State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

Region: INTERIOR ⬇ USGS Quad: NULATO A-4

Anadromous Water Catalog Number of Waterway: 334-30-11000-2532-3551-4101

Name of Waterway: LITTLE MUD RIVER ☒ USGS Name ☐ Local Nam

☒ Addition ☐ Deletion ☐ Correction ☒ Backup Information

For Office Use

Nomination # 97 039			
Revision Year:			
Revision to: Atlas / Catalog / N/A	Regional Supervisor	12-5-96	Date
Both X	AWC Project Biologist	4/25/97	Date
Revision Code: F-4 AT	Drafted		Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
CHUM SALMON	JULY 95			X	☒
CHINOOK SALMON	JULY 95			X	☒
COHO SALMON	JULY 95			X	☒
					☐
					☐

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:
ATTACHED JACK WINTEN'S 11/3/95 TRIP REPORT WHICH DOCUMENTS CHUM, CHINOOK, + COHO SALMON UPSTREAM IN CALIFORNIA CREEK, ADD LITTLE MUD RIVER SECTION FOR MIGRATION

ALASKA DEPT. OF FISH & GAME
DEC 2 6 1996
REGION II HABITAT AND RESTORATION DIVISION

Name of Observer (please print): JACK WINTENS

Date: 12/5/96 Signature:

Address: 1300 COLLEGE ROAD
FAIRBANKS, AK 99709

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: 12.05.96

Revision 11/96

Weiss, Ed

From: Ott, Al
Sent: Friday, December 19, 1997 8:09 AM
To: Weiss, Ed
Subject: Chena Slough

You have all the information I have. Klaus Wuttig did not report the chinook salmon juveniles in the M.S. thesis probably because the objective of his work related to young-of-the-year Arctic grayling growth rates among a variety of different sloughs that were sampled.

MEMORANDUM **State of Alaska**

To: Alvin G. Ott
Regional Supervisor
Habitat and Restoration Division
Department of Fish and Game

Date: November 3, 1995

File No:

Telephone Number: 459-7279

From: Jack Winters
Habitat Biologist
Habitat and Restoration Division
Department of Fish and Game

Subject: July Field Work, Illinois Creek Mine Project

On July 17, 1995, Phyllis Weber Scannell and I flew to Illinois Creek and began the Illinois Creek Mine Fish Study. During the first day at the mine, we examined Illinois and California creeks for potential sampling locations. Following this initial reconnaissance, we trapped fish for species characterization and estimation of relative abundance, collected juvenile coho salmon for metals and histological analyses, and counted and collected adult chum salmon.

