Canol Bridges Research Project

Summary Report, Bibliography and Chronological Notes



The Peters Family crossing the Ross River footbridge, ca. 1970s. Yukon Archives, Whitehorse Star Ltd. fonds, 82/563, f. 119, #29.

prepared for Yukon Government Dept. of Tourism and Culture, Historic Sites

> by Helene Dobrowolsky Midnight Arts

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prepared by Helene Dobrowolsky, Midnight Arts



Ross River Suspension Bridge and Ferry, (July) 1970. YA #012364, Gordon and Lorna Walmsley fonds

Acknowledgments

Short-term research projects of this nature necessarily rely on previous research conducted by others. Several likely sources were identified by Rebecca Jansen and Bruce Barrett of Historic Sites; staff members Lesley Buchan, Vanessa Thorsen, Jennifer Roberts and Wendy Sokolon at Yukon Archives; and consultant Patricia Halladay.

Richard Janowicz, Manager, Hydrology, Water Resources Branch Yukon Department of Environment, provided dates for years when spring flooding of the Pelly River at Ross River might have impacted the bridge footings. Occasional Midnight Arts associate, Joelle Ingram, spent several hours reviewing barely-legible microfilm. My partner Rob Ingram made the map and handled photograph resizing and enhancement.

It is always a pleasure to work with the knowledgeable and competent Yukon Archives staff, but Peggy D'Orsay, Donna Darbyshire and Shannon Olson deserve special mention for their assistance during my research. Finally, many thanks to Rebecca Jansen, a most helpful project manager. I greatly appreciated the opportunity to tackle this very interesting work.

Helene Dobrowolsky 7 October 2016

Abbreviations

BPC Bechtel-Price-Callahan

DIAND Department of Indian Affairs and Northern Development

DNA David Nairne & Associates

NWSC Northwest Service Command

USAF United States Armed Forces

USED United States Engineering Division

US NARA United States National Archives and Records Administration

WS Whitehorse Star

YG-HS Yukon Government, Historic Sites

YA Yukon Archives

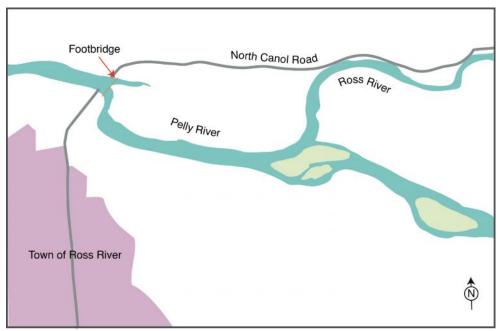
YG, YTG Yukon Government, Yukon Territorial Government

YN Yukon News

YRG Yukon Record Group

Introduction

Since its construction in 1943, the Ross River suspension bridge has played a key role in the community's infrastructure and history. Originally built to transport a crude oil pipeline across the Pelly River near its confluence with the Ross River, it was used for this purpose for less than two years before this enterprise was abandoned. The pipeline was removed about 1949, but the suspension bridge remained and has been carrying pedestrian traffic across the river for nearly 75 years linking both parts of the Ross River community as well as providing access to the north side of the Pelly River for local residents, tourists, outfitters, prospectors and others. Vehicle traffic relies on a summer ferry and winter ice road.



Location of Ross River footbridge. Rob Ingram graphic

The bridge passed by a small seasonal First Nations settlement located around a trading post. It influenced the settlement's location. The Taylor & Drury trading post was moved from its original location near the Ross River to a new location on the south side of the Pelly River near the Canol Road and footbridge. In the early 1960s, at the behest of Indian Affairs, new housing was constructed relocating First Nations people across the river closer to the road. The bridge has been used by the community's original inhabitants to access dwellings and traditional hunting grounds as well as by non-First Nations residents, outfitters, prospectors, tourists and others.

For much of its existence, the bridge has been under threat of destruction. In 1949, the company hired to salvage the remnants of the Canol project, stated they would dismantle the bridge unless the Yukon Government was willing to purchase the span. Since then, at periodic intervals, various other parties have described the bridge as unsafe and recommended demolishing the structure. This was often accompanied by much discussion of which government was responsible for the bridge and the inability to allot substantial funds to do repairs. Each time, residents have responded with vigorous lobbying to preserve a unique historic structure.

The most recent threat to the bridge came in 2012 when engineers deemed the bridge to be unsafe and the Yukon Government scheduled the structure for demolition. Indignant Ross River residents set up

camp on the Pelly River ice in order to personally oppose the demolition crew. They rallied supporters all across the territory and the country. Ceding to this wave of support, the Yukon Government agreed to take measures to preserve the bridge.

The non-profit society, Friends of the Ross River Footbridge, have submitted an application to have the bridge declared a territorial historic site. It was determined that it would be useful to compile all historic information related to the bridge as well as briefly examine the history and fate of some of the other Canol Road bridges. This latter work was complicated by differing systems of locating mileposts over the years as well as creeks that are named in some reports but not others.

To this end, over the past few months of research, the consultant Helene Dobrowolsky has:

- compiled a bibliography relating to the Canol Project and its bridges,
- prepared a set of chronological notes drawn from historic materials,
- ordered digital copies of a number of historic photographs and plans,
- assembled a binder of relevant historic photographs and documents, and
- written a summary report describing the results of this work.

This report, an accompanying binder of archival materials, and a number of digital images are the results of this work. It should be mentioned that the archival records available at this time are incomplete and there are still gaps in the history of the Canol Road bridges and the Ross River suspension bridge.

Part I: SUMMARY HISTORY

The Canol Project

In 1943, the Ross River Suspension Bridge was built to carry pipeline across the Pelly River near its confluence with the Ross River. This structure was a very small part of the Canol project (short for Canadian Oil). Canol was a World War II mega-project instigated by the American government and carried out by the U.S. Army and civilian contractors. The sole involvement of the Canadian government was to assent to the project just a few months before construction began in June 1942. No provision was made for the fate of the project and its assets when the war ended. US Army engineers set up headquarters in Edmonton and oversaw the construction and operation of the project. The project engineers were the firms J. Gordon Turnbull of Cleveland and Sverdup & Parcel of St. Louis. The joint venture of Bechtel-Price-Callahan, a combination of three American companies, together with six associate companies, handled all construction.¹

The most ambitious part of the project was Canol No. 1, whereby crude oil was piped approximately 930 km from Norman Wells in the Northwest Territories over the Mackenzie Mountains to a newly-built refinery in Whitehorse. The Japanese bombing of Pearl Harbour in Hawaii in November 1941 shortly followed by the invasion of Aleutian Islands, had created concern for the defence of the northwest corner of the continent. The goal was to support wartime transport in the northwest corner of the continent by fuelling aircraft bound for the Russian front and vehicles travelling along the recently-built Alaska Highway. Both a road and telephone line were constructed over 1943-44 to support pipeline construction and maintenance. Other infrastructure included ten pump stations with associated buildings, bridges to carry the pipeline over creeks and rivers, culverts, a few maintenance camps, and numerous trucks and pieces of heavy equipment. Most of these were left behind when the project ended.

Other pipelines were built. Canol No. 2 was a pipeline built to transport fuel shipped up the coast from tidewater at Skagway to Whitehorse. Other pipelines were built between Watson Lake and Whitehorse (Canol No. 3), and from Whitehorse to Fairbanks (Canol No. 4). With the exception of the Skagway pipeline running along the White Pass and Yukon Railway, all of these lines were also abandoned at the end of the war.

The Canol Project ended almost as quickly as it began. The war ended and, with it, the urgent requirement for fuel. In late 1943, the U.S. Senate formed a special committee that became known as the Truman Committee, to investigate both the necessity and expense of the project. Although the War Department pushed to complete the project, there was little appetite to continue in the postwar period. The project officially ended when the Whitehorse refinery was shut down April 1, 1945.

In 1949, a contract for salvage rights was issued to an Edmonton company, Rimmer and Hide. Left behind were many undriveable vehicles, telephone lines – most of which had fallen over, remnants of construction camps, the bridges, dumps, and culverts. This company and others salvaged the pipeline itself as well as any other items deemed to be useful. They also left much behind including telephone wire, vehicles and structures.

¹ Harold W. Richardson, "Controversial Canol," in *Engineering News-Record*, May 18, 1944, p. 84; excerpt from: Richard Finnie, *CANOL* (produced for Bechtel-Price Callahan, San Francisco, 1945) <u>in</u> Stan Cohen, *Alcan and Canol* (Pictorial Histories Publishing Co., Inc., 1992), pp. 214-229.

Stream Crossings and Bridges

"None of the bridges stayed up in that country very good. They all got washed out in the spring. Spring was real fast." – Bert Law, 1981²



Ross River footbridge during the Ross River flood, (May 28) 1972. YA# 12393, Gordon and Lorna Walmsley fonds

One of the greatest challenges for the builders of the road and pipeline were the many creeks and rivers to be crossed. They tackled these in various ways. In some cases, pipeline was simply laid upon the stream bottom. Otherwise the streams were crossed using a variety of bridges including single- or multiple-span trestle bridges, bridges built on

pilings, and suspension bridges. The road builders also installed many culverts averaging about one per mile. The appendix at the end of this report lists the progress on bridges both planned and completed as of the end of 1943.

For several years in the postwar period, various Ross River traders opened the South Canol Road—the section of road south of the Pelly River between Ross River and Johnson's Crossing—every spring, doing some road maintenance as well as repairing or replacing bridges as needed. According to Charlie Taylor of the longstanding mercantile firm, Taylor & Drury, steamboat traffic ended with construction of the new road so they had no alternative but to keep the road open in summers "at heavy expense." When Taylor & Drury sold their outfit to Bert Law and Al Kulan, Bert Law then took on the onerous task of working with a crew to open the road each spring.

The postwar period saw increased mining and exploration work in the country that had been made accessible by the Canol Road. With this activity came pressure on the Yukon Government to support this work by maintaining the roads and bridges. In 1958, the territorial government opened the South Canol Road for summer use. Two reports issued by the territorial engineer's office in 1955 and 1959 include detailed descriptions of the bridges and repairs required. [See appendix.] The discovery of the rich silver-lead-zinc deposits that led to construction of the Anvil mine and the new town of Faro also meant a need for improved transport. The completion of the Robert Campbell Highway in the late 1960s provided year round access to Ross River as well as servicing the mine. Both the North and South Canol Roads continued to be seasonal arteries however.

In 1969, a contract was issued to install new culverts and bridges north of Ross River to the Yukon/NWT border. The apparent reason for this project was to service a mine operated by Hudson Bay Mining.³

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² YA Sound Recording Jan Koepke fonds, Charlie Taylor and Bert Law interviews, 2005/128, SR 264 (1-3).

³ YA, Yukon, Government Services Records, 91/35, PHO 416.

Following are brief descriptions of the histories of three bridges as recorded in available archival records.

Pelly River Traffic Bridge



Truck being transported across Pelly River on pontoons. Remnants of Pelly River traffic bridge visible at right, ca. 1946. YA, Wm. L. Drury fonds, 82/33 #80.

This short-lived structure was built sometime over the winter of 1942-43 and was destroyed by ice during spring break-up. Although rarely mentioned, there are a few references to the bridge in government records and one oral history account. A Canol project plan stated in June 1943, "No construction progress since high water destroyed Pelly Bridge at Ross Post. Waiting for water to recede."

In 1946, making clear that there were once two separate bridges, federal employee J. S. Stewart wrote in a report: "At Pelly River, the bridge is washed out, and we were unable to get our truck across the river. The cable suspension foot bridge which carries the pipe line across the river is still intact and in good condition."

Forest engineer, F.H.R. Jackson wrote the following to Commissioner J.E. Gibben in 1949 suggesting there may have been more than one attempt at a traffic bridge:

There is no vehicle traffic bridge over the Pelly River, former U.S. pile-bent structures at this point having been taken out each year by the ice.

Former Ross River trader and prospector Bert Law clarified the fate of the original traffic bridge. In a 1981 interview with Jan Koepke, Mr. Law spoke of cataclysmic impact of river ice during the spring break-up of the Pelly River:

There had been another bridge. It was also built the same time. It was pilings across the river with the bridge on, but then the ice took it out the same year. They didn't rebuild after that, they used the barges I was telling you about after that so they could take them out and leave them out until the spring break-up. There used to be a few old pilings there but they got washed out too. The ice came down there in 10-ton chunks. It was rolling over each other, right down the river and nothing could stop it. When it does go out fast, it's just fascinating, like watching a volcano or something. ⁴

Remnants of the traffic bridge can be seen in two photos from the William S. Drury fonds at Yukon Archives.⁵

Lapie River Bridge



Portion of Lapie River suspension bridge in 1949. YA, Wm. L. Drury fonds, 82/33 #75 One of the longer bridges on what is now known as the South Canol Highway was a 400-foot suspension bridge over the Lapie River. Copies of plans from the US NARA show details of this structure. An with the Ross River suspension bridge, its primary purpose was to carry the pipeline across the river. Another early description of a structure crossing the Lapie River describes a bridge with nine spans. It is likely that two separate bridges were built, one for the pipeline and the other for vehicle traffic.

