+100)
HR 14b	JgVo-10 (1693+600)	HR 21	Small Shed Cabin - Post 1940 - Stop 44 (1707+900)
HR 15	Traditional Fishing Area - Silver City (1694+500)	HR 22	Brush Camp locality - Near Horseshoe Bay (1707+900)
HR 16	Silver City (1694+600)	HR 23	JgVp-2 (1709+200)

- A Historic Alaska Hwy Camp
- R Historic Road House
- C Historic Canol Site

**Hungry Lake**



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DATE: 17/02/2000      Ref: shak99hmr2.dwg

**Fig. No. 2-2**

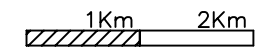


Community and Transportation Services  
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**Legend**

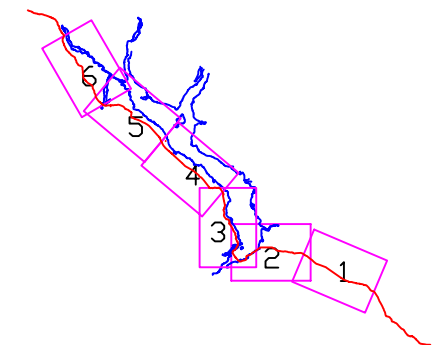
- Alaska Highway
- - - Traditional Trails
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- HR1 Reference Points (desc. below)
- B Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Heritage Resource Map 3**

**Map Key**

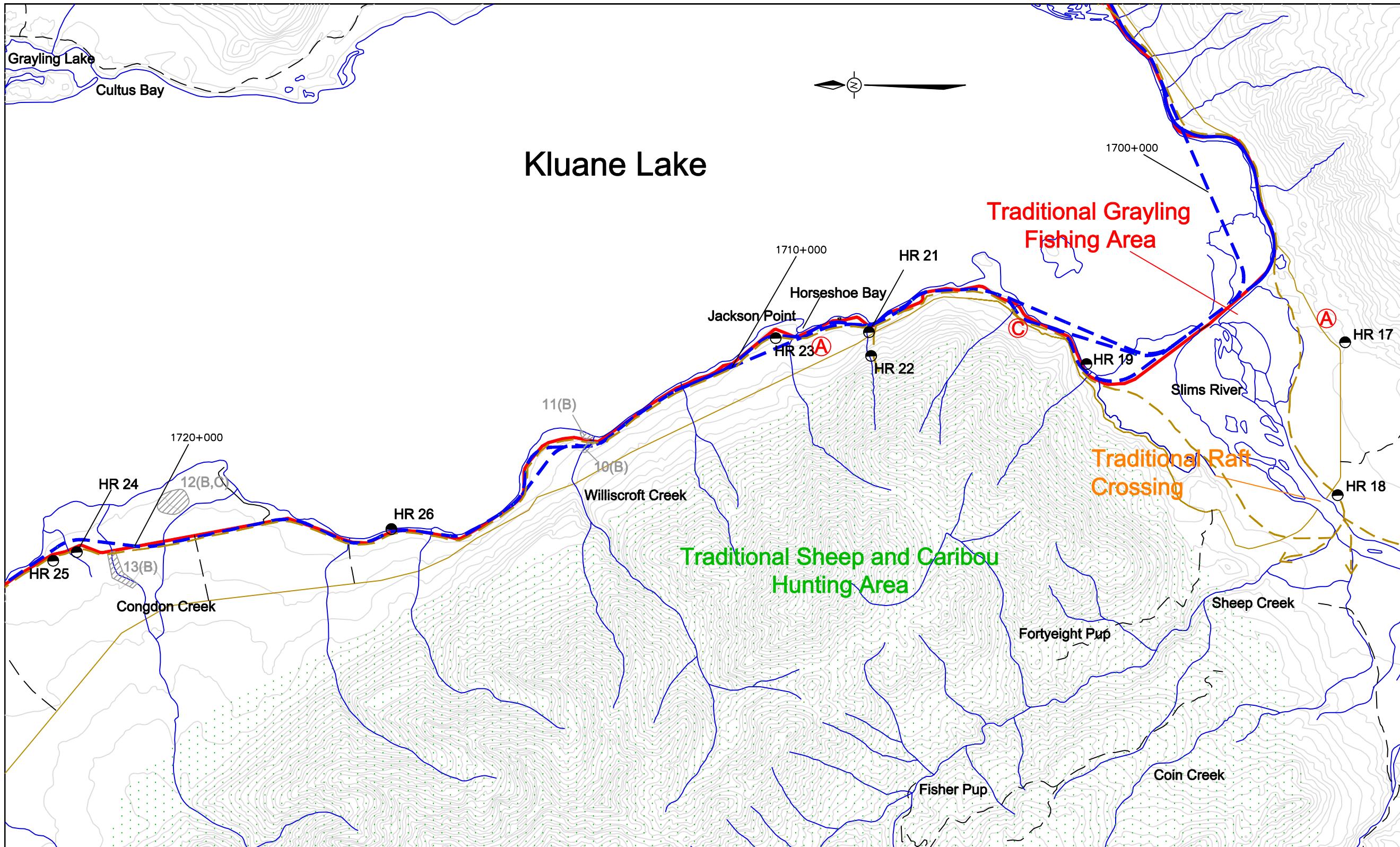


Sheet 3



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DATE: 17/02/2000      Ref: shak99hmr3.dwg

**Fig. No. 2-3**



Reference Point Descriptions:

HR 17	Brush Camp location – Slims River (1701+500)	HR 23	JgVp-2 (1709+200)
HR 18	Traditional Crossing of the Slims River (1702+300)	HR 24	Congdon Creek Cache (1720+900)
HR 19	Fisher (Fromme) Cabin and Grave (1704+100)	HR 25	Prospector's shed (1721+300)
HR 21	Small Shed Cabin – Post 1940 – Stop 44 (1707+900)	HR 26	Highway Survey Platform (1716+100)
HR 22	Brush Camp locality – Near Horseshoe Bay (1707+900)		

- A Historic Alaska Hwy Camp
- R Historic Road House
- C Historic Canol Site

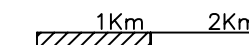


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

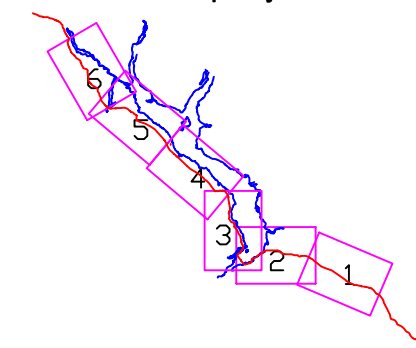
- Alaska Highway
- Traditional Trails
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Reference Points (desc. below)
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

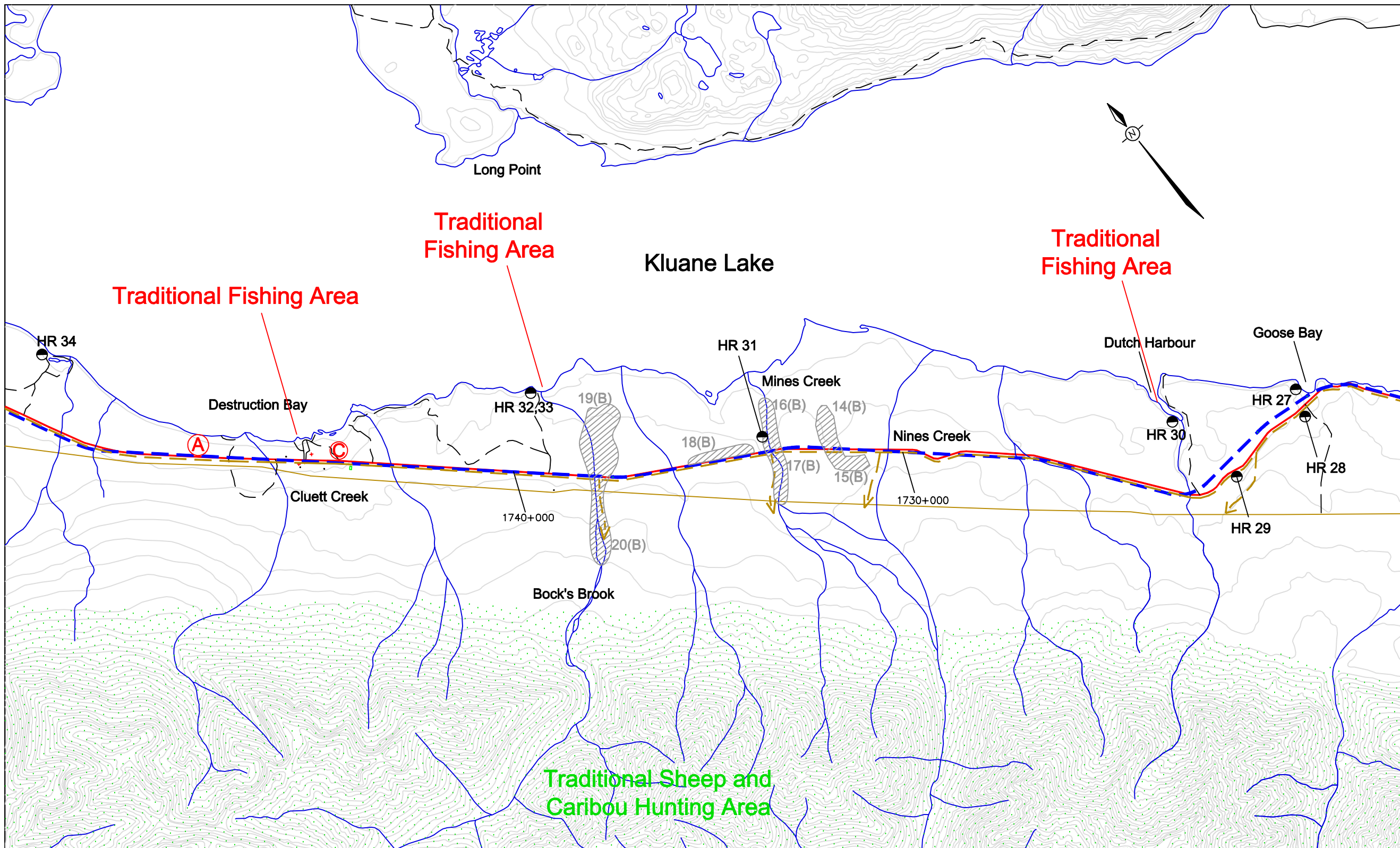


**Heritage Resource Map 4**

**Map Key**



Sheet 4



Reference Point Descriptions:

HR 27	Goose Bay Site JgVp-3 (1723+400)	HR 32	Traditional Fishing spot - Bock's Brook (1739+800)
HR 28	JgVp-4 (1723+500)	HR 33	JhVq-3 (1739+800)
HR 29	JhVp-3 (1725+000)	HR 34	JhVr-1 & 1a (1747+700)
HR 30	JhVp-1 Dutch Harbour (1726+300)		
HR 31	Mines Creek Site (1732+100)		

- Historic Alaska Hwy Camp
- Historic Road House
- Historic Canol Site

Goose Bay



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CHECKED BY: TJH

DATE: 16/02/2000

Ref: shak99hrm4.dwg

**Fig. No. 2-4**

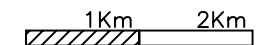


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

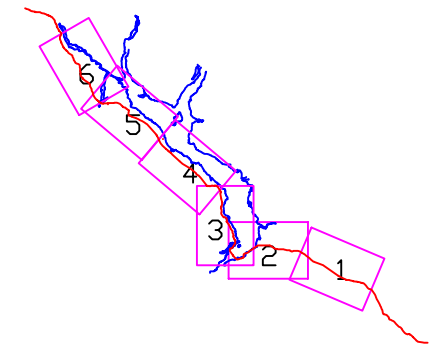
- Alaska Highway
- Traditional Trails (Historical Route)
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Reference Points (desc. below)
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

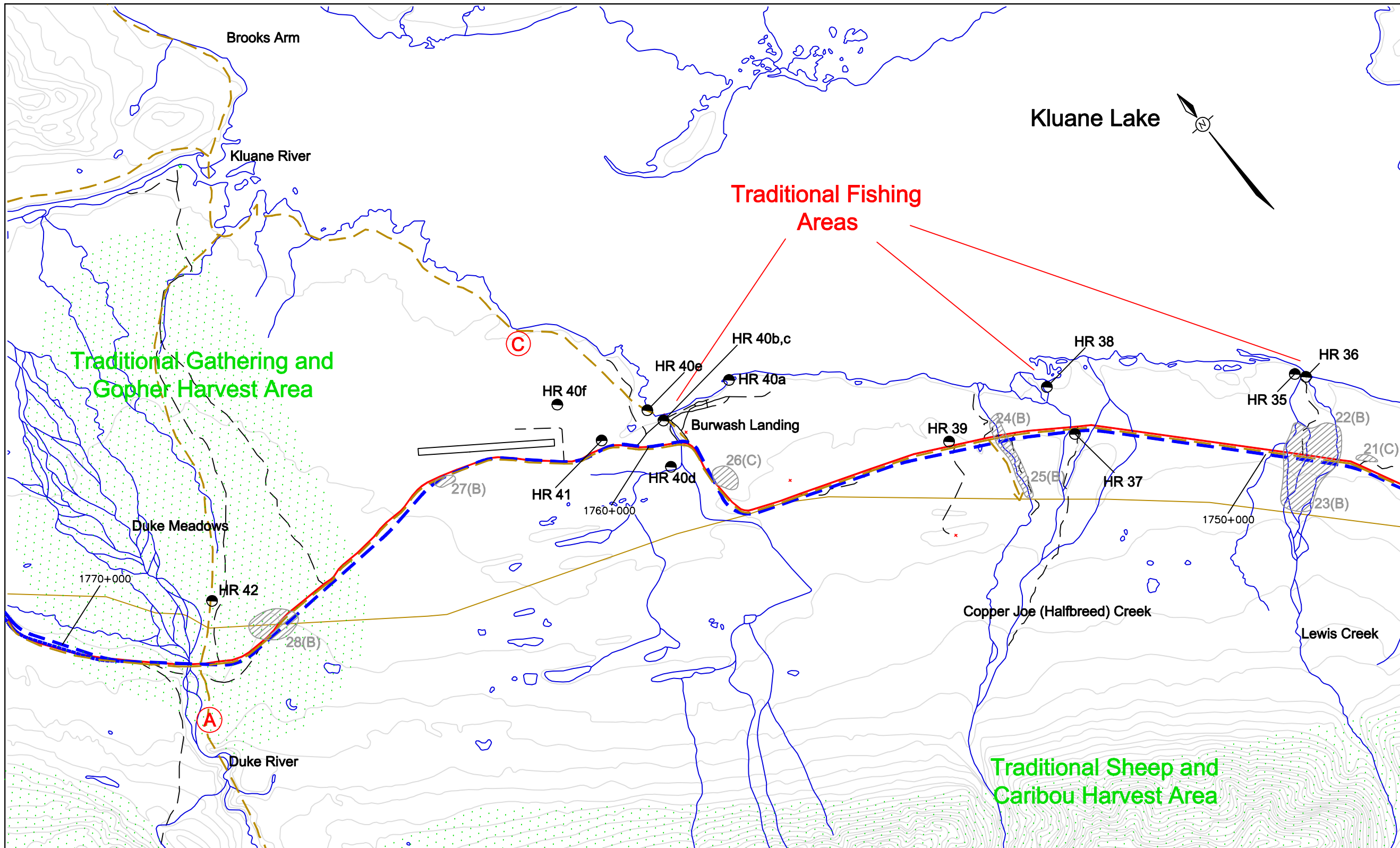


**Heritage Resource Map 5**

**Map Key**



Sheet 5



Reference Point Descriptions:

HR 35	JhVr-4 (1749+700)	HR 40	JiVr-2, JiVs-4, JiVs-7, JiVr-3, JiVr-1, JiVs-6, JiVs-3 (approx 1759+800)
HR 36	Traditional Fishing Camp - Lewis Creek (1749+600)	HR 41	JiVs-8 - Stop 18 (1760+700)
HR 37	JhVr-3 Copper Joe Creek (1752+800)	HR 42	Sam Johnson's Hunting/Residence Cabin (1767+800)
HR 38	"KTB Fish Camp" (1753+200)		
HR 39	Grave Marker (1754+800)		

- Historic Alaska Hwy Camp
- Historic Road House
- Historic Canol Site



DRAWN BY: LDR      CHECKED BY: TJH  
 DATE: 16/02/2000      Ref: shak99hmr5.dwg

**Fig. No. 2-5**

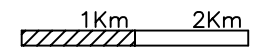


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**Legend**

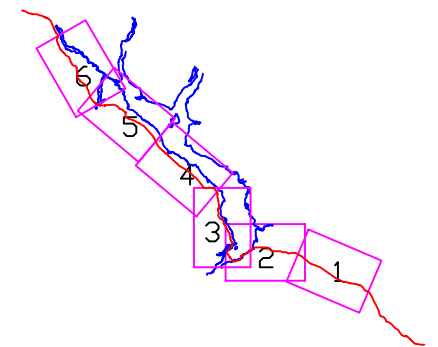
- Alaska Highway
- - - Traditional Trails (Historical Route)
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- 1 Reference Points (desc. below)
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

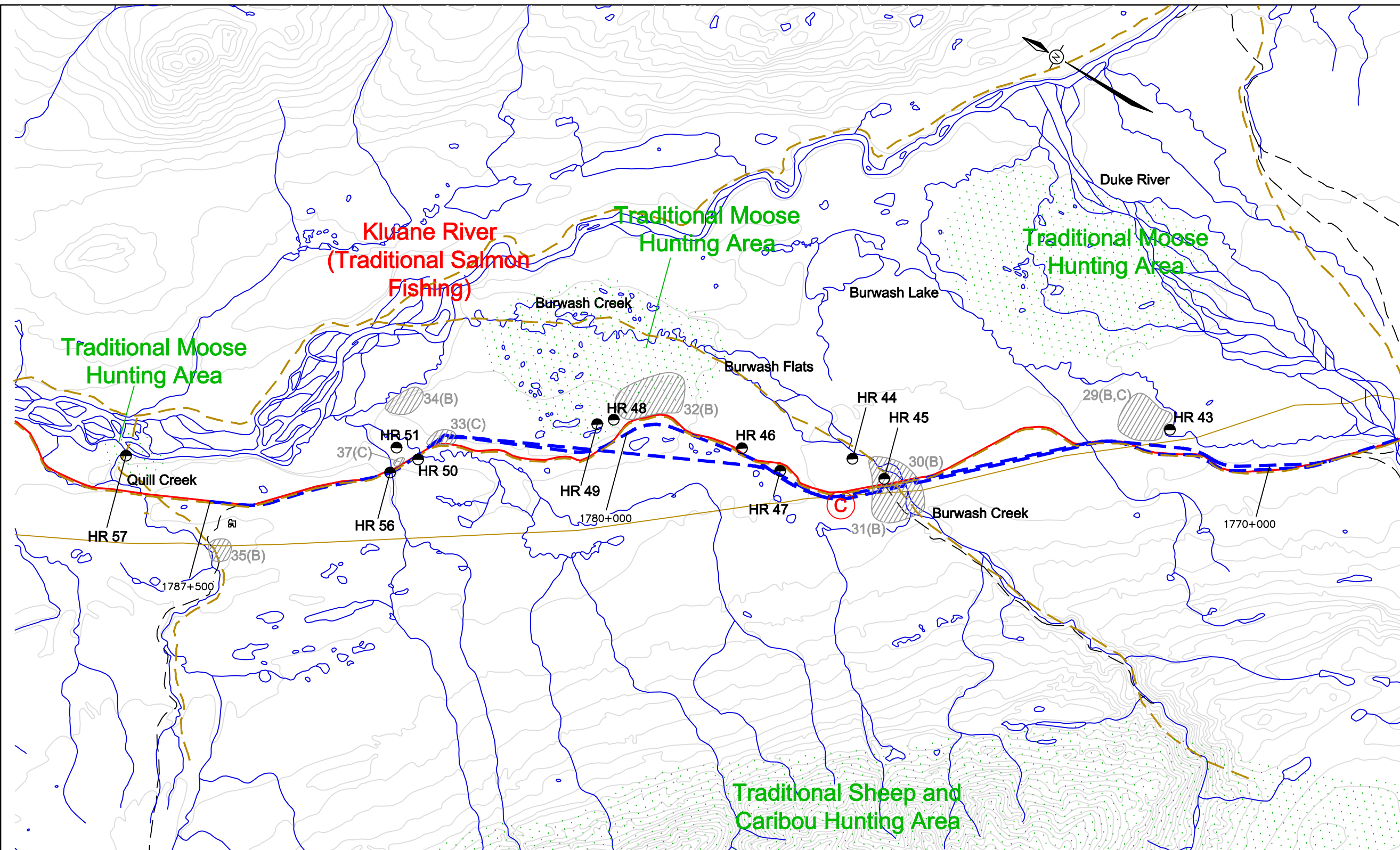


**Heritage Resource Map 6**

**Map Key**



Sheet 6



Reference Point Descriptions:

HR 43	Alaska Highway Bridge – old (1771+600)	HR 48	New Archaeological Site (1780+100)	HR 57	Fish Camp mouth of Quill Creek (1787+800)
HR 44	Johnson’s Cabin Burwash Creek (1776+300)	HR 49	New Archaeological Site (1780+400)	<b>(A)</b>	Historic Alaska Hwy Camp
HR 45	Collapsed building remains (1775+900)	HR 50	Refuse Dump Sakiw Creek (1783+300)	<b>(R)</b>	Historic Road House
HR 46	Jaquot Camp – Stop 10 (1778+200)	HR 51	New Archaeological Site (1783+500)	<b>(C)</b>	Historic Canol Site
HR 47	Cement Building Pad – Stop 7 (1777+600)	HR 56	New Archaeological Site (1783+800)		



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 DATE: 17/02/2000      Ref: shak99hrrm6.dwg

**Fig. No. 2-6**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

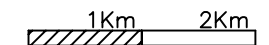


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Transportation Engineering Branch

**Legend**

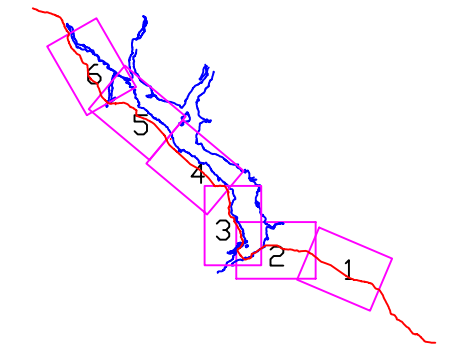
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- CAFN Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- CL Current Land Use Site/Access concern
- ↗ Photo Direction

Scale 1 to 60,000

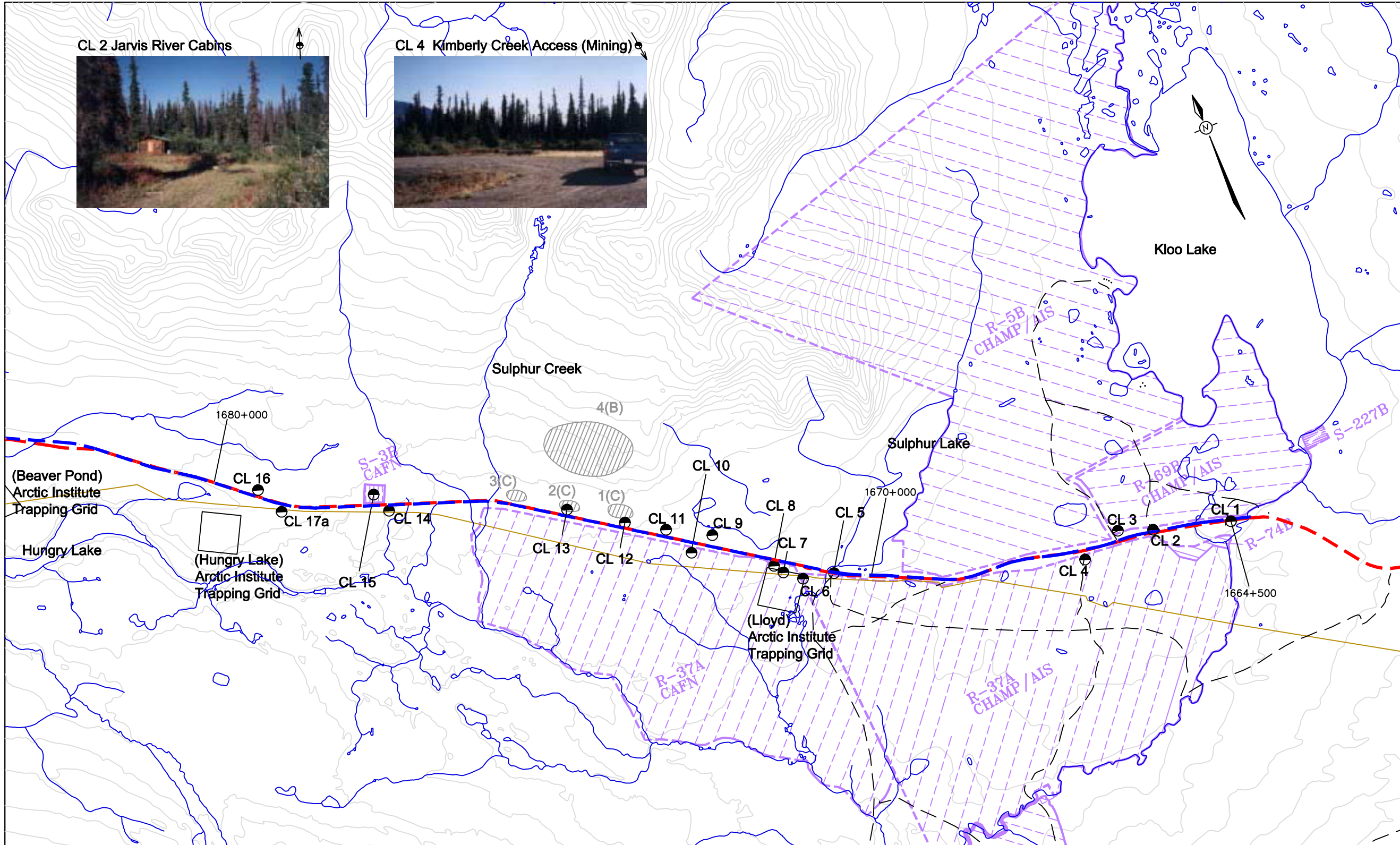


**Current Land Use Map 1**

**Map Key**



Sheet 1



- CL 1 Jarvis River pullout (1664+500)
- CL 2 Jarvis River Cabins - access retain TAC #1 (1665+700)
- CL 3 Chamber's Cabin - residential access retain TAC #1 (1666+200)
- CL 4 Kimberly Creek Access - access retain TAC #2 (1666+800)
- CL 5 Sulphur Lake - access retain northside TAC #1 ,southside TAC #2 (1670+600)
- CL 6 Lloyd Trapping Grid - access southside retain TAC #1 (1671+000)
- CL 7 Pipeline ROW (1671+300)
- CL 8 Pipeline ROW access retain TAC #1 (1671+500)
- CL 9 Possible Field Camp (1672+500)
- CL 10 Pipeline ROW trail access retain TAC #1 (1672+700)
- CL 11 Squirrel Camp access (1673+100)
- CL 12 1C Field Camp (1673+800)
- CL 13 2C Field Camp (1674+700)
- CL 14 Old Borrow/Camp access retain TAC #2 (1677+300)
- CL 15 CAFN Lodge/Camp access retain TAC #1 (1677+500)
- CL 16 Fry Lake Ski-Doo access (1679+400)
- CL 17a Hungry lake access retain TAC #1 (1678+900)

- CL 09 Possible Field Camp (1672+500)
- CL 10 Pipeline ROW trail access retain TAC #1 (1672+700)
- CL 11 Squirrel Camp access (1673+100)
- CL 12 1C Field Camp (1673+800)
- CL 13 2C Field Camp (1674+700)
- CL 14 Old Borrow/Camp access retain TAC #2 (1677+300)
- CL 15 CAFN Lodge/Camp access retain TAC #1 (1677+500)
- CL 16 Fry Lake Ski-Doo access (1679+400)
- CL 17a Hungry lake access retain TAC #1 (1678+900)

CL 5a Looking NE towards Sulphur Lake



CL 5b Looking SW up old road



Note, TAC #1 = TAC personal residence standard intersection, TAC #2 = TAC commercial standard intersection

**ACCESS  
CONSULTING  
GROUP**

DRAWN BY: LDR      CHECKED BY: RLM  
DATE: 21/02/2000      Ref: shak99clu1.dwg

**Fig No. 3-1**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

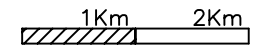


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Transportation Engineering Branch

Legend

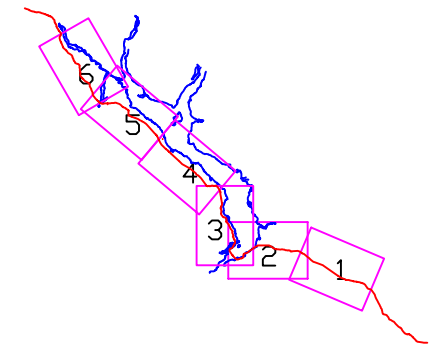
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- CAFN Settlement Lands
- KFN Interim Protected Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- CL Current Land Use Site/Access concern
- WS DIAND AES - Waste/Contaminates Site
- ➔ Photo Direction
- Quartz Mining Claims
- Placer Mining Claims