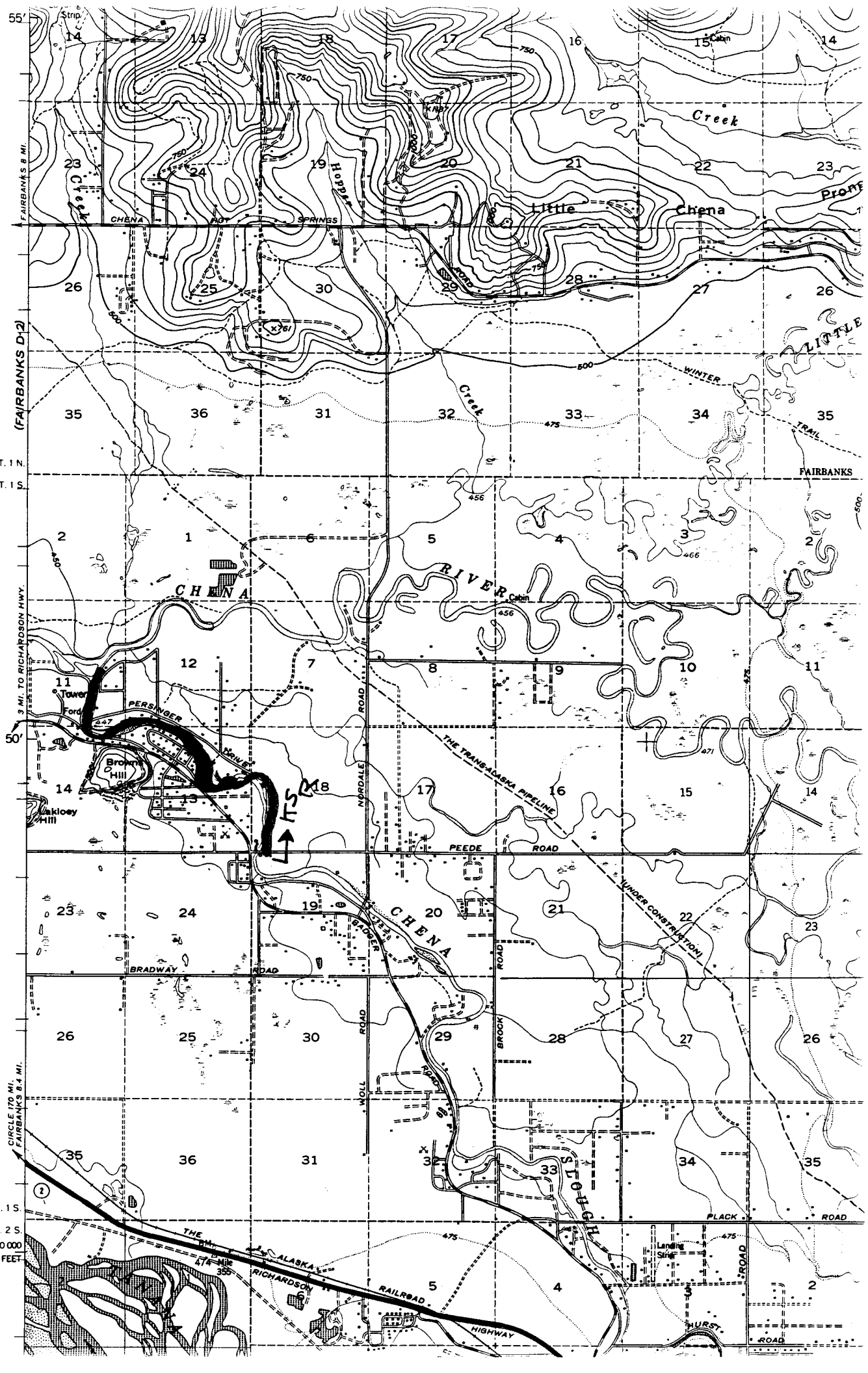
Streams

The character of Illinois Creek varies considerably within the 1.5 km encompassing the upper reach of observed fish distribution. Illinois Creek ranges in width from about 1 m in its upper forks to about 10 m wide at its widest point near the warm spring. In most locations, it is about 4 to 5 m wide. Depths generally range from 0.2 to over 2 m. Silt to large cobbles forms the stream bottom, depending on location and water velocity.

Three forks emanating from local springs, and springs or runoff from farther up the valley join to form one single channel that characterizes Illinois Creek for its remaining length. The east and middle forks are incised, up to 1 m deep, lined with grasses and sedges, and are from 1 to 2 m wide. The west fork is wider (2 to 3 m), with a bottom of rock and sand, and is derived from springs emanating from the toe of a spruce-covered hillside.

From the forks to the main bridge, the creek is 3 to 5 m wide, from 0.3 to 1 m deep, with a gravel to cobble or rock bottom in most places. Vegetation (alder, willow) is dense along the stream banks and overhangs much of the stream. Springs discharge to the stream at many locations. In the area of the warm spring discharge just upstream of the main bridge, abundant algae grow on the stream bottom.

Downstream of the main bridge, the stream becomes more sinuous, contains deeper pools (deeper than 2 m in places), has higher banks (2 to 3 m in places), and contains numerous logs and woody debris. Occasional riffles have cobble or gravel bottoms. Much of the remainder of the stream appears to have a silt or sand bottom, although the depths of the pools and debris restricts the ability to visually determine the composition of the substrate. Vegetation along the banks also is dense and overhangs much of the stream.