Bert Law was on hand when the Lapie River traffic bridge went out:

When it went out there must have been 400 cords of wood piled against it. I was watching this wood coming and piling against it, piling and piling and piling. Finally this went whoosh! ... There was a huge lake of water behind it. There was nothing we could do about it. And I figured I would figure out some way to prevent it from being washed away, it had been there getting by several years but this was high water, about the fourth year or something I guess. And it picked up all the old logs and brush and junk and washed it down in a pile ... All leaning again the bridge and the water built up and the pressure just whoosh.

⁴ YA, Yukon Records Office, GOV 2216, f.1, f.3; YA, Jan Koepke fonds, Bert Law interview, 2005/128, SR 264 (1-3).

⁵ YA, Wm. S. Drury fonds, 82/33, PHO 034, #s 80, 87.

⁶ US National Archives and Records Administration, RG 77: Edmonton, Alta., Can. Dist. Ofc., Canol Proj. #1, CL-4/32 and CL 4/33, 400' Span Suspension Bridge for Pipe Line River Crossing over Lapie River (Pump Station No. 9). Copies of these plans are held by YG, Historic Sites.

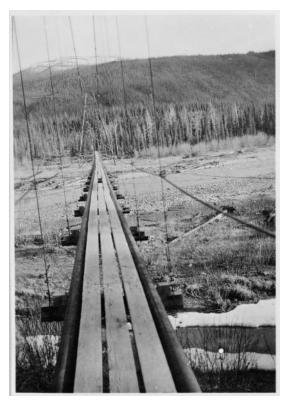
⁷ YA USAF NWSC records on microfilm, roll 4, Canol No. 1 West: summary listing of construction work as of Jan. 12, 1944.

He then described their strategy for bridging the Lapie River in subsequent years.

But then we had a bunch of trestles that were left over from that and we rebuilt a bridge with these trestles. ... We used to take that out every fall. That was a very, very skimpy bridge. It barely cleared the water. Just barely wide enough for two tracks, that was it.⁸

Mentions of continued challenges spanning the Lapie River are found in YTG reports from the late 1950s. In 1958, Whitehorse contractors General Enterprises built both a Bailey bridge and a 25-foot timber bridge to cross the Lapie River. More research is needed to identify additional construction.⁹

Ross River Suspension Bridge



Early view of the Ross River pipeline bridge, ca. 1946. YA, Wm. L. Drury fonds, 82/33, #96

... this bridge is indeed an historically important structure as it was built as part of the Canol Road Project during World War II. It served a definite purpose at that time and is still serving a purpose other than a tourist attraction, although it is that as well. We, in Ross River, consider it more important from an historical standpoint than the Miles Canyon Bridge at Whitehorse, Y.T. We also feel that it will become more important as time goes on and the population of the Yukon as a whole increases.

L.A.I. Dickson, Sect'y, Ross River Community
 Association to Dept. of Highways & Public Works, 12
 Oct. 1976 ¹⁰

The detailed chronological notes in Part III of this report summarizes various reports and pieces of correspondence related to the Ross River Footbridge, located during the course of this research. Given the limited scope of this project, time does not permit a detailed summary of the threats of demolition, efforts to determine jurisdiction over the bridge ownership, various inspections, vigorous efforts and lobbying to save the bridge by community groups and others, and occasional piecemeal repairs.

A few items in this narrative are worth mentioning. The bridge, constructed in 1943, served its original purpose of transporting the Canol oil pipeline for less than two years. By then it was well-established as a pedestrian footbridge, particularly in spring and fall when residents were unable to cross the river by

⁸ YA, Jan Koepke fonds, Bert Law interview, [no date is given for the Lapie R. bridge washout but likely sometime in the early 1950s].

⁹ YA GOV 2216, f. 3. Canol Road - Report on Road Conditions; report prepared by Territorial Engineer K. J. Baker, 21 Nov. 1955.

Notes: Source YA GOV 2216, f. 3.

¹⁰ YG, Historic Sites research files.

either a car ferry or ice bridge. In 1946, an inspection by a territorial employee deemed that the bridge was "still intact and in good condition." ¹¹

Three years later, the bridge faced its first threat of destruction. The Edmonton-based firm, Rimmer and Hide, handling the salvage of Canol infrastructure suggested the bridge would be demolished unless the territorial government was prepared to pay \$10,000 to purchase the structure. This led to various letters between territorial and federal officials over who was responsible for the bridge and suggestions that YTG consider offering a lesser amount. The correspondence does not record the exact outcome of these negotiations but the bridge was left in place, although minus the pipeline.

Over the next decades, the bridge was inspected at regular intervals. Recommendations were made to make various repairs; inevitably the government of the day felt unable to afford these repairs or considered them to be low priority. Some minor repairs were carried out. The first known photo of the bridge surface, taken in 1947, shows vertically-laid timbers. At some point, these were covered with horizontal decking. In 1953, the territorial engineer provided detailed instructions to a contractor regarding tightening of the cables to correct sagging on the downstream side. In the early 1970s, local outfitters covered the deck of the bridge with plywood when "horses using the bridge began to make holes in the more or less worn out planking." ¹²

In 1978, a boy on a bicycle nearly broke through the rotten decking. The Ross River Community Association wrote numerous letters and approached many different funding bodies seeking support for repair of the bridge. ¹³

The following year, YTG Minister of Highways and Public Works, Dan Lang, responded to reports that the bridge was unsafe by ordering "a government work crew to rip down the approach ramps to the bridge to prevent its use while a decision was made whether to repair it, replace it or to put in a ferry.

"That work crew was met by a crowd of about 50 angry residents who feared the bridge would end up being torn down altogether. Lang later went to Ross River to discuss the problem and shortly after ordered the existing bridge be repaired."

Subsequently a contract to repair the bridge was awarded to Ben Leveille of Whitehorse for \$63,500. The work involved "bolstering the existing bridge frame and replacing rotted and broken timbers so it will be useable for another 10 years." ¹⁴

The most recent threat to the bridge dates from 2012 with another inspection, another determination that the bridge was unsafe, and another Yukon Government order to demolish the bridge. The Ross River Dena and the Friends of the Ross River Foot Bridge Society were joined by supporters across the territory and the country in the fight to save the historic structure. In 2014, headlines across the country

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¹¹ 21 August, 1946, J.S. Stewart to R. A. Gibson [YA, Yukon Records Office, GOV 2216, f. 1].

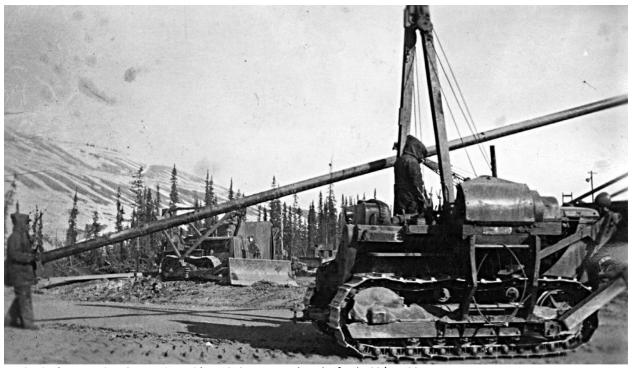
¹² 1 Sept. 1976, Mr. L.A.I. Dickson, Secretary, Ross River Community Association to Commissioner A. Pearson. YG, Historic Sites, research files.

¹³ Northern Times, 8 Nov. 1978.

¹⁴ YA, Ross River Search File: *Whitehorse Star*, 13 August 1979: "Contracts, Contracts: One For The R.R. Bridge Repairs..."

documented the failed efforts of the demolition crew when they were met by bridge supporters camped out on the river ice.

Finally, the Yukon Government recognized both the utility and historic value of the footbridge and let a contract to stabilize and repair the bridge in 2015. At time of writing in August 2016, Phase 1 of this work has been completed. The Whitehorse company, Klondike Welding was awarded the \$2.1 million contract to stabilize the Ross River footbridge. In late fall 2015, working with RC Cranes, the company replaced the bridge towers. At time of writing in early October 2016, the territorial government is still negotiating to cover part of these costs from federal infrastructure funding.



Putting in the Ross River Suspension Bridge, 1943. YA, Dorothy John fonds, 92/17 #29.

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From: Inventory to the records of the Yukon Records Office held at Yukon Archives

Location	f. #	Description	Vol.	Dates
GOV 2212	8	Yukon Territory Bridge Inspection Reports by Canada,	E	1962
		Dept. of Public Works		
GOV 2216	1	Canol Road - Pipeline, Salvage, etc with maps. This file	1	1942-1946
		consists of documents surrounding the WWII Canol		
		Pipeline project. It includes maps of Yukon River Crossings,		
		correspondence between Railway owners and government		
		officials, and discussion concerning the Whitehorse Oil		
		Refinery with evaluations of potential pollution damage to		
		the Lewes (Yukon) River resulting from refinery waste.		
		Documents also discuss possibilities for Canadian takeover		

		of U.S. built wartime housing and facilities.		
GOV 2216	2	Canol Road - This file consists of documents pertaining to the maintenance, improvement and reconstruction of the Canol Road. Contains many work orders corresponding to different sections of the road and documentation concerning financing for the completion of road work. A few documents regarding moving the Dawson City ferry to Ross River are also included.	2	1947-1959
GOV 2216	3	Canol Road - This file includes documents pertaining to the dismantling of the Canol Project: the pipeline, refinery, and associated facilities. Also includes significant documentation concerning the Pelly River Footbridge to Ross River Post.	2	1947-1959
GOV 2216	4	Canol Road – This file includes documentation of maintenance projects on the Canol Road, along with tender forms to construct a bridge over Rose River. Also includes correspondence from White Pass & Yukon Route regarding the Canol Pipeline salvage project.	2	1958-1970

United States. Department of State.

1960 Canol Project: Disposal of Pipeline Facilities in Canada. In United States Treaties and Other International Agreements, volume 2, part 2, pp. 2486–88. Washington, D.C: U.S. Dept. of State.

YA PAM 1960-0029

United States.

1945 Northwest Service Command. Public Relations Branch. CANOL. [Whitehorse, Yukon]: Northwest Service Command, Public Relations. YA PAM 1945-0021

United States

1942 US War Dept., Corps of Engineers and Bechtel-Price-Callahan. Canol Project Report 1, May-Dec. 1942. Available at Yukon Archives Digital Library.

http://yukondigitallibrary.ca/digitalbook/canolprojectreport/

MANUSCRIPTS

Alan Innes-Taylor fonds, 95/32, MSS 416

Acc#	MSS	file	File Title	Dates
95/32	416	7	Canol Road and Pipeline 1942-1945 Department of Army, USA	1944, 1970

Includes a US Army booklet and Richardson article already identified in pamphlet coll.

Clare Stark collection. MSS 144 (80/104)

Includes paper written for a Yukon College course entitled, "The Canol Pipeline: Origins and Construction." (not useful)

Otto Nordling fonds, 82/206-1

Canol Project – Personal narratives. MSS 30, f. 19

- Some correspondence between Nordling and Richard Finnie about his 1973 trip to YT and two-page interview with *Whse. Star* about Finnie's films and history of Canol project.

Stuart, Richard fonds, MSS 130 (83/62), 1982.

Note: This paper, "The Canol Project in Canadian-American Relations," by Richard Diubaldo, forms part of a compilation edited by Richard Stuart in 1982 entitled "Essays on the Political Economy of the Yukon Territory." [mainly concerned with the politics of the Canol project]

Whyard, Florence fonds, MSS 145 (80/106) f. 2, 1970–1976.

Note: Man and Resources Report Form Section 11 entitled "Cleanup of Canol Road, Yukon Highway No. 8" written by Lorna Walmsley, Pelly Historical Society. [Mostly concerned with damage to wildlife by telephone wire and abandoned buildings and vehicles. No mention footbridge.]

MAPS & PLANS

US National Archives and Records Administration (NARA)

War Department, Office of the Chief of Engineers. Northwest Division. Edmonton (Canada) District (12/01/1942 - 06/30/1945)

RG 77: Edmonton Alberta, CanadaCanol Project #1, CL-4/32 and CL-4/33.

Two plans relating to a 400' Span Suspension Bridge for Pipe Line River Crossing over Lapie River (at Pump Station No. 9). [copies ordered for YG, Dept. of Tourism and Culture, Historic Sites Unit]

Finding aids from this institution do list plans for the Ross River Suspension Bridge but the plans from that particular series could not be found by the institution.

Yukon Archives

Map No.	Description	Date
F-127 (A-E)	Canol no. 1 - Norman Wells to Whitehorse, Note: Blueprint map of Canol no. 1 in 5 sheets.	1944
H-0081	Canol Pipeline Plan and Profile. Note: Contains 91 sheets showing the Canol pipeline plan and profile from Whitehorse to Fairbanks. Plans show exact locations and distances. Camping sites and pumping	1943

stations are marked as well as the Alaska Highway.

H-0153	J. Gordon Turnbull Inc. and Sverdrup and Parcel. [Maps and Plans of the Construction of the Canol Pipeline]. Note: Over 150 plans concerning the construction of the Canol pipeline. A numbered list is available. Examples of plans include buildings, pumping stations, pipelines, power transmission lines and roads.	1943
H-0925	Canol no. 1 - Plan and Profile - Refinery Railroad Approach. Note: Contains 1 sheet.	1943
H-0957	Federal Works Agency, Public Roads Administration, Alaska Canada Highway, Whitehorse Division Administrative Sites.	1943
H-1553	1 blueprint map of topographical features of territory from Norman Wells to Fairbanks, Alaska.	
H-1720	Canol Road clean up assessment survey. Inventory of the Canol Road clean up, includes items listed mile by mile from Johnson's Crossing to Macmillan Pass.	1975
H-2007	Canol no. 2 - Skagway to Whitehorse. Note: Appendix A contains pipeline plan and profile.	1944
R-195	Canol Project Line Contents Chart Upper Tank Farm, Whitehorse, YT. Note: Shows storage tanks (elevation), lines to pump house truck loading facilities.	1951–1959
R –1 99	Canol no. 4 - Whitehorse to Fairbanks Condensed - Plan and Profile of Pipeline. Note: Contains 86 sheets	1945
R-200	Canol no. 3 - Carcross to Watson Lake - Pipeline Plan and Profile. Note: Contains 42 sheets.	1944
R-203	Canol Pipeline Pumping Station C. Note: Contains five sheets. Includes plan and facilities for pumping station C showing fencing, telephone lines, power transmission lines, etc.	1943–1954
R-211	Canol Pipeline #4 - Details. Note: Contains seven sheets. Includes details of buildings on line camps, water well logs for wells at stations, typical diesel facilities for booster pumping stations, etc. 1) Typical details of buildings on line camps plans elevations, details, 1943; 2) Water well logs for wells at stations: a, b, c, d, e, f, g, h, scale of 1" = 20', 1943; 3) Typical details for operators temporary quarters, 1943; 4) Typical diesel facilities for booster pumping stations. Typical new suction line booster pumping stations B, E, G, S & M. Scale of 1/4 " to 1', 1944; 4) Typical three- pump house plans, elevations and sections (revised) [sheet 1 of 2], 1943; 6) Volumetric capacity diagram barrels-	1942–1944

42 U.S. gallons pipe lines Canol #4. Diagram showing capacity of pipeline, pumping facilities along Canol #4; 7) Proposed relocation of

3" pipeline near Birch Lake.

R-218 Canol Pipeline no. 3 - Details, Map. Note: Contains four sheets. 1942–1944

Includes diagrams of pump houses, estimated construction costs, chart of projected costs, plan of diesel facilities in Watson Lake, relay

station, etc.

Map R-220 Canol Pipelines-Pipeline Details. Note: Contains 12 sheets giving

diagrams for pipe trusses for river crossings, pipeline bridge spans,

steel tower for double cable at river crossings, etc.

MICROFORM

United States Armed Forces, Northwest Service Command

MSS 109 (80/79): Textual records

Microfilmed 1974 (originally created 1940-1946)

17 microfilm reels

The fonds consists of records of the United States Army, Northwest Service Command and 6th Service Command dealing with the Canol Project and the Alaska Highway Project activity in the Yukon. Included are reports, general orders, histories, maps and charts, minutes of meetings and conferences, and demobilization plans. These records also contain international agreements between Canada and the United States.

The microfilm was purchased from the National Archives, Washington, D.C., USA.

There are no donor-imposed restrictions on this material. General copyright or institutional or legal restrictions may apply.

The original records are located in RG 338 at the National Archives, Washington, D.C., USA.

MF 40 (1-17) (92/51): Microfilm

NEWSPAPERS

[note: I did not do a comprehensive newspaper search; these are items I encountered while checking other sources. Since the *Yukon News* online includes a free digital archives for more recent years, I did do a search using the terms "Ross River" and "Ross River Bridge". HD]

Northern Times

1978, Nov. 9. – "Community Concerned, Ross River bridge, rotten, unsafe."

Whitehorse Star

1943, Dec. 10 - "Predicted U.S. Army will be vindicated on Canol Project."
1973, 7 Feb. – "Richard Finney [sic] Came to the Yukon to Give us his Secret War Movies"
1979, Aug. 13 – Dave Tait, "Contracts, Contracts: One For The R.R. Bridge Repairs."

Yukon News

2013 Oct. 2 – "Ross River footbridge collapse imminent."

http://www.yukon-news.com/news/ross-river-footbridge-collapse-imminent/

1942-1945

2013, Oct. 4 - "Ross River bridge will come down."

http://www.yukon-news.com/news/ross-river-bridge-will-come-down/

2013, Oct. 4 – "Bridge to the past."

http://www.yukon-news.com/letters-opinions/bridge-to-the-past/

- Letter from Pat Ellis re historic significance of the bridge.

2013, Dec. 3 – "Ross River bridge demolition on hold."

http://www.yukon-news.com/news/ross-river-bridge-demolition-on-hold/

2013 Dec. 11 – "Future of Ross River Bridge unclear."

http://www.yukon-news.com/news/future-of-ross-river-bridge-unclear/

2013, Dec. 12 _ "Government waits for second opinion on Ross River Bridge

http://www.yukon-news.com/news/government-waits-for-second-opinion-on-ross-river-bridge/

2014, Jan. 29 – "Ross River bridge to come down this winter."

http://www.yukon-news.com/news/ross-river-bridge-to-come-down-this-winter/

2014, Feb. 21 – "Save the Ross River bridge."

http://www.yukon-news.com/letters-opinions/save-the-ross-river-bridge/

- Open letter to Yukon cabinet from engineer Robert Wills.

2014, Mar. 7 – "Ross River bridge to come down despite outcry."

http://www.yukon-news.com/news/ross-river-bridge-to-come-down-despite-outcry/

2014, Mar. 12 – Ashley Joannou, "Officials turned away from Ross River bridge."

http://www.yukon-news.com/news/officials-turned-away-from-ross-river-bridge/

2014, Mar. 12 – "Save Ross River's bridge."

http://www.yukon-news.com/letters-opinions/save-ross-rivers-bridge/

- Open letter to Community Services Minister Brad Cathers.

2014, Mar. 13 – "A last plea for the historic Ross River bridge."

http://www.yukon-news.com/letters-opinions/a-last-plea-for-the-historic-ross-river-footbridge/

Letter from Pat Ellis. "Ross River has no museum to maintain' let's call the bridge the beginning
of their new museum, long overdue, covering First Nations history and the WWII Canol project."

2014, Mar. 14 – Michael Gates, "Has the Yukon government gone a bridge too far?"

http://www.yukon-news.com/letters-opinions/has-yukon-government-gone-a-bridge-too-far/

2014, Mar. 19 – "Premier's top brass sent to defuse Ross River bridge protests."

http://www.yukon-news.com/news/premiers-top-brass-sent-to-defuse-ross-river-bridge-protests/

2014 Mar. 21 – "Yukon hits pause on Ross River bridge demolition."

http://www.yukon-news.com/news/yukon-hits-pause-on-ross-river-bridge-demolition/

2014 Mar. 26 – "Repairs planned for Ross River bridge."

http://www.yukon-news.com/news/repairs-planned-for-ross-river-bridge/

2014, March 28 – John Thompson, "More questions than answers on Ross River Bridge." http://www.yukon-news.com/news/more-questions-than-answers-on-ross-river-bridge/

2014, April 24 – "Ross River bridge safety concerns may disrupt ferry." http://www.yukon-news.com/news/ross-river-bridge-safety-concerns-may-disrupt-ferry/

2014, Aug. 27 – "Ross River bridge awaits stabilization." http://www.yukon-news.com/news/ross-river-bridge-awaits-stabilization/

2014, Aug. 29 – Myles Dolphin, "New plan will salvage historic foot bridge." http://www.yukon-news.com/news/new-plan-will-salvage-historic-foot-bridge/
2015, Feb. 20 – Michael Gates, "Let's celebrate our heritage champions." http://www.yukon-news.com/letters-opinions/lets-celebrate-our-heritage-champions/

2015, Feb. 25 – "Thanks to all who helped save Ross River's footbridge." http://www.yukon-news.com/letters-opinions/thanks-to-all-who-helped-save-ross-rivers-footbridge/

2015, Nov. 20 – "Yukon counting on federal cash to fix Ross River bridge." http://www.yukon-news.com/news/yukon-counting-on-federal-cash-to-fix-ross-river-bridge/

2016, 13 Apr. – Maureen Forrest, "Yukon government hints at help for flood victims waiting since 2013." http://www.yukon-news.com/news/yukon-government-hints-at-help-for-flood-victims-waiting-since-2013/

PAMPHLETS

"The Original Arctic Oil Boom." *Business Life*, July/August 1973: 42–43.

YA PAM 1973-0118

Barry, Patricia S.

1977 "The Prolific Pipeline: Finding Oil for Canol." *Dalhousie Review*, Summer 1977: 205–23. YA PAM 1977-0146

Barry, Patricia S. "The Prolific Pipeline: Getting Canol Underway." *Dalhousie Review*, Summer 1976: 205–23.

YA PAM 1976-0166

Blanchet, Guy H. "The Canol Project." *Canadian Surveyor*, July 1944: 2–7.

YA PAM 1944-0005

Blanchet, Guy H. "Oil Over the Mountains." *North*, 1970: 14–23, 38–44.

YA PAM 1970-0008

Browne, Ralph H. C-A-N-O-L! [S.I.]: R.H. Browne, 1945.

YA PAM 1945-0059

Canada. Dept. of Public Works

1962 Northwest Highway System Bridges. YA Pam 1962-0107

Canada. Historic Sites and Monuments Board.

1990 Canol Road: Invitation to the Unveiling of a Plaque. [Ottawa, Ont.]: Historic Sites and Monuments Board. YA PAM 1990-0076

Dod, Karl C.

"The Far North" in Technical Services, Corps of Engineers: The War Against Japan. [US]
Government Printing Office. [located at YG, Dept. Tourism & Culture, Historic Sites]

Diubaldo, Richard J.

"The Canol Project in Canadian-American Relations". In Historical Papers (Canadian Historical Association), pp. 179–96. [Toronto, Ont]: Canadian Historical Association.

YA PAM 1977-0117

Finnie, Richard. "Canol Blitz." *Maclean's*, August 15, 1943: 12–13, 37, 40–42.

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Finnie, Richard.

"The Epic of Canol." Canadian Geographical Journal, March 1947.

YA PAM 1947-0015

Finnie, Richard. "Evolution of Canol." *Polar Notes*, November 1959: 28–35.

YA PAM 1959-0006

Fradkin, Philip L. "The First and Forgotten Pipeline." *Audubon*, November 1977: 58–79.

YA PAM 1977-0024

Gotthardt, Ruth M.

North Canol Road Archaeological Inventory Project: Preliminary Report. Toronto: R.M. Gotthardt, 1981.

YA PAM 1981-0186

[Note: Restricted: Not to be reproduced in any manner without the prior written consent of the Archaeological Survey of Canada.]

Harris, Edward A. "Canol: The War's Epic Blunder." *Nation*, May 5, 1945: 513–14. YA PAM 1945-0022

Harris, P.A.

1944 The Canol Pictorial. [Edmonton: Hamly Press Ltd.].

YA PAM 1944-0008

Hopkins, Oliver B.

1943 "The Canol Project: Canada Provides Oil for the Allies." *Canadian Geographical Journal*, vol. 22, November 1943: 238–49.

YA PAM 1943-0020C

Kershaw, G.P.

1983 Some Abiotic Consequences of the Canol Crude Oil Pipeline Project, 35 Years After Abandonment. [Edmonton, Alta]: Boreal Institute for Northern Studies.

YA PAM 1983-0213

Kupsch, W.O.

1971 "The Wells and Canol: A Visit After 25 Years." *Canadian Geographical Journal*, vol. 82, no. 4, April 1971: 134–41.

YA PAM 1971-0052

Liss, J.R.

1959 "The Norman Wells-Canol Project." *Canadian Army Journal*, October 1959: 122–28. YA PAM 1959-0001

Lloyd, Trevor. "Oil in the Mackenzie Valley." *Geographical Review*, vol. 34, 1944: 275–307. YA PAM 1944-0013

Norman Wells Historical Society

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[includes map of Doi T'oh Territorial Park including Canol Heritage Trail in NWT.]

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1970 "The Canol Project." *Pacific Northwest Quarterly*, vol. 61, no. 2, April 1970: 101–08. YA PAM 1970-0037

O'Reilly, Kevin. A Postal History of the Canol Project. Yellowknife, NWT: K. O'Reilly, 1992.
YA PAM 1992-0040

Richardson, Harold W.

"Controversial Canol." Engineering News Record, May 18, 1944: 78–84.

YA PAM 1944-0004

Riddle, Donald H.

1964 *The Committee and the Military: The Canol Project. In Truman Committee*, pp. 101–21. New Brunswick, New Jersey: Rutgers University Press.

YA PAM 1964-0036

Tempelman-Kluit, Anne.

1999 "The Yukon's Hidden Highway." *Travel Canada*, vol. 1, no. 1, 1999: 14–16.

YA PAM 1999-0170

United States. Department of State.

1960 Canol Project: Disposal of Pipeline Facilities in Canada. In United States Treaties and Other International Agreements, volume 2, part 2, pp. 2486–88. Washington, D.C: U.S. Dept. of State. YA PAM 1960-0029

United States.

1945 Northwest Service Command. Public Relations Branch. CANOL. [Whitehorse, Yukon]: Northwest Service Command, Public Relations. YA PAM 1945-0021

Yukon. Tourism and Culture. Cultural Services Branch

n.d. South Canol Road. http://www.tc.gov.yk.ca/publications/South Canol Rd leaflet.pdf
"Fox Creek – km 191. A short walking trail leads down to the remains of a smaller version of the Ross River suspension bridge."

PHOTOGRAPHS

Braga, William fonds, PHO 2004/164, CD 104 (1-4)

[checked caption list, nothing useful.]

Bob Cameron fonds, 2010/110, PHO 678

YA#	location	description
2010/110,	PHO 678	WFS Stinson CF-FJY accident at Ross River. No one was killed. Pilot was Bud
#172		Harbottle, August 1950. [crashed airplane on flatbed truck, floating on a raft
		(ferry?) across Pelly River, bridge in background] Only a negative available.

Cleary, Michael fonds, PHO 228 (85/57), 1953.

Note: Michael Cleary took part in the initial lead zinc exploration in the Anvil Range during the summer of 1953. There are views of the Canol Road, Ross River, pack horses, a raft, camps and the first diamond drill set up at the site. (checked, nothing useful)

Ed Cooper and D. Brenda Cooper fonds, 2011/116, PHO 556, 1971-1981

Colour slides incl. pic of Canol pipeline bridge and Ross River. (ordered scan)

YA#	location	description
2011/116 #39	PHO 556	Ross River footbridge with routed cedar interpretive sign, 1974.

Drury, William L. fonds, PHO 034 (82/333), ca, 1940s.

Note: Photographs taken of various individuals and communities in the Yukon including Champagne, Haines Junction, Teslin, Carmacks, Whitehorse and the Canol Road. Captions are available for some of the photographs.

YA#	location	description
82/33 #75	PHO 034	Canol Rd., Lapie River bridge. Bill Drury's jeep.
82/33 #80	PHO 034	Bridge taken out by ice on Pelly River; ca. 1946. T & D truck going across.
82/33 #84	PHO 034	T&D would open Canol Road each spring. Trucks and jeep.
82/33 #86	PHO 034	Pipeline Bridge across Lapie River at Lapie pump station.
82/33 #87	PHO 034	Trucks on ferry made from old bridge pontoons crossing Pelly River.
82/33 #96	PHO 034	Pipeline bridge across Pelly River.
82/33 #97	PHO 034	Washout on the Canol Road at Coyote Hill. Loe Liden below and Bill
		Drury's standing above. T&D opened the road in springtime, 1947.
82/33 #109	PHO 034	Canol Road, 1947. L-R: Jack Shield, Bill Drury and Loe Liden.
82/33 #112	PHO 034	Canol Road shot, 1947.
82/33 #114	PHO 034	Canol Road maintenance camp. Jack Shield at fire and Loe Liden and Bill

		Drury doing the dishes.
82/33 #116	PHO 034	Canol Road, 1947. Little D-2 Cat on truck.
82/33 #117	PHO 034	Washout on the Canol Road, 1947. Jack Shield and Loe Liden standing.
82/33#	PHO 034	Gordon Cameron and ?? on Canol Road, 1947.

Finnie family fonds, 81/21

YA#	location	description				
81/21 #427	PHO 141	Four-inch pipe being laid out of Ross Post up the Ross River, 7 September				
		1943.				
81/21 #428	PHO 141	Canol construction camp at Ross Post, 10 September 1943.				
81/21 #683	PHO 142	Travel Air [6000A, Res. ND9966] at Ross Post. Feb. 16, 1943.				
		[additional info from Bob Cameron 2003: American Public Roads and				
		Administration (PRA) Travel Air 6000 NC9966 operated by Northern				
		Airways Ltd. of Carcross during the Alcan and Canol projects (early 1940s).				
		Shown here on the Pelly River ice at Ross River.]				
81/21 #699	PHO 142	Ross Post. Feb. 18, 1943.				

Col. C. Hannington fonds, 82/363, PHO 046, 1942-44

Includes unlabelled aerial views of Canol Road and pipeline. Nothing useful.

Thelma Harbottle fonds

2006/125 #116, CD 118(2)

116. Red and silver Whse Flying Svces 170B airplane CF-FBK on skis and a yellow jeep sit on frozen river near Ross River by the bridge. Jeanne and Tom Connolly are standing in front of it, ca. 1953. [No sign of the bridge in photo.]

See also #s 197, 198, 200, 208.

Richard Harrington fonds 79/27, PHO 105

YA#	location	description
79/27, #412	PHO 105	Footbridge across Pelly River at Ross River settlement (remnant of Canol
		Road days). It shows typical formation of banks in this area. [1973]
79/27, #803		Ross River footbridge. Negative only

Richard Harrington, 85/25, PHO 279

YA#	location	description
85/25, #484	PHO 279	Ross River footbridge, Y.T.
85/25, #517	PHO 280	Ross River [Canol Pipeline Bridge sign]

Houghtaling, Ross fonds, PHO 453 (92/7), 1943-1945.

Note: Scenes of army life, the Mackenzie River, Norman Wells, the Canol Road and the Imperial Oil plant. Caption list is available. [nothing useful]

Dorothy John fonds, 92/17, PHO 433

YA#	location	description
92/17, #9	PHO 433	Army camps, Ross River 1942 [Canol construction camp, Ross River.
		Sept.1943]

92/17, #10	PHO 433	Army camps, Ross River 1942. [au verso:] Canol construction camp, Ross			
		River. Sept. 1943.			
92/17, #27	PHO 433	Army camps along North Canol (?) 1940s.			
92/17, #28	PHO 433	Army camps along North Canol (?) 1940s.			
92/17, #29	PHO 433	Putting in footbridge over Pelly [1943-hd]. Cats at Ross River.			
92/17, #55	PHO 433	The first ferry, Ross River. [Suspension bridge in background, may be one of earliest photos of the bridge. Unfortunately very fuzzy.]			

Misc. II photograph coll. PHO 50, 82/403

Includes Canol pix. (small faded snapshots, mostly taken around Whse., nothing useful)

Mary H. Mohr fonds, PHO 69, 77/44

24 pix of Norman Wells and Canol pipeline, no caption list but images seem to be taken on NWT side.

Margaret and Earle Waddington fonds PHO151, 82/1

YA#	location	description
82/1 #16	PHO 151	Ross River foot bridge 1959.

Gordon and Lorna Walmsley fonds

(Catalogued photo collection, colour slides, ordered some scans)

12364 Ross River Ferry and Canol Bridge (July) 1970

12365 Ross River Ferry and Canol Bridge (July) [1972]

12366 Ross River and Canol Bridge from Indian cemetery trail [1972]

12367 Ross River and Canol Bridge from Indian [1972]

12368 Ross River ferry [1972]

12369 Ross River ferry and bridge [1972]

12370 Ross River ferry and bridge [1972]

12371 Ross River ferry and bridge [1972]

12372 Ross River ferry and bridge [1972]

12373 Camper on Ross River ferry [1972]

12374 Pelly River bridge [1969]

12392 Bridge during the Ross River flood 1972

12393 Bridge during the Ross River flood (May 28) 1972

12394 Bridge during the Ross River flood (May 28) 1972

12395 Bridge during the Ross River flood (May 28) 1972

12442 Bridge over Ross River [1971]

12443 Bridge over Ross River [1972]

12444 View looking downstream from Ross River Bridge [1972]

12445 View from Ross River ferry [1972]

12446 Looking upstream at bridge & ferry at Ross River [1972]

Whitehorse Star Ltd. fonds, 82/563, PHO 202, ca. 1959-79

YA#	Location	description
82/563, f. 119, #1	PHO 202	[Bridge suspension system, Pelly River, Ross River.]
82/563, f. 119, #3	PHO 202	[Car ferry crossing Pelly River below bridge, Ross River.]
82/563, f. 119, #12	PHO 202	Bridge across the Pelly River at Ross River.

82/563, f. 119, #29	PHO 202	The Peters family. Bridge over Pelly, Ross River, n.d.				
		enclosed newspaper caption: "SWING AND SWAY Ross River children				
		trot across the old Canol Road suspension bridge at Ross River, the				
		only means of crossing the Pelly River near the settlement, at				
		present. Built to carry the Canol pipeline during the Second World				
		War, it may soon be replaced by a modern structure to carry trucks				
		and mining equipment. This is the Peters family."				
82/563, f. 119, #36	PHO 202	[Bridge over Pelly River, Ross River.]				
82/563, f. 119, #45	PHO 202	[Bridge over Pelly River. Cable ferry on shore on blocks. Ross River.]				
82/563, f. 119, #69	PHO 202	[Bridge across the Pelly River. Ross River.]				
82/563, f. 119,	PHO 202	Bridge across the Pelly River. Built in 1942 (?) to hold the Canol oil				
#70C		pipeline from Norman Wells, the narrow suspension bridge at Ross				
		River has a walkway but cannot take motor vehicle traffic.				
82/563, f. 119, #71	PHO 202	The bridge over the Pelly River at the town of Ross River.				
82/563, f. 119, #79	PHO 202	Swollen Pelly River floods Ross River and undermines pilings of old				
		suspension bridge. Ferry linking Ross with North Canol is also				
		knocked out until river recedes. Ross River ferry is beached until				
		Pelly drops to civilized level.				
82/563, f. 119, #85	PHO 202	[Pelly River suspension bridge and Ross River car ferry on shore.]				
82/563, f. 119, #94	PHO 202	[Thumbnails, Ross River. 1. Sign on vacant property; 2. Interior – new				
		power plant; 3. Power plant; 4. School at Ross River; 5. View of Ross				
		River from footbridge; 6. Footbridge; 7&8. Two young girls playing				
		with dogs.]				

Yukon. Government Services Records. 91/35, PHO 416

Includes 16 photos of bridges taken during "Canol Road 1969 Bridge Contract" whereby new culverts and bridges were being installed north of Ross River to the Yukon/NWT border. The apparent reason for this project was to service a mine operated by Hudson Bay Mining.

SOCIAL MEDIA

Friends of the Ross River Foot Bridge – Facebook page

https://www.facebook.com/Friends-Of-The-Ross-River-Foot-Bridge-538407959606867/?fref=ts

Also see YouTube videos in **Sound and Video Recordings** - Yukon, Community Services.

SOUND & VIDEO RECORDINGS

The documentary **CANOL**: **Strange Invasion** (2006) was produced entirely in the Yukon by Yukoner Allan Code. Kaska First Nations hunter, trapper, and prospector Arthur John Sr. takes viewers through the area where he led army engineers 60 years ago during the project to lay a pipeline between the Mackenzie and Yukon rivers. With his hindsight, we learn who profited from the ill-fated project and who bore the loss from this "strange invasion".

Diubaldo, Richard collection, SR 069 (1-2) (84/60), 1980.

Note: Two 60-minute cassettes of a talk presented by Richard Diubaldo on the Canol Project at a Yukon Teacher Education Program seminar.

Transcript of this talk can be found at:

http://www.tc.gov.yk.ca/archives/findingaids/transcripts/sr69 1 a1tosr69 2 a1.pdf

[some general info re Canol Project and longlasting impacts re US-Can. Relations and environmental legacy.]

Jan Koepke, 2005/128, SR 264 (1-3) and CD 97(1)

Created 1981

While studying for her Master's degree in Adult Education at the University of British Columbia, Jan took a Yukon Studies course with Julie Cruikshank in 1981. In research for a paper on the history of Ross River First Nations people, she interviewed Charlie Taylor and Bert Law. Both Charlie and Bert were acquaintances of Jan's, and openly discussed their recollections of Ross River and particularly the impact of non-native development in the area. Also includes building and use of the footbridge. [Bert Law tape two, side A has some interesting information about bridges across the Pelly River as well as other Canol River bridges.]

Ward, Robert fonds, SR 072 (1-3) (82/528), 1941-1958.

Note: Soundtrack of Reverend Robert Ward's reminiscences as he watched his films, 16-96 to 16–101. Narration has been transferred onto video to accompany the silent films.

Yukon Historical and Museums Association collection, SR 068 (3, side 2) (4, side 1) (84/59R), 1980. Note: Sound recordings from the third Yukon Heritage Conference on Transportation in the Yukon, held in Whitehorse, October 2–5, 1980. Speaker is Richard Diubaldo and the title of his talk is "The Forgotten Truth about the Canol Project."

Yukon Government, Community Services

Ross River Bridge – North end. 53-second video highlight damage to structural steel members.

https://www.youtube.com/watch?v=2TcXPPzmxtk&feature=youtu.be

Ross River Bridge – South end. 48-second video with close-ups of damage to

https://www.youtube.com/watch?v=IOT9-R0pTXQ&feature=youtu.be

Published on Oct 2, 2013 - The 70-year old Ross River bridge was recently determined to be in immediate risk of collapsing and was deemed a significant public safety risk. This video, taken recently by engineers assessing the bridge, shows the large cracks on either end of the bridge. The public are cautioned to stay away from the bridge.

WEBSITES

[a sampling of articles from some online sites]

CBC News

2014 Sept. 26 – "Ross River bridge contract goes to Klondike Welding."

http://www.cbc.ca/news/canada/north/ross-river-bridge-contract-goes-to-klondike-welding-1.2778749

Heritage Yukon

9 February 2015 - "2014 Yukon Heritage Award Recipients Announced." http://heritageyukon.ca/2014-yukon-heritage-award-recipients-announced

National Trust for Canada

26 March 2014 – "HCNT Congratulates Yukon Government on Decision to Stabilize the Ross River Suspension Bridge."

 $\underline{https://www.nationaltrustcanada.ca/get-involved/hcf-news/hcnt-congratulates-yukon-government-ross-river-bridge}$

Sights and Sites of the Yukon
Highway #6 – Canol Road, Km 228; Canol Road Suspension Bridge
http://sightsandsites.ca/central/site/canol-road-suspension-bridge

Part III: CHRONOLOGICAL NOTES

1942 late April, US War Dept. decision to construct the Canol Project.

16 May 1942, Canada gave informal approval to construction of Canol project

June, commencement of Canol project.

- 1942 18 Dec. 1942 Memorandum to all District Engineers advising them they were taking over duties "heretofore performed by the Architect-Engineer J. Gordon Turnbull & Sverdrup & Parcel" including taking over all records and equipment. [USAF NWSC MF roll 2]
- 1943 Spring, beginning of construction of a refinery in Whitehorse

15? April 1943, from notes on a conference at B-P-C office:

NORMAN-WHITEHORSE PIPELINE

2) The Architect-Engineer has the sole responsibility for the final location of the pipeline and will make all necessary surveys. [USAF NWSC MF roll 2]

April, civilian contractors began clearing and levelling site of Canol refinery 31 Dec. – completion of Canol Road between Norman Wells and Johnson's Crossing along with some of the bridges including construction of Ross River suspension bridge (see item below).

12 June 1943, plan/report entitled Northwest Division, Midnight Report.

12 Jan., Bridges on Canol No. 1 West. B-P-C Canol Project, Engineering Dept. "Compiled by Control Branch – U.S.E.D. based on reports from US Signals. Date: As of June 12, 1943. Note by Pelly River at Ross R. Post: "No construction progress since high water destroyed Pelly Bridge at Ross Post. Waiting for water to recede." [USAF NWSC MF roll 4]

Cover letter states that list was taken from A. E. [?] list of bridges as of Dec. 28, 1943. indicating Pelly River bridge was constructed in 1943.

mi. from	mi. from	name of	total	no.	length	status of
Johnson's	Canol	stream	length	spans	span	construction
Crossing			J	'	'	
141	362	Pelly River	600			complete
		-				and in use

[MF roll 4, US Army, NWSC, Canol project]

1944 1 Jan. 1944, Canol No. 1 road complete with road from east side and road from west side meeting on this date. [Memo to Gen. Worsham, 2 Feb. 44, USAF NWSC MF roll 4]

2 Feb. 1944, Memo from Petroleum Section to General Worsham. Excerpt under title, "2. Canol No. 1 Bridges". '... Major Harvie is making in [sic] inspection of the bridge sites and final decision will be reached on bridges upon his return." [USAF NWSC MF roll 4]

16 Feb., final weld on 595-mile pipeline from Norman Wells to Whitehorse.

4 March 1944, Plan of Operation #2. "2.05 Completion of Canol Project"

- Mentions completion of road and bridge construction by the E.W. Elliott in addition to road maintenance. They expected to employ 1100 people for 30 to 60 days in order to "adequately improve the winter road and construct the necessary bridges by 31 March 1944."
- Admin functions performed by B-P-C at Johnson's Crossing and Canol Camp eliminated.
- 7. The principal factor in delaying reduction of personnel is the incomplete status of the Canol Road and the necessary bridges. [USAF NWSC MF roll 2]
 - n.d. Excerpt from: Canol Final Report re "Stream Crossings". Includes sketches of many river crossings but no reference to Pelly R. suspension bridge. [USAF NWSC MF roll 4]
 - 16 April, first oil from Norman Wells reached Whitehorse. 30 April, official opening of Canol Refinery.
- 1945 1 April, operation of crude oil pipeline and refinery were suspended.
 - Over the previous year, 1,102,000 barrels of crude oil had been transported through pipeline to Whitehorse refinery.
- 21 August, 1946, J.S. Stewart to R. A. Gibson [YA, Yukon Records Office, GOV 2216, f. 1]
 Stewart had recently completed an inspection of Canol assets from Johnson's Crossing to Ross River with details of condition of Canol remnants. "At Pelly River, the bridge is washed out, and we were unable to get our truck across the river. The cable suspension foot bridge which carries the pipe line across the river is still intact and in good condition."

 Also good detailed explanation of the process for salvage of US War Assets.
- Series of photographs documenting first trip of year up South Canol Road by Taylor & Drury staff including some of necessary repairs. According to one caption, "T&D would open Canol Road each spring." At the time T&D had posts at Ross Post and Sheldon Lake, includes shot of footbridge looking along the deck. [Drury, William L. fonds, PHO 034 (82/333]
- 1949 Rimmer & Hide of Westlock, Alta. contracted to take down pipeline on Canol Road. There were prolonged negotiations re selling the bridge to YTG. Although the outcome is unknown, the bridge remained in place. See summary of correspondence in following entries. [Likely the pipeline was removed from bridge at this time.]
- 1949 21 March 1949, F.H.R. Jackson to Commissioner J.E. Gibben [GOV2216, f.3]
 - mentions that "the Albert and Davidson Pipe Corporation have transferred their entire interest in the Canol No. 1 project to the firm of Rimmer and Hide, Westlock, Alberta, who will continue with the salvage of pipe, equipment and materials."
 - Albert and Davidson had planned to dismantle and salvage materials in Pelly River foot bridge; Rimmer and Hide may also consider bridge as profitable salvage. Asking for legal advice as to "whether this bridge can be lawfully dismantled as part of the Canol No. 1 project". Excerpt:

"Although the structure is for foot traffic only, the deck being approximately four feet wide and carries the crude oil pipeline on one side, it is well constructed and will last for many years with little maintenance. There is no vehicle traffic bridge over the Pelly River, former U.S. pile-bent structures at this point having been taken out each year by the ice. The present

suspension bridge, however, is of considerable convenience to the inhabitants of Ross Point [sic] and to those persons using the Canol Road who wish to cross the Pelly River at this point.

"I understand the attitude taken by R. C. M. Police Inspector H. H. Cronkhite was that since the United States Government had relinquished previous rights to the control of traffic over the Canol Road upon disposal of the project to a private concern, the road then became a public thoroughfare, its bridges thereby becoming part thereof and, therefore, could not be dismantled or destroyed. Police Inspector H. J. Spanton feels that this may be correct but is unwilling to make a definite ruling in the absence of having any information as to whether this bridge can be included as part of the Canol No. 1 project and subject to removal by the purchasers."

Also mentions that he was enclosing 2 photos of bridge and requested that they be returned as are part of his only copy of a former Forest Reconnaissance Survey Report. "As will be observed considerable pipe has been used in addition to cable and dimension lumber, all of which doubtless could be salvaged at a very reasonable cost."

6 April 1949, R.A. Gibson to J.E. Gibben excerpt: [GOV 2216, f.3] "In the schedule of property comprising Canol No. 1 to be sold by the United States Government, was an item, Parcel B, 'to include the pipeline, pumping stations, tankage, buildings, equipment, and all supplies or property of whatever nature, located along the Canol No. 1 Project road'. This would seem to include the foot bridge over the Peel [sic] River near Ross Post."

- Suggests that YTG negotiate a deal with the firm owning salvage rights.

14 April 1949, J.E. Gibbon to Rimmer & Hide requesting what arrangements would be necessary to leave bridge in place. [GOV 2216, f.3]

n. d. H. H. Hide, Johnson's Crossing to J.E. Gibson, Controller, Y.T. [GOV 2216, f.3] "After discussing this with Mr Rimmer (the writer never having seen the bridge) we feel that \$10,000.00 would be a fair price. I have no idea what the initial cost was on this bridge but it was several times what we are asking for it and as far as can be seen it is as good as new."

19 May 1949, Frank El. Woodside, mgr. British Columbia & Yukon Chamber of Mines, Vancouver, to Dr. Hugh L. Keenleyside, Deputy Minister of Mines and Resources, Ottawa

- Lobbying that bridges along the Canol Road not be dismantled but left in situ to support ongoing mining activity. [GOV 2216, f.3]
 - 23 May 1949, R.G. Lee [Yukon Council Member] to J.W. Gibben, commissioner
- Cites recent meeting of B.C.-Yukon Chamber of Mines and issue of intended destruction "of bridge or bridges at or on the confluence of the Ross and Pelly Rivers".
 "It is also the opinion of the public here, that the present Canol Road with bridges is a valuable asset to the Territory and while no production has come from this area, geologists and mining interests are definitely showing considerable interest in this area. It would appear to me that every effort should be made to maintain all the facilities of this road, at least for a few years longer, to give this area a chance of development." [GOV 2216, f.3]

26 May 1949, H. L. Keenleyside to Frank R. Woodside responding to May 19 letter:

- Mentions that footbridge appears to be only structure "of salvageable value". Goes on to state that the traffic bridges "were temporary wooden structures and all have been damaged in varying degree by flood and storm". Then passes responsibility to Commissioner.

[GOV 2216, f.3]

30 May 1949, Gibbon to Jackson – mentions receiving letter from Rimmer & Hide with \$10,000 price for foot bridge. "You will understand that the Territorial Government does not have this amount available for such a purpose at this time." [GOV 2216, f.3]

30 May 1949, Commissioner J.E. Gibben to R.G. Lee, Member of Yukon Council:

- "You realize probably better than anyone else that we do not have funds available for immediate purchase, but the matter might be considered at a second Council session if the need and the price suggested warranted." [GOV 2216, f.3]

9 June 1949, R.A. Gibson to F.H.R. Jackson – request for more information on bridge specifications and condition before tendering an offer for Pelly River foot bridge.

"It is thought that you might have this information yourself or be able to obtain it from reliable parties who have seen the bridge recently. The type of information we desire concerns the length, width, kind of construction and materials in the deck and piers or abutments, and the conditions of the materials in the bridge and footings or tower and cable, in order that an approximate estimate of the value may be made."

23 June 1949, F. H. R. Jackson, Forest Engineer to R. Gibson, Director, Lands and Development Svces. Branch. [from YA, Yukon Records Office, GOV 2216, f. 3] [copy of letter in binder, also content transcribed below]

"In reply to your letter of the 9th instant requesting information on the foot bridge over the Pelly River at Ross Post recently offered for sale to the Yukon Territorial Government by messrs. Rimmer and Hide.

Kindly be advised I have been unable to obtain any plans of this bridge from the local office of the United States Army Engineers, however, I have been able to secure the following specifications from the above firm.

Pelly River Suspension Bridge

Type Cable suspension, 636 ft. span

<u>Towers</u> Two, 80 ft., 6 in. pipe lattice construction.

42 ft. by 36 ft. at base, set in concrete.

Supporting Cables Eight 1100 ft., 1 ¼ in. wire cables, four on each side Anchors Four, two on either side set in concrete blocks.

<u>Bridge Deck</u> 5 ft. wide, timber construction, supported by 2?? in. wire cables every 10 ft.

<u>Sway Cables</u> Two 1100 ft. 1 in. wire cables.

<u>Approaches</u> At either end, 65 ft. long 7 ft. wide, timber construction

Bridge, including approaches, reported to be in good condition.

I might mention that two photographs of this bridge were taken in 1944 in connection with the Yukon Forest Reconnaissance Survey, the negatives of which I believe are on file in Ottawa."

4 July 1949, R.A. Gibson, Dept. of Mines and Resources, Ottawa, to Commissioner J.E. Gibbon, Dawson [GOV 2216, f. 3]

Pelly River Foot Bridge

"Since the time of your letter dated June 2, 1949, advising that Messrs. Rimmer and Hide had offered to sell the foot bridge over the Pelly River at Ross Post to the Yukon Territorial Government for \$10,000, we have had some figures here from our Engineering and Construction Division which would serve as a guide in estimating a fair selling price for this bridge.

"The engineers estimate it would cost approximately \$47,000 to replace this bridge at the present time. From this it would seem that, after allowing for depreciation the sum of \$10,000 would not be a high price for the bridge.

"Looking at it from another point of view, it is doubtful that there is \$10,000 worth of salvage in the bridge for Rimmer and Hide after deducting costs of dismantlement and transportation. Consequently, it would seem that further negotiations with this firm would be in order in an endeavor to get them to lower the price which they would accept from the Yukon Territorial Government for the bridge."

21 July 1949, F.H.R. Jackson to Commissioner J.E. Gibbon [GOV 2216, f.3]

"Enclosed please find copy of official U.S. Government computations for the Pelly River Bridge, loaned to this office by the Resident Engineer, Alaska District, Corps of Engineers, Whitehorse, Y.T.

"After they have served any useful purpose would you kindly return these computations."

25 July 1949 – H.R. Hide, Johnson's Crossing, to Commissioner J.E. Gibben. Excerpt below: [GOV 2216, f.3]

"We have spent considerable money on the Canol Road to the Pelly this year, and have asked for no help from anyone, and the road is open to anyone who wants to use it, but when we attempted to put the ferry in operation we found a big job on our hands. We find that the cable across the river has been only on the 10 ft. towers, holding the sway lines of the foot bridge, and that last year it was never lifted out of the water. The scow is in very poor condition and will need a lot of work before it can operate. It looks as if it is going to run into close to \$2,000.00 before we can get it into operation safely. It seems as if there are a lot of people who would like to use this ferry as well as ourselves. There is quite a settlement in the Pelly river valley and there are lots of enquiries regarding possibility of crossing the river from surveyors, prospectors, trappers and many others."

6 Sept. 1949 – Commissioner J.E. Gibben, Dawson, to F.H.R. Jackson, Forest Engineer, Whse. [GOV 2216, f. 3]

"I am returning here with the copy of official United States Government computations for the Pelly River Bridge which were forwarded to me in your letter of July 21st.

"I may say that on the occasion of my last visit to Whitehorse I had discussion with Mr. Hyde with regard to the purchase of this Bridge, and made an offer of \$2,500.00, which was not accepted.

"There is a possibility, however, that the offer may be reconsidered."

5 Dec. 1949 – H.R. Hide, Rimmer & Hide, Johnson's Crossing, to J.E. Gibben, Commissioner, Dawson. Text in full below. [GOV 2216, f. 3]

"With further reference to the foot bridge across the Pelly river on the Canol Road.

"It is now several months since you requested an offer from us on this bridge to be left here for the use of the people of the Y.T. It has now come time for the decision. We quoted you a fair price on the bridge and after spending over \$1000.00 on the ferry we agreed to let it go in the deal. Your Mr. Harvey was to have inspected this bridge. After he contacted me and I had made all arrangement to take him up to the river personally, he side stepped the trip with the excuse that he did not have the time.

"This is to inform you that it is our intention to dismantle the bridge after the first of the year if we do not get a reasonable offer in the mean time."

15 January 1950, Report from RCMP Const. J.T. Daglish from Norman Wells detachment concerning progress of Canol pipeline salvage by Rimmer at NWT end. Mentions "his partner Hyde, who is believed to have reached approx. mile 275 from the Yukon entrance." [GOV 2216, f. 3]

1 Nov. 1950 - Journals of the Council of Yukon Territory.

Motion Mr. R.G. Lee That the following Bills be given third reading

Bill NO. 1 an Ordinance to repeal "an Ordinance for the protection of Bridges" [YG, Historic Sites, research file]

- 1952 Company became Hide & Morrison about this time. Canol Salvage, based in Whse., was coowned by Mr. Hide.
- 1953 1 Oct. 1953 N.S. Tate, Territorial Engineer to Commissioner W.G. Brown Re: 630' Suspension Bridge over Pelly River at Ross River.

"As per instructions from you I flew in to Ross River last Thursday and inspected the condition of the above bridge. I found that the bridge was quite out of shape due to sagging of the cable on the downstream side of the bridge. I therefore instructed Mr. Gortney, who works for Mr. Hyde in connection with the salvage work on the Canol Road, as to the procedure to follow in getting the this bridge back into proper shape. This involves adjusting the clamps on each side of the two towers to allow for proper play in the cables, and, then by turning the turnbuckle screws at the anchor ends of the cables, to tighten the cable on the downstream side while slightly easing up on the cables on the upstream side. When by this means the bridge had been righted, I instructed that the clamps on each side at the top of the tower be brought up flush with the tower and tightened up. When this was done I told him to tighten the turnbuckle screws on the cables which govern the sway bracing wires on each side of the bridge. I requested that he proceed with this work immediately in order that he getit done before severe frost set in as the cables might be affected under frosty conditions. My Gortney was to advise me if he experienced any difficulty, but, as yet I have not had any word from him so expect he is getting on alright."

- Includes small sketch of bridge at bottom of letter. [YG, Historic Sites, research file]
- [The above letter suggests that salvage of Canol project was still ongoing and that the government of Canada had taken over responsibility for the bridge.]
- 20 Sept. 1955, R.G. Robertson, Deputy Minister of Northern Affairs and National Resources to Commissioner F.H. Collins (GOV 2216, f.3) Summarizes activity in the area and groups that had unsuccessfully requested federal assistance for maintenance of Canol Road.

- 1950 & 1951 YTG contributed "a small portion of the cost of putting the road in condition ..., the purpose being to carry out the salvage operation."
- 1952 Hudson's Bay Mining and Smelting Company, "which had a large number of claims some distance up the road"
- 1954 Prospectors Airways "requested assistance in maintaining the road to a very limited extent in order to get supplies in to new mineral finds around Vangorda Creek"
- "There are two or three small trading establishments on or close to the route of the Canol Road, but certainly the Territorial Government would not be justified in spending any money on the road on the plea that it is necessary to supply these trading posts with freight by motor vehicle."
- Mentions classification of Canol as a "resource road" but requires indication that companies were prepared to spend substantial funds on resources. "If representations are made to you that the maintenance of the Canol highway is necessary because of other than resource characteristics, the responsibility for this maintenance under our present road policy would fall on the territorial government. I do not think that you would have much difficulty in justifying a refusal by the territorial government to spend money on this road."

21 Nov. 1955, Canol Road – Report on Road Conditions prepared by Terr. Engineer, E.J. Baker. [YA, YRG I, GOV 2216, f. 4]

Detailed mile by mile listing of problems and work required. Also mentions footbridge. [See Appendix for further details.]

"M.P. 150.6 – Pelly River Footbridge, see photos 20 to 26 inclusive. This bridge is being used by the Indians in this locality and serves them no other purpose than to allow them passage over the river. The structure cannot be used for anything but foot traffic or a pipeline crossing. Because of these limitations, and the fact that it is too remote at present for proper maintenance, it is recommended that the bridge be allowed to fall into disrepair and at the end of its life it should be demolished. The people that use the bridge should be warned that they do so at their own risk." [no pix with file]

1958 Construction of Robert Campbell Highway completed; previously S. Canol Rd. provided access to the Anvil silver-lead-zinc deposits. [Whyard, 80/106, MSS 145, f. 2]

20 Oct. 1958 – R.S. Stauch, Resident Engineer, Dept. of Northern Affairs & National Resources to Whitehorse Star. Mentioned that Canol Rd. re-opened to junction of Pelly and Ross Rivers. Lists construction items. [See Appendix for details.]

General Enterprises was contractor of work between mile 30.5 Sidney Creek and mile 135.5, Lapie River. "At present the road is not open to winter traffic. Because of its low standard this road should be travelled with caution." [YA, YRG I, GOV 2216, f. 2]

- 1959 15 June 1959, Memo to Terr. Eng. G.B. Starr from Road Supt. C.V. Campion re Canol Road Johnson's Crossing to Ross River. [YRG I, GOV 2216, f. 2]
 - report on inspection trip of S. Canol up to MP 99 by Colin Yeulet and Chess Campion, May 4-6, to check glacier conditions.
 - mention that the road had already been plowed by McIsaac Construction for Canol Metals "operating at Upper Sheep Creek approximately 12 miles off the road from M.P. 99." Also describes helicopter trip by Campion and Starr during spring run-off to inspect damage.

Jun 10, inspection trip with Campion and C. Erickson to inspect all culverts and bridges between Johnson's Crossing and Ross River. Detailed listing of bridges, condition and work required. "It must be remembered that these timber pile bridges constructed by the United States Government in 1942-43 of native timber piling (untreated) have just about reached the end of their safe life span." – Recommends replacing all timber pile bridges with next 5 years. [No mention of Pelly River footbridge. See Appendix for further details.]

1960 July 6, 1960. Typed on YTG stationary. Notes by J. Christofferson for file:

Re: Pelly River Foot Bridge:

Length of Foot Bridge 630'.

Req'd.:

- 1. Rebuild and erect 2 90' ladders.
- 2. Repair approach ramp at Northend. (This has been rocked by bridge & is becoming dangerous).
- 3. Extra runner of 2 x 4 req'd down middle of deck. The present distance between runners is 57" and is spanned by 2 x 6 decking. This decking req'd renailing.
- 4. Replace 6 3 x 8 runners on outside deck.
- 5. Replace $86 \frac{1}{2}$ "suspension cables.
- 6. Straighten the present foot bridge structure.
- 7. Tighten 37 guy cables and replace 6 guy cables, which are missing.
- 8. Many bolts in the present structure are loose. All should be replaced and tightened.
- 9. The main cable on the downstream side is sagged 1 foot below the other. This should be tightened.
- 10. Steel bars should be installed in the turnbuckles to prevent the main cables from working slack again.
- 11. Straighten the "A" frame on south downstream corner of stabilizer cables.
- 12. Place 2 1 % inch cable clamps on lines at each "A" frame to prevent further movement of the "A" frame.

[There were asterisks in front of items 5, 6. 7. Notes accompanied by photocopies of three photos. Captions as follows:

- Pelly River footbridge south tower looking east or upstream. Note suspender system and approach ramp to bridge deck. Ferry cable anchors in foreground.
- Pelly River footbridge showing southwest anchor.
- Pelly River footbridge looking north.] [YG, Historic Sites, research file]
- 1964 Major spring flood of Pelly River which could have impacted bridge footings. [Richard Janowicz, YG, Mgr. Hydrology, Water Resources Branch, Dept. of Environment]
- 1968 Completion of the Robert Campbell Highway between Watson Lake and Carmacks and opening of Anvil Mine in Faro.
- 1969 The North Canol road was opened between Ross River and YT/NWT border to enable summer mining exploration in the Hess and Selwyn Mountains. A contract was let to rebuild bridges and culverts on the road.

[sources: Yukon. Government Services Records. 91/35, PHO 416 (photo collection from a bridge inspection trip); Flo Whyard fonds, 80/106, MSS 145, f. 2.]

- 1972 May, spring flood of Pelly River at Ross River impacting bridge footings. [Richard Janowicz, YG Mgr. Hydrology; Walmsley fonds shows pix of bridge during flood, May 28.]
- 1973 19 July Submission of "Man and Resources Report Form" to Yukon Government minister, Flo Whyard by Lorna Walmsley on behalf of Pelly Historical Society. Provides overview history of the road then identifies remnants environmental hazards requiring clean-up, particularly telephone wire a hazard to animals. Suggests that this work should be a federal responsibility. [Whyard, 80/106, MSS 145, f. 2]
- 1976 1 Sept. 1976, Mr. L.A.I. Dickson, Secretary, Ross River Community Association to Commissioner A. Pearson.
 - Re Foot Bridge, Ross River, Y.T.
 - Describes the bridge as a "tourist attraction" and "the only true item of history remaining at this place, and as such we would like it to continue to be kept condition."
 - "Recently some planks were broken on the approach to the bridge and as a result a notice was put up to the effect that the bridge is unsafe. A few years ago, some of the local people covered the main part of the bridge with plywood, when horses using the bridge began to make holes in the more or less worn out planking. The cables supporting the bridge are not in good condition and all it needs is to have some new boards put on it to make it safe for use for a number of years. This is one place of interest that has truly served a purpose in the history of Ross River and everyone who visits this place makes a point of going across the bridge.
 - "At a meeting of the Ross River Community Association held on 24th August directions were given to write to yourself and to Heritage Canada in endeavours to save our bridge. We trust you will look favourably on our request." [YG, Historic Sites, research file]
 - 12 Oct. 1976 Mr. L.A.I. Dickson, Secretary, Ross River Community Association to Dept. of Highways & Public Works
 - Mentions unsuccessful endeavours to have foot bridge over the Pelly River declared an
 historical site, goes into some detail of importance of foot bridge given limited hours of the
 ferry, and detailing the need for repairs. Mentioning cost would not be great and need to do
 work before cold weather sets in.
 - "It is also felt that this bridge is indeed an historically important structure as it was built as part of the Canol Road Project during World War II. It served a definite purpose at that time and is still serving a purpose other than a tourist attraction, although it is that as well. We, in Ross River, consider it more important from an historical standpoint than the Miles Canyon Bridge at Whitehorse, Y.T. We also feel that it will become more important as time goes on and the population of the Yukon as a whole increases." [YG, Historic Sites, research file]
- 1977 15 Feb. 1977 K.J. Baker, Director of Highways and Public Works, to J.K. McKinnon, Minister of Highways and Public Works

Pelly River Footbridge at Ross River

- details the results of an inspection and evaluation of the footbridge at Ross River to determine safety for pedestrian traffic.
- mentions entire bridge should be replanked, checking and adjusting of various cables. Detailed estimate of work and figure of \$150,000. [YG, Historic Sites, research file]
- 1978 1 November 1978 Nancy Dieckmann, President Ross River Community Association to Commissioner of Yukon

Re: Pelly River Foot Bridge – Ross River

- Mentions safety issues with bridge as people disregard the "Use at your own risk" signs. "Recently a boy narrowly missed going through the planking with his bike, and there have been other mishaps, fortunately none of these serious, <u>yet</u>."
- "It is the unanimous feeling of this community that there are enough valid reasons for the bridge to be repaired to a safe condition, which we realize from Mr. Baker's letter of January 6, 1978 will involve considerable work and expense. Aside from being a necessity to the community for the natives who trap, hunt and fish up the North Canol to make their living and and residents who live on the other side of the river who have no other way to cross during break-up and freeze-up, and a route to recreational hiking, site seeing, etc., we feel it is a definite historical site as well as a tourist attraction. Many tourists are interested in hiking to Old Ross, the old cemetery and the old army base."
- Details efforts to get support from various national and territorial groups, suggests possible cost sharing and mentions some local businesses have contributed funds. "... we cannot do it alone and we would appreciate hearing from you soon as to what steps can be taken to resolve this problem." [YG, Historic Sites, research file]
- 8 Nov. 1978 newpaper article; "Ross River bridge, rotten, unsafe"
- Mentions timber supports are rotting, issue of trying to get gov't. assistance. "The [Ross River] Community Association feels the bridge is important and must be maintained. It provides access to the north side of the river, especially during break-up and freeze-up. Hunters, trappers, hikers and tourists all use the bridge, and it lessens dependence upon the ferry during the summer months." [check ref Northern Times, in Ross River SF]
- Mentions boy on bicycle who almost went through the planking.
 - 18 Dec. 1978 K.J. Baker, Director of Highways and Public Works to W.G. Cleghorn, Chief, Northern Roads & Airstrips, Dept. of Indian Affairs & Northern Development
- Inquiring whether footbridge was part of acquisition of Canol Rd. assets during clean-up of various facilities and dumps along Canol Rd. [YG, Historic Sites, research file]
- 1979 10 Jan. 1979 Cleghorn to K.J. Baker in response to above letter
 - mentions unable to find evidence of bridge being sold to any gov't. "but not all capital assets were clearly identified at the time". [YG, Historic Sites, research file]
 - 15 Jan. 1979 ?? to B. Fleming, MLA, Teslin, Yukon [2nd pg. of letter missing]
 - "The Ross River Footbridge is indeed in very dangerous condition and the Government has been attempting to find some solution to the problem. ... When the budget is debated this Spring, hopefully you will be able to suggest which other worthwhile projects you would suggest should be sacrificed to provide for the restoration of the Ross River footbridge. The limited amount of use the bridge receives makes it difficult to place a much higher priority on it."
 - Goes on to suggest a joint application from Band and Community Club to "a variety of programs (including Canada Works and Tourism Capital Development)" [YG, Historic Sites, research file]
 - 13 Feb. 1979 K. J. Baker, Director of Highways and Public Works, to D. Lang, Minister of Highways and Public Works
 - Results of discussion with Major Plouffe of local Canadian Forces detachment re C.A.F. involvement in rehab of footbridge. Commissioner would have to write Deputy Minister of DND,

earliest this could happen would be following year, DND would supply manpower, materials would have to be supplied by YTG.

1979, Feb. 21 - Commissioner Ione J. Christensen to C.R. Nixon, Deputy Minister, Department of National Defence.

- describes condition of footbridge: "The superstructure requires replacement because the wood members and fastenings are deteriorating. If this work is not undertaken, the bridge will have to be closed.
- "There has been considerable representation from the Village of Ross River to have the Gov't. of Yukon carry out repairs (approx. cost \$150,000). We, however, do not have the financial resources "
- goes on to request whether DND, Canadian Armed Forces, could take this on. [original source unknown, located at YG, Historic Sites]
- 22 March 1979 Vote 09, item 2 "Who owns Pelly River Footbridge?" [Fleming]
 Reply: "We do not know the owner of this bridge. DINA is currently checking if ownership can be established from records in Ottawa." [YG, Historic Sites, research file]
- 2 April 1979 C.R. Nixon, DND to Commissioner Ione Christensen
- DND would not be able to repair bridge as a training exercise in foreseeable future. "DND policy is to avoid competing with or duplicating services available from the civil sector. Therefore, if the work was undertaken by the Canadian Forces, it would be necessary to recover costs at least equivalent to those that would be charged by a commercial firm."

[YG, Historic Sites, research file]

- 1979 April 30 Janice Cochrane, Counsel, (for) Director, Legal Svces. to Dr. V.E. Hume, Head, Physical Planning Section, Northern Roads and Airstrips Division.
- Gives legal opinion, in some detail, why the footbridge should be considered property of the Crown. [YG, Historic Sites, research file]
- 1 May 1979 W.G. Cleghorn, Chief, Northern Roads and Airstrips Division, Indian and Northern Affairs to K. Baker, Director of Highways and Public Works, YTG
- Forwarding legal opinion that footbridge "can probably be regarded as Crown Property".

 [YG, Historic Sites, research file]
 - 13 August 1979: Whitehorse Star article headed "Contracts, Contracts: One For The R.R. Bridge Repairs..."
 - contract for repair of bridge awarded to Ben Leveille of Whse., the lowest of 3 bidders, for \$63,500. Contract involved "bolstering the existing bridge frame and replacing rotted and broken timbers so it will be useable for another 10 years." Work had been ordered by YTG Highways and Public Works Minister Dan Lang in response to complaints from residents that bridge was unsafe.

"Lang originally ordered in a government work crew to rip down the approach ramps to the bridge to prevent its use while a decision was made whether to repair it, replace it or to put in a ferry.

"That work crew was met by a crowd of about 50 angry residents who feared the bridge would end up being torn down altogether. Lang later went to Ross River to discuss the problem and shortly after ordered the existing bridge be repaired." [YA Ross River Search File]

- 1984 Publication of report by Canada, Dept. of Public Works, describing results of 1983 bridge inspection. Recommends setting load limits and "remedial measures to prevent the erosion of southern embankments".
- YG budget funds available for safety retrofits and rehabilitation of timber bridges on the North Canol Road. http://www.hansard.gov.yk.ca/30-legislature/session2/048 Mar 29 2001.html
- 2005 YG, Budget Address, March 24, 2005 excerpt:

"The Ross River Roundtable has requested upgrading of the walking bridge over the Pelly River to ensure its safety. This bridge was built during the 1940s during construction of the Canol Pipeline and it continues to be well used by local residents, as well as being a popular tourist attraction.

"In response to Ross River's request our government has budgeted \$100,000 for repairs, and the Departments of Community Services and Highways and Public Works are planning to have the work done this summer following a professional assessment of what is required to restore this structure." [unlikely that any work was actually done]

- Yukon Gov't. declares intention to demolish and remove Ross River footbridge. August, closure of Ross River footbridge to traffic. [YN, 2 Oct. 2013]
- 2013 Flooding of Pelly River at Ross River during spring break-up. Some homes damaged, no mention of impact on bridge footings. (YN, 13 Apr. 2015)

Yukon Government news release, 13-159

FOR RELEASE

June 19, 2013

Ross River suspension bridge to be repaired

WHITEHORSE— Work will begin this summer on the revitalization of a historic suspension bridge in Ross River, Community Services Minister Elaine Taylor announced today.

"The historic and practical significance of this bridge for residents of Ross River, and as a visitor attraction, is well understood and appreciated," Taylor said.

The 70-year-old bridge, which crosses the Pelly River, was originally built in the mid-1940s as part of the Canol pipeline project. Following an engineering assessment on the condition of the bridge last August, Community Operations staff met with the Ross River Dena Council and closed the bridge pending repairs.

The plan includes repairing or replacing damaged decking, guard rails, trusses and stairs. As well, hanger and sway cables will be tightened and braced. Engineering work will be done this summer to determine final details.

The \$1.1 million upgrades are expected to be complete by the end of the year.

23 July – awarding of engineering consultant contract. According to Minister Elaine Taylor, "Community Services is looking at options for repairs or replacement of the bridge structure and have undertaken the assessment services of an engineering firm as well. In the meantime, we have put up a caution sign, and a chain has been installed just to ensure that individuals are aware of the issues with respect to the current state of the bridge."

Late Sept. – Ferry operations suspended because of risk of bridge collapsing on the ferry. [YN, 2 Oct. 2013]. RCMP then later Community Services handle transporting people across the river. Ferry goes into limited operation only transporting vehicles.

In 2013, YTG-CS retained DNA to prepare contract documents for the repair of the Ross River suspension bridge based on Option 1 described in their Oct 16, 2012 Repair Options report. "In a pre-design inspection of the bridge in October 2013, the steel cross beam located on top of the north tower of bridge was discovered to be severely damaged and laterally unstable. Given this finding and the age and overall poor condition of the bridge, DNA concluded in a memorandum to YTG-CS dated September 30, 2013 that it was no longer practical from a structural and construction safety perspective to repair and salvage the bridge. Furthermore, we recommended that the bridge be demolished as soon as possible for safety reasons." (David Nairn & Associates, 2013: 3)

The DNA report included the following summary of bridge inspections:

Date	Source	Title		
2013 Sep 13	DNA	Memorandum – Inspection of Bridge Towers		
2013 Aug. 6	DNA	Pre-design Inspection Report Option 1		
2012 Oct. 16	DNA	Repair Options		
2011 July 13	DNA	Memorandum - Interim Bridge Inspection Report		
2011	EBA	Foundation Stabilization Recommendations		
2010	EBA	Geotechnical Evaluation Ross River Pedestrian Bridge Foundation		
2009 Sept. 9	AECOM	Ross River Suspension Bridge Field Inspection Report		
2007	YTG	Pelly River Pedestrian Bridge Repairs		
2005	YTG	Pelly River Pedestrian Bridge Camber Reinstatement & Repairs		
1984	Public Works	Pelly River Suspension Bridge at Ross River, Inspection and		
	Canada	Evaluation Report		
1979	Nielson &	A Condition Report on the Pelly River Foot Bridge at Ross River		
	Thomas			

- 2014 March Ross River residents and members of Ross River Bridge Society camped on Pelly River ice to prevent contractors from demolishing bridge.
 - YG announces that it would issue a call for proposals to stabilize the footbridge so it was no longer in danger of collapse.
 - 26 March 2014 Heritage Canada The National Trust congratulates the Yukon government on decision to issue request for proposal to stabilize the Ross River Suspension Bridge.
 - 26 Sept. 2015 Whitehorse company Klondike Welding wins \$2.1 million contract to stabilize the Ross River footbridge.
- 2015 16 Feb. 2015 Kitty Sperling and the Ross River Bridge Society awarded Yukon Historical & Museums Association 2014 Annual Heritage Award "for their successful efforts to save the Ross River suspension bridge from demolition."

Phase 1 of bridge repairs completed: Replacement of bridge towers by Klondike Welding with assistance from RC Cranes.

APPENDIX: Status of Canol Road bridges - 1943, 1955, 1958, 1959

Note: Creek locations and names are not necessarily consistent in all these reports. HD

Canol Road Bridges: Canol No. 1 West: summary listing of construction work as of Jan. 12, 1944 location - Yukon Archives, US Army Command, Northwest Service Command, MF Roll #4. Since the road had not been fully surveyed, all MP numbers are approximate. compiled by Helene Dobrowolsky, 29 July 2016

est. MP from	est. MP		Total	No.	Length		
Canol	from JC	Stream Name	Length	spans	Span	Date	Report/Activity
495		Creek	19	1	19	12-Jan-44	
490		Creek	19	1	19	12-Jan-44	
478		Creek	114	6	19	12-Jan-44	
479.5		Creek	57	3	19	12-Jan-44	
468.5		Sidney Creek	114	6	19	12-Jan-44	
461		Creek	76	4	19	12-Jan-44	
451.2		Creek	19	1	19	12-Jan-44	
447.5		Creek	19	1	19	12-Jan-44	
446		Creek	19	1	19	12-Jan-44	
445		Creek	57	3	19	12-Jan-44	
436		Rose River	190	10	19	12-Jan-44	
425		Creek	57	3	19	12-Jan-44	
424		Creek	19	1	19	12-Jan-44	
420		Creek	76	4	19	12-Jan-44	
419		Creek	38	2	19	12-Jan-44	
417		Creek	38	2	19	12-Jan-44	
414		Creek	76	4	19	12-Jan-44	
412	92	Creek	95	5	19	12-Jan-44	complete and in use
410	93	Creek	19	1	19	12-Jan-44	complete and in use
409		Creek	76	4	19	12-Jan-44	
407		Creek	38	2	19	12-Jan-44	
406	97	Creek	38	2	19	12-Jan-44	complete and in use
99	404	Creek	76	4	19	12-Jan-44	complete and in use
100	400.5	Creek	57	3	19	12-Jan-44	complete and in use
103	400	Creek	57	3	19	12-Jan-44	complete approaches being filled (60%)
	399	Creek	38	2	19	12-Jan-44	
109	395	Creek	57	3	19	12-Jan-44	complete and in use
111	392	Creek	114	6	19	12-Jan-44	complete and in use
112	391	Creek	76	4	19	12-Jan-44	complete and in use
114	389.5	Boulder Creek	76	4	19	12-Jan-44	complete and in use

	384.5	Martin Creek	19	1	19	12-Jan-44	
120	383	Fox Creek	76	4	19	12-Jan-44	complete. Approaches 50%
							Complete. No approaches. 95%
131.5	372	Lapie River		9		12-Jan-44	complete.
132				1		12-Jan-44	Complete. No approaches.
141	362	Pelly River	600			12-Jan-44	complete and in use
148	355.5	Creek	57	3	19	12-Jan-44	75% complete
163	343	Creek	19	1	19	12-Jan-44	Started to drive piling.
	323	Creek	19	1	19	12-Jan-44	
	321	Creek	57	3	19	12-Jan-44	
	319	Roberts Creek	57	3	19	12-Jan-44	
	317	Creek	57	3	19	12-Jan-44	
	300	Creek	57	3	19	12-Jan-44	
	310	Creek	38	2	19	12-Jan-44	
							Complete. Approaches being
238	267	Creek	76	4	19	12-Jan-44	filled.
251						12-Jan-44	Complete. No approaches.
252						12-Jan-44	Complete and in use.
	245	Creek	57	3	19	12-Jan-44	
	243.5	Goon Creek				12-Jan-44	
	242.5	Creek				12-Jan-44	
	240.7	Macmillan R.	114	6	19	12-Jan-44	
	239.5	Marsh Creek				12-Jan-44	
	237	Creek				12-Jan-44	
269	231	Rust Creek				12-Jan-44	Material on site. Work started.
203	230	Iron Creek				12-Jan-44 12-Jan-44	Material on Site. Work Startea.
	228.7	Macmillan R.				12-Jan-44 12-Jan-44	
278	224.5	Macmillan R.				12-Jan-44 12-Jan-44	Material on site.
2,0	220.5	Summit Creek				12-Jan-44	Triacerial off Site.
	214	Tricy River	95	5	19	12-Jan-44 12-Jan-44	
	211.5	Camp Creek	38	2	19	12-Jan-44 12-Jan-44	
	210.5	Camp Creek	38	2	19	12-Jan-44 12-Jan-44	
	210.5		30		19	12-1011-44	

Canol Road - Report on Road Conditions; report prepared by Territorial Engineer K. J. Baker, 21 Nov. 1955

Notes: Source YA GOV 2216, f. 3. Much of this report deals with mention of drainage, collapsed culverts, sloughed banks, washouts, slides, need for resurfacing, etc. I have only copied the portions dealing specifically with bridges. hd

M.P.	Structure and Condition	Recommendation
0	Intersection of Canol Road and Alaska Hwy	
4.2	Bridge, 20 foot log span.	requires replacement
6.8	Bridge, 20 foot log span.	requires replacement
20.3	Murphy Creek bridge, 8-15 foot log spans	This structure is in such poor condition that it is not economical to carry out repairs, therefore it is recommended that it be replaced. Three 25 foot timber spans would be adequate.
28.5	Evelyn Creek bridge, 3 - 18 foot timber spans	Structure is satisfactory except that wingwalls to protect the south approach are required. The north approach requires a grade raise approx. 250 ft. long to prevent flooding To protect the new fill rock riprap will be required on the stream side.
30.4	Sydney Creek bridge, 7-18 foot spans	Structure is in satisfactory condition. Filoe bracing has been broken off in some places, probably by ice and drift. Accumulation of drift should be removed.
69.5	Rose River Bridge No. 1	There are indications that when in flood the river overflows the approaches. This is probably due to that that drift accumulates at the bridge constricts the flow, causing the river to become wider than its natural channel. To improve this crossing, it would be necessary to use longer spans and to raise the grade about 4 feet.
69.7	Rose River Bridge No. 2	This bridge is unsafe and requires replacement.
76.3	Bridge, 20 foot span.	Condition is satisfactory
80.3	Gravel Creek Bridge, 3 18-ft. timber spans	In satisfactory condition except for the accumulation of drift
92,2	Creek, no drainage structures	25-ft. timber span recommended
95.35	Bridge: 3 - 18 foot spans	in satisfactory condition except sloughing behind wingwalls.
97.3	Bridge: 3 - 15 foot spans	The south approach to this bridge has been badly eroded by a small side stream, which enters the main channel upstream and immediately adjacent to the bridge.
99.85	Bridge: 3 - 18 foot timber spans	Satisfactory except that sloughing has been occurred behind the SW wingwall.
101.3	Bridge: 3 - 15 foot, 1 - 12 foot time span	subdeck is rotten and requires replacement
102.65	Bridge: 3 - 15 foot timber spans	Fill pressure has caused the S bent to move streamward. Ditching is required on the S approach to prevent further erosion.

104	Bridge: 2 - 12 foot timber spans	Because of its unstable conditions, replacement is recommended.
107.9	Bridge: 2 - 15 foot timber spans	satisfactory condition
114.4	Bridge: 3 - 11 foot timber spans	The piles? in the end bents require trimming in order that the deck may be lowered. Sub-deck requires replacing
117.2	Bridge: 3 - 15 foot timber spans	Satisfactory condition
118.7	Bridge: 3 - 15 foot timber spans Bridge: 1 - 15 foot timber spans.	S approach has been partially washed out by high water. Bridge should be lengthened to accommodate more flow. satisfactory condition
128	Bridge: 3 - 15 foot timber spans	satisfactory condition
141.1	Lapie River Bridge	The gap is 255 feet wide. It is recommended that longer spans be used in reconstruction in order that ice and drift can clear the bridge without jamming. The S approach has been washed out in the vicinity of the Lapie River overflow bridge, which is located approx. 200 feet from the main crossing.
450.5	Della Diver Frentheider	This bridge is being used by the Indians in this locality and serves them no other purpose than to allow them passage over the river. The structure cannot be used for anything but foot traffic or a pipeline crossing. Because of these limitations, and the fact that it is too remote at present for proper maintenance, it is recommended that the bridge be allowed to fall into disrepair and at the end of its life it should be demolished. The people that use the bridge should
150.6	Pelly River Footbridge	be warned that they do so at their own risk."

20 Oct. 1958. R.E. Stauch, resident engineer, Dept. of Northern Affairs and National Resources to Whitehorse Star. Description of work on the S Canol Rd. the previous summer. General Enterprises of Whse. was contracted to for work between Sidney Creek, Mi. 30.5 and Lapie River, Mi. 135.5

Main items of construction were:

- One 100-ft span of Bailey bridging and one 25' timber bridge across the Lapie River canyon
- 185' of timber bridging and 40' of Bailey bridging across small streams
- 150' of old bridging redecked and repaired
- 2004 lineal feet of culvert installations
- 20 mi. of road resurfaced with gravel
- 2 mi. of sidehill slough removed
- 1 mi. of road relocated
- 1 mi. of road rebuilt through washouts.

Canol Rd., Johnsons Crossing to Ross River; Inspection Trip by C.V. Campion, Road Supt., on 10 June 1959. Location: YG Historic Sites Research files.

MP	Name	Description	Condition / Recommendations
28.2	Evelyn Creek	50' span on cribbed abutments. Two 25' spans supported in centre by timber bent on sills.	Upstream side of bridge is sagging and will require jacking up and blocking. Bridge [O.K.] but for cog which is not serious.
30.4	Sidney Creek	152 foot span on 8 pile driven bents	Bridge repaired by DND 1957 but decking was only partially done. Lists lumber and hardware required for sub-deck and wear deck.
39			ice build-up to bottom of stringers and in some cases over the bridge.
40.8		45' span timber bridge (native) on bents or piles.	In bad shape, has 2-3 feet of fill on top top of deck & S span sagging badly. Believes one 24' span either on cribs or piles would be sufficient if bridge & grade were raised. Could possibly get by another year.
57		20' span on cribbing badly deteriorated.	Could get by one or two more years
68	Rose River #1	Bridge O.K.	Grade should be raised N side and posssibily some dyking and rip-rap work is to be done.
68.2	Rose River	Overflow O.K.	
72.6		Native timber 6x6' cribbed culvert under 10' fill in bad shape.	May do another year. Fill partially washed out this spring. Recommend 8'x60' pipe.
74.7		Timber bridge on piles 60', 3 - 20' spans.	Requires new decking. Then gives detailed list of materials req'd.
90.6	Rose River #2	Timber pile bridge, 5-19' spans - 94'	42' was redecked by contract 1958 leaving 52' which shd be done immediately. Detailed list of materials req'd.
111.5	Lapie River #1		Wing walls should be anchored to deadman and back-filled coarse rock.
114.2		3-25' timber spans on piles	needs decking. Detailed list of lumber and hardware req'd.
124.7	Fox Creek	3-18' spans, length 34'	needs decking. Detailed list of lumber and hardware req'd. "Requirements above shd be done this year.

Notes at end of report:

It must be remembered that these timber pile bridges constructed by the U.S. Gov't in 1942-43 of native timber piling (untreated) have just about reached the end of their safe life span.

It is therefore recommended that if the Canol Road is to be maintained and operated over future years some thought be given to replacement of all these timber pile bridges in a period of possibly the next five years.

Goes on to mention the many native timber bridges that "are now so rotten that it is unsafe to put heavy loads over." The collapsed culverts block spring run-off leading to erosion and washouts.