Scale 1 to 60,000



Current Land Use Map 2

Map Key



Sheet 2



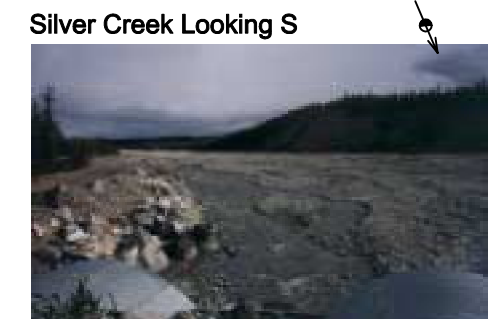
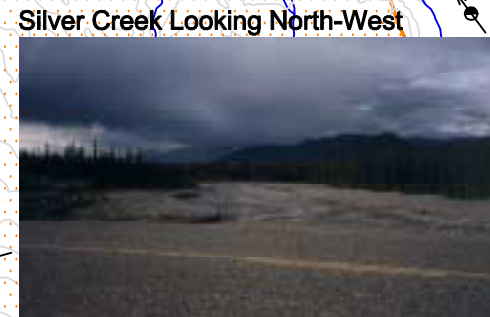
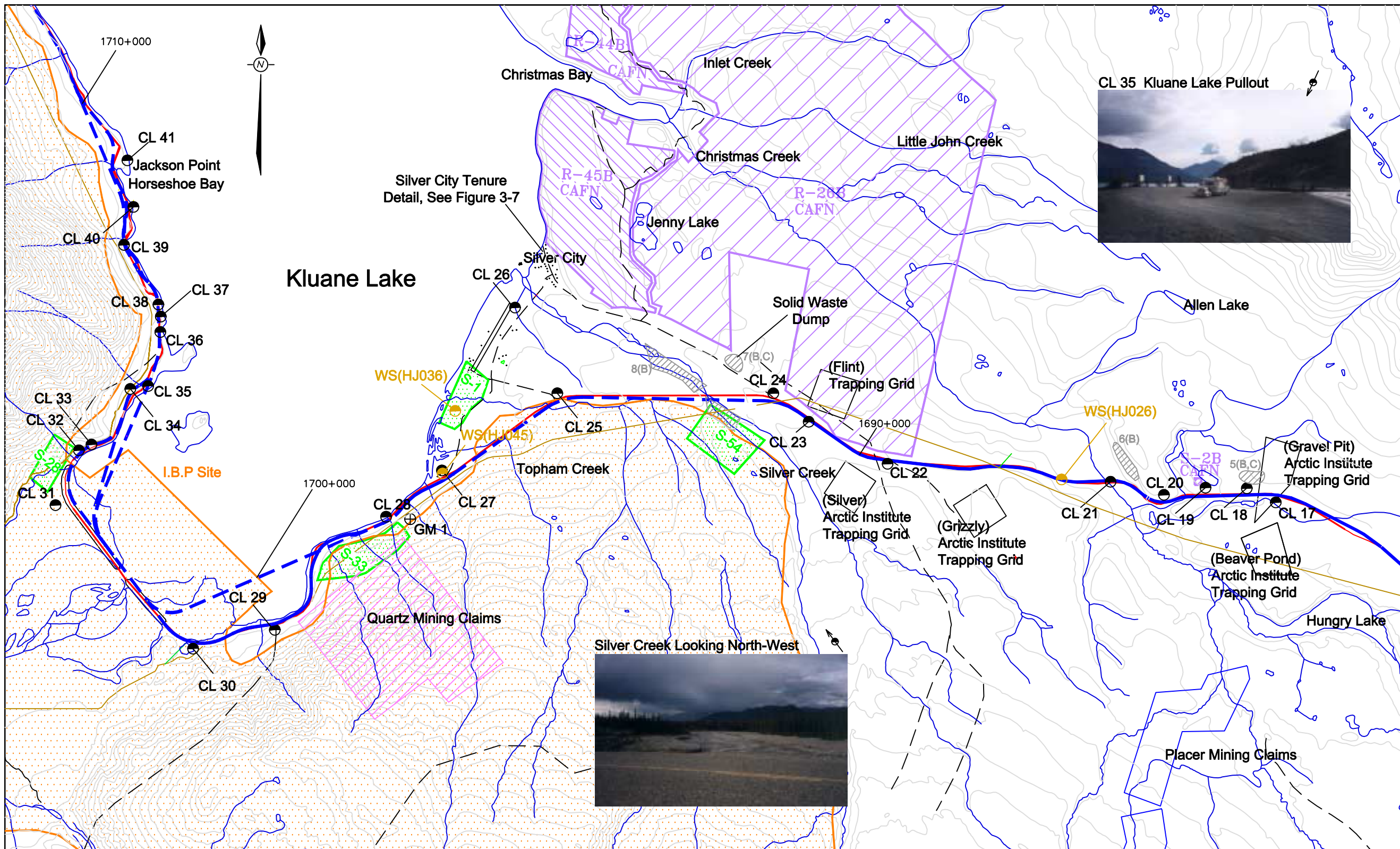
DRAWN BY: LDR

CHECKED BY: RLM

DATE: 23/02/2000

Ref: shak99clu2.dwg

Fig No. 3-2



CL 17 Hungry Lake access retain TAC #1 (1683+600)	CL 25 Airstrip access retain TAC #2 (1694+700)	CL 33 Fisher's Cabin lakeside pullout (1704+300)
CL 18 Potential Borrow - possible Field Camp (1684+000)	CL 26 Old Gulf station, Silver City (1694+800)	CL 34 Soldier's Summit pullout access retain TAC #2 (1705+300)
CL 19 CAFN Jack Allen's Cabin access retain TAC #1 (1684+700)	CL 27 Glacier Flights Helicopters access retain TAC #2 (1696+800)	CL 35 Kluane Lake pullout access retain TAC #2 (1705+500)
CL 20 Christmas Creek Hill viewpoint & pullout (1685+300)	CL 28 Potential expansion tourist pullout TAC #2 (1697+900)	CL 36 Lake entry access retain TAC #1 (1706+300)
CL 21 Christmas Creek (1686+200)	CL 29 Local access retain TAC #1 (1700+100)	CL 37 Lakeshore Spit (1706+500)
CL 22 NorthwesTel access retain TAC #2 (1689+600)	CL 30 Slims River East trail head access retain TAC #1 (1701+200)	CL 38 Lakeside pullout access retain TAC #2 (1706+700)
CL 23 Kluane Lake scenic pullout access retain TAC #2 (1690+900)	CL 31 Sheep Mtn. Interperative Cntr. access retain TAC #2 (1703+400)	GM 1 Brian Williamson Grave Marker (1697+800)
CL 24 Silver City access retain TAC #2 (1691+500)	CL 32 Fisher's Cabin (1704+100)	

Note: TAC #1 = TAC personal residence standard intersection, TAC #2 = commercial standard intersection

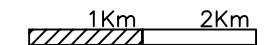


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**Legend**

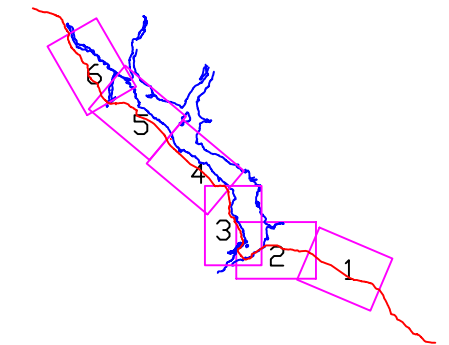
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- - - Hiking Trails
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- ▨ KFN Interim Protected Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- CL Current Land Use Site/Access concern
- Photo Direction
- Quartz Mining Claims

Scale 1 to 60,000

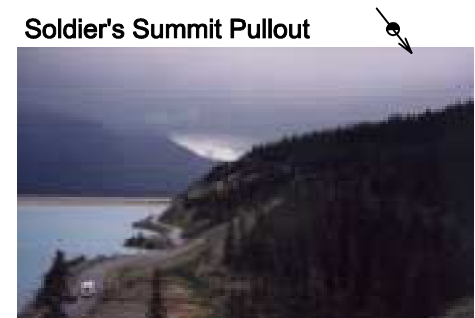
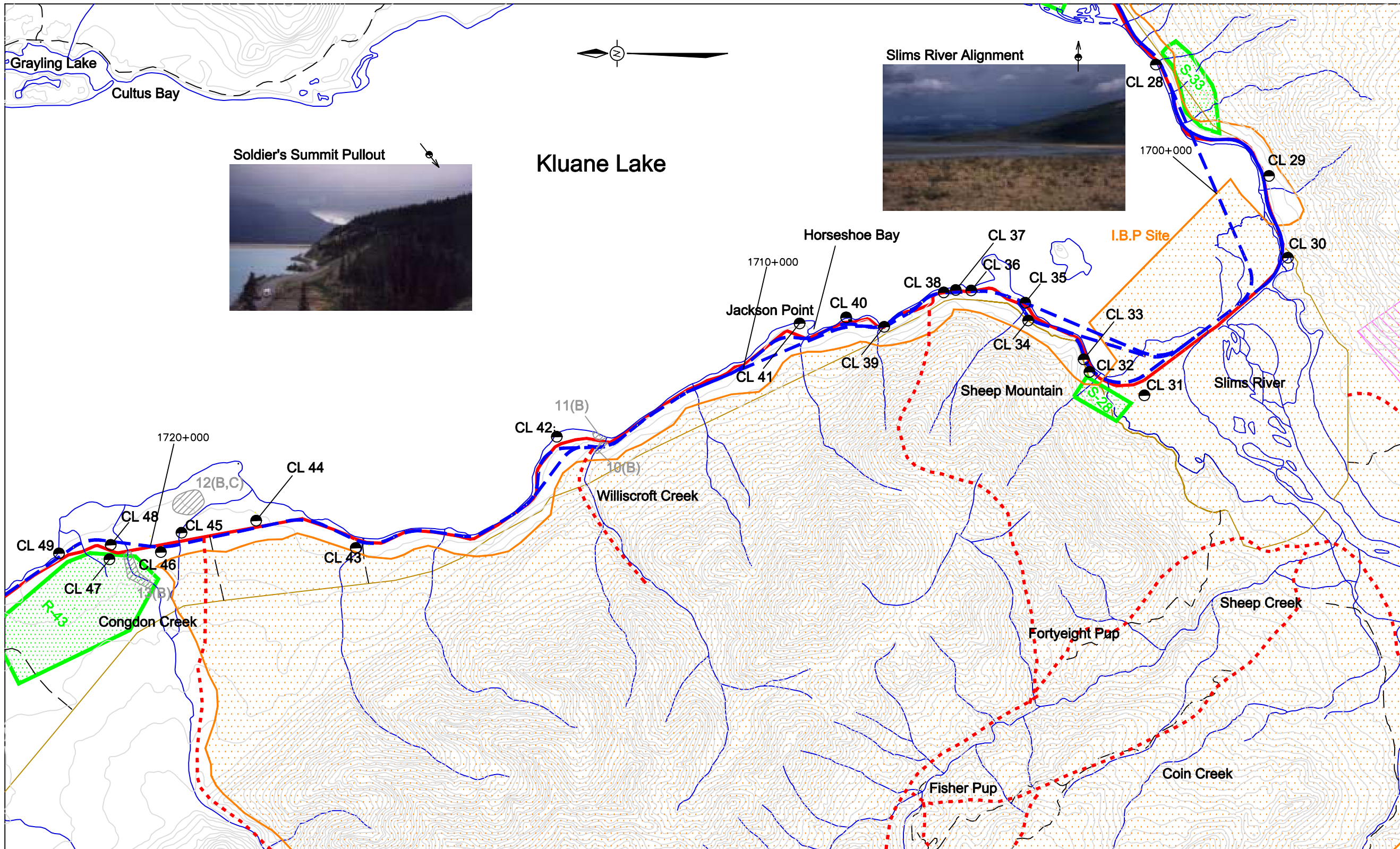


**Current Land Use Map 3**

**Map Key**



Sheet 3



CL 28 Potential expansion tourist pullout TAC #2 (1697+900)	CL 36 Lake entry access retain TAC #1 (1706+300)	CL 44 Local lake access retain TAC #1 (1718+400)
CL 29 Local access retain TAC #1 (1700+100)	CL 37 Lakeshore Spit (1706+500)	CL 45 Proposed Borrow access – possible field camp (1719+500)
CL 30 Slims River East trail head access retain TAC #1 (1701+200)	CL 38 Lakeside pullout access retain TAC #2 (1706+700)	CL 46 Trail Head access retain TAC #1 (1719+800)
CL 31 Sheep Mtn. Interperative Cntr. access retain TAC #2 (1703+400)	CL 39 Lakeshore Berm (1707+800)	CL 47 Congdon Trail Head access (1720+600)
CL 32 Fisher's Cabin (1704+100)	CL 40 Bayshore Inn access retain TAC #2 (1708+300)	CL 48 Congdon Creek Campground access retain TAC #2 (1720+600)
CL 33 Fisher's Cabin lakeside pullout (1704+300)	CL 41 Scenic Area, recreational access retain TAC #2 (1708+900)	CL 49 KFN winter lake access retain TAC #1 (1721+400)
CL 34 Soldier's Summit pullout access retain TAC #2 (1705+300)	CL 42 Scenic Area, Cottonwood park access retain TAC #2 (1713+100)	
CL 35 Kluane Lake pullout access retain TAC #2 (1705+500)	CL 43 No Name Creek access retain TAC#1 (1716+800)	

Note: TAC #1 = TAC personal residence standard intersection, TAC #2 = commercial standard intersection

DRAWN BY: LDR      CHECKED BY: RLM  
DATE: 23/02/2000      Ref: shak99clu3.dwg

**Fig No. 3-3**

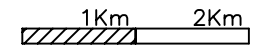


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

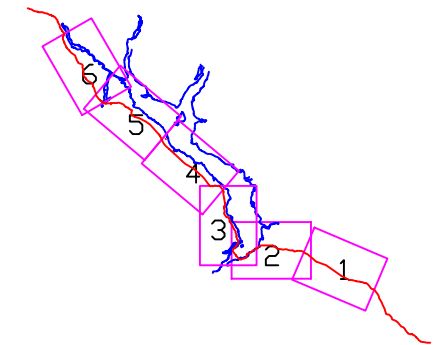
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- KFN Interim Protected Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- CL Current Land Use Site/Access concern
- WS DIAND AES - Waste/Contaminates Site
- Photo Direction

Scale 1 to 60,000

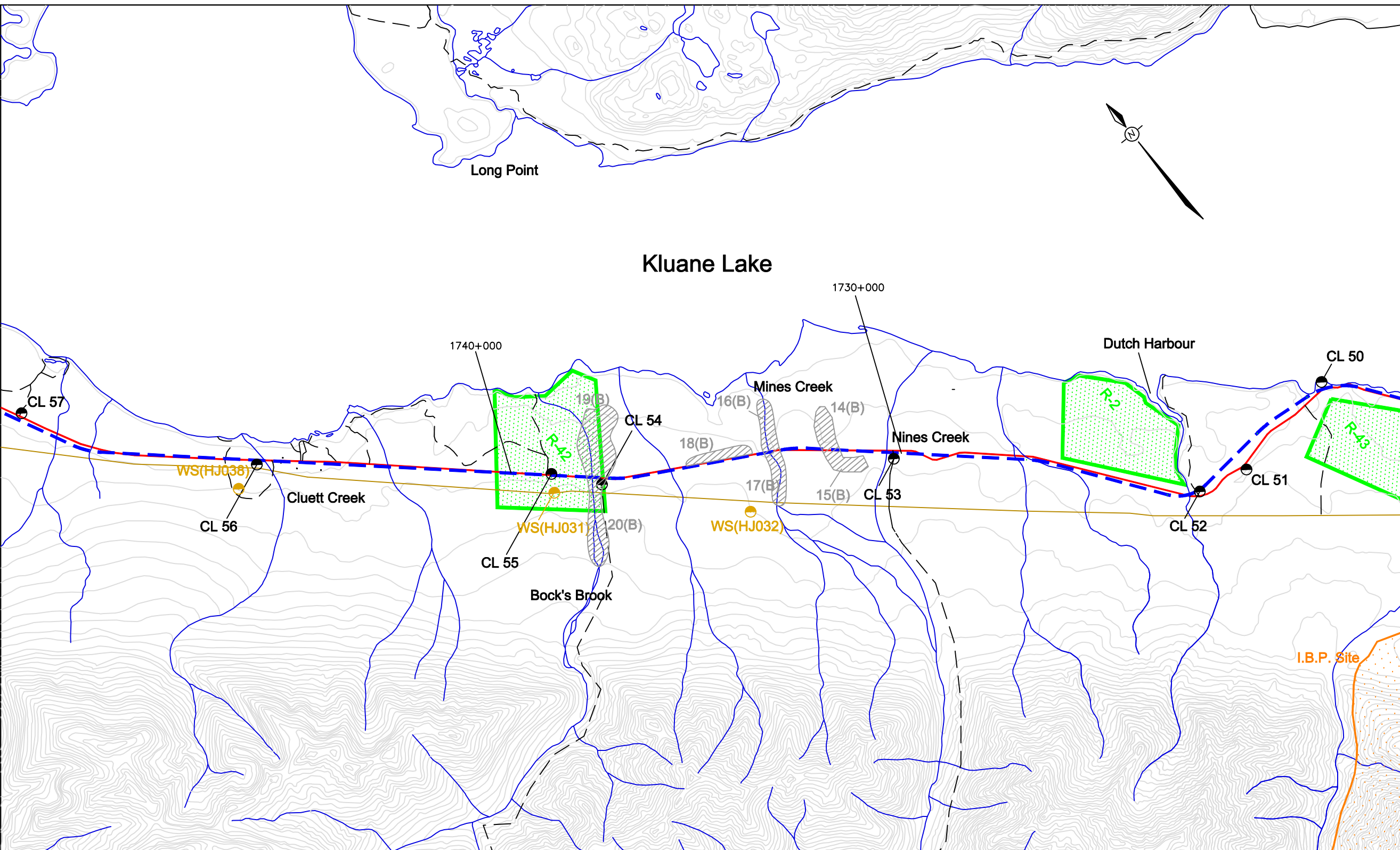


**Current Land Use Map 4**

**Map Key**



Sheet 4



- CL 50 Goose Bay viewpoint access retain TAC #1 (1723+100)
- CL 51 ETSUA Road, hunter access retain TAC #1 (1724+700)
- CL 52 Dutch Harbour boat launch access retain TAC #1 (1725+500)
- CL 53 Nines Creek northside private access (KFN), southside local access retain all TAC #1 (1730+100)
- CL 54 Local access (mining) retain TAC #2 (1734+500)
- CL 55 Local access retain TAC #1 (1739+400)
- CL 56 Destruction Bay pullout access retain TAC #2 (1743+800)
- CL 57 Rifle Range and lake access retain TAC #1 (1747+500)

Note: TAC #1 = TAC personal residence standard intersection, TAC #2 = commercial standard intersection

**CL 56 Destruction Bay pullout**



**Destruction Bay Historic Signage**



**Welcome to Destruction Bay**



DRAWN BY: LDR

CHECKED BY: RLM

DATE: 23/02/2000

Ref: shak99clu4.dwg

**Fig. No. 3-4**

**Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km**

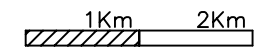


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

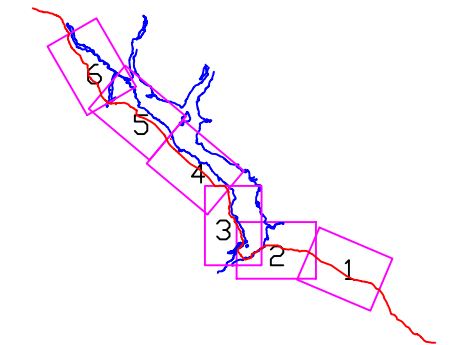
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- - - Hiking Trails
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- KFN Interim Protected Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- CL Current Land Use Site/Access concern
- WS DIAND AES - Waste/Contaminates Site
- ↗ Photo Direction

Scale 1 to 60,000



**Current Land Use Map 5**

**Map Key**



Sheet 5



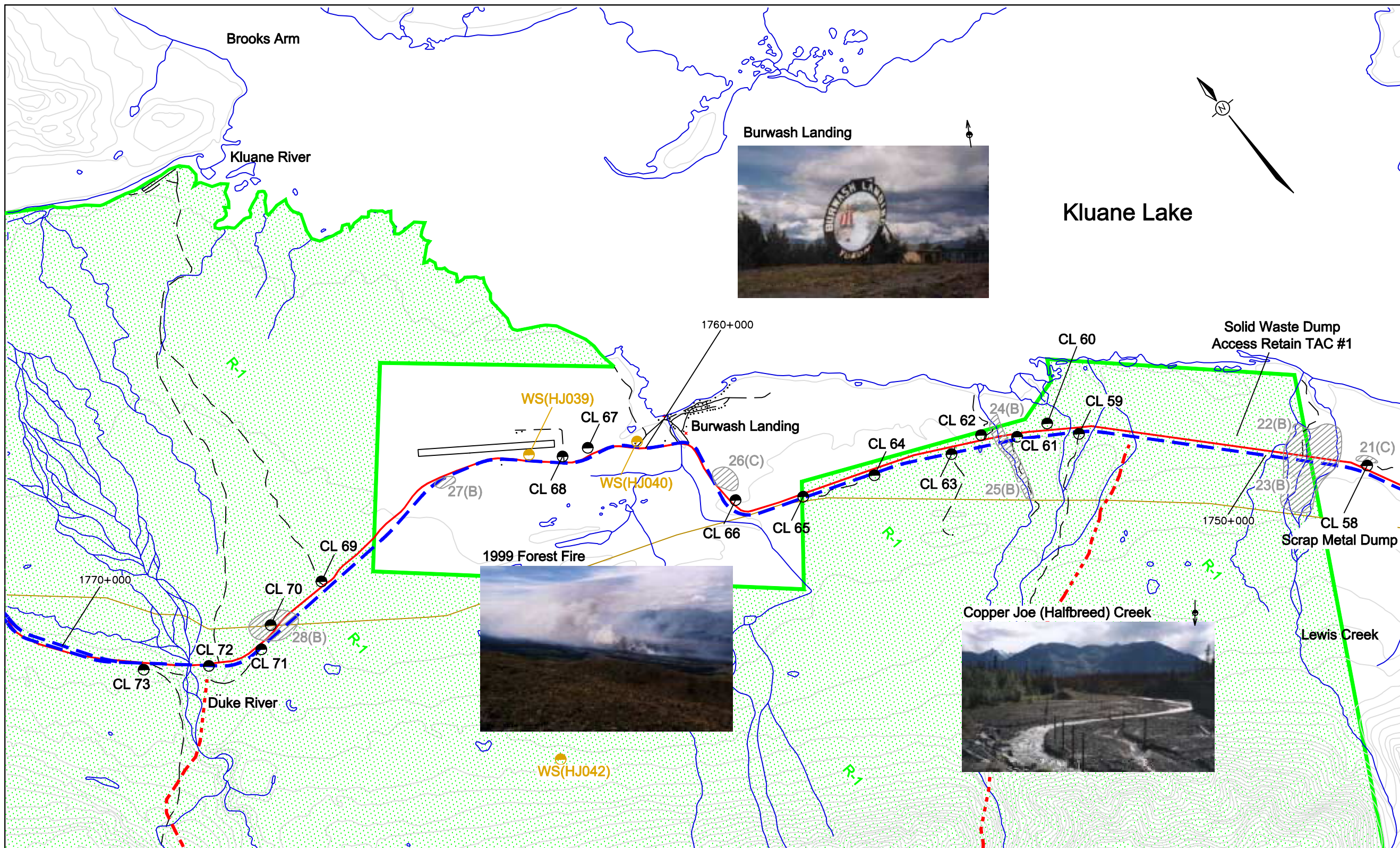
DRAWN BY: LDR

CHECKED BY: RLM

DATE: 23/02/2000

Ref: shak99clu5.dwg

**Fig. No. 3-5**



**69 Casino Trail**



- CL 58 Existing scrap metal dump – possible field camp (1748+500)
- CL 59 CBC broadcasting site/trail head access retain TAC#1 (1752+800)
- CL 60 Existing Burwash Landing domestic landfill access retain Tac #2 (1753+300)
- CL 61 Private access retain TAC #1 (1753+800)
- CL 62 Private access retain TAC #1 (1754+300)
- CL 63 NorthwesTel access/proposed Burwash Landing sewage treatment facility (1754+800)
- CL 64 Private access retain TAC #1 (1756+000)
- CL 65 Private access S. retain TAC #1, comm. tower N. access retain TAC #2 (1757+100)
- CL 66 Private access retain TAC #1 (1758+300)
- CL 67 Local access retain TAC #1 (1760+900)
- CL 68 Airstrip access retain TAC #2 (1761+400)
- CL 69 Local access retain TAC #1 (1765+600)
- CL 70 Duke River access via Pipeline ROW retain TAC #1 (1766+600)
- CL 71 Squirrel Crk./Duke River access (mining) retain TAC #2 (1766+900)
- CL 72 Potential wildlife viewing pullout access retain TAC #2 (1767+800)
- CL 73 Mining access retain TAC #2 (1768+700)

Note: TAC #1 = TAC personal residence standard intersection, TAC #2 = commercial standard intersection

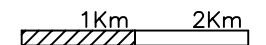


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

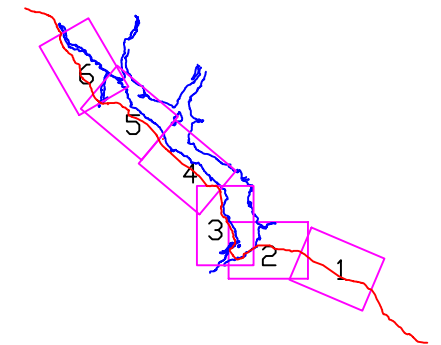
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- KFN Interim Protected Settlement Lands
- Potential Borrow Site "B" (possible field camp "C")
- Current Land Use Site/Access concern
- DIAND AES - Waste/Contaminates Site
- Photo Direction
- Quartz Mining Claims
- Placer Mining Claims

Scale 1 to 60,000



**Current Land Use Map 6**

**Map Key**



Sheet 6



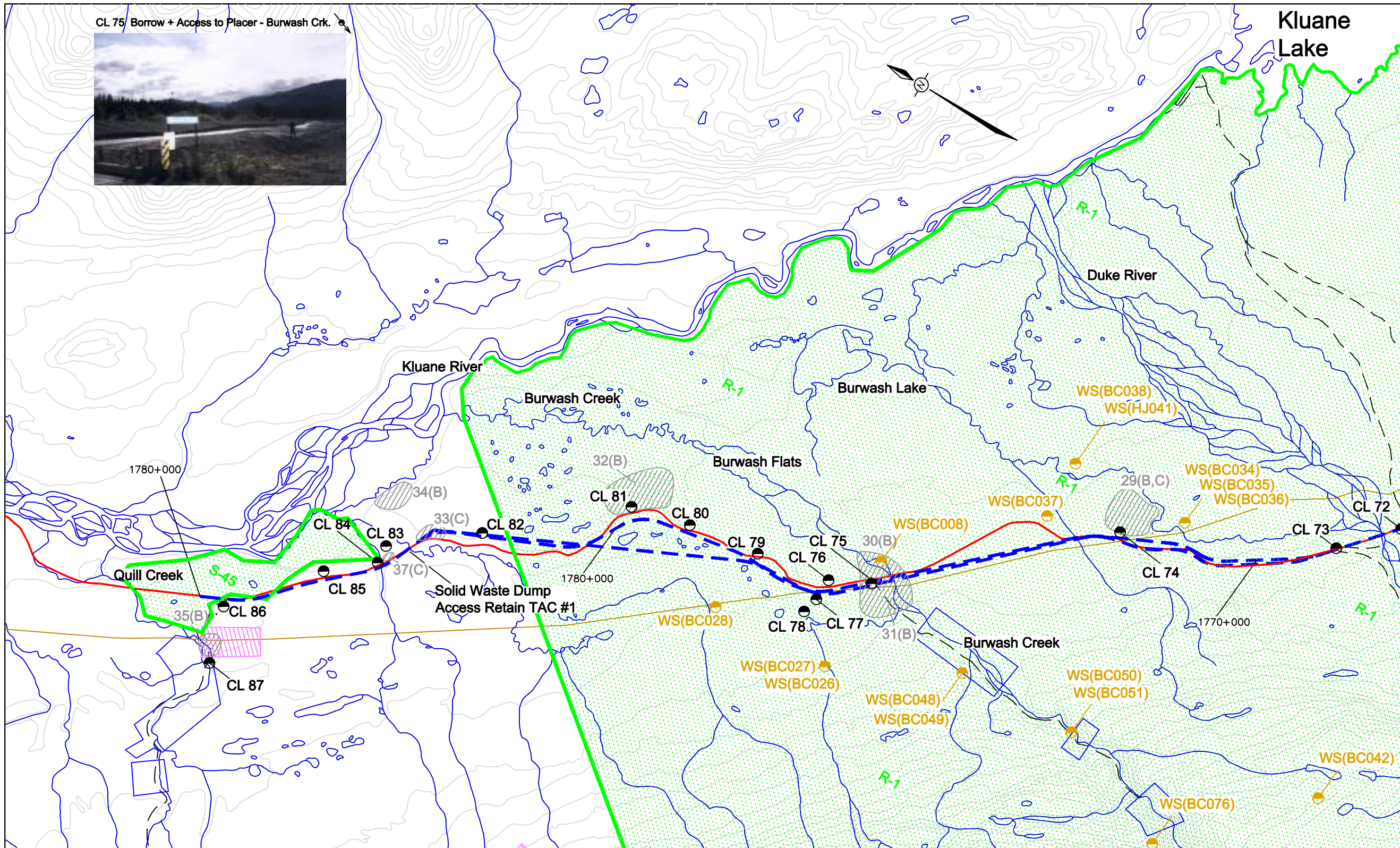
DRAWN BY: LDR

CHECKED BY: RLM

DATE: 23/02/2000

Ref: shak99clu6.dwg

**Fig. No. 3-6**



CL 75 Borrow + Access to Placer - Burwash Crk.