(FAIRBANKS D-2)
FAIRBANKS 8 MI.
CHENA HOT SPRINGS
Hopper Creek
Little Chena
Creek
WINTER TRAIL
FAIRBANKS
T. 1 N.
T. 1 S.
CHENA RIVER
Cabin
3 MI. TO RICHARDSON HWY.
PERSINGER
Tower
Ford
Brown Hill
Oakley Hill
NORDALE ROAD
THE TRANS-ALASKA PIPELINE
PEEDE ROAD
(UNDER CONSTRUCTION)
CHENA
BRADWAY ROAD
GLIDER
WOLL ROAD
BROCK ROAD
SLOUGH
PLACK ROAD
CIRCLE 170 MI.
FAIRBANKS 8.4 MI.
THE ALASKA RAILROAD
RICHARDSON HIGHWAY
Landing Strip
HURST ROAD
55'
50'
3 940 000 FEET

On July 22, I reset the 30 minnow traps for the recapture run of the coho sampling in Illinois Creek. Of the 583 total juvenile cohos I captured on the recapture run, only 26 were fish we had marked on July 19. This is about a 4.5% recapture rate. The distribution of recaptures was not uniform. Recaptures were found in 10 of 30 traps; 1 in the reach above the bridge; 2 in the reach below the bridge; and 7 in the reach surrounding the "plywood bridge." Recaptures per trap ranged from one to six. The higher incidence of recapture in the "plywood bridge" reach may be the result of fewer fish in the area fished by each trap; a higher attractiveness of the salmon egg trap bait to fish in this area; or greater fidelity to the pool or other habitat associated with the trap site.

I would consider the catches of coho salmon relatively poor upstream of the main bridge. In several instances, we set the traps in the midst or slightly upstream of a school of juvenile coho, yet caught only a few fish in these sets. It may be that the combination of abundant aquatic insects and loose eggs from spawning adults provided such an abundant food supply that the salmon eggs in the traps did not prove to be a significant attractant. Catches were larger in traps downstream of the bridge where chum salmon were not spawning to any degree; however, the stream characteristics and substrate are somewhat different in these more downstream areas than above the bridge. This alone may account for differences in numbers of fish using these areas. These habitat differences also may influence the amount and type of aquatic food resources available to the fish.

California Creek

On July 22, I set 6 minnow traps for 24 hr along about 200 m of the west bank of California Creek at the upper trail access point. I also set 6 minnow traps along about 250 m of the west bank of California Creek at the lower trail access point. I set traps in water generally 1 to 2 m deep along cutbanks, in eddies, behind deadfalls, or in the main current.

The catch in California Creek was primarily juvenile chinook salmon, with a few juvenile coho salmon and slimy sculpin. The chinook salmon ranged 47 to 80 mm in length. Most ranged from about 60 to 74 mm. The total catch was about 60 chinook salmon for the lower California Creek site and about 150 for the upper site. The 12 coho juveniles (from both sampling locations) were mostly age 1 fish.

On July 21, I accompanied Keith Mueller (USFWS) in the Innoko Refuge-chartered helicopter to check minnow traps he had set the previous day in Colorado and California creeks, and in the Little Mud River. The California Creek sites were approximately two and nine miles upstream of the Illinois Creek airstrip. The Colorado Creek site was about two miles upstream of its mouth, and the Little Mud River sites were two to three miles downstream of the mouth of Illinois Creek.

The 14 California Creek traps contained juvenile salmon (mostly chinook, but a fair number of coho were also present), a number of small Dolly Varden, a few slimy sculpin, and one Alaska blackfish. The Colorado Creek trap contained 76 juvenile salmon. Thirteen traps set at the two sites in the Little Mud River caught 4 sculpin and one juvenile salmon.

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

Region: INTERIOR | USGS Quad: FAIRBANKS D-1

Anadromous Water Catalog Number of Waterway:

Name of Waterway: CHENA SLOUGH ☒ USGS Name ☐ Local Nam

☒ Addition ☐ Deletion ☐ Correction ☒ Backup Information

For Office Use

Nomination #	97 038		
Revision Year:		Regional Supervisor	12-13-96 Date
Revision to: Atlas / Catalog / Both	N/A	AWC Project Biologist	12/18/97 Date
Revision Code:	F-1		
		Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
CHINOOK SALMON	JUNE 96		X		☒
" "	JULY 96		X		☒
					☐
					☐
					☐

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Comments: MS. THESIS PROJECT. WEIR SITE. FOR JUVENILE Y.O.Y. GRAYLING. SUMMER TEMP. EMPLOYEE FOR ADFG S.F. (PER. COMM. A. OTT 12/15/97)