- CL 72 Possible wildlife viewing pullout access retain TAC #2 (1767+800)
- CL 73 Mining access retain TAC #2 (1768+700)
- CL 74 Borrow/Field Camp access retain TAC #2 (1772+100)
- CL 75 Borrow/mining access retain TAC #2 (1775+900)
- CL 76 Private Access retain TAC #1 (1776+500)
- CL 77 McElhaney 0069 - poss. benchmark (1776+700)
- CL 78 Private access to Foothills pipeline test site retain TAC #1 (1776+900)
- CL 79 Private access retain TAC #1 (1777+800)

- CL 80 Local access retain TAC #1 (1778+900)
- CL 81 Possible trail to Borrow (1779+700)
- CL 82 Local access retain TAC #1 (1782+100)
- CL 83 "No. 1 post HCT + RAD" poss. land claim marker (1783+500)
- CL 84 Poss. Sakiw valley field camp access road (1783+500)
- CL 85 Kluane River roadside lookout access retain TAC #2 (1784+600)
- CL 86 Wellgreen mine site access retain TAC #2 (1786+200)
- CL 87 Quill Creek access @ potential Borrow site retain TAC #2 (1786+400)

85a Kluane River Roadside Lookout



85b Kluane River Roadside Lookout








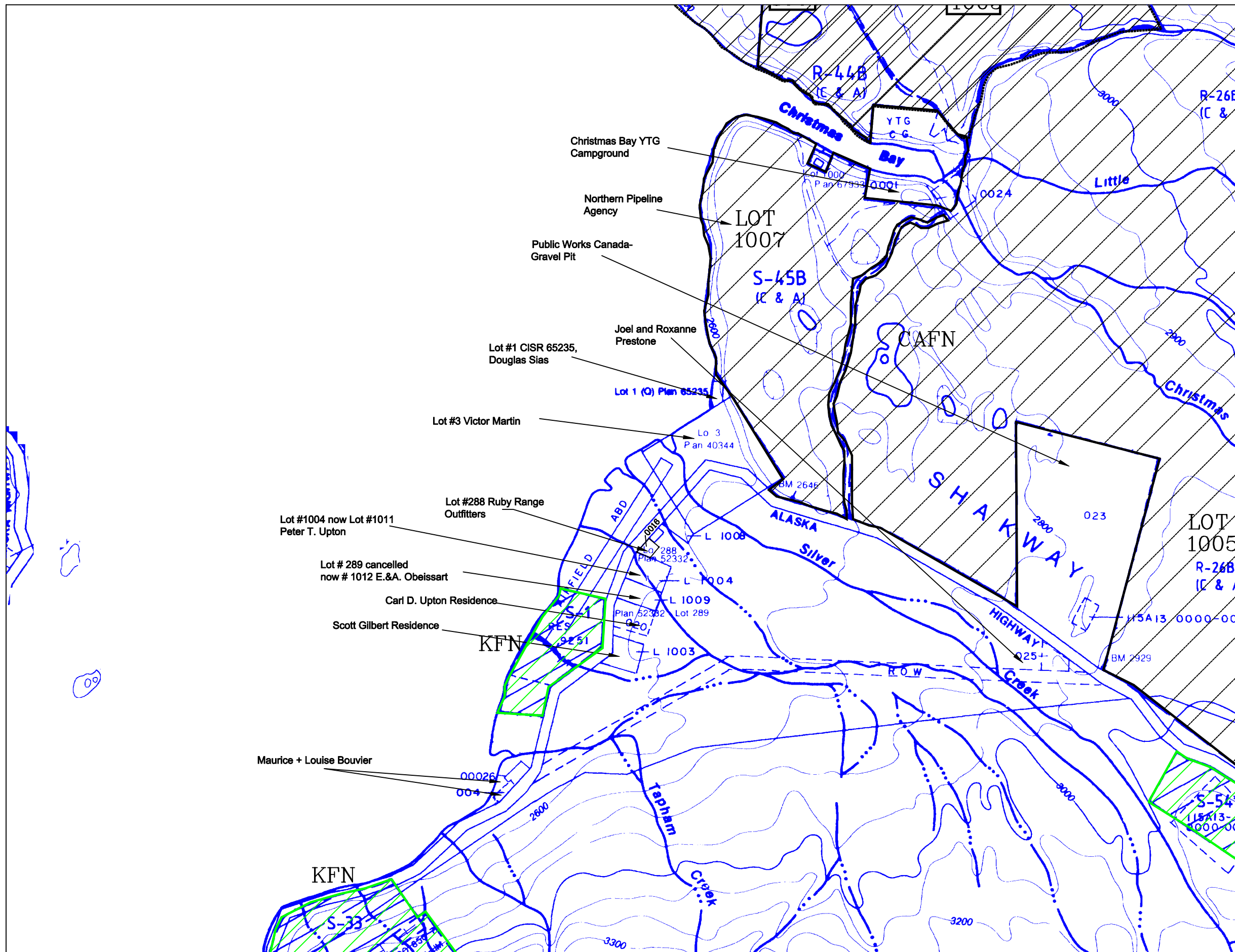
Note: TAC #1 = TAC personal residence standard intersection, TAC #2 = commercial standard intersection



Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

-  CAFN Settlement Lands
-  KFN Interim Protected Lands
-  Elevation at 100 ft intervals
-  Elevation at 500 ft intervals
-  Watercourse



- Christmas Bay YTG Campground
- Northern Pipeline Agency
- Public Works Canada-Gravel Pit
- Joel and Roxanne Prestone
- Lot #1 CISR 65235, Douglas Sias
- Lot 1 (O) Plan 65235
- Lot #3 Victor Martin
- Lo 3 Pan 40344
- BM 2646
- Lot #288 Ruby Range Outfitters
- Lot #1004 now Lot #1011 Peter T. Upton
- Lot # 289 cancelled now # 1012 E.&A. Obeissart
- Carl D. Upton Residence
- Scott Gilbert Residence
- Maurice + Louise Bouvier

Not to Scale

Silver City Property Locations

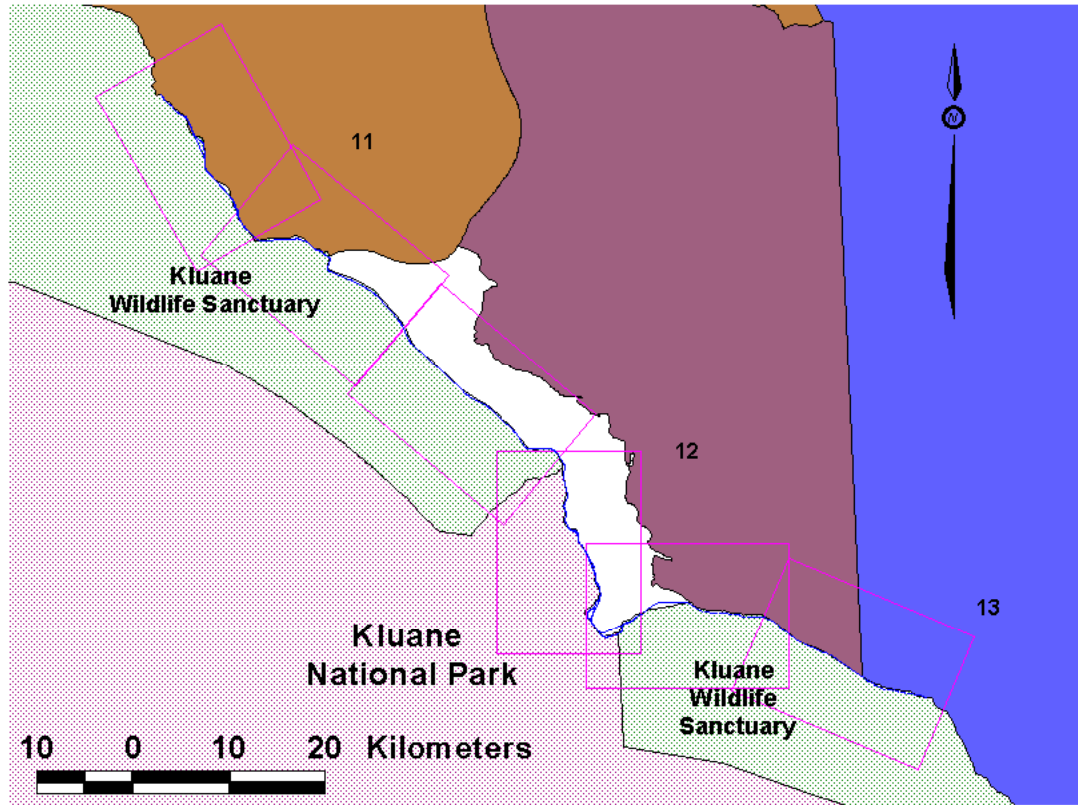


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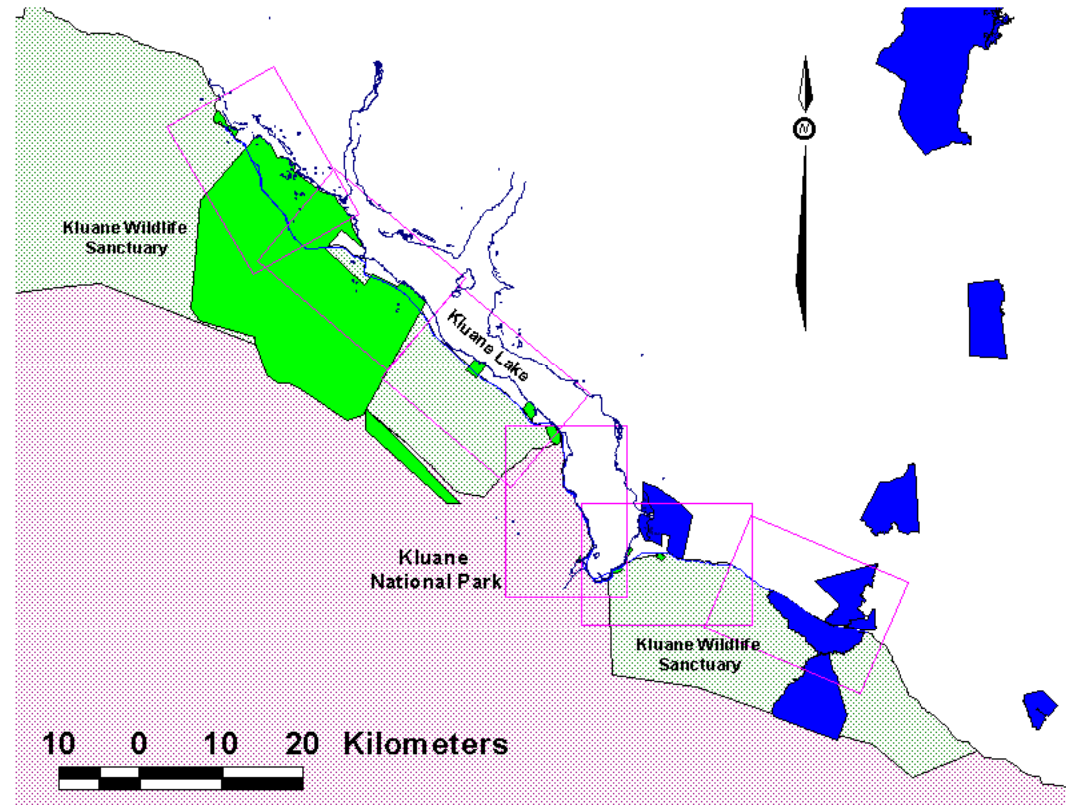
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**Fig No. 3-7**

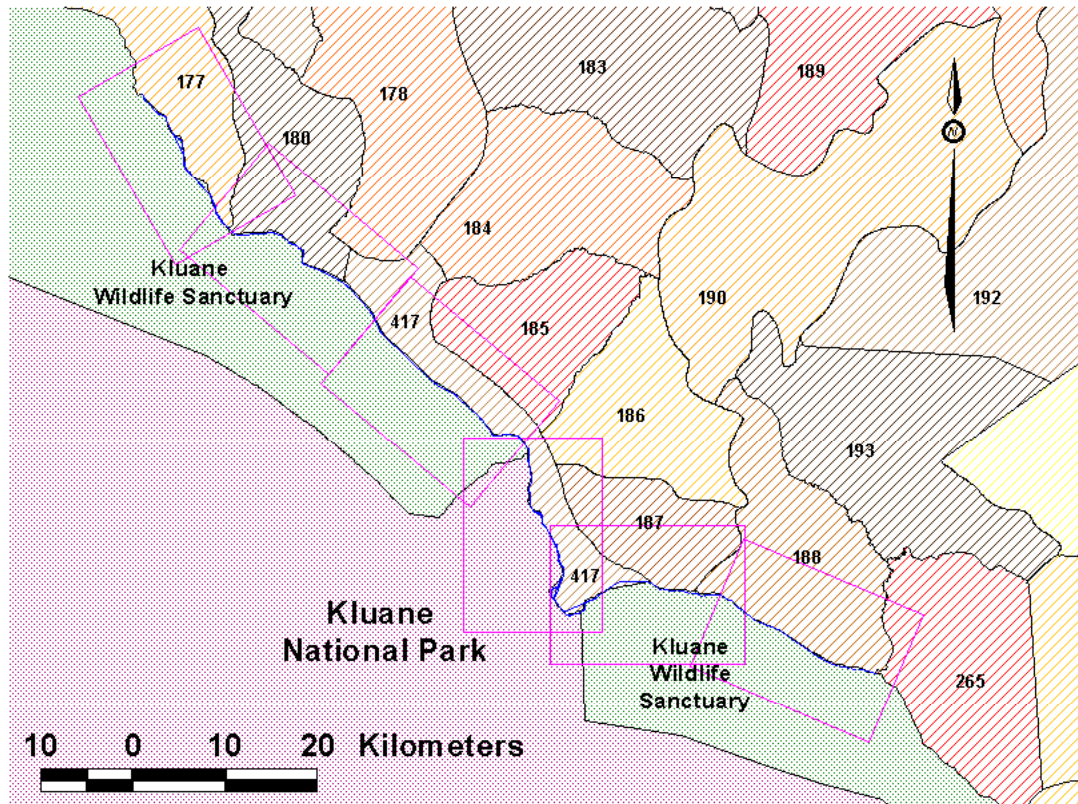
**Outfitting Concessions**



**Settlement Lands**



**Trapping Concessions**



**Outfitting Concession Holders:**

- 11 Kluane Outfitters
- 12 Ruby Range Outfitters 1989 Ltd.
- 13 Mervyn Yukon Outfitting

**Trapping Concession Holders:**

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| 177 Kirk Johnson                  | 187 James Allen                       |
| 178 Joseph Johnson                | 188 Agnes MacDonald                   |
| 179 Louise Bouvier & Ron Chambers | 190 Champagne/Aishihik Trapping Group |
| 180 Kluane First Nations Elders   | 193 Helen Lisa Joe                    |
| 184 Kluane Martin                 | 265 Annie Holm                        |
| 185 George Ken Johnson            | 266 Charles Hume                      |
| 186 Thomas Earl Johnson           | 417 Josie & Jimmy Sias                |

**Legend**

- Study Area
- Proposed New Alignment
- CAFN Settlement Lands
- KFN Interim Protected Settlement Lands

**Trapping Concessions,  
Outfitting Concessions,  
Settlement Lands,  
Kluane Park Boundary**



DRAWN BY: LDR      CHECKED BY: DDC

DATE: 15/12/99      Ref: shak99clu7.jpg

**Fig. No. 3-8**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

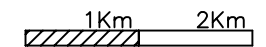


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

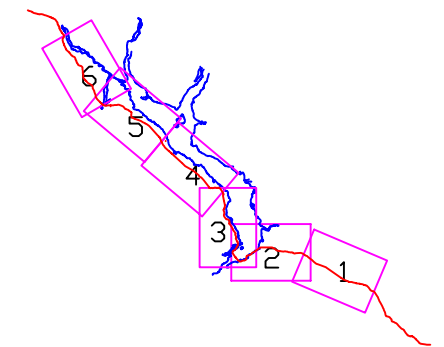
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- Grizzly Bear Habitat

Scale 1 to 60,000



**Wildlife Map 1**

**Map Key**



Sheet 1



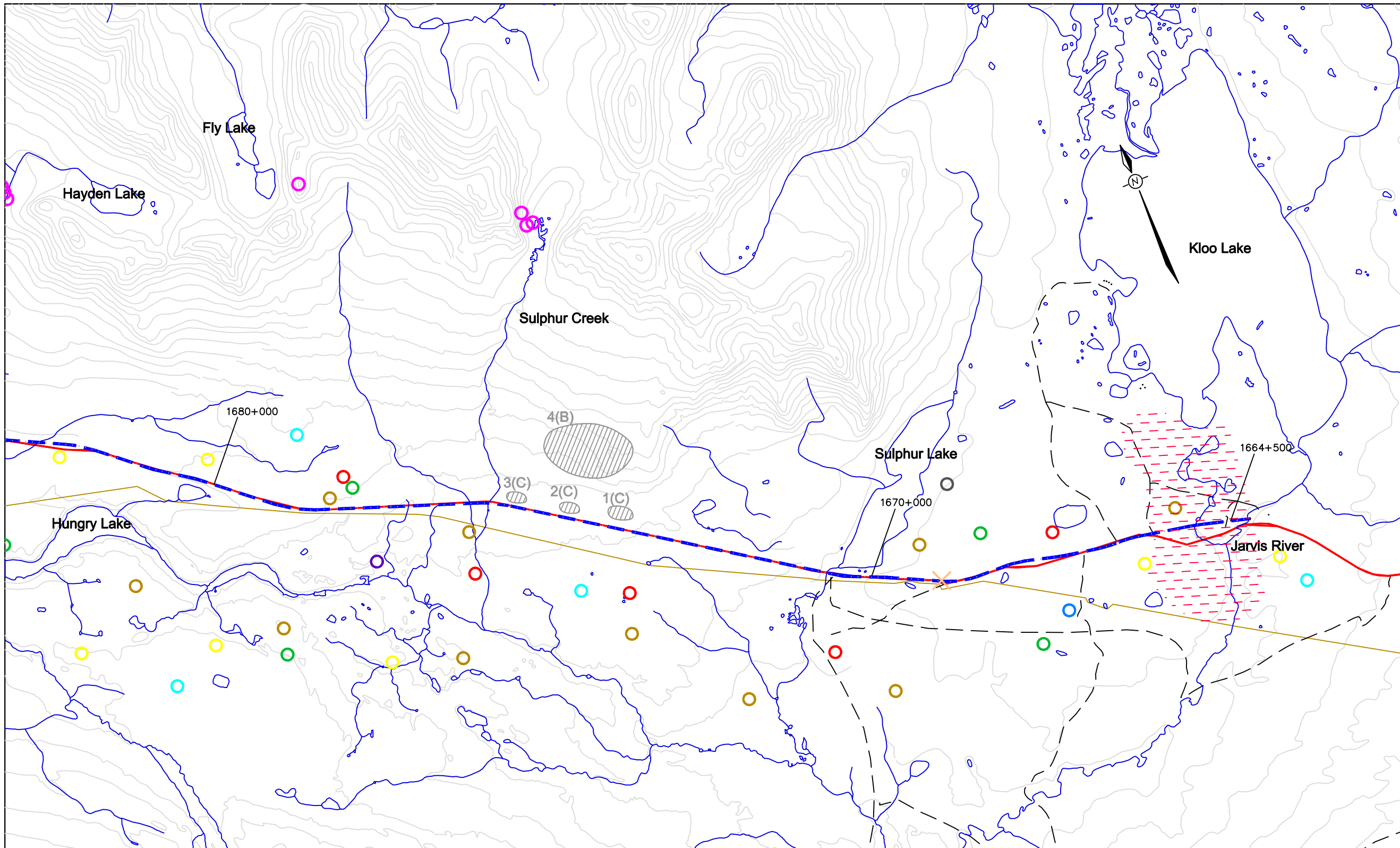
DRAWN BY: LDR

CHECKED BY: NB

DATE: 21/02/2000

Ref: shak99wid1.dwg

**Fig No. 4-1**



- |                  |                    |                       |
|------------------|--------------------|-----------------------|
| Bald Eagle       | Red Tailed Hawk    | Falcon                |
| Boreal Owl       | Sharp Shinned Hawk | Peregrine Falcon      |
| Goshawk          | Harlans Hawk       | Historic Nesting Site |
| Great Horned Owl | Golden Eagle       | Active Nesting Site   |
| Kestrel          | Gyr Falcon         |                       |
| Northern Harrier | Northern Hawk Owl  |                       |

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

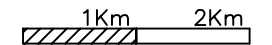


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

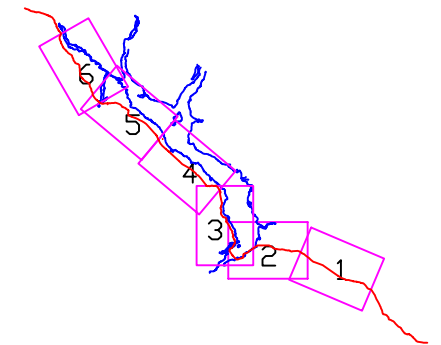
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- Grizzly Bear Habitat

Scale 1 to 60,000



**Wildlife Map 2**

**Map Key**



Sheet 2



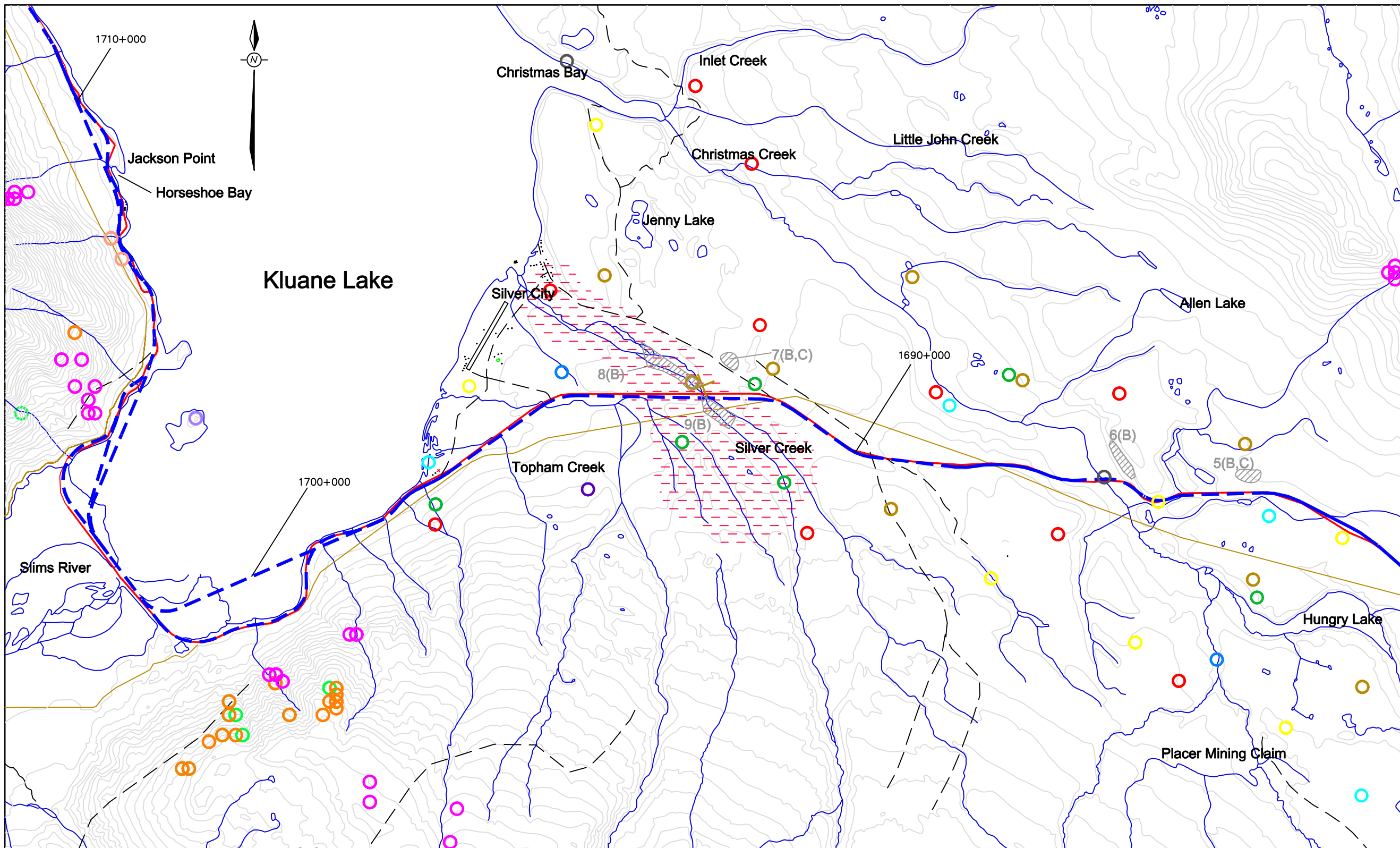
DRAWN BY: LDR

CHECKED BY: NB

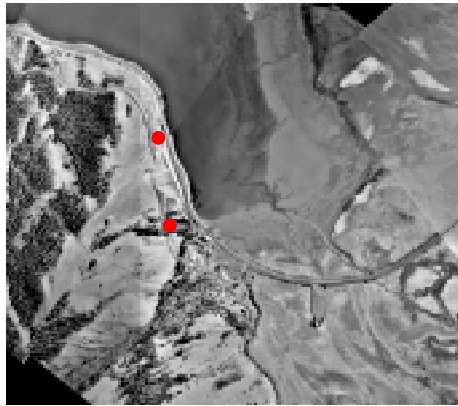
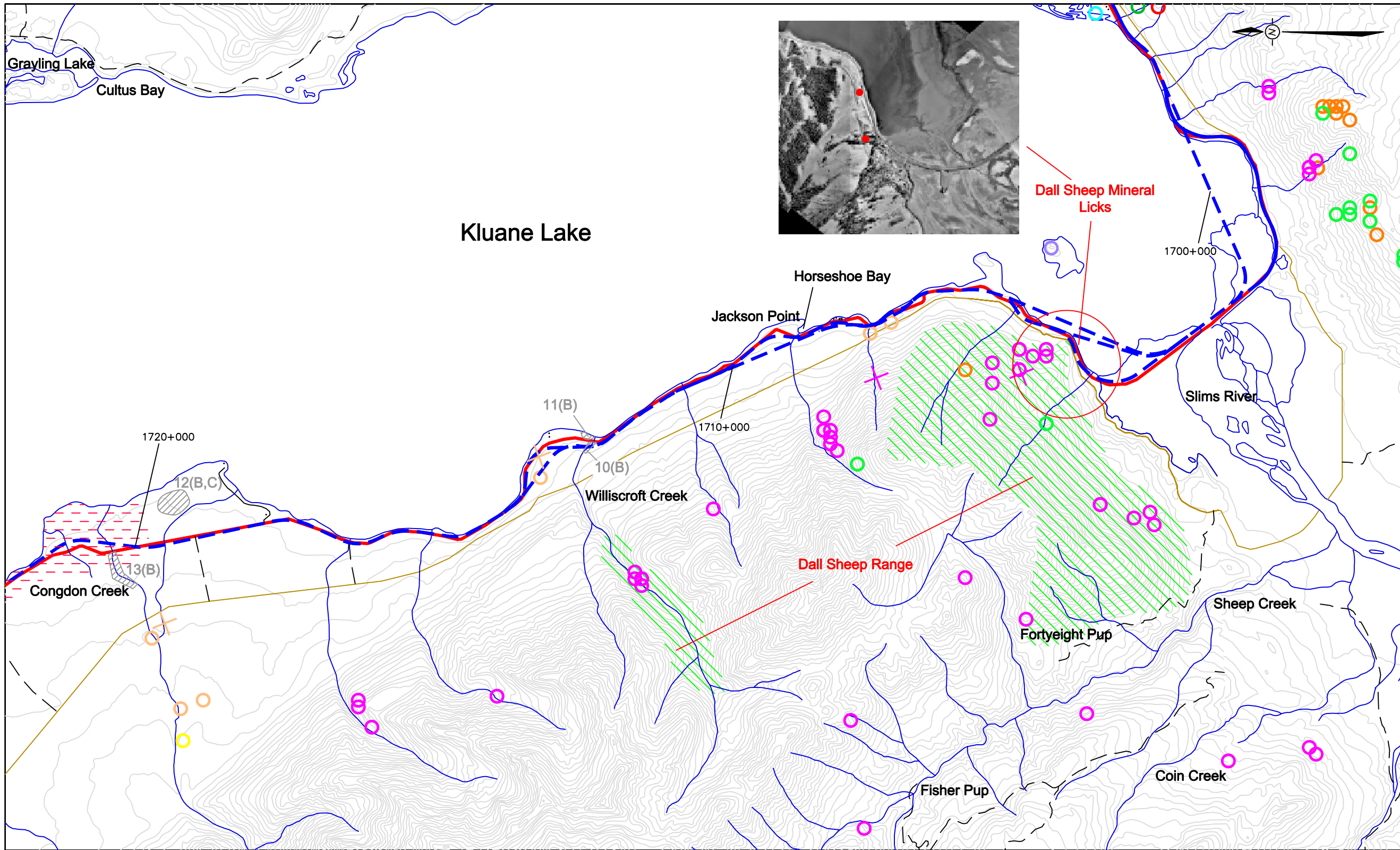
DATE: 21/02/2000

Ref: shak99wid2.dwg

**Fig. No. 4-2**



- |   |  |  |
|---|--|--|
| <span style="color: black;">●</span> Bald Eagle       | <span style="color: red;">●</span> Red Tailed Hawk       | <span style="color: green;">●</span> Falcon  |
| <span style="color: green;">●</span> Boreal Owl       | <span style="color: purple;">●</span> Sharp Shinned Hawk | <span style="color: purple;">●</span> Peregrine Falcon   |
| <span style="color: blue;">●</span> Goshawk           | <span style="color: orange;">●</span> Harlans Hawk       | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> Historic Nesting Site |
| <span style="color: brown;">●</span> Great Horned Owl | <span style="color: magenta;">●</span> Golden Eagle      | <span style="color: red;">+</span> Active Nesting Site   |
| <span style="color: yellow;">●</span> Kestrel         | <span style="color: orange;">●</span> Gyr Falcon         |  |
| <span style="color: cyan;">●</span> Northern Harrier  | <span style="color: grey;">●</span> Northern Hawk Owl    |  |



Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

**Yukon**  
 Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B" (possible field camp "C")
- Grizzly Bear Habitat
- Sheep Winter Range

Scale 1 to 60,000

Wildlife Map 3

Map Key

Sheet 3

- |   |  |   |
|---|--|---|
| <span style="color: black;">●</span> Bald Eagle       | <span style="color: red;">●</span> Red Tailed Hawk       | <span style="color: green;">●</span> Falcon   |
| <span style="color: green;">●</span> Boreal Owl       | <span style="color: purple;">●</span> Sharp Shinned Hawk | <span style="color: blue;">●</span> Peregrine Falcon  |
| <span style="color: blue;">●</span> Goshawk           | <span style="color: orange;">●</span> Harlans Hawk       | <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> Historic Nesting Site |
| <span style="color: brown;">●</span> Great Horned Owl | <span style="color: magenta;">●</span> Golden Eagle      | <span style="color: black;">✕</span> Active Nesting Site  |
| <span style="color: yellow;">●</span> Kestrel         | <span style="color: orange;">●</span> Gyrfalcon          |   |
| <span style="color: cyan;">●</span> Northern Harrier  | <span style="color: gray;">●</span> Northern Hawk Owl    |   |



DRAWN BY: LDR      CHECKED BY: NB  
 DATE: 21/02/2000      Ref: shak99wid3.dwg

**Fig. No. 4-3**

Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

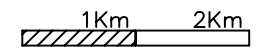


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

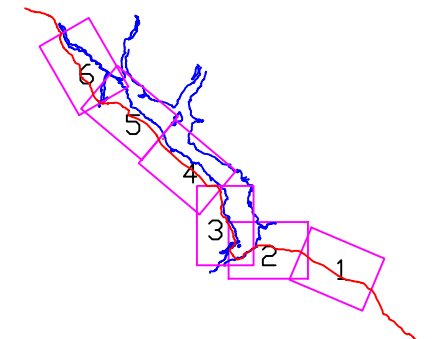
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B" (possible field camp "C")
- Grizzly Bear Habitat

Scale 1 to 60,000



**Wildlife Map 4**

**Map Key**



Sheet 4



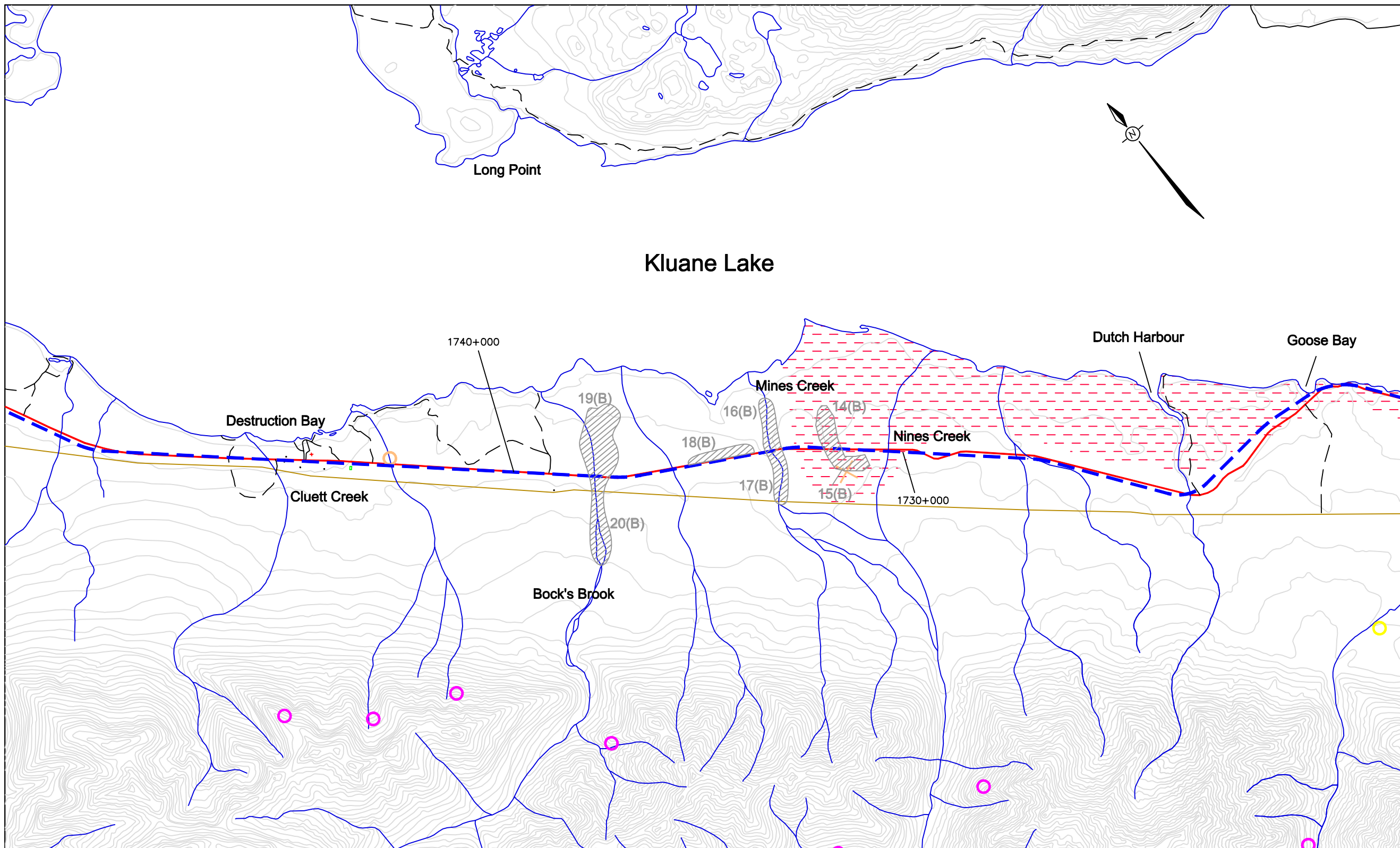
DRAWN BY: LDR

CHECKED BY: NB

DATE: 21/02/2000

Ref: shak99wld4.dwg

**Fig. No. 4-4**



- |                  |                    |                       |
|------------------|--------------------|-----------------------|
| Bald Eagle       | Red Tailed Hawk    | Peregrine Falcon      |
| Boreal Owl       | Sharp Shinned Hawk | Historic Nesting Site |
| Goshawk          | Harlans Hawk       | Active Nesting Site   |
| Great Horned Owl | Golden Eagle       |                       |
| Kestrel          | Gyr Falcon         |                       |
| Northern Harrier | Northern Hawk Owl  |                       |

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

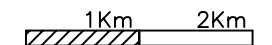


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

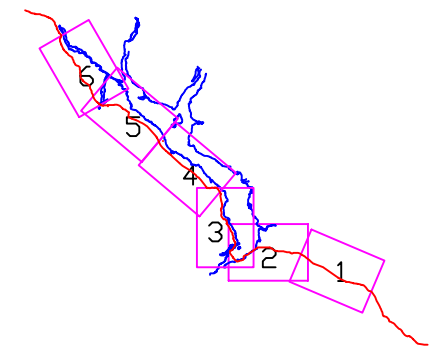
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- ➔ Caribou Crossing
- Sharp-Tailed Grouse Survey Area
- Location of Grouse

Scale 1 to 60,000



**Wildlife Map 5**

**Map Key**



Sheet 5



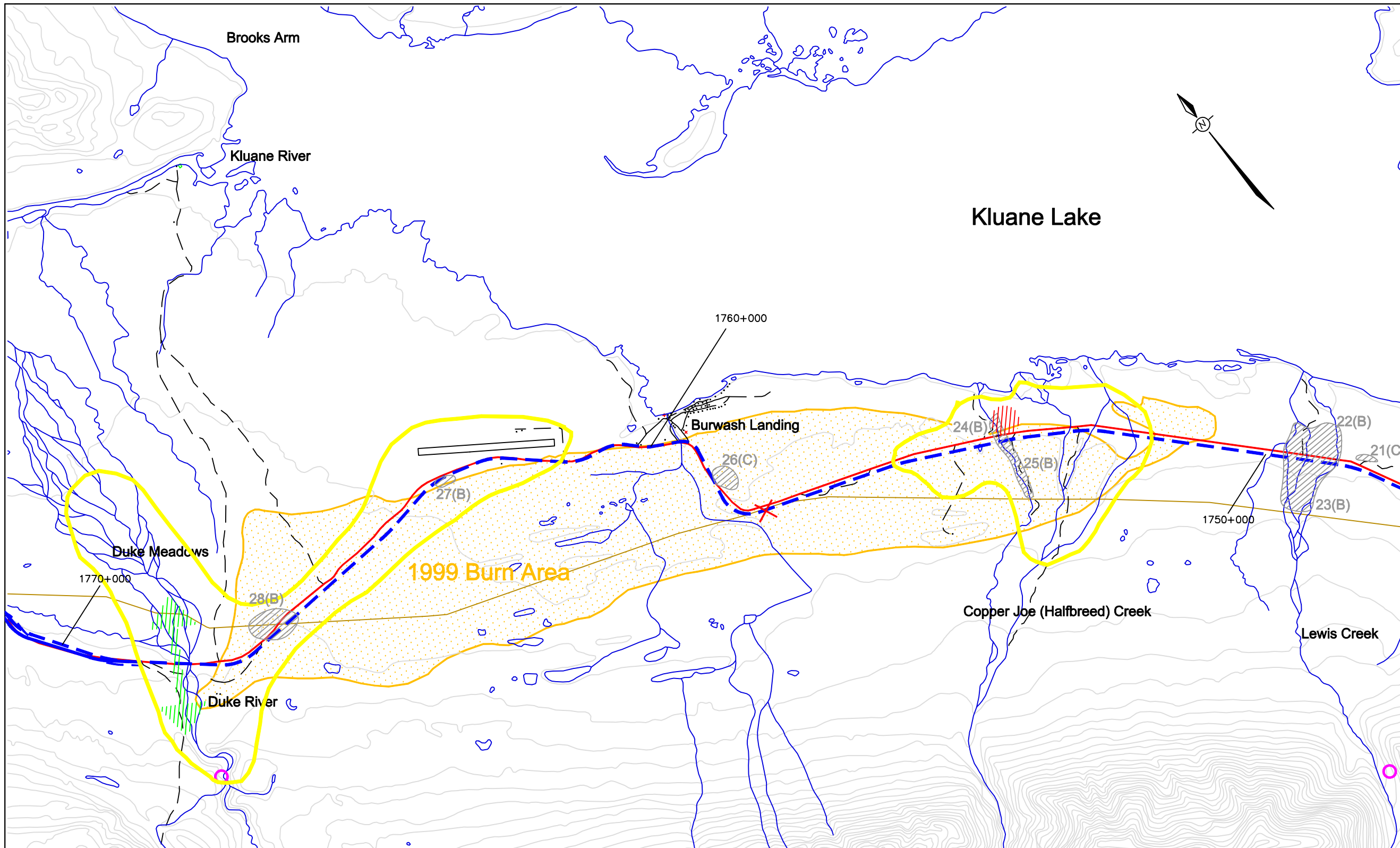
DRAWN BY: LDR

CHECKED BY: NB

DATE: 21/02/2000

Ref: shak99wid5.dwg

**Fig. No. 4-5**



- |   |  |   |
|---|--|---|
| <span style="color: black;">●</span> Bald Eagle       | <span style="color: red;">●</span> Red Tailed Hawk       | <span style="color: green;">●</span> Falcon   |
| <span style="color: green;">●</span> Boreal Owl       | <span style="color: purple;">●</span> Sharp Shinned Hawk | <span style="color: purple;">●</span> Peregrine Falcon  |
| <span style="color: blue;">●</span> Goshawk           | <span style="color: orange;">●</span> Harlans Hawk       | <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> Historic Nesting Site |
| <span style="color: brown;">●</span> Great Horned Owl | <span style="color: magenta;">●</span> Golden Eagle      | <span style="color: orange;">+</span> Active Nesting Site   |
| <span style="color: yellow;">●</span> Kestrel         | <span style="color: orange;">●</span> Gyr Falcon         |   |
| <span style="color: cyan;">●</span> Northern Harrier  | <span style="color: grey;">●</span> Northern Hawk Owl    |   |

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

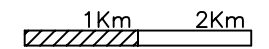


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

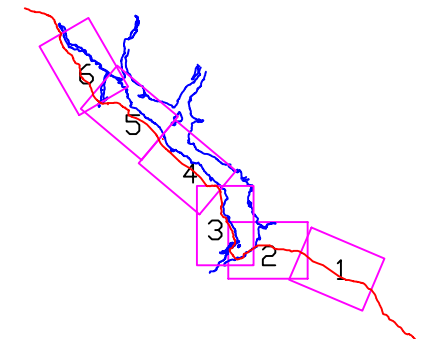
- Existing Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- Grizzly Bear Habitat
- Caribou Crossing (arrow size relative to crossing size)

Scale 1 to 60,000



**WildlifeMap 6**

**Map Key**



Sheet 6



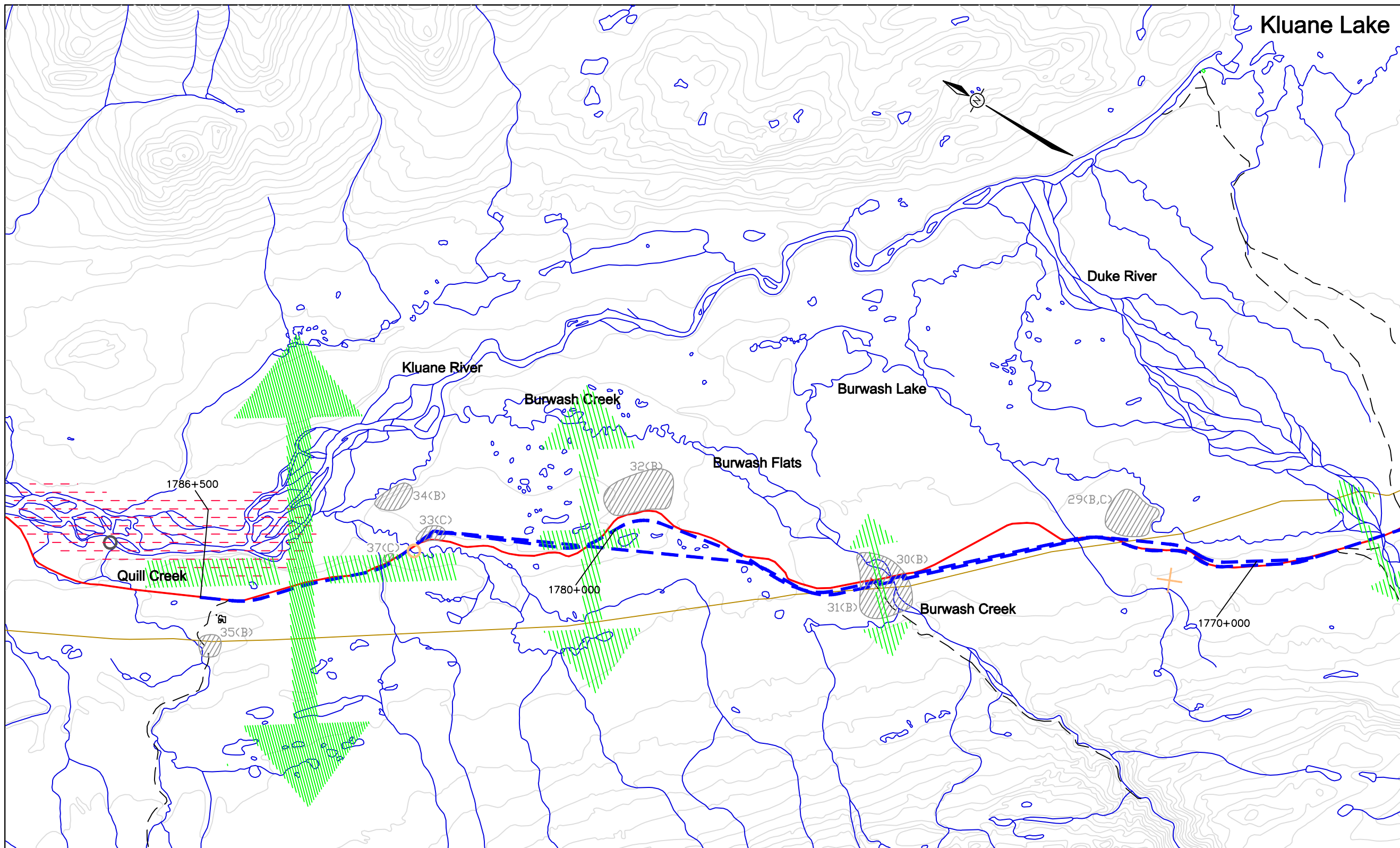
DRAWN BY: LDR

CHECKED BY: NB

DATE: 21/02/2000

Ref: shak99wid6.dwg

**Fig. No. 4-6**



- |                  |                    |                       |
|------------------|--------------------|-----------------------|
| Bald Eagle       | Red Tailed Hawk    | Falcon                |
| Boreal Owl       | Sharp Shinned Hawk | Peregrine Falcon      |
| Goshawk          | Harlans Hawk       | Historic Nesting Site |
| Great Horned Owl | Golden Eagle       | Active Nesting Site   |
| Kestrel          | Gyr Falcon         |                       |
| Northern Harrier | Northern Hawk Owl  |                       |

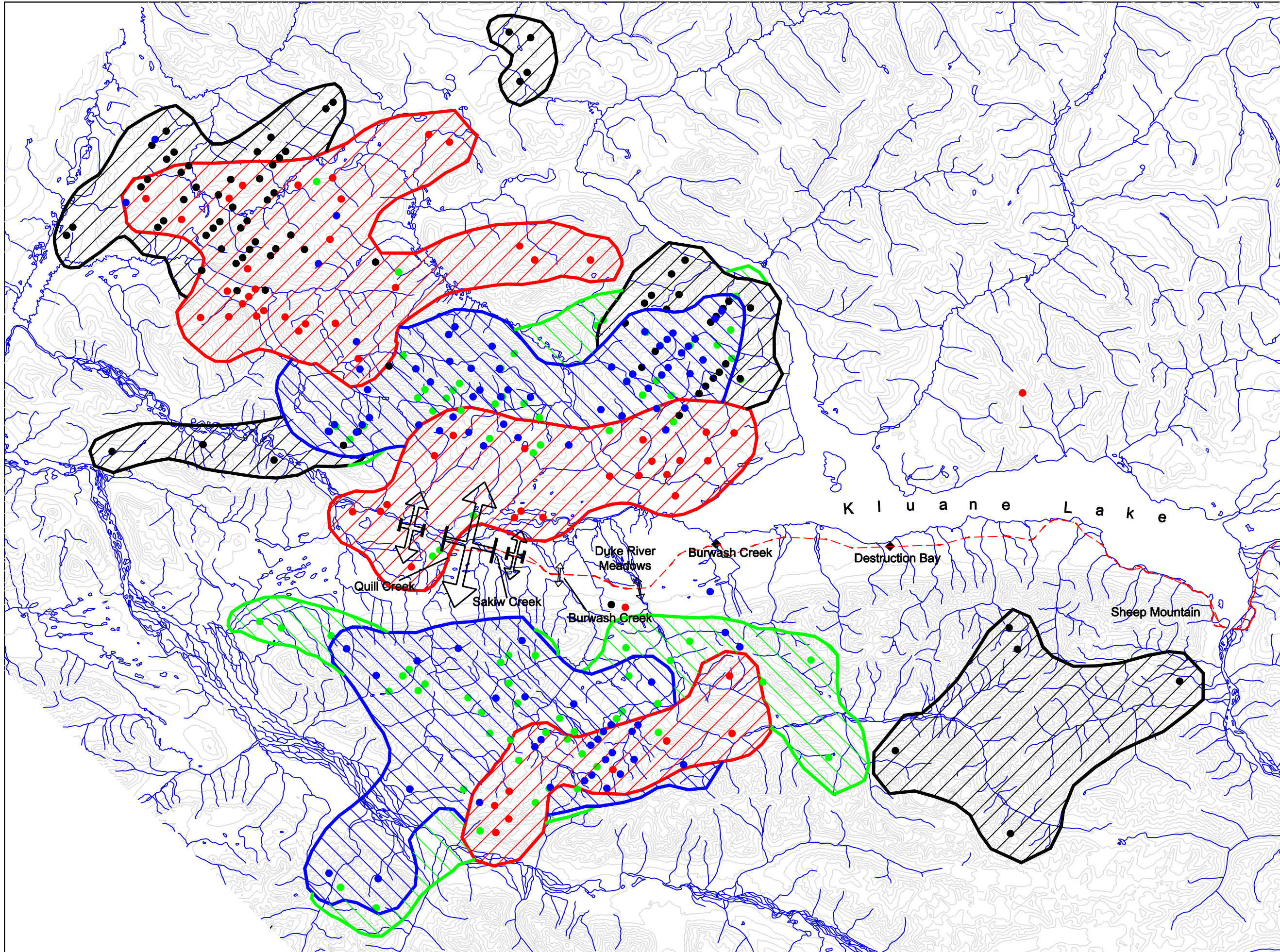
Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km



Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

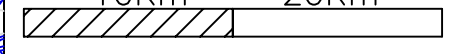
- Existing Alaska Highway
- Contours at 500ft intervals
- Watercourse
- Caribou Cluster - Late Winter
- Caribou Cluster - Calving
- Caribou Cluster - Post-Calving
- Caribou Cluster - Rut
- Single Occurrences  
(radio collar 1993-1998)
- Caribou Crossing



**Caribou Range + Movement  
 Map**

Scale 1:330,000

10Km 20Km



ACCESS  
 CONSULTING  
 GROUP

DRAWN BY: LDR

CHECKED BY: NB

DATE: 21/02/2000

**Fig. No. 4-7**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

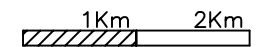


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

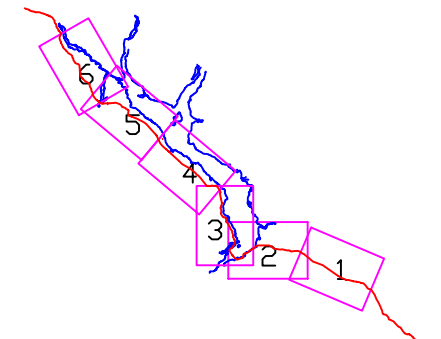
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- - - Waterbird Survey Area

Scale 1 to 60,000

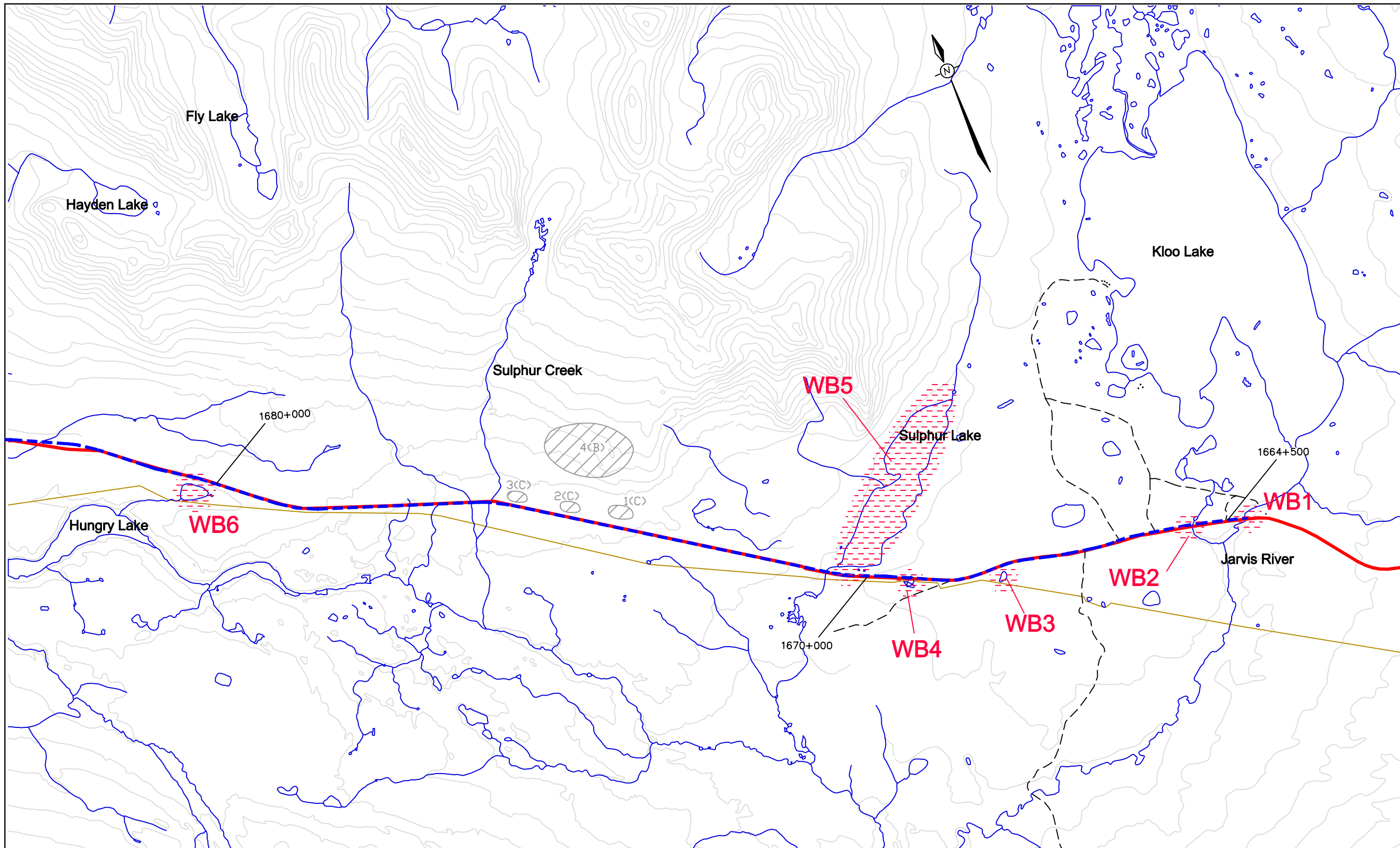


**Water Birds Map 1**

**Map Key**



Sheet 1



WB1 (Km 1664+300)	#	WB2 (Km 1665+000)	#	WB3 (Km 1668+000)	#	WB4 (1669+500)	#	WB5 (Km 1670+000)	#	WB6 (Km 1680+300)	#
Survey 1	0	Survey 1	6	Survey 1	1	Survey 1	11	Survey 1	747	Survey 1	1
Survey 2	16	Survey 2	6	Survey 2	0	Survey 2	0	Survey 2	397	Survey 2	14
Survey 3	3	Survey 3	0	Survey 3	0	Survey 3	0	Survey 3	61	Survey 3	0
Survey 4	NS	Survey 4	NS	Survey 4	NS	Survey 4	NS	Survey 4	188	Survey 4	NS



DRAWN BY: LDR      CHECKED BY: DJP  
DATE: 21/02/2000      Ref: shak99wtb1.dwg

- The above data represents a summary of waterbird observations over the four survey periods

**Fig. No. 4-8**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

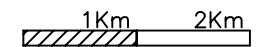


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

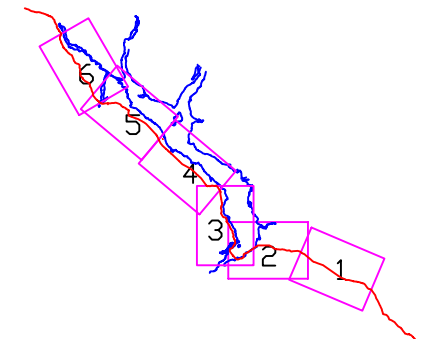
- Existing Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B" (possible field camp "C")
- Waterbird Survey Area

Scale 1 to 60,000

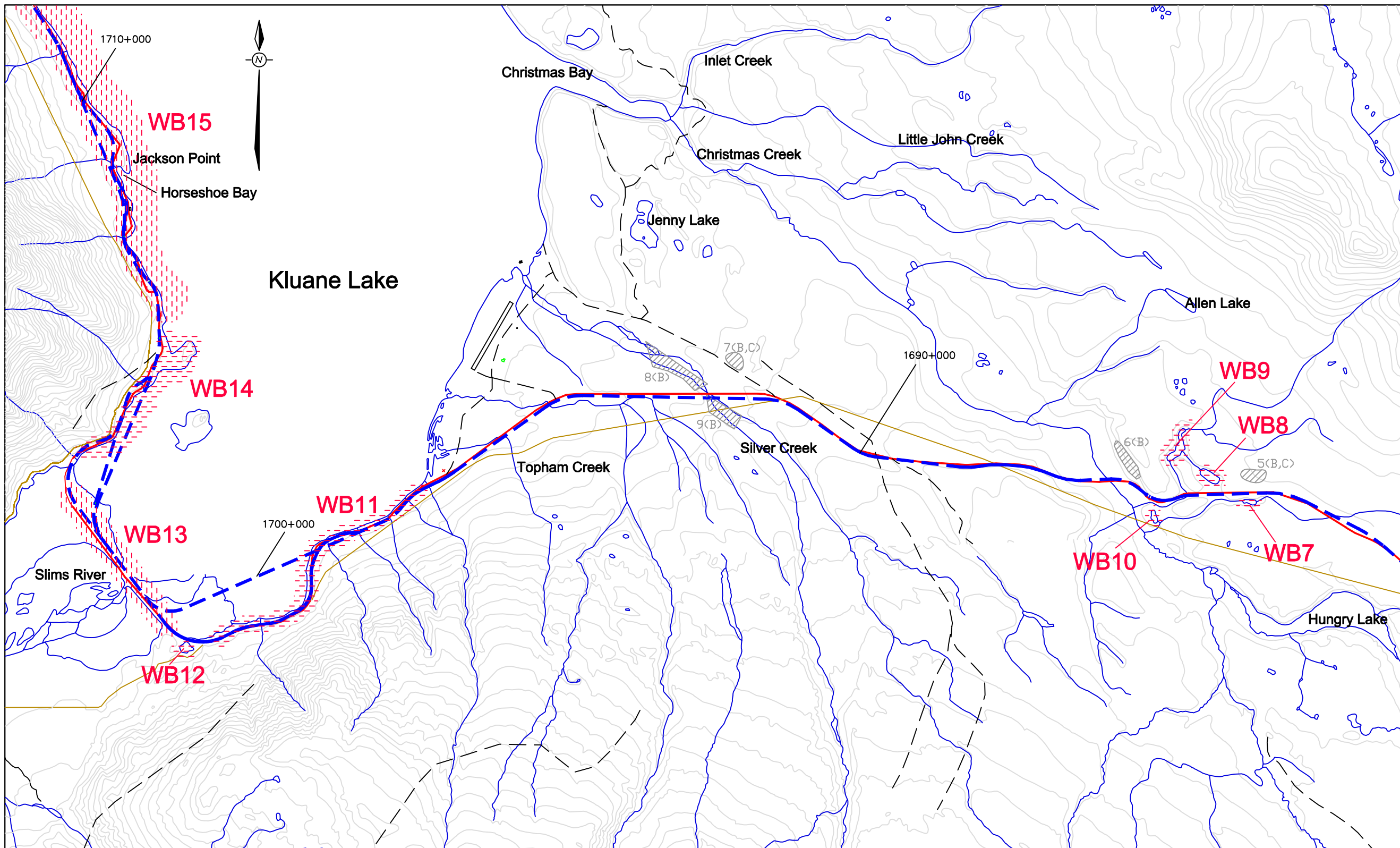


**Water Birds Map 2**

**Map Key**



Sheet 2



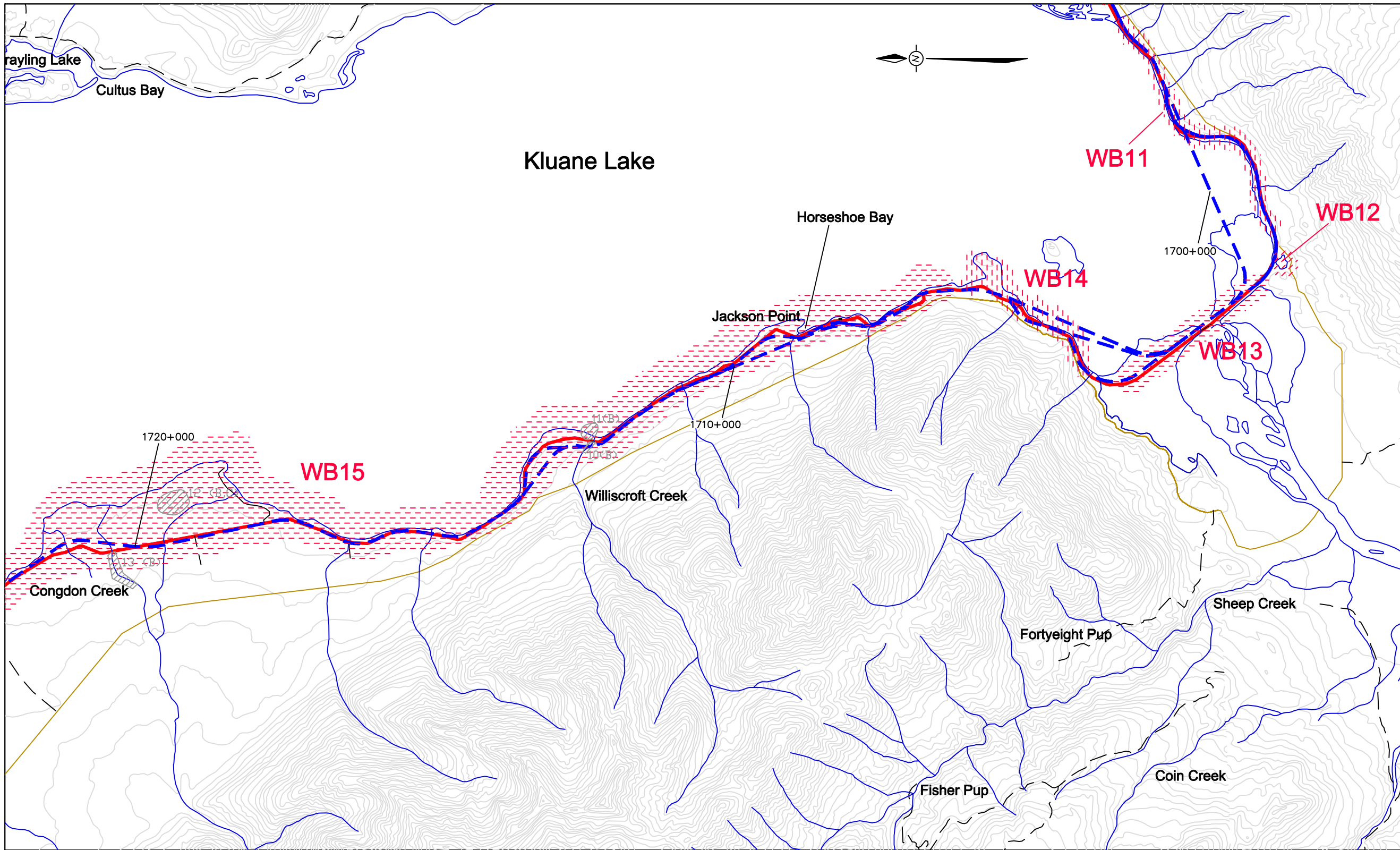
WB7 (Km 1684+000)	#	WB8 (Km 1684+600)	#	WB9 (Km 1685+000)	#	WB10 (Km 1685+400)	#	WB11 (Km 1697 to 1701)	#	WB12 (Km 1701+800)	#
Survey 1	0	Survey 1	17	Survey 1	7	Survey 1	6	Survey 1	35	Survey 1	32
Survey 2	0	Survey 2	3	Survey 2	20	Survey 2	8	Survey 2	42	Survey 2	0
Survey 3	3	Survey 3	0	Survey 3	17	Survey 3	0	Survey 3	45	Survey 3	1
Survey 4	NS	Survey 4	NS	Survey 4	NS	Survey 4	NS	Survey 4	147	Survey 4	0

- The above data represents a summary of waterbird observations over the four survey periods



DRAWN BY: LDR      CHECKED BY: DJP  
DATE: 20/02/2000      Ref: shak99wtb2.dwg

**Fig. No. 4-9**



**Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km**

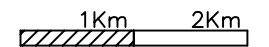


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

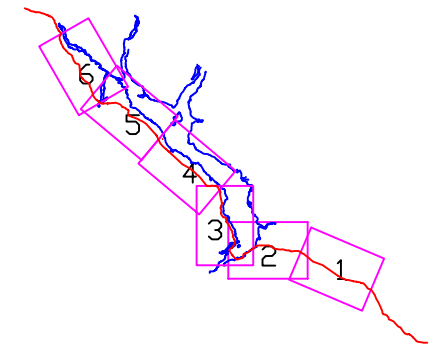
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- ⊙ Potential Borrow Site "B" (possible field camp "C")
- ⊞ Waterbird Survey Area

Scale 1 to 60,000



**Water Birds Map 3**

**Map Key**



Sheet 3



DRAWN BY: LDR      CHECKED BY: DJP  
DATE: 21/02/2000      Ref: shak99wtb3.dwg

WB13 (Km 1702 to 1704) #		WB14 (Km 1704 to 1706) #		WB15 (Km 1706 to 1723) #	
Survey 1	3	Survey 1	54	Survey 1	2
Survey 2	3	Survey 2	1	Survey 2	0
Survey 3	0	Survey 3	0	Survey 3	0
Survey 4	0	Survey 4	NS	Survey 4	NS

- The above data represents a summary of waterbird observations over the four survey periods

**Fig. No. 4-10**

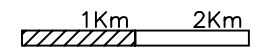


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

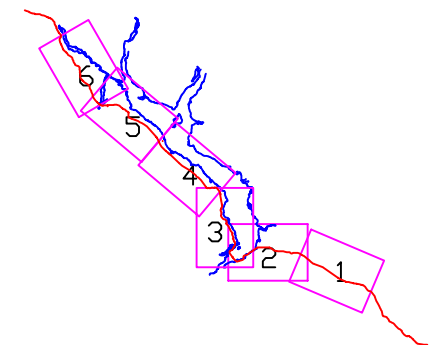
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- Waterbird Survey Area

Scale 1 to 60,000



**Water Birds Map 4**

**Map Key**

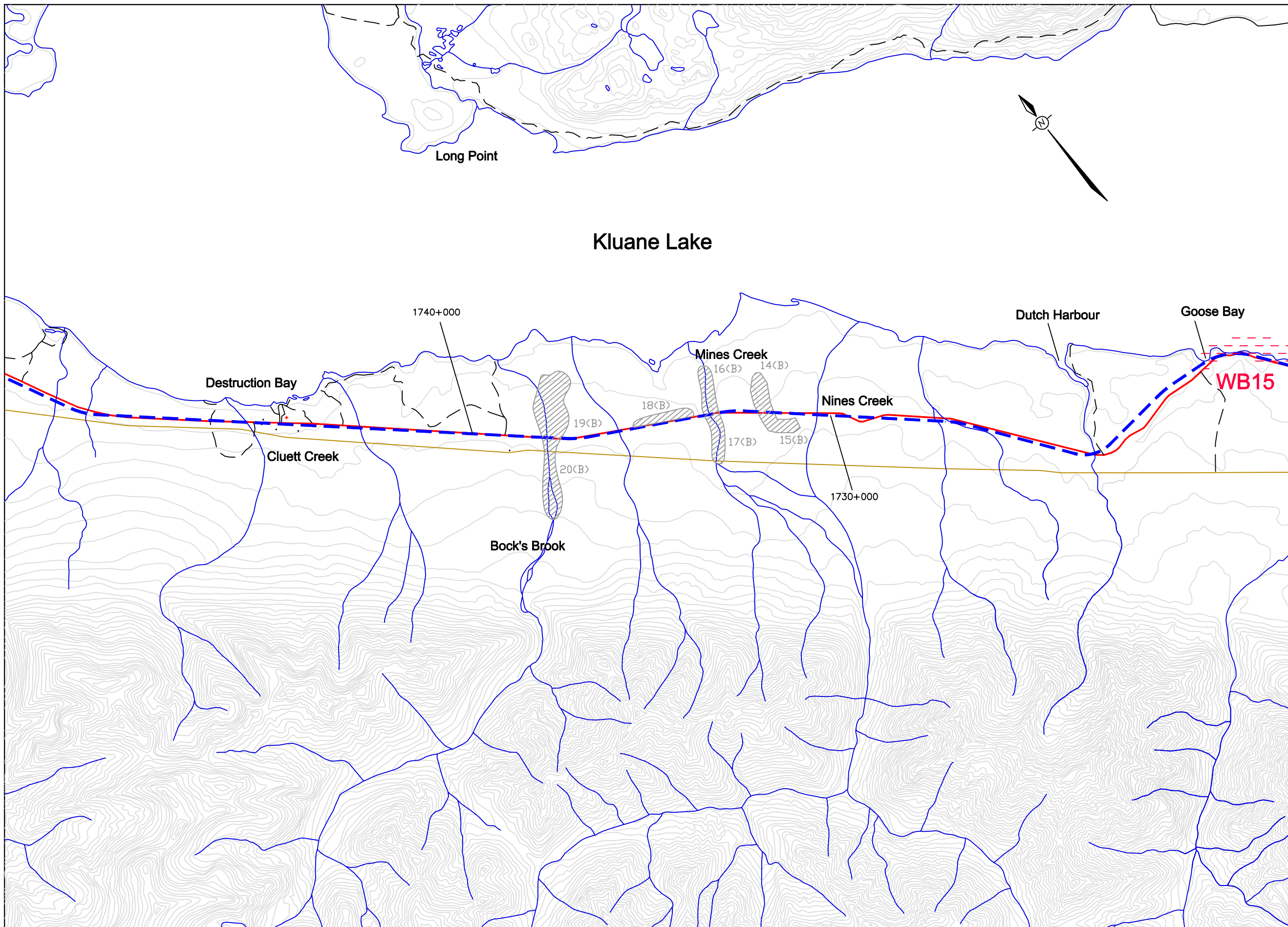


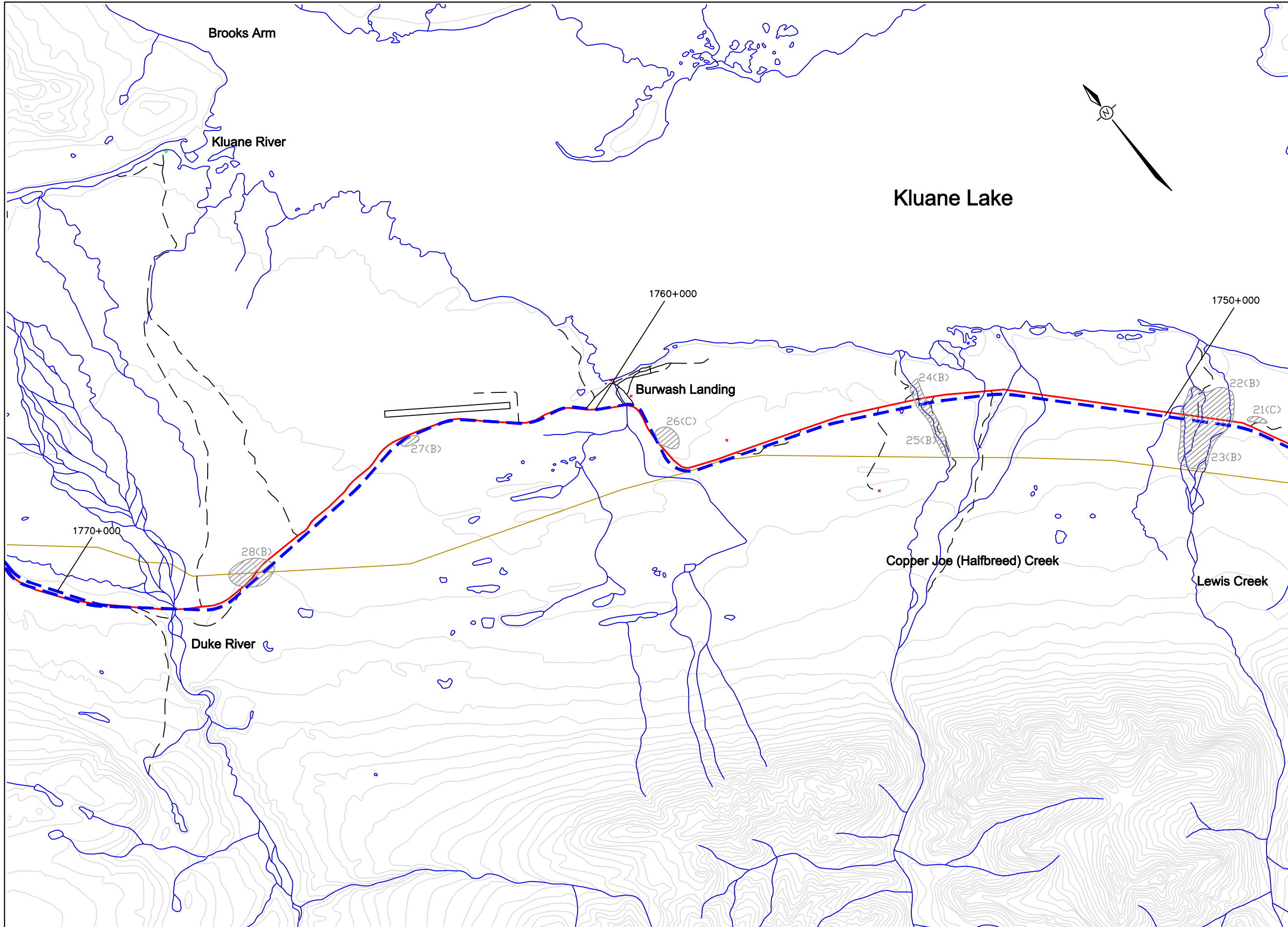
Sheet 4



DRAWN BY: LDR	CHECKED BY: DJP
DATE: 21/02/2000	Ref: shak99wtb4.dwg

**Fig. No. 4-11**





Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

**Yukon**  
 Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- ⊘ Potential Borrow Site "B"(possible field camp "C")

Scale 1 to 60,000

Water Birds Map 5

Map Key

Sheet 5



DRAWN BY: LDR	CHECKED BY: DJP
DATE: 21/02/2000	Ref: shakwtb5.dwg

**Fig. No. 4-12**

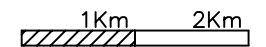


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

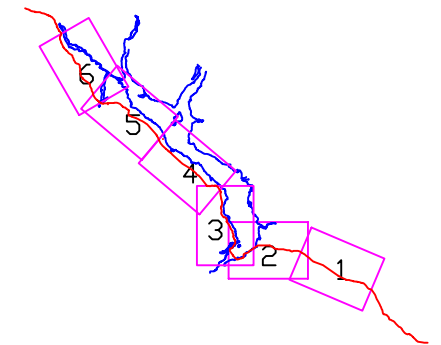
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B"(possible field camp "C")
- Waterbird Survey Area

Scale 1 to 60,000



**Water Birds Map 6**

**Map Key**



Sheet 6



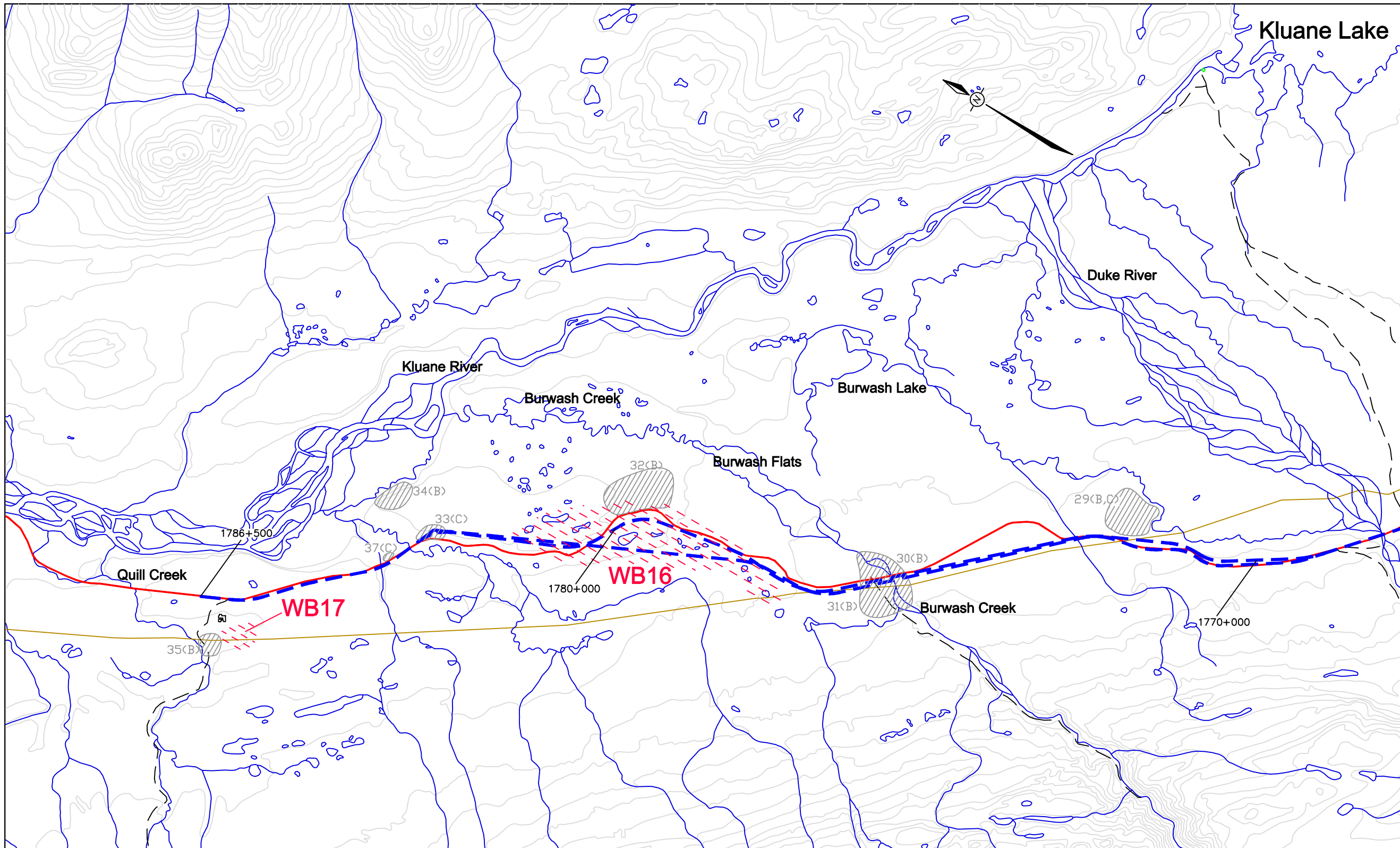
DRAWN BY: LDR

CHECKED BY: DJP

DATE: 21/02/2000

Ref: shak99wtb6.dwg

**Fig. No. 4-13**



WB16 (Km 1777 to 1781) #	WB17 (Km 1786+000) #
Survey 1 29	Survey 1 0
Survey 2 0	Survey 2 0
Survey 3 8	Survey 3 0
Survey 4 NS	Survey 4 NS





- The above data represents a summary of waterbird observations over the four survey periods

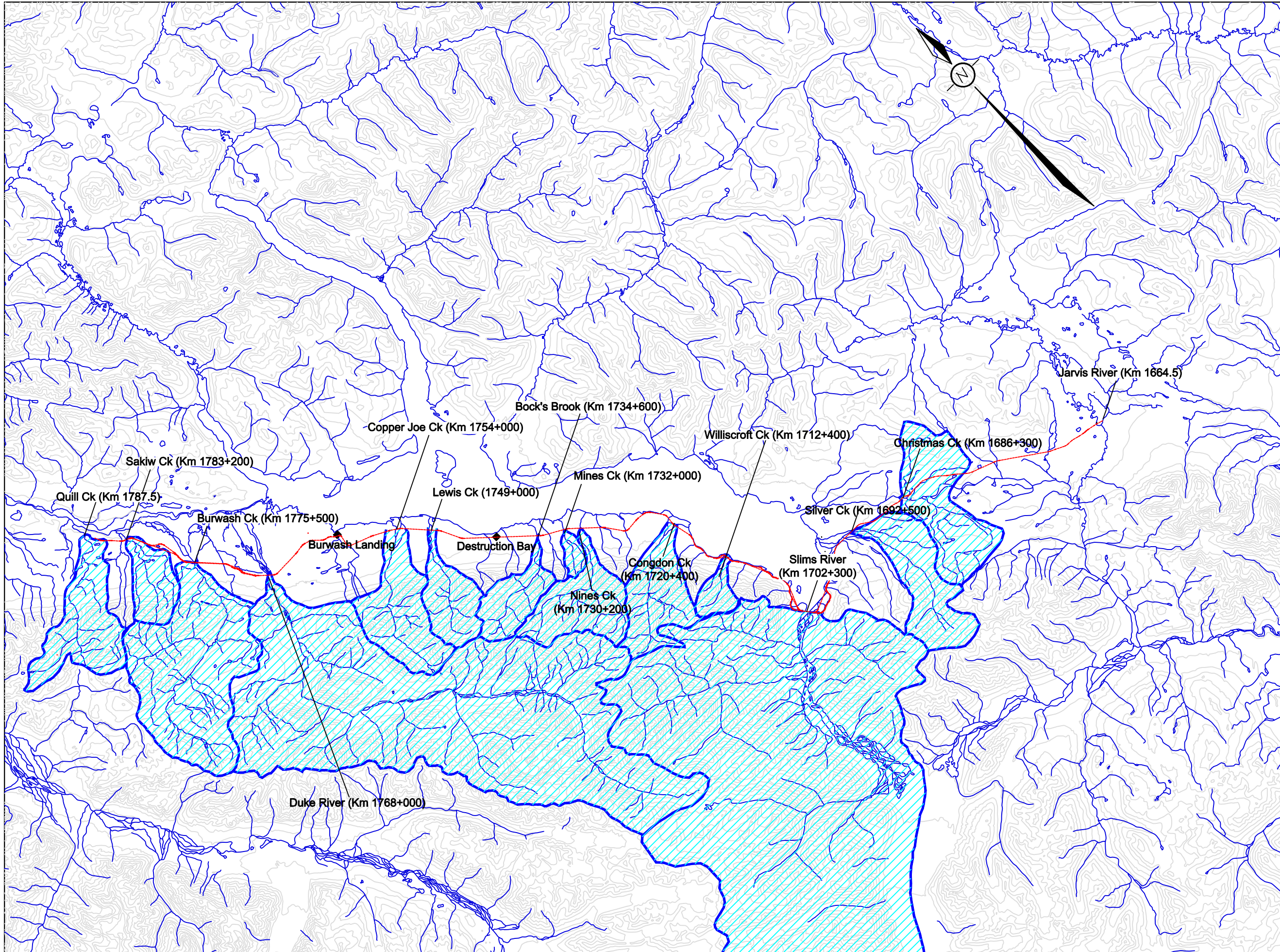
Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km



Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

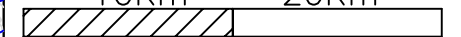
-  Proposed New Alignment
-  Contours at 500ft intervals
-  Watercourse
-  Major Watercourse Catchment Areas



**STUDY AREA OVERVIEW**

Scale 1:360,000

10Km 20Km



ACCESS  
 CONSULTING  
 GROUP

DRAWN BY: LDR

CHECKED BY: PSM

DATE: 21/02/2000

Ref: shak99hyd7.dwg

**Fig. No. 5-1**

Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

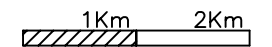


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

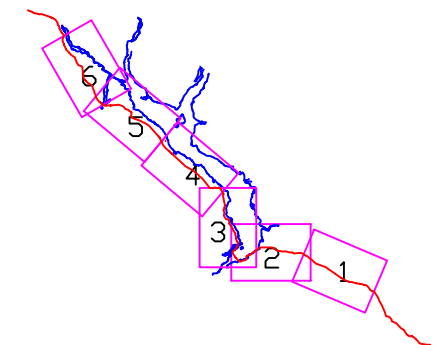
- Existing Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B"(possible field camp "C")

Scale 1 to 60,000



**Hydrology Map 1**

**Map Key**



Sheet 1



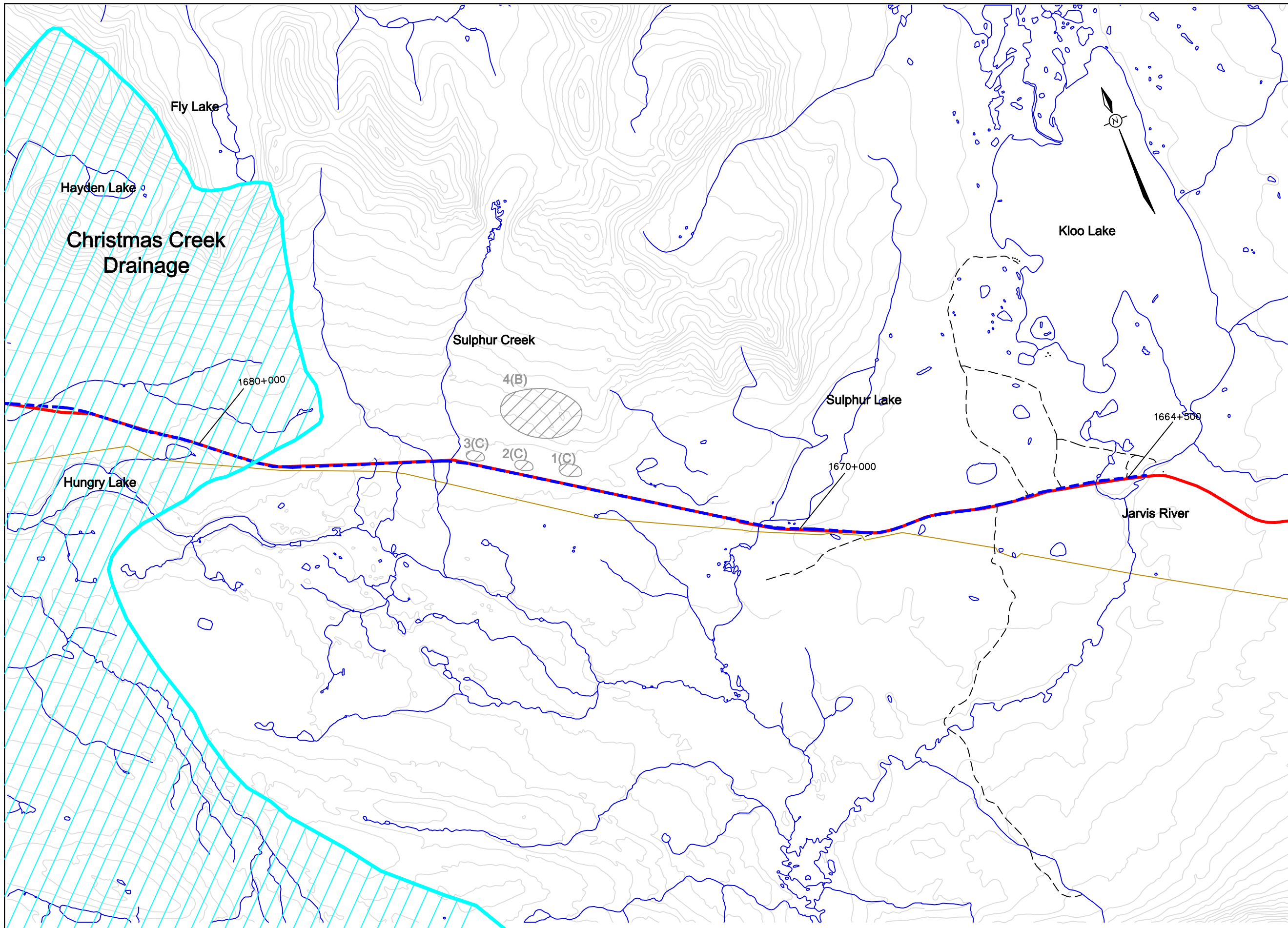
DRAWN BY: LDR

CHECKED BY: PSM

DATE: 21/02/2000

Ref: shak99hyd1.dwg

**Fig. No. 5-2**



Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

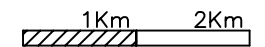


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 Transportation Engineering Branch

**Legend**

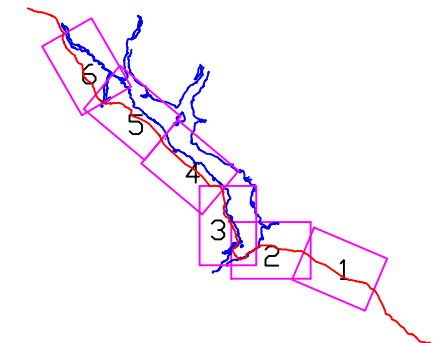
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B" (possible field camp "C")
- - - Potential Avulsions

Scale 1 to 60,000



**Hydrology Map 2**

**Map Key**

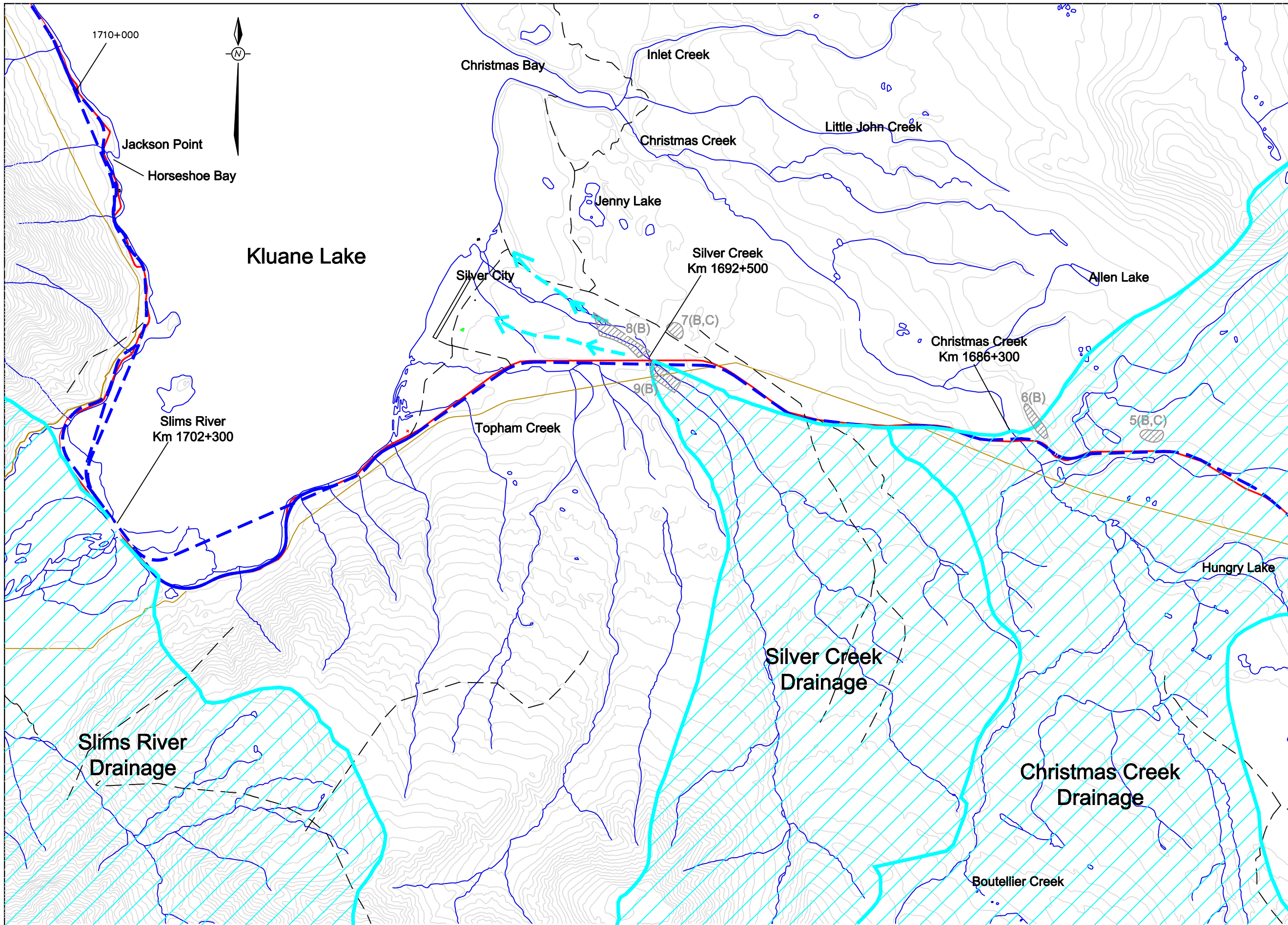


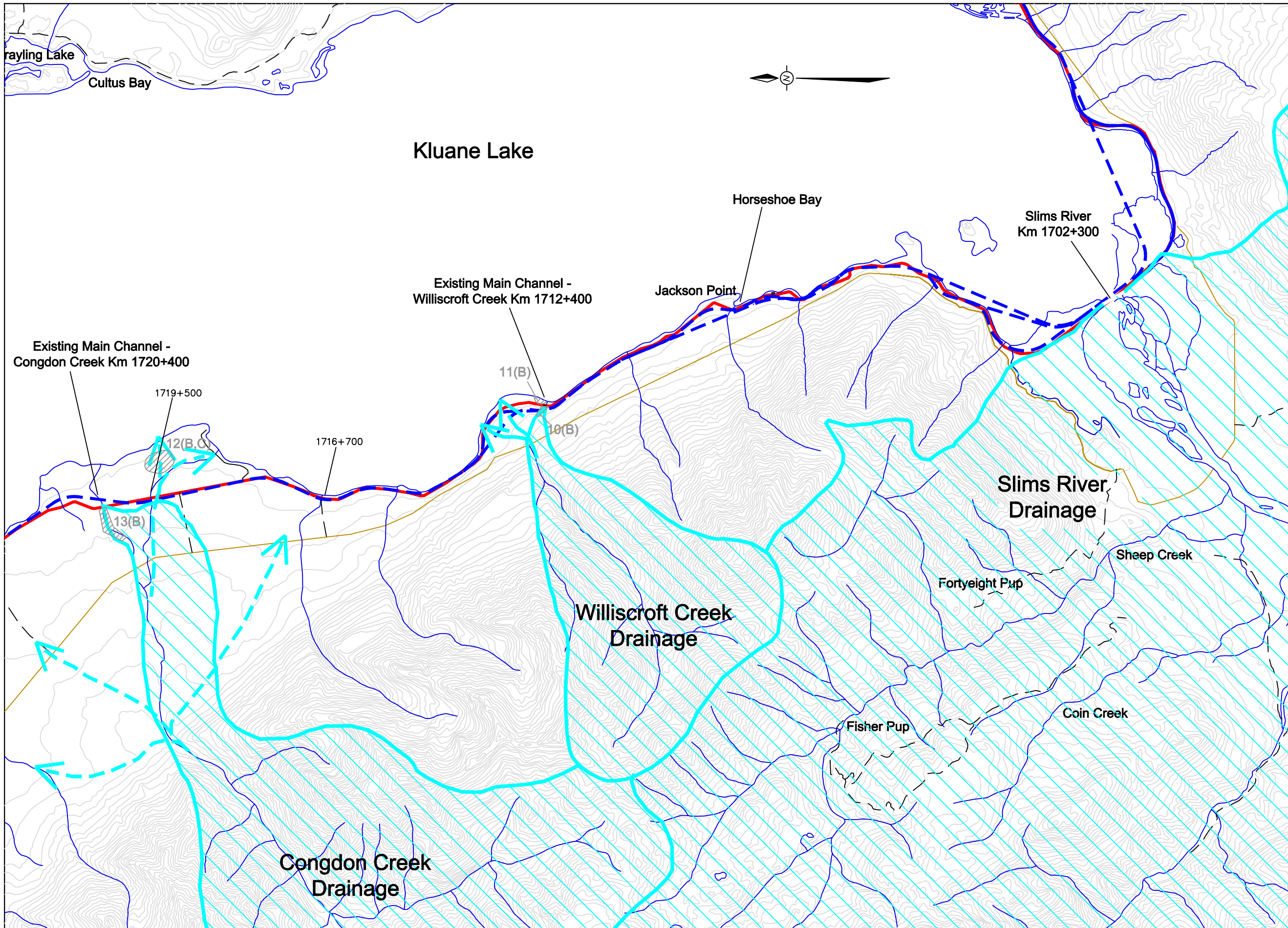
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**Fig. No. 5-3**





Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

**Yukon**  
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 Transportation Engineering Branch

**Legend**

- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- / / / Potential Borrow Site "B" (possible field camp "C")
- - - Possible Avulsions

Scale 1 to 60,000

Hydrology Map 3

Map Key

Sheet 3



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**Fig. No. 5-4**

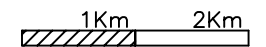


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

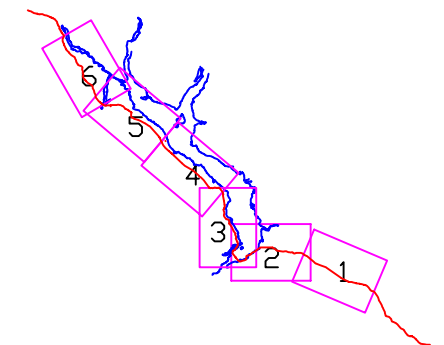
- Alaska Highway
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- Potential Borrow Site "B" (possible field camp "C")
- - - Possible Avulsion

Scale 1 to 60,000



**Hydrology Map 4**

**Map Key**

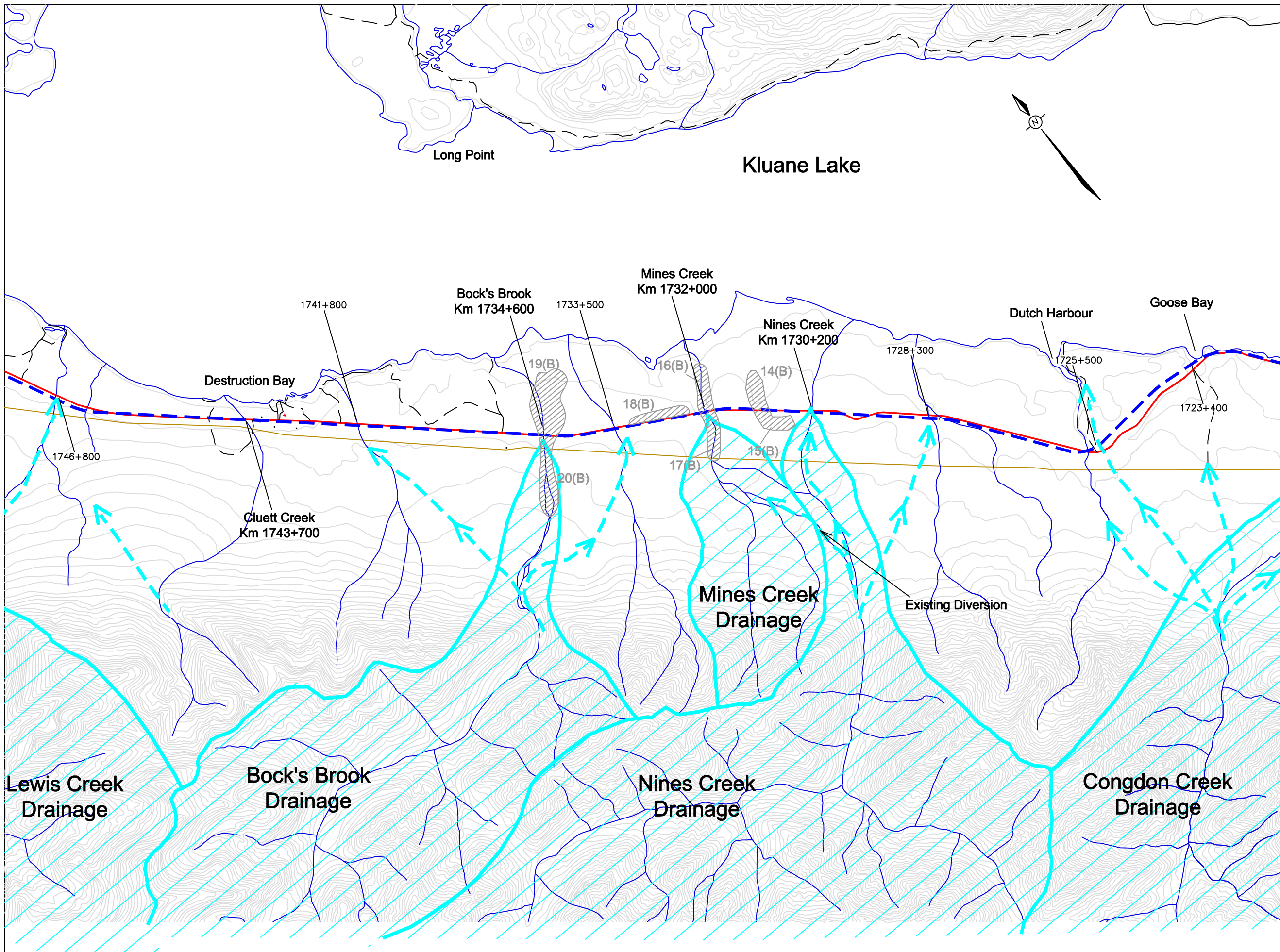


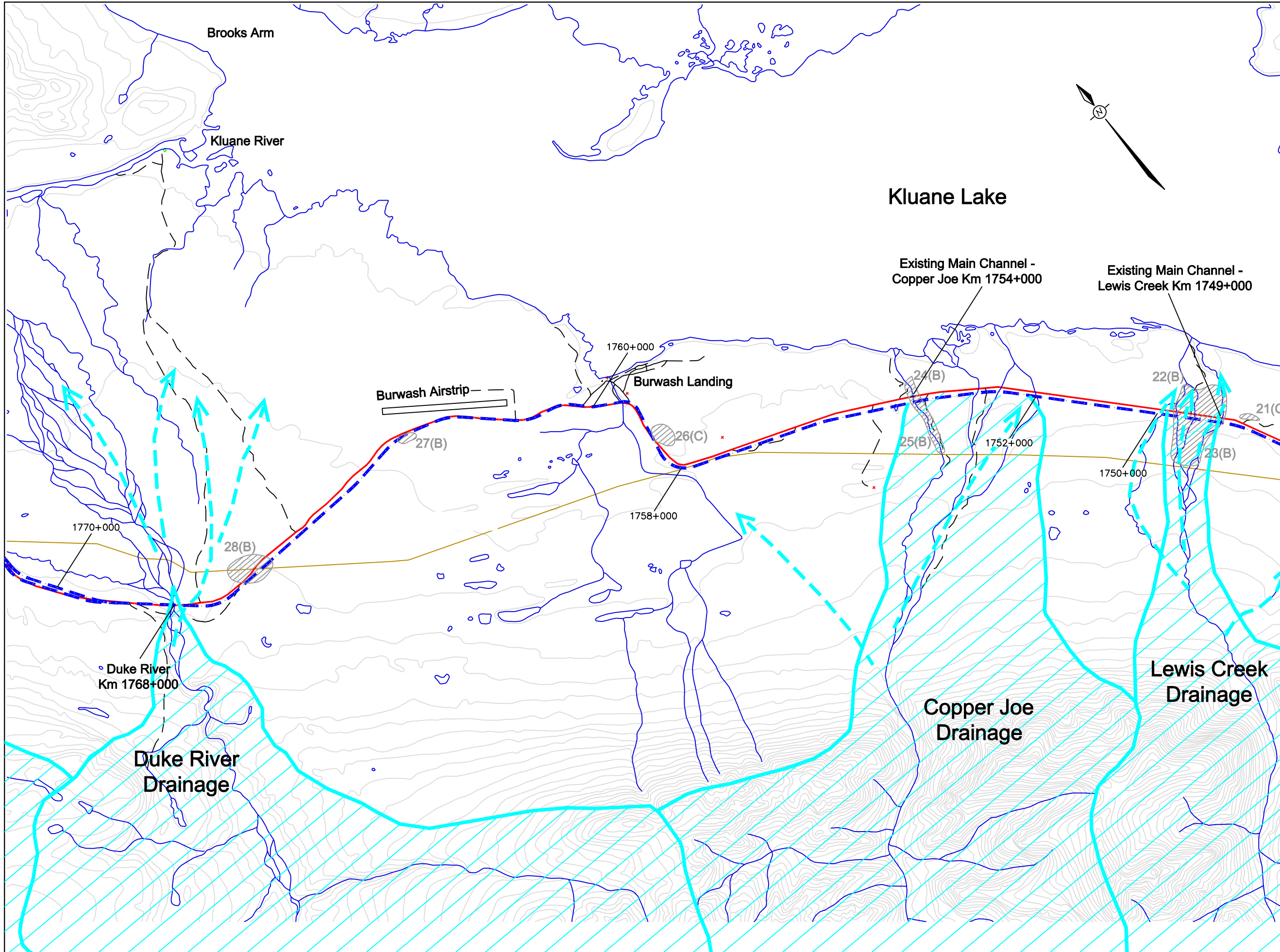
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**Fig. No. 5-5**





**Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km**

**Yukon**  
Community and Transportation Services  
Transportation Engineering Branch

**Legend**

- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")
- ↗ Potential Avulsion

**Scale 1 to 60,000**

1Km 2Km

**Hydrology Map 5**

**Map Key**

**Sheet 5**



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**DATE: 21/02/2000**      **Ref: shakhyd5.dwg**

**Fig. No. 5-6**

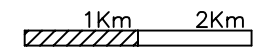


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**Legend**

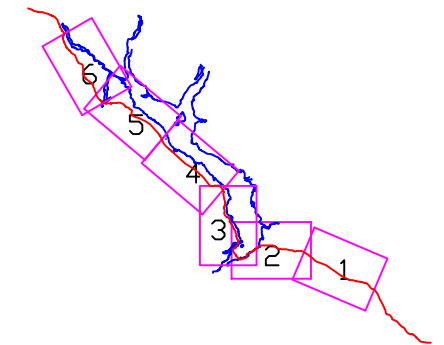
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site (possible field camp)
- ↗ Possible Avulsions

Scale 1 to 60,000



Hydrology Map 6

Map Key



Sheet 6



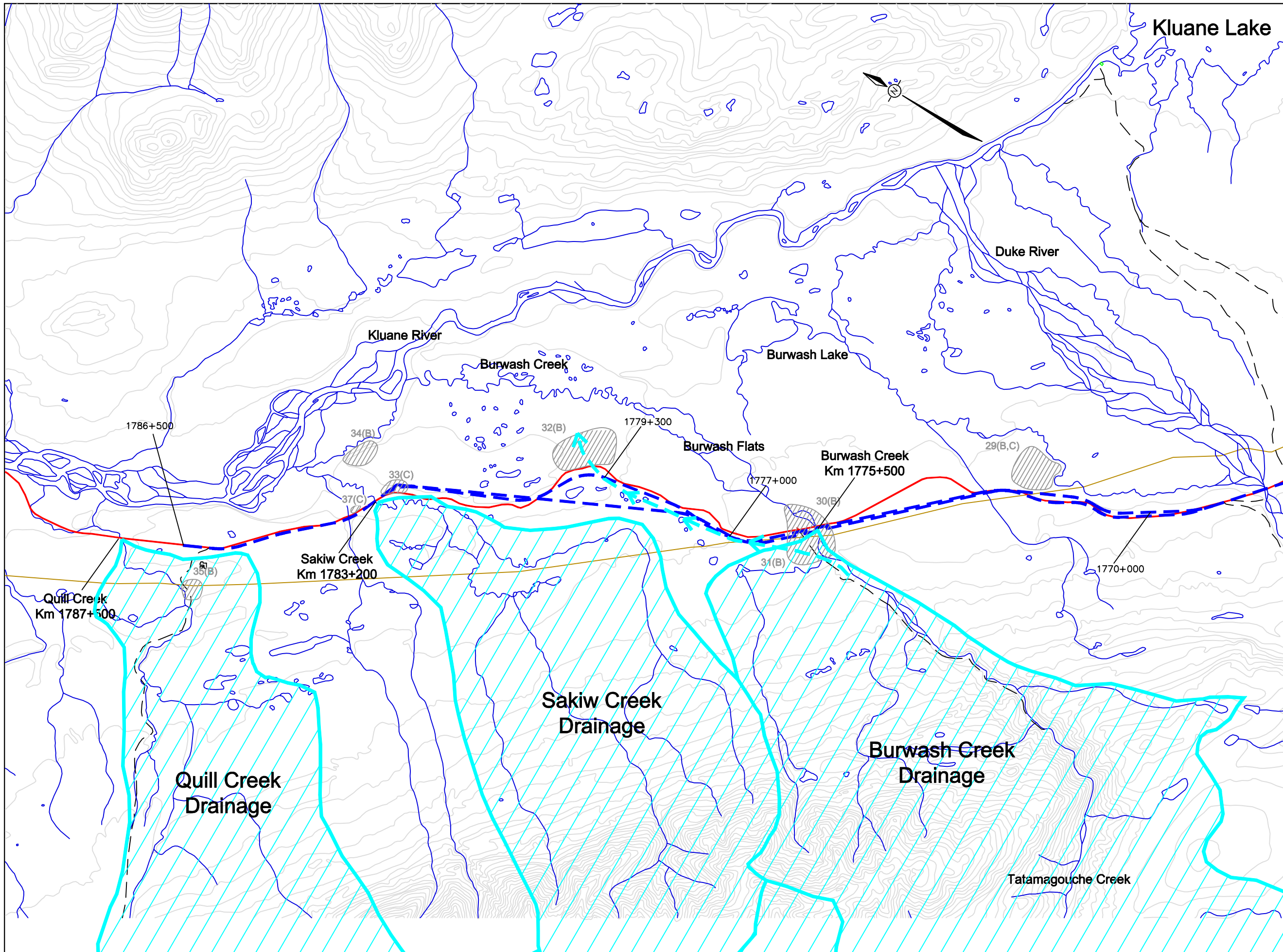
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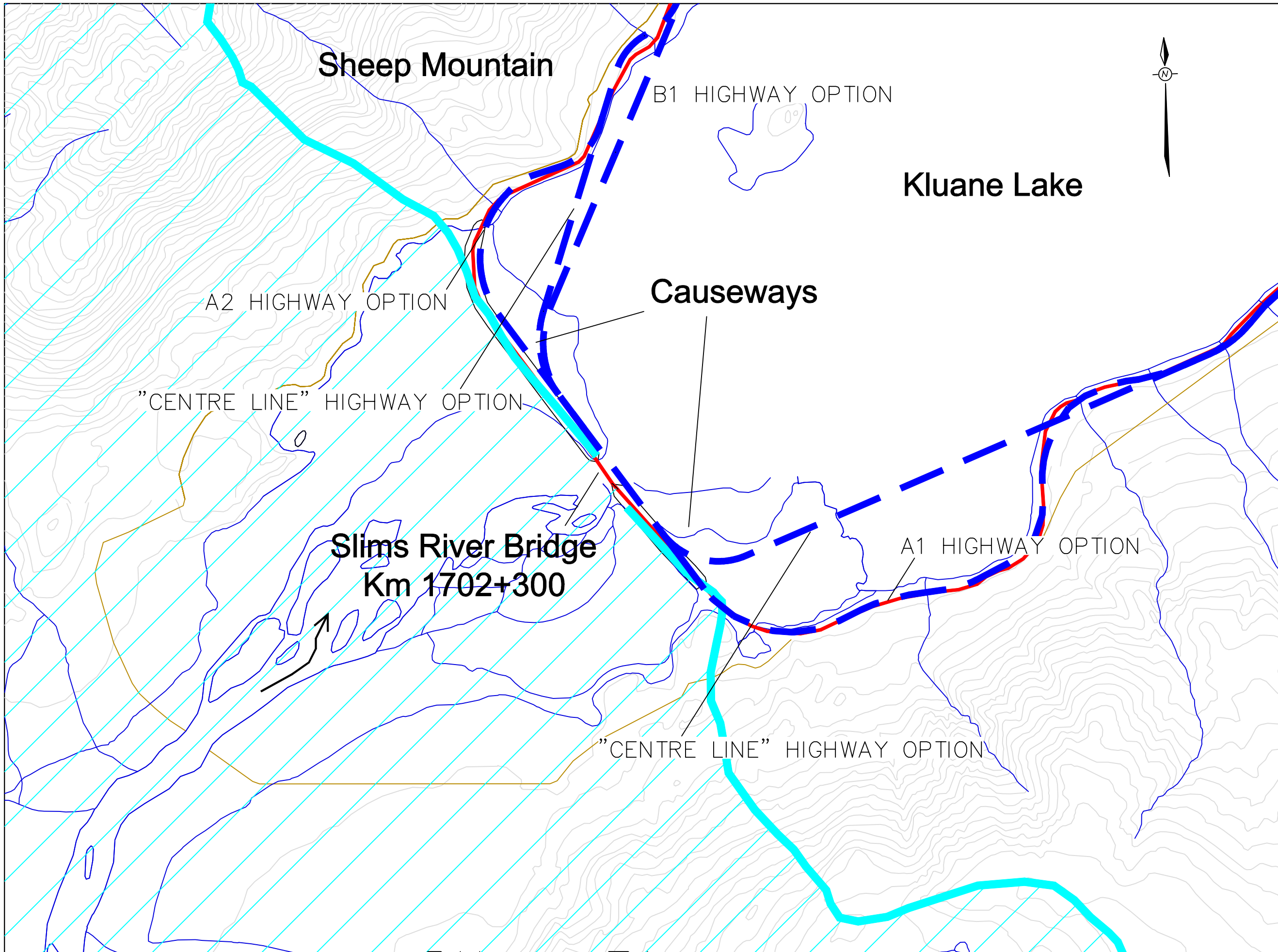
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DATE: 21/02/2000

Ref: shak99hyd6.dwg

**Fig. No. 5-7**



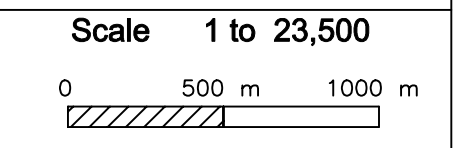


Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

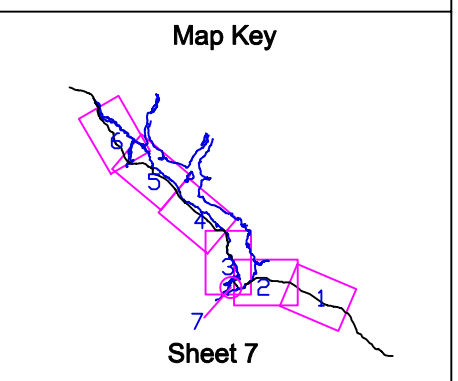
**Yukon**  
 Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

- Alaska Highway
- - - Proposed New Alignment Options
- Drainage Basin
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers



**Slims River Detail**



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**Fig No. 5-8**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

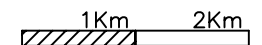


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**Legend**

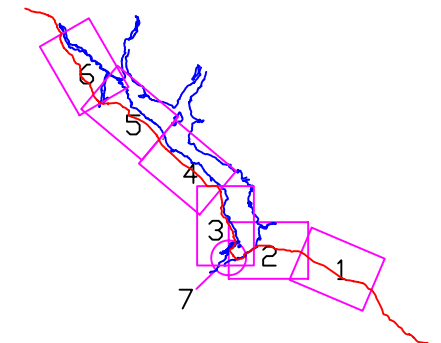
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Type Polygon
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Vegetation Map 1**

**Map Key**



Sheet 1 of 7



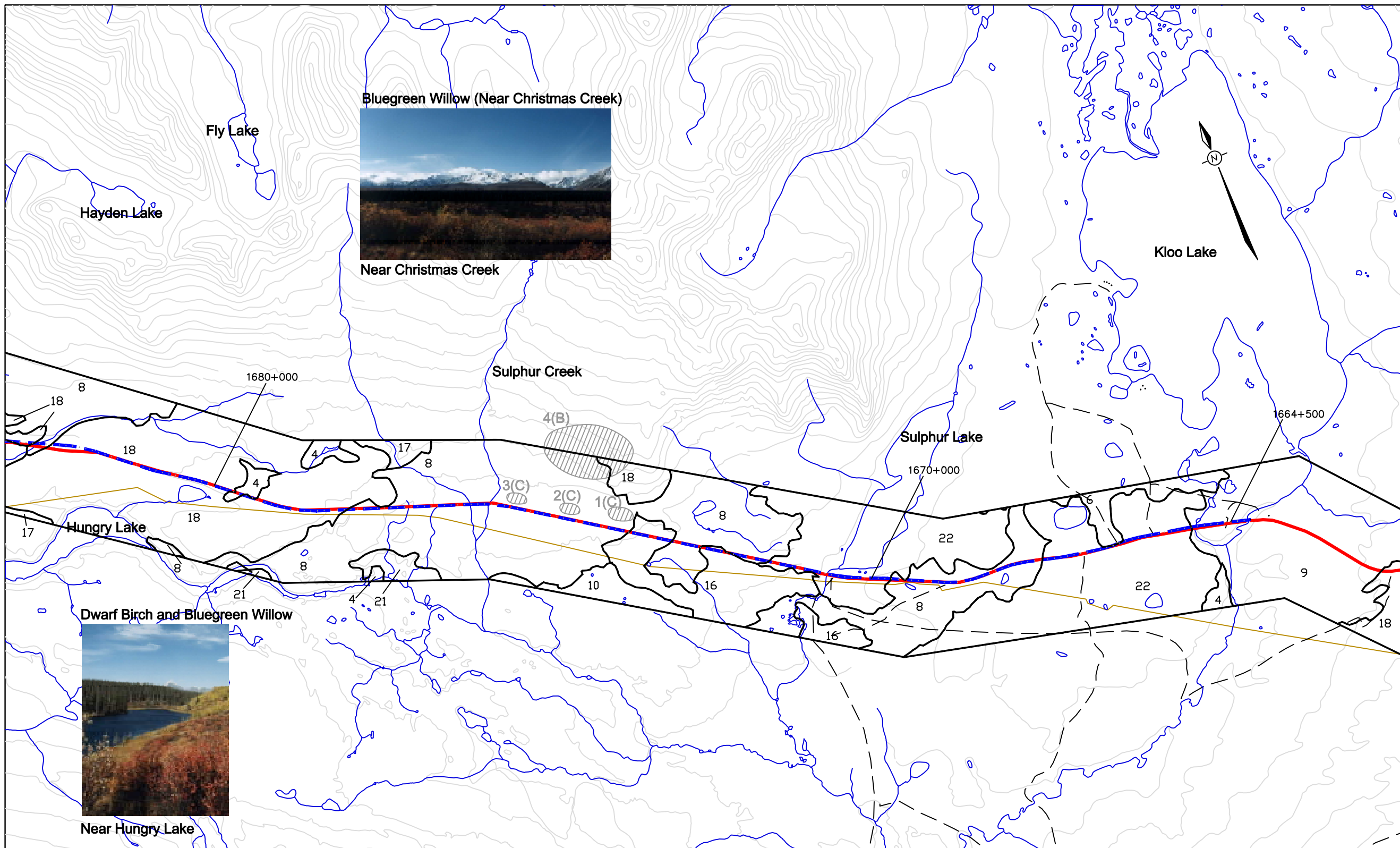
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CHECKED BY: SPW

DATE: 18/02/2000

Ref: shak99veg1.dwg

**Fig No. 6-1**



- |  |   |  |
|--|---|--|
| 1 White Spruce-Rhododendron  | 12 White Spruce-Bearberry + White Spruce-Rhododendron + Bluegreen Willow          | 23 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + White Spruce-Bearberry + Bluegreen Willow |
| 2 White Spruce-Rhododendron + White Spruce-Bearberry                       | 13 White Spruce-Bearberry + Bluegreen Willow                                      | 24 Sagewort-Purple Reedgrass   |
| 3 White Spruce-Rhododendron + White Spruce-Bearberry + Bluegreen Willow    | 14 Black Spruce-Labrador Tea + Bluegreen Willow                                   | 25 Alaskan Willow  |
| 4 Bluegreen Willow   | 15 White Spruce-Woodland Sedge + Bluegreen Willow + White Spruce-Rhododendron     | 26 Tall Blueberry Willow   |
| 5 Bluegreen Willow + White Spruce-Rhododendron + White Spruce-Kinnikinnick | 16 White Spruce-Woodland Sedge + White Spruce-Kinnikinnick + Bluegreen Willow     | 27 Mountain Alder  |
| 6 Bluegreen Willow + White Spruce-Bearberry                                | 17 White Spruce-Kinnikinnick  | 28 Drummond's Mountain Aven  |
| 7 Bluegreen Willow + White Spruce-Bearberry + White Spruce-Rhododendron    | 18 White Spruce-Kinnikinnick + Bluegreen Willow                                   | 29 Balsam Poplar-Broad-leaved Willowherb   |
| 8 Bluegreen Willow + White Spruce-Kinnikinnick                             | 19 White Spruce-Kinnikinnick + White Spruce-Bearberry + Bluegreen Willow          | 30 Trembling Aspen-Common Yarrow   |
| 9 Bluegreen Willow + Balsam Poplar-Arctic Lupine                           | 20 White Spruce-Kinnikinnick + White Spruce-Bearberry + Sagewort-Purple Reedgrass | 31 Alluvium (unvegetated)  |
| 10 Bluegreen Willow + Sagewort-Purple Reedgrass                            | 21 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge                        | 32 Boulder Fields  |
| 11 White Spruce-Bearberry  | 22 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + Bluegreen Willow     |  |

Shakwak Project  
Environmental  
Assessment Update 1999  
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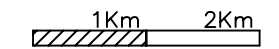


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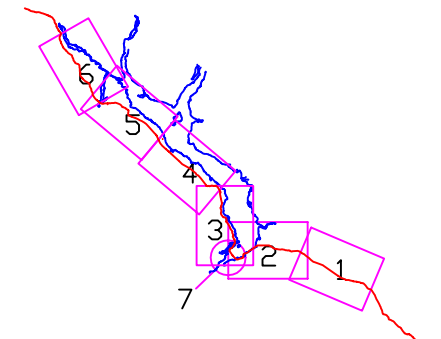
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Survey Plots
- Vegetation Survey Plots
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

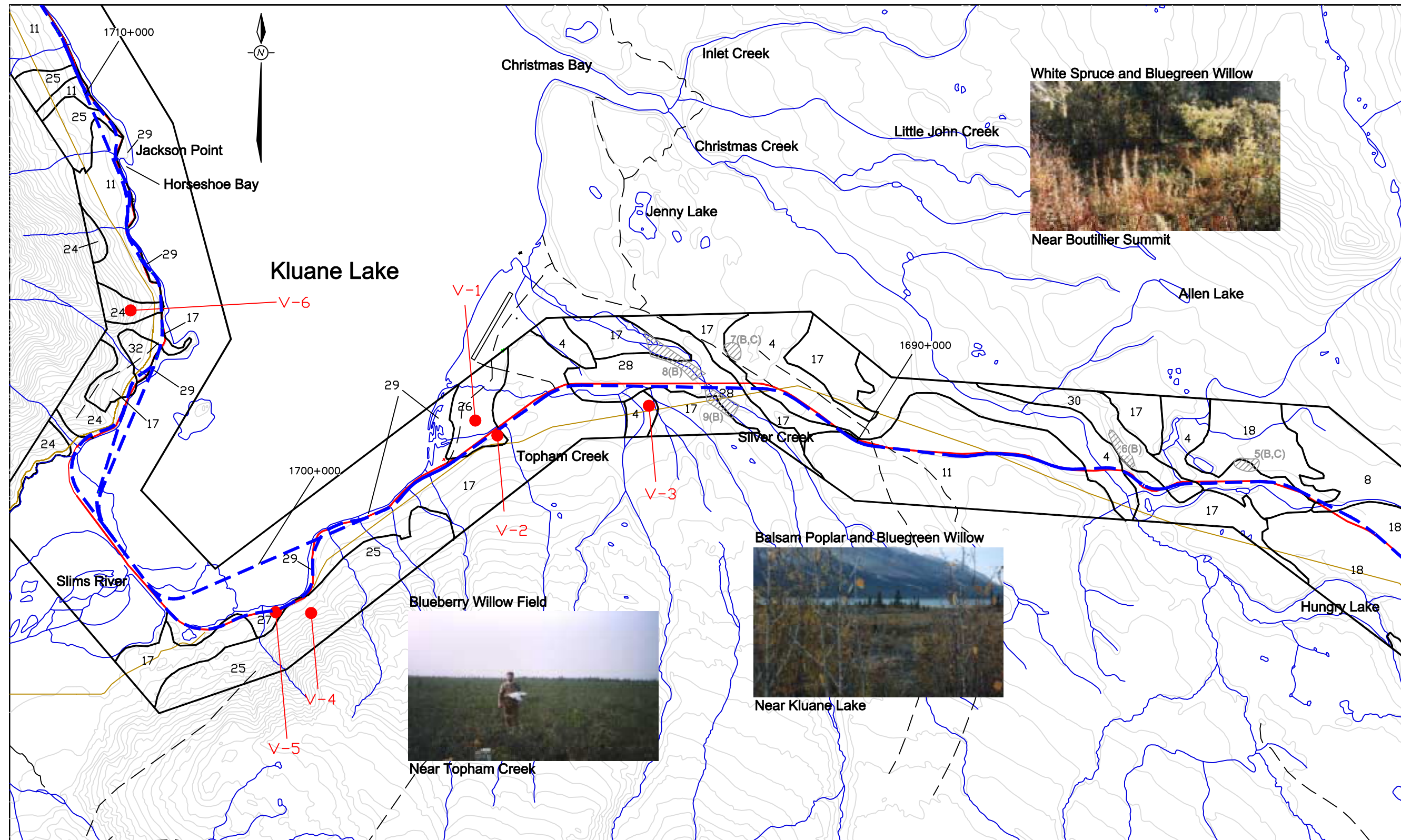


Vegetation Map 2

Map Key



Sheet 2 of 7



1 White Spruce-Rhododendron	12 White Spruce-Bearberry + White Spruce-Rhododendron + Bluegreen Willow	23 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + White Spruce-Bearberry + Bluegreen Willow
2 White Spruce-Rhododendron + White Spruce-Bearberry	13 White Spruce-Bearberry + Bluegreen Willow	24 Sagewort-Purple Reedgrass
3 White Spruce-Rhododendron + White Spruce-Bearberry + Bluegreen Willow	14 Black Spruce-Labrador Tea + Bluegreen Willow	25 Alaskan Willow
4 Bluegreen Willow	15 White Spruce-Woodland Sedge + Bluegreen Willow + White Spruce-Rhododendron	26 Tall Blueberry Willow
5 Bluegreen Willow + White Spruce-Rhododendron + White Spruce-Kinnikinnick	16 White Spruce-Woodland Sedge + White Spruce-Kinnikinnick + Bluegreen Willow	27 Mountain Alder
6 Bluegreen Willow + White Spruce-Bearberry	17 White Spruce-Kinnikinnick	28 Drummond's Mountain Aven
7 Bluegreen Willow + White Spruce-Bearberry + White Spruce-Rhododendron	18 White Spruce-Kinnikinnick + Bluegreen Willow	29 Balsam Poplar-Broad-leaved Willowherb
8 Bluegreen Willow + White Spruce-Kinnikinnick	19 White Spruce-Kinnikinnick + White Spruce-Bearberry + Bluegreen Willow	30 Trembling Aspen-Common Yarrow
9 Bluegreen Willow + Balsam Poplar-Arctic Lupine	20 White Spruce-Kinnikinnick + White Spruce-Bearberry + Sagewort-Purple Reedgrass	31 Alluvium (unvegetated)
10 Bluegreen Willow + Sagewort-Purple Reedgrass	21 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge	32 Boulder Fields
11 White Spruce-Bearberry	22 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + Bluegreen Willow	



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Fig No. 6-2

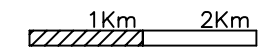


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**Legend**

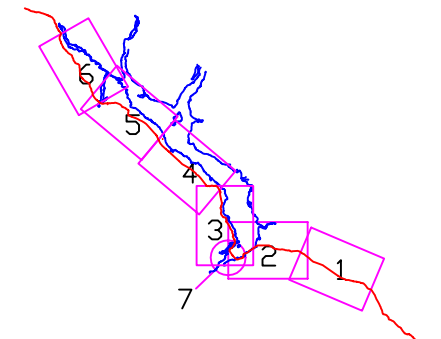
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contour lines Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- Vegetation Type Polygon
- Vegetation Survey Plots
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

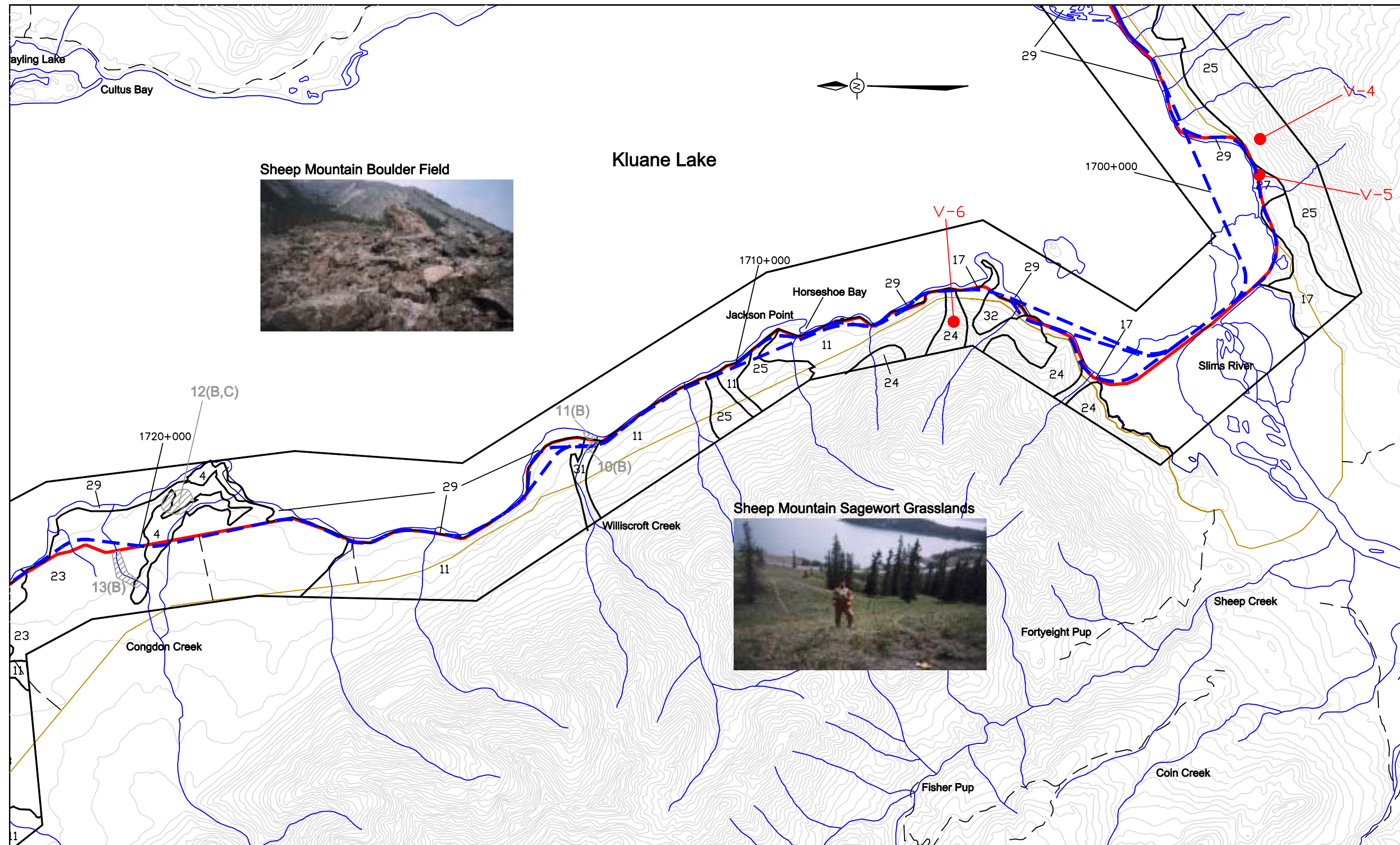


**Vegetation Map 3**

**Map Key**



Sheet 3 of 7



<p>1 White Spruce–Rhododendron</p> <p>2 White Spruce–Rhododendron + White Spruce–Bearberry</p> <p>3 White Spruce–Rhododendron + White Spruce–Bearberry + Bluegreen Willow</p> <p>4 Bluegreen Willow</p> <p>5 Bluegreen Willow + White Spruce–Rhododendron + White Spruce–Kinnikinick</p> <p>6 Bluegreen Willow + White Spruce–Bearberry</p> <p>7 Bluegreen Willow + White Spruce–Bearberry + White Spruce–Rhododendron</p> <p>8 Bluegreen Willow + White Spruce–Kinnikinick</p> <p>9 Bluegreen Willow + Balsam Poplar–Arctic Lupine</p> <p>10 Bluegreen Willow + Sagewort–Purple Reedgrass</p> <p>11 White Spruce–Bearberry</p>	<p>12 White Spruce–Bearberry + White Spruce–Rhododendron + Bluegreen Willow</p> <p>13 White Spruce–Bearberry + Bluegreen Willow</p> <p>14 Black Spruce–Labrador Tea + Bluegreen Willow</p> <p>15 White Spruce–Woodland Sedge + Bluegreen Willow + White Spruce–Rhododendron</p> <p>16 White Spruce–Woodland Sedge + White Spruce–Kinnikinick + Bluegreen Willow</p> <p>17 White Spruce–Kinnikinick</p> <p>18 White Spruce–Kinnikinick + Bluegreen Willow</p> <p>19 White Spruce–Kinnikinick + White Spruce–Bearberry + Bluegreen Willow</p> <p>20 White Spruce–Kinnikinick + White Spruce–Bearberry + Sagewort–Purple Reedgrass</p> <p>21 White Spruce–Kinnikinick + White Spruce–Woodland Sedge</p> <p>22 White Spruce–Kinnikinick + White Spruce–Woodland Sedge + Bluegreen Willow</p>	<p>23 White Spruce–Kinnikinick + White Spruce–Woodland Sedge + White Spruce–Bearberry + Bluegreen Willow</p> <p>24 Sagewort–Purple Reedgrass</p> <p>25 Alaskan Willow</p> <p>26 Tall Blueberry Willow</p> <p>27 Mountain Alder</p> <p>28 Drummond’s Mountain Aven</p> <p>29 Balsam Poplar–Broad–leaved Willowherb</p> <p>30 Trembling Aspen–Common Yarrow</p> <p>31 Alluvium (unvegetated)</p> <p>32 Boulder Fields</p>
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**Fig. No. 6-3**

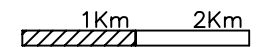


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**Legend**

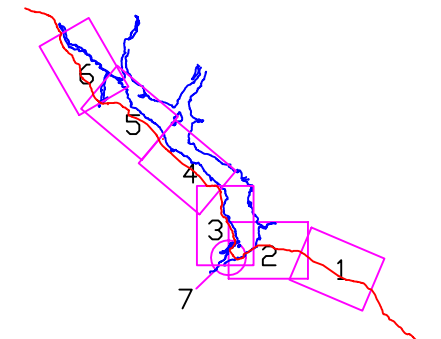
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Type Polygon
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

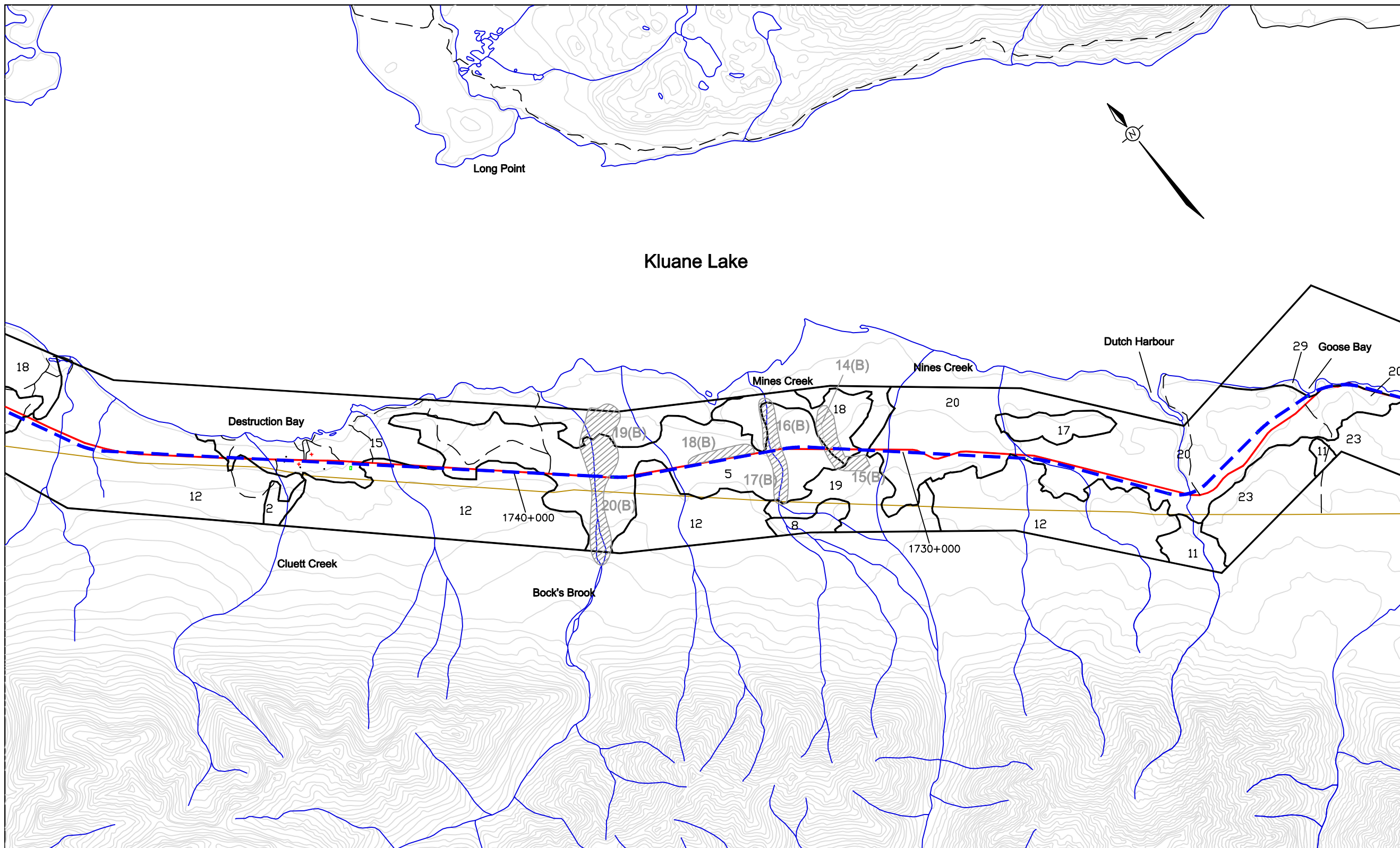


**Vegetation Map 4**

**Map Key**



Sheet 4 of 7



1 White Spruce-Rhododendron	12 White Spruce-Bearberry + White Spruce-Rhododendron + Bluegreen Willow	23 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + White Spruce-Bearberry + Bluegreen Willow
2 White Spruce-Rhododendron + White Spruce-Bearberry	13 White Spruce-Bearberry + Bluegreen Willow	24 Sagewort-Purple Reedgrass
3 White Spruce-Rhododendron + White Spruce-Bearberry + Bluegreen Willow	14 Black Spruce-Labrador Tea + Bluegreen Willow	25 Alaskan Willow
4 Bluegreen Willow	15 White Spruce-Woodland Sedge + Bluegreen Willow + White Spruce-Rhododendron	26 Tall Blueberry Willow
5 Bluegreen Willow + White Spruce-Rhododendron + White Spruce-Kinnikinnick	16 White Spruce-Woodland Sedge + White Spruce-Kinnikinnick + Bluegreen Willow	27 Mountain Alder
6 Bluegreen Willow + White Spruce-Bearberry	17 White Spruce-Kinnikinnick	28 Drummond's Mountain Aven
7 Bluegreen Willow + White Spruce-Bearberry + White Spruce-Rhododendron	18 White Spruce-Kinnikinnick + Bluegreen Willow	29 Balsam Poplar-Broad-leaved Willowherb
8 Bluegreen Willow + White Spruce-Kinnikinnick	19 White Spruce-Kinnikinnick + White Spruce-Bearberry + Bluegreen Willow	30 Trembling Aspen-Common Yarrow
9 Bluegreen Willow + Balsam Poplar-Arctic Lupine	20 White Spruce-Kinnikinnick + White Spruce-Bearberry + Sagewort-Purple Reedgrass	31 Alluvium (unvegetated)
10 Bluegreen Willow + Sagewort-Purple Reedgrass	21 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge	32 Boulder Fields
11 White Spruce-Bearberry	22 White Spruce-Kinnikinnick + White Spruce-Woodland Sedge + Bluegreen Willow	



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**Fig. No. 6-4**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

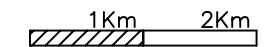


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**Legend**

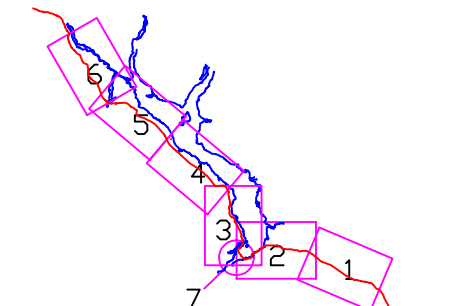
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Type Polygon
- Vegetation Survey Plots
- Potential Borrow Site (possible field camp)

Scale 1 to 60,000

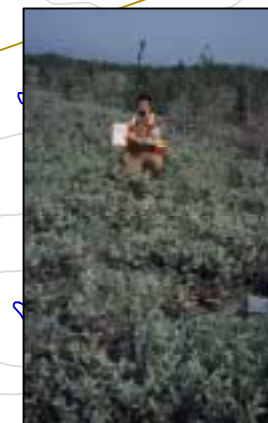
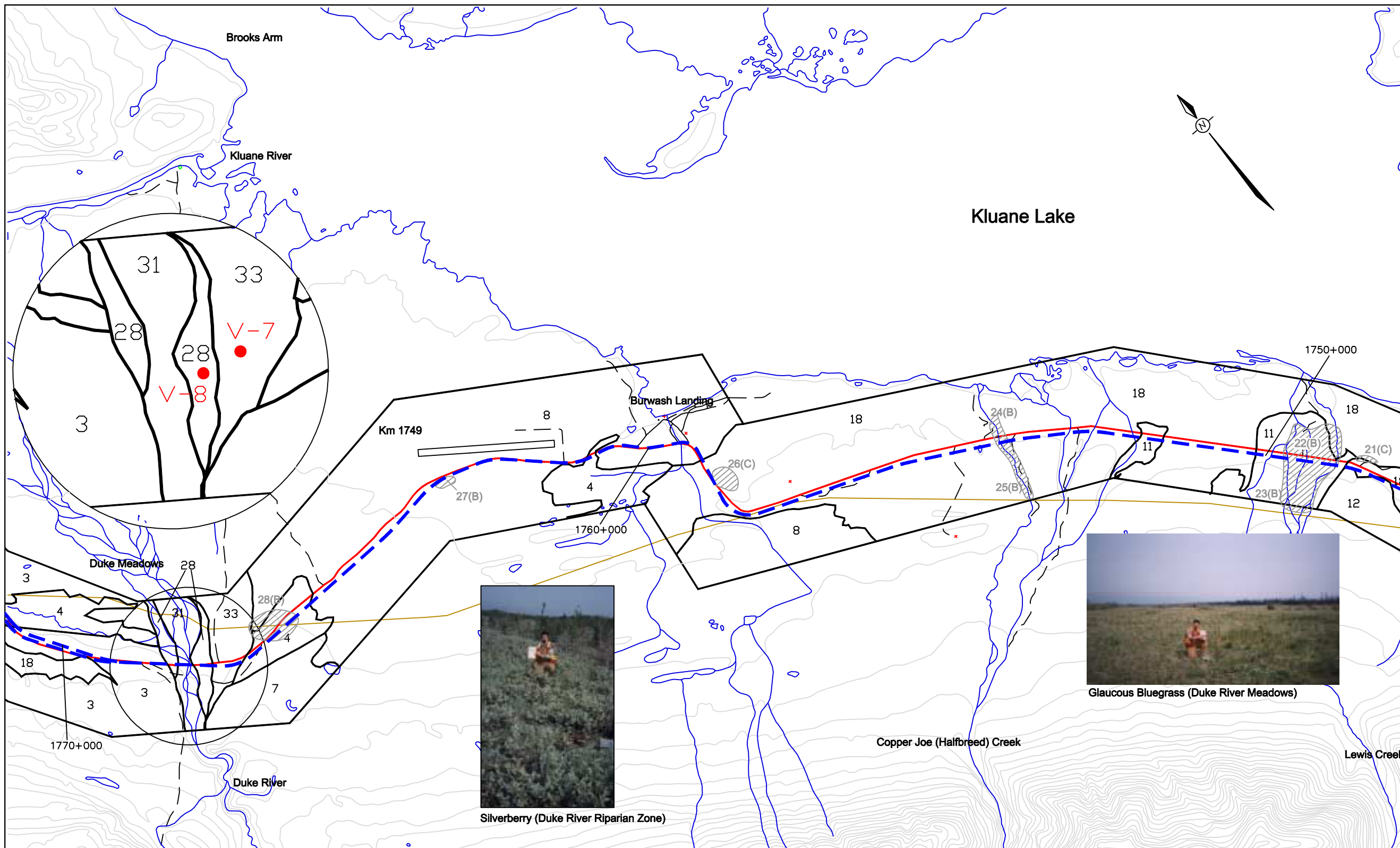


**Vegetation Map 5**

**Map Key**



Sheet 5 of 7



Silverberry (Duke River Riparian Zone)



Glaucous Bluegrass (Duke River Meadows)

- |   |  |   |
|---|--|---|
| 1 White Spruce–Rhododendron   | 12 White Spruce–Bearberry + White Spruce–Rhododendron + Bluegreen Willow         | 23 White Spruce–Kinnikinick + White Spruce–Woodland Sedge + White Spruce–Bearberry + Bluegreen Willow |
| 2 White Spruce–Rhododendron + White Spruce–Bearberry                      | 13 White Spruce–Bearberry + Bluegreen Willow                                     | 24 Sagewort–Purple Reedgrass  |
| 3 White Spruce–Rhododendron + White Spruce–Bearberry + Bluegreen Willow   | 14 Black Spruce–Labrador Tea + Bluegreen Willow                                  | 25 Alaskan Willow   |
| 4 Bluegreen Willow  | 15 White Spruce–Woodland Sedge + Bluegreen Willow + White Spruce–Rhododendron    | 26 Tall Blueberry Willow  |
| 5 Bluegreen Willow + White Spruce–Rhododendron + White Spruce–Kinnikinick | 16 White Spruce–Woodland Sedge + White Spruce–Kinnikinick + Bluegreen Willow     | 27 Mountain Alder   |
| 6 Bluegreen Willow + White Spruce–Bearberry                               | 17 White Spruce–Kinnikinick  | 28 Drummond’s Mountain Aven   |
| 7 Bluegreen Willow + White Spruce–Bearberry + White Spruce–Rhododendron   | 18 White Spruce–Kinnikinick + Bluegreen Willow                                   | 29 Balsam Poplar–Broad–leaved Willowherb  |
| 8 Bluegreen Willow + White Spruce–Kinnikinick                             | 19 White Spruce–Kinnikinick + White Spruce–Bearberry + Bluegreen Willow          | 30 Trembling Aspen–Common Yarrow  |
| 9 Bluegreen Willow + Balsam Poplar–Arctic Lupine                          | 20 White Spruce–Kinnikinick + White Spruce–Bearberry + Sagewort–Purple Reedgrass | 31 Alluvium (unvegetated)   |
| 10 Bluegreen Willow + Sagewort–Purple Reedgrass                           | 21 White Spruce–Kinnikinick + White Spruce–Woodland Sedge                        | 32 Boulder Fields   |
| 11 White Spruce–Bearberry   | 22 White Spruce–Kinnikinick + White Spruce–Woodland Sedge + Bluegreen Willow     | 33 Sagewort–Glaucous Bluegrass  |



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**Fig. No. 6-5**

Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

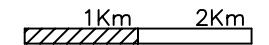


Community and Transportation Services  
Transportation Engineering Branch

Legend

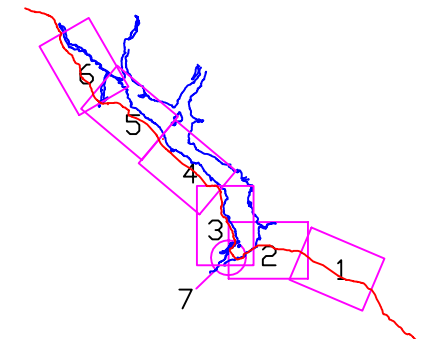
- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Type Polygon
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

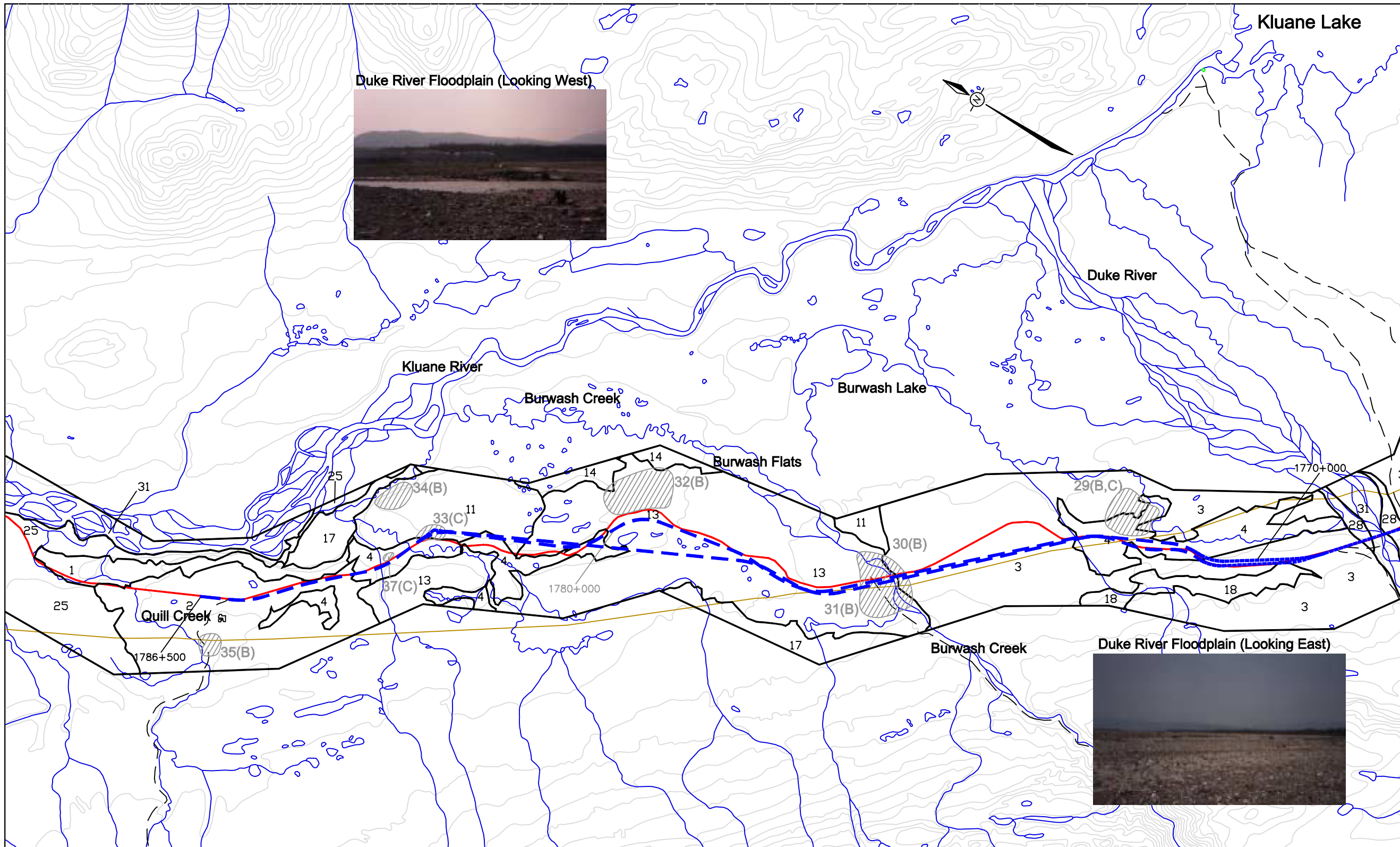


Vegetation Map 6

Map Key



Sheet 6 of 7



1 White Spruce-Rhododendron	12 White Spruce-Bearberry + White Spruce-Rhododendron + Bluegreen Willow	23 White Spruce-Kinnikinick + White Spruce-Woodland Sedge + White Spruce-Bearberry + Bluegreen Willow
2 White Spruce-Rhododendron + White Spruce-Bearberry	13 White Spruce-Bearberry + Bluegreen Willow	24 Sagewort-Purple Reedgrass
3 White Spruce-Rhododendron + White Spruce-Bearberry + Bluegreen Willow	14 Black Spruce-Labrador Tea + Bluegreen Willow	25 Alaskan Willow
4 Bluegreen Willow	15 White Spruce-Woodland Sedge + Bluegreen Willow + White Spruce-Rhododendron	26 Tall Blueberry Willow
5 Bluegreen Willow + White Spruce-Rhododendron + White Spruce-Kinnikinick	16 White Spruce-Woodland Sedge + White Spruce-Kinnikinick + Bluegreen Willow	27 Mountain Alder
6 Bluegreen Willow + White Spruce-Bearberry	17 White Spruce-Kinnikinick	28 Drummond's Mountain Aven
7 Bluegreen Willow + White Spruce-Bearberry + White Spruce-Rhododendron	18 White Spruce-Kinnikinick + Bluegreen Willow	29 Balsam Poplar-Broad-leaved Willowherb
8 Bluegreen Willow + White Spruce-Kinnikinick	19 White Spruce-Kinnikinick + White Spruce-Bearberry + Bluegreen Willow	30 Trembling Aspen-Common Yarrow
9 Bluegreen Willow + Balsam Poplar-Arctic Lupine	20 White Spruce-Kinnikinick + White Spruce-Bearberry + Sagewort-Purple Reedgrass	31 Alluvium (unvegetated)
10 Bluegreen Willow + Sagewort-Purple Reedgrass	21 White Spruce-Kinnikinick + White Spruce-Woodland Sedge	32 Boulder Fields
11 White Spruce-Bearberry	22 White Spruce-Kinnikinick + White Spruce-Woodland Sedge + Bluegreen Willow	33 Sagewort-Glaucous Bluegrass



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DATE: 18/02/2000      Ref: shak99veg6.dwg

Fig. No. 6-6



Community and Transportation Services  
Transportation Engineering Branch

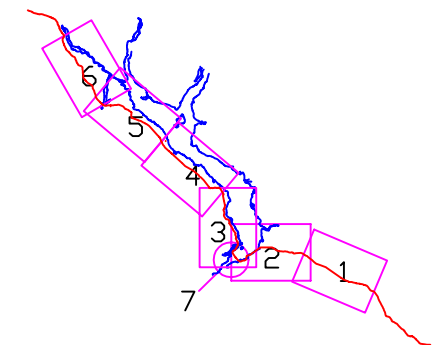
**Legend**

- Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Vegetation Type Polygon

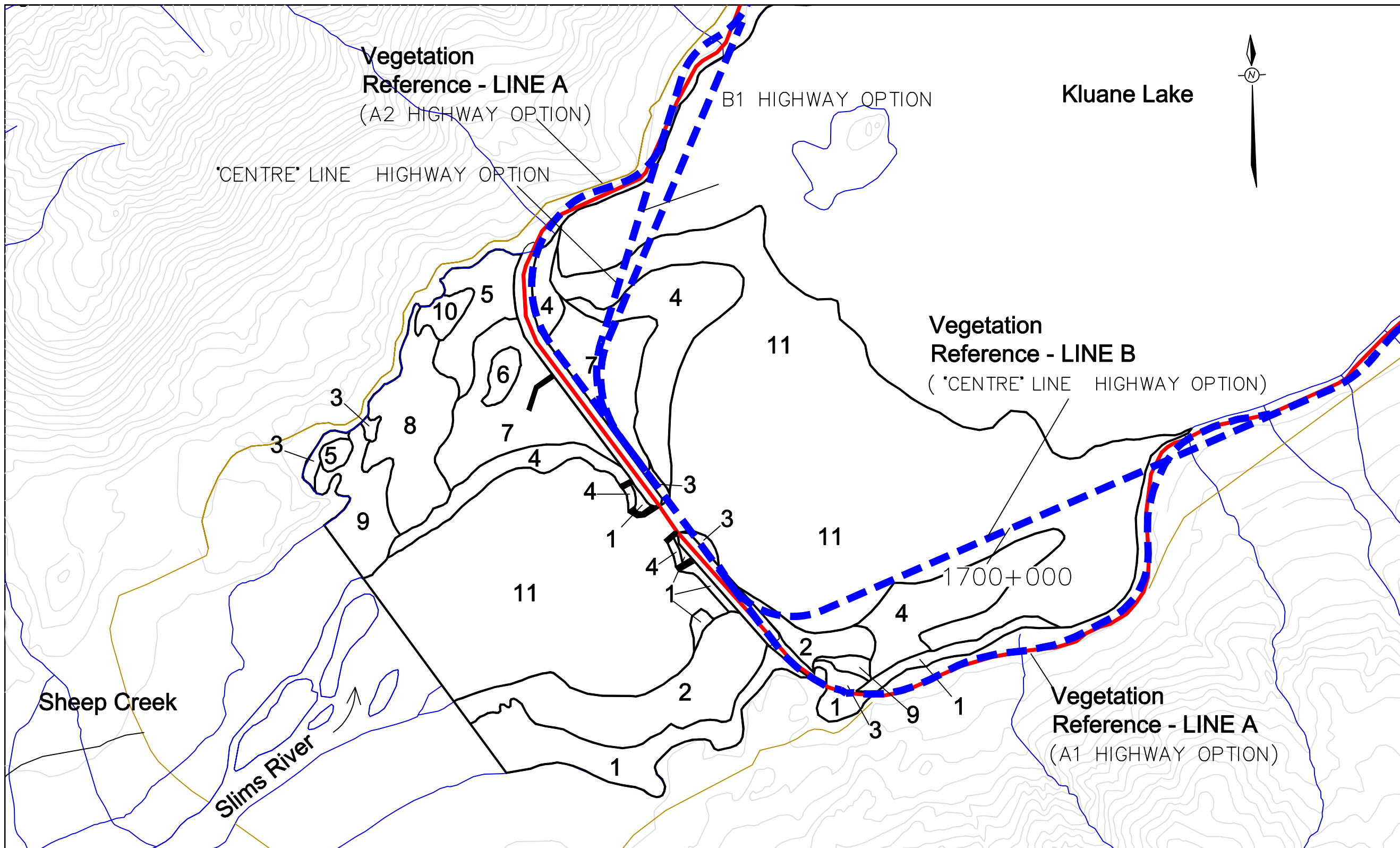
Scale 1 to 23,500  
0 500 m 1000 m

**Slims River Delta**

**Map Key**



Sheet 7 of 7



- 1 Water Sedge
- 2 Barrenground Willow - Parry's Sedge
- 3 Arctic Rush
- 4 Tufted Hair Grass
- 5 Nutall's Alkaligrass
- 6 Horned Dandelion
- 7 Yukon Aster / Nutall's Alkaligrass
- 8 Yukon Aster / Nutall's Alkaligrass / Arctic Rush
- 9 Yukon Aster / Nutall's Alkaligrass / Barrenground Willow
- 10 Winterfat
- 11 Unvegetated Fluvium

Slims River Delta (Southside)



Slims River Delta (Southside)



Slims River Delta (Northside)



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**Fig No. 6-7**

Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

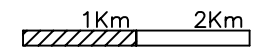


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

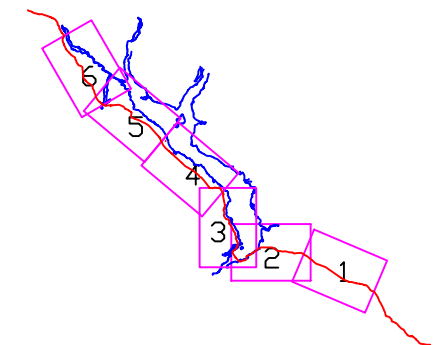
- Existing Alaska Highway
- Proposed New Alignment
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Watercourse
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Aesthetics Map 1**

Map Key



Sheet 1



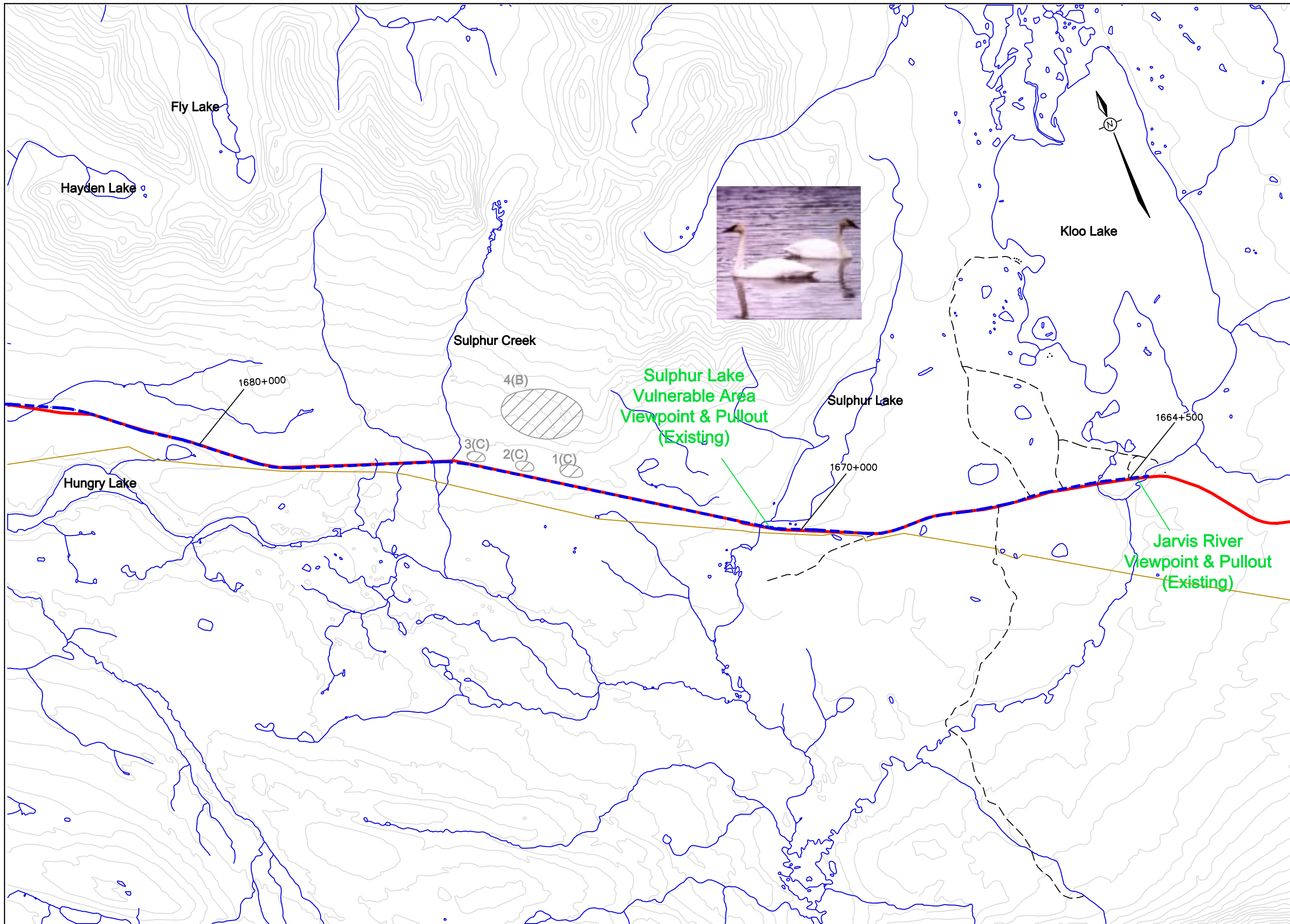
DRAWN BY: LDR

CHECKED BY: DDC

DATE: 16/02/2000

Ref: shak99aes1.dwg

**Fig. No. 7-1**



Shakwak Project  
Environmental  
Assessment Update 1999  
Km 1664.5- 1788.5 Km

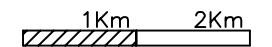


Community and Transportation Services  
Transportation Engineering Branch

**Legend**

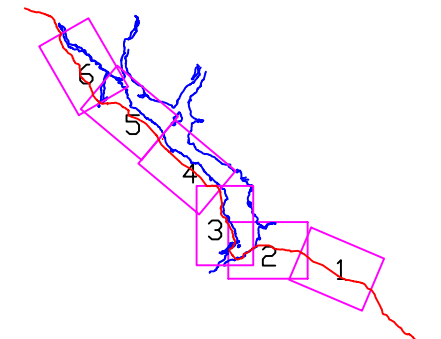
- Existing Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Watercourse
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Aesthetics Map 2**

**Map Key**



Sheet 2



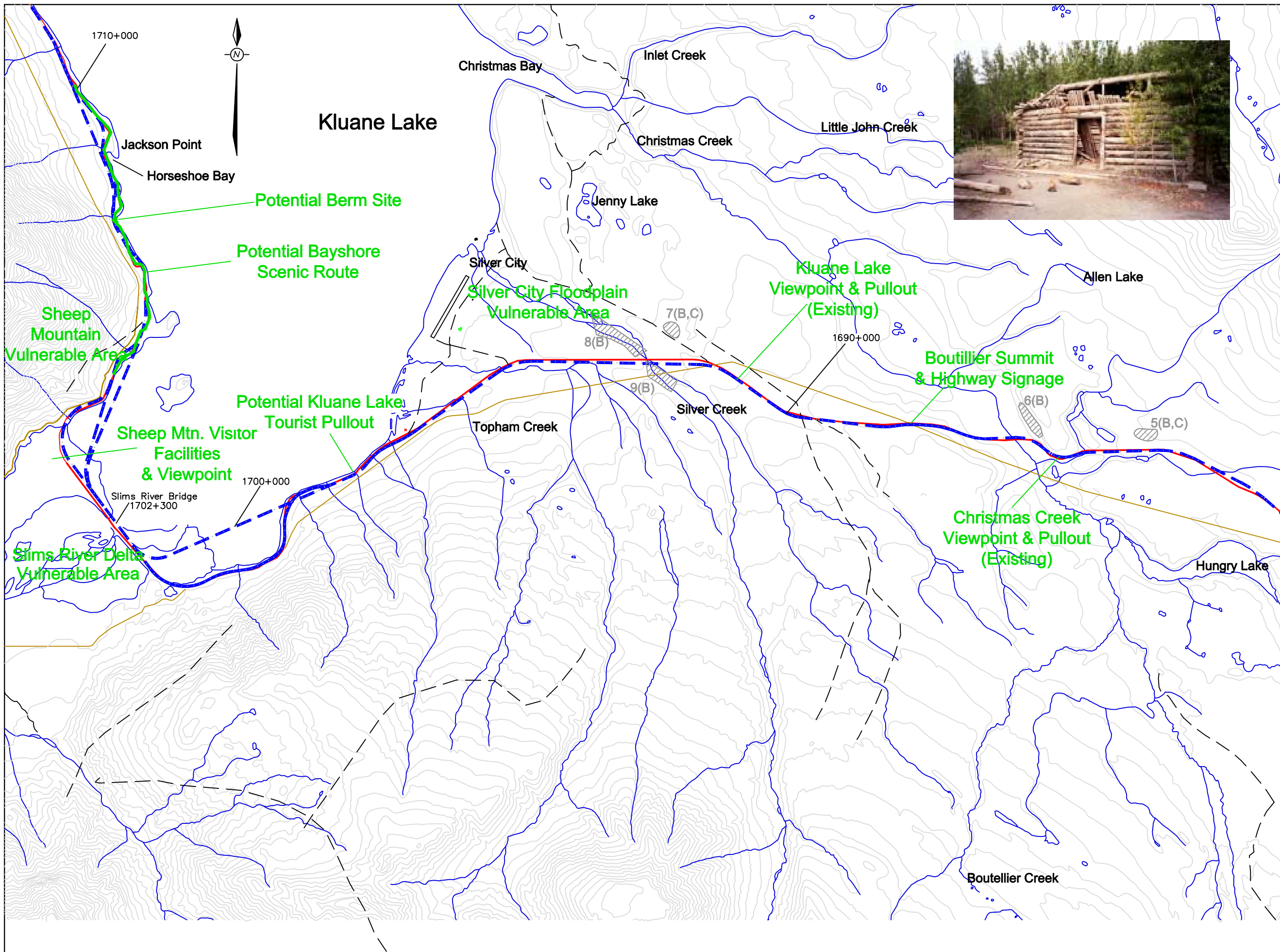
DRAWN BY: LDR

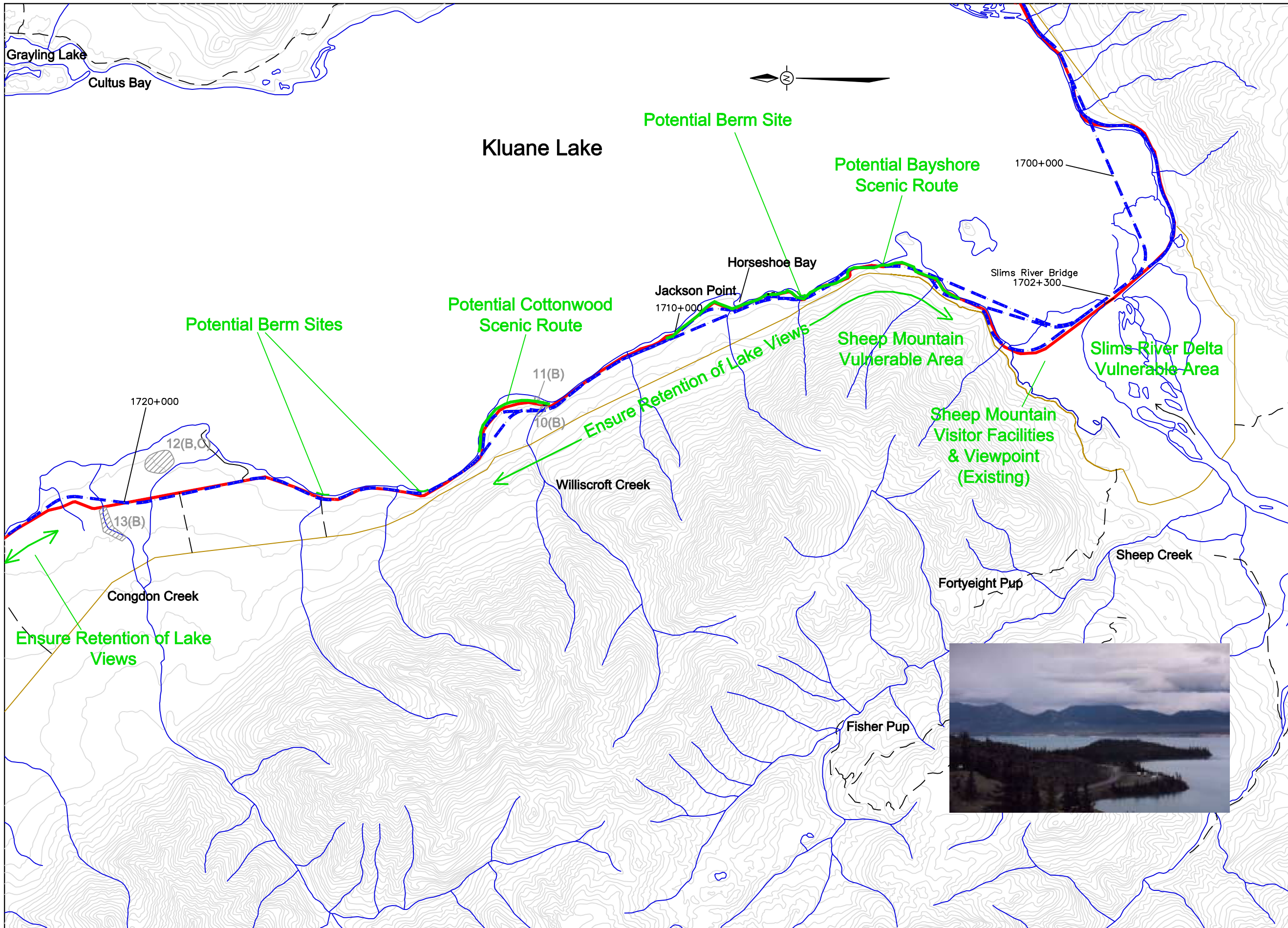
CHECKED BY: DDC

DATE: 18/02/2000

Ref: shak99aes2.dwg

**Fig. No. 7-2**





Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

**Yukon**  
 Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

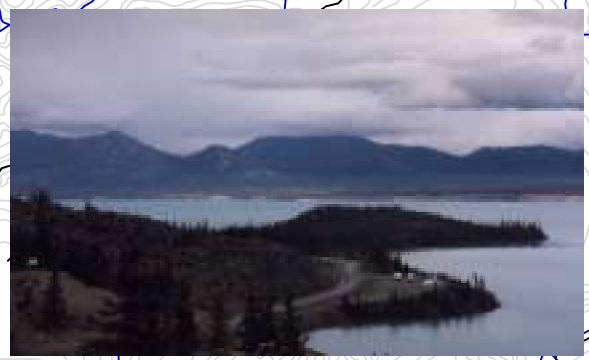
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000

**Aesthetics Map 3**

**Map Key**

**Sheet 3**



ACCESS  
 CONSULTING  
 GROUP

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 DATE: 18/02/2000      Ref: shak99aes3.dwg

**Fig. No. 7-3**

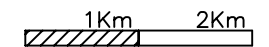


Community and Transportation Services  
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**Legend**

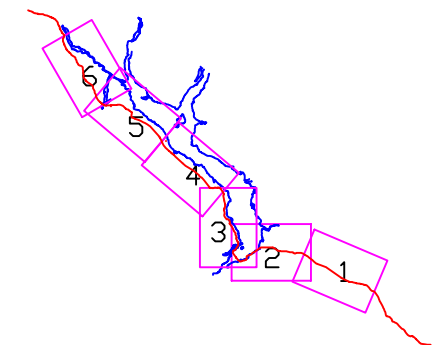
- Alaska Highway
- Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- Creeks, Lakes & Rivers
- Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Aesthetics Map 4**

**Map Key**



Sheet 4



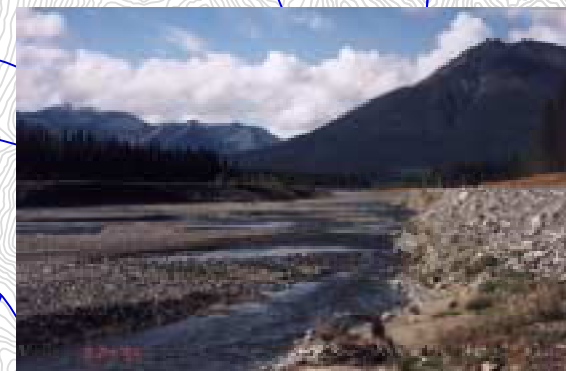
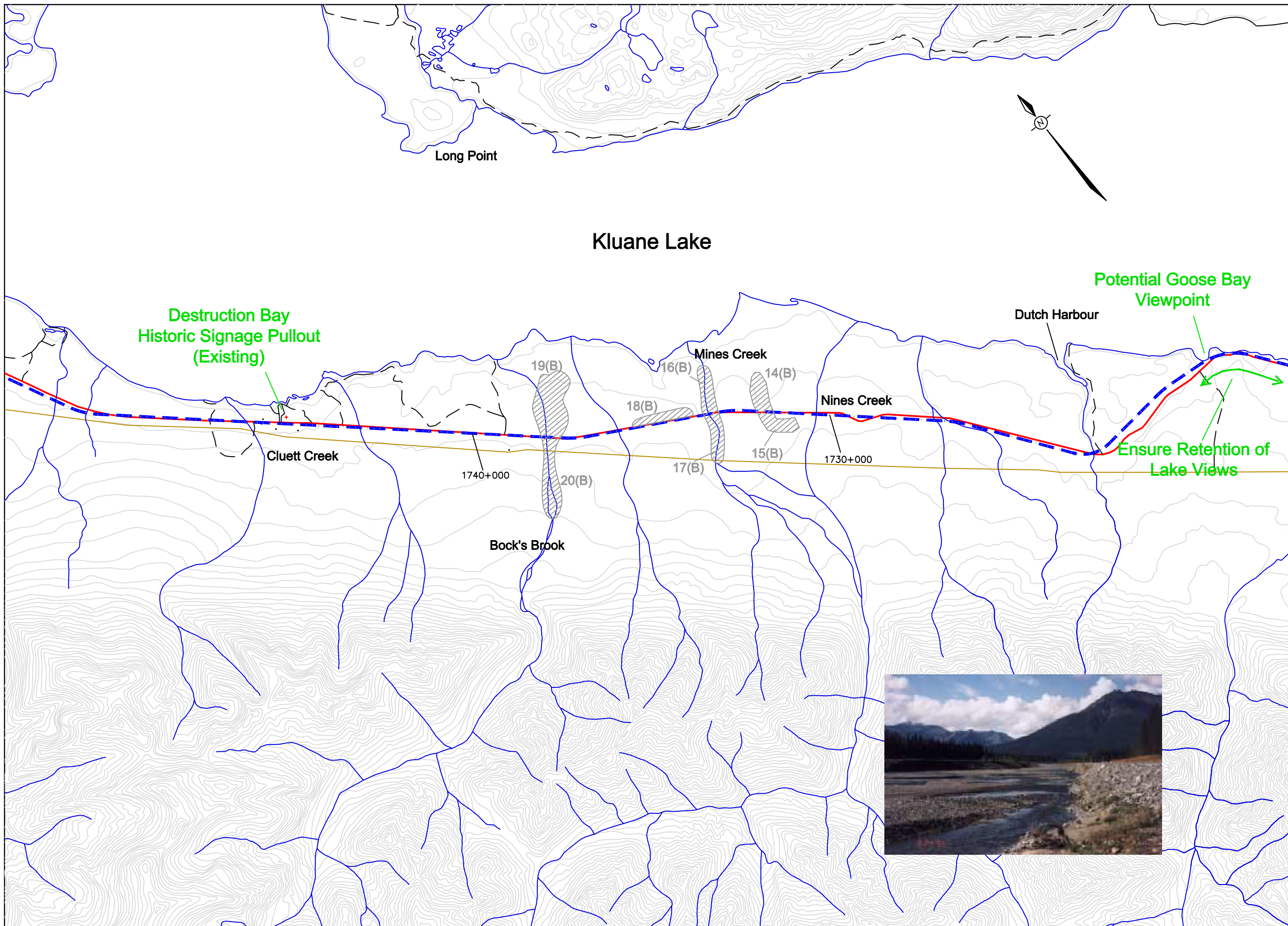
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DATE: 18/02/2000

Ref: shak99aes4.dwg

**Fig. No. 7-4**



Shakwak Project  
 Environmental  
 Assessment Update 1999  
 Km 1664.5- 1788.5 Km

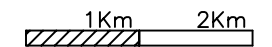


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

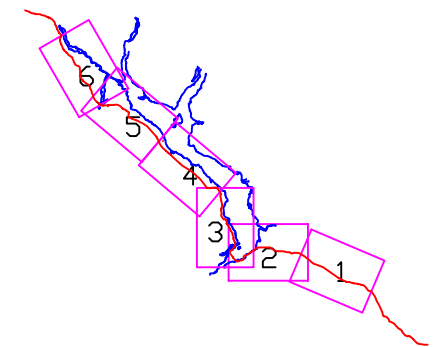
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



**Aesthetics Map 5**

**Map Key**

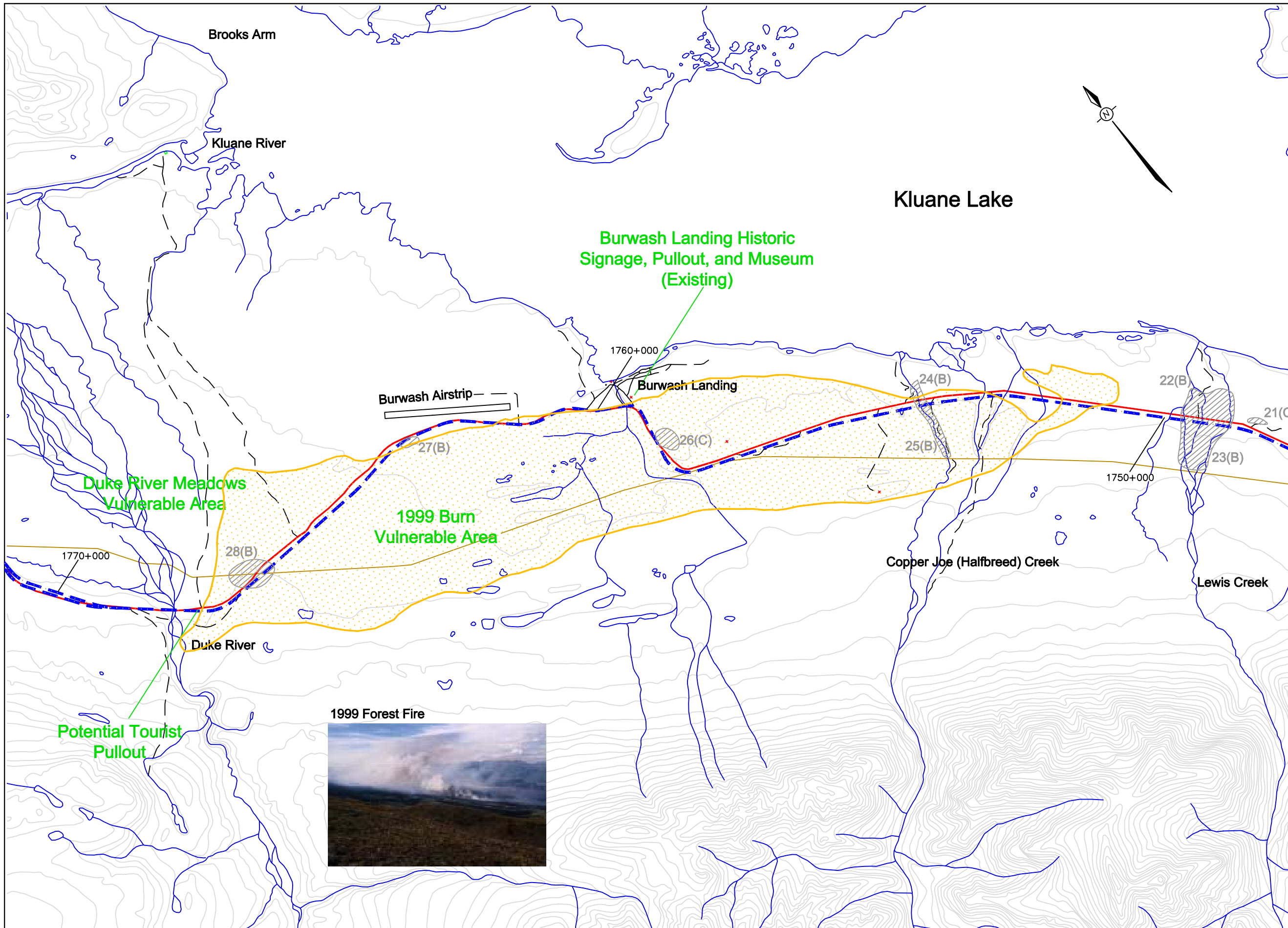


Sheet 5



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**Fig. No. 7-5**



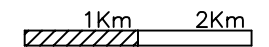


Community and Transportation Services  
 Transportation Engineering Branch

**Legend**

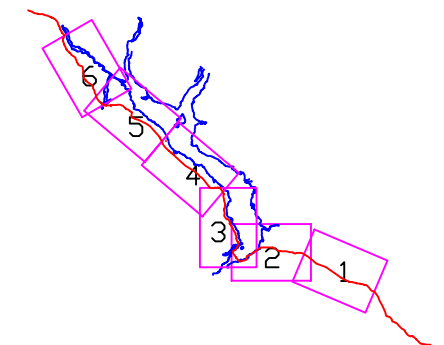
- Alaska Highway
- - - Proposed New Alignment
- - - Secondary Road
- Contours at 100ft intervals
- Pipeline Route
- ~ Creeks, Lakes & Rivers
- ⊘ Potential Borrow Site "B" (possible field camp "C")

Scale 1 to 60,000



Aesthetics Map 6

Map Key



Sheet 6



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DATE: 18/02/2000

Ref: shak99aes6.dwg

**Fig. No. 7-6**