ALASKA DEPT. OF FISH & GAME
DEC 18 1996
HABITAT AND REGION II RESTORATION DIVISION

Name of Observer (please print): KLAUS WUTTIG

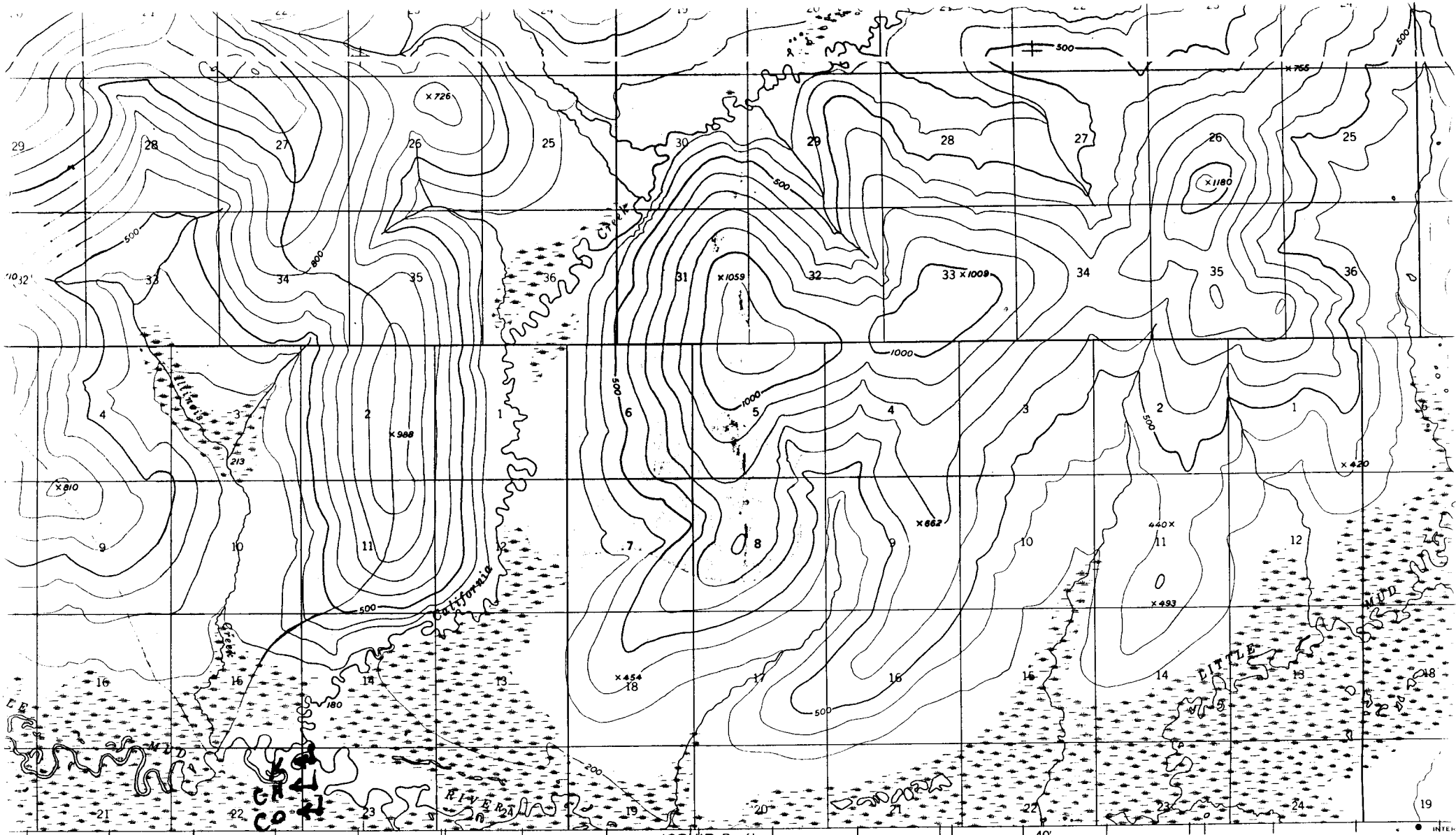
Date: 12/13/96 Signature: Klaus Wuttig

Address: P.O. BOX 82870
FAIRBANKS, AK 99708

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: 12.13.96 459-

Revision 11/96



irvey

aphs

an datum

EXTEND 334-30-11000-2532-3551-4101 W/ K CH CO

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST