State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

Region: Three

USGS Quad(s): Big Delta A-4 & A-3; Quad No. 095

Fish Distribution Database Number of Waterway: 334-40-11000-2490-3416-4001

Name of Waterway: One Mile Slough ☐ USGS Name ☑ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #	11-211	ADF&G Fisheries Scientist	6/13/11 Date
Revision Year:	2012	ADNR OHMP Operations Mgr.	6/13/11 Date
Revision to:	Atlas ____ Catalog ____ Both ____	FDD Project Biologist	9 May 11 Date
Revision Code:	C-9	Cartographer	9/21/11 Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
CH spawning	1986-present	yes		yes	☑
CO rearing	1972-present	?	yes	yes	☑
					☐
					☐
					☐

Reverse photographs

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: This is a new nomination for One Mile Slough (channel of the Tanana River into the Delta Clearwater River). A separate word document (One Mile Slough.doc) details a descriptive explanation of One Mile Slough, includes historical coho and chum salmon data, and contains maps showing location. From 1976-1985, ADF&G conducted test net surveys of One Mile Slough for migrating Arctic grayling and coho salmon were caught incidently and counted, this data is included in the attached document. One Mile Slough is 3.6 miles in length and during the summer months the primary flow is from the Tanana River. On USGS maps One Mile Slough is continuious from its point of entry to where it joins into Delta Clearwater River. Presently, as shown in the Google Earth map (see attachment) another entry point from the Tanana River enters Mile One Slough at the midpoint. One Mile Slough splits from the Tanana River (N64 05.130' W145 27.995) and flows in a westerly direction before rejoining the Delta Clearwater River (N64 05.490 W145 32.712'). Spring upwelling's occur from the mouth of the slough to approxiately 1 mile upstream. This system provides chum salmon spawning and coho rearing habitat. SWC data on file

Name of Observer (please print): James F. Parker

Signature: _____ Date: 3/15/2011

Agency: ADF&G - Sport Fish

Address: Box 605

Delta Junction, AK 99737

This certifies that in my best professional judgment and belief the above information is evidence that this water body should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist: _____ Date: _____ Revision 02/05

Name of Area Biologist (please print):

Johnson, J D (DFG)

From: Parker, Fronty (DFG)
Sent: Monday, May 02, 2011 11:20 AM
To: Johnson, J D (DFG)
Subject: Nomination for One Mile Slough (334-40-11000-2490-3416-4001)
Attachments: One Mile Slough.doc; One Mile Slough 03-18-2011.xls

AWC Nomination for One Mile Slough.
-Fronty

DELTA CLEARWATER RIVER AERIAL SURVEY
NAMES OF SPRINGS SURVEYED AND COHO COUNTS

No.	IDENTIFICATION NAME	AWC # (numbers in Red are new)	1994	1995	1996	1997	1998	DESCRIPTION OF LOCATION
1	**SAWMILL CREEK**	334-40-11000-2490-3416-4020	19,125	4,700	4,275	3,050	2,625	headwaters to Mile 14
2	**ANDERSEN**	334-40-11000-2490-3416-4020-5030	25	8	25	0	0	south spring into Sawmill
3	**GRANITE**	334-40-11000-2490-3416-4020-5020	250	150	0	25	50	headwaters to Sawmill
4	**South Clearwater Tributary**	334-40-11000-2490-3416-4030-5007	1,700	400	300	125	575	headwaters to Reed Lake
5	**Clearwater Creek**	334-40-11000-2490-3416-4030	8,525	2,525	1,425	1,300	1,150	headwaters to confluence of Sawmill Cr.
6	**PECKHAM**	334-40-11000-2490-3416-4030-5004	100	50	0	0	0	spring on north side of Clearwater cr
9	**FRONTY**	334-40-11000-2490-3416-4020-5014	175	175	0	25	0	first spring below Granite-south side
10	**JAN**	334-40-11000-2490-3416-4020-5014-0010	200	150	0	0	0	between Fronty and Jesse
11	**JESSE**	334-40-11000-2490-3416-4020-5010	250	50	0	0	25	south side of Sawmill Creek
12	**JENNIE**	334-40-11000-2490-3416-4030-5002	25	25	25	0	0	north side-near mouth of CH20-DCR
13	**CHAD**	334-40-11000-2490-3416-4021	100	25	0	0	0	south side of DCR
14	**BUNS**	334-40-11000-2490-3416-4020	200	75	0	0	0	south side of DCR
15	**PATTY**	334-40-11000-2490-3416-4019	20	0	0	0	0	north side of DCR
16	**DAVE**	334-40-11000-2490-3416-4018	25	0	0	0	0	north side of DCR
17	**TRAVIS**	334-40-11000-2490-3416-4017	175	75	50	25	0	north side of DCR
18	**REMMINGTON**	334-40-11000-2490-3416-4016	not surveyed	100	0	0	0	south side of DCR
19	**DUBOIS**	334-40-11000-2490-3416-4015	10	0	200	25	125	south side of DCR
20	**CHRISTIE**	334-40-11000-2490-3416-4014	25	225	150	125	75	north side of DCR
21	**CALEB**	334-40-11000-2490-3416-4013	325	325	25	25	125	north side of DCR across from camp
22	**ISAAC'S SLOUGH**	334-40-11000-2490-3416-4012	700	225	250	25	0	between Caleb and Parker-north side
23	**PARKER**	334-40-11000-2490-3416-4011	775	200	50	0	50	north side of DCR
24	**KENNA**	334-40-11000-2490-3416-4010	350	100	0	0	0	north side of DCR
25	**DOS GRIS**	334-40-11000-2490-3416-4009	not surveyed	0	75	125	100	south side of DCR (Gartz)
26	**BARB**	334-40-11000-2490-3416-4008	90	25	0	0	0	north side of DCR
27	**BACKY**	334-40-11000-2490-3416-4007	15	0	0	0	0	south side of DCR (Forck)
28	**RIDDER**	334-40-11000-2490-3416-4006	300	125	50	25	25	north side of DCR
29	**PEARSE**	334-40-11000-2490-3416-4005	1,175	150	75	125	50	South side of DCR connects at mile 3
30	**HODGES**	334-40-11000-2490-3416-4004	not surveyed	25	0	0	25	north side of DCR
31	**STUGA**	334-40-11000-2490-3416-4003	not surveyed	100	25	25	0	south side of DCR (Al Svenston)
32	**SALMON ALLEY**	334-40-11000-2490-3416-4002	not surveyed	350	50	50	25	Loop of north side of DCR
33	**MALLARD**	334-40-11000-2490-3416-4001	5	25	0	0	0	north side of DCR, above mile one
34	**MAINSTEM MILE 0-14**	334-40-11000-2490-3416	45,500	11,475	8,225	7,250	8,850	Mouth of DCR to Tanana to mile 14
35	**Total Delta Clearwater River**		80,165	21,858	15,275	12,350	13,875	Total estimated escapement
			0.57	0.52	0.54	0.59	0.64	
			0.57					

One Mile Slough (common name) Tuesday, March 22, 2011
Anadromous stream catalog number 334-40-11000-2490-3416-4001

Description: One Mile Slough splits from the Tanana River (N64 05.130' W145 27.995) and flows in a westerly direction before rejoining the Delta Clearwater River (N64 05.490 W145 32.712'). The length of One Mile Slough is 3.6 miles in length (Figure 1) and the majority of flow is derived from the Tanana River. Some springs upwelling's influence flow into One Mile Slough from its mouth to approximately one mile upstream. During the summer when Tanana River flows are high One Mile Slough and surrounding area is inundated with glacial silt water as seen in Figure 2. In September the Tanana River flow declines and One Mile Slough also become low, revealing some of the clear spring waters and spawning area which occur near the mouth of the slough.

ADF&G fall adult coho counts include fish counted in One Mile Slough, when river levels allow boat access into the slough. Chum salmon were observed actively spawning in One Mile Slough while it appeared that coho salmon were holding there in deeper pools. The mouth of One Mile Slough is also popular with local anglers because early returning coho concentrate at the mouth of One Mile Slough before moving upstream. Surveys were done only within the first mile of One Mile Slough due to obstacles to boat travel. It is not known the extent, of spawning or rearing further up. Rearing salmon can retreat further away from the strong influences of the Tanana River by penetrating the inundated wetland areas caused by the rising river.

As the height the Tanana River decreases, flow into One Mile Slough ceases to enter and the remaining flow seen at the mouth of the slough is clear spring water flow. It is thought that the remaining spring flow is adequate to keep incubating salmon eggs alive in the gravel.

In the summer the remaining one mile of the Delta Clearwater River downstream of the mouth of One Mile Slough is essentially an extension on One Mile Slough as both become engulfed in the rising Tanana River. With this said this entire area that is influenced by the Tanana River is the preferred spawning habitat for chum salmon. Except for years when chum salmon numbers are high, chum salmon have been observed only in the Tanana River influenced area. In high chum years chums are observed further upstream (1-2 miles) in the Delta Clearwater River. Emergence of chum salmon fry from the gravel and immediate transport to the ocean is likely the influences for this habitat preference.

It is not clear that coho salmon spawn in One Mile Slough itself; however coho do spawn in the Delta Clearwater River below One Mile Slough. Some evidence that some coho spawning does occur comes from ADF&G test netting conduced from early May to June 1976-1985 where rearing and smolting coho salmon (length 64-120 mm) were captured, and at a certain date emergent coho fry (30-35 mm) began entering the nets which would have likely come from the immediate area. Numbers of coho salmon at the Test net site at Mile One Slough are documented in Table 1 and reported in (Parker, J. F. 1991. Status of Coho Salmon in the Delta Clearwater River of Interior Alaska. Alaska Department of Fish and Game, Fishery Data Series 91-4, Anchorage).

Anadromous species present: Coho and Chum salmon (spawning and present).

Other Species; least cisco, round whitefish, humpback whitefish, Arctic grayling, long nose suckers, burbot, and slimy sculpins.

Anadromous species data collection:
This nomination is to establish data for a stream that has no nomination, provide a description, and include salmon survey data.

Figure 1. TOPO! picture of One Mile Slough.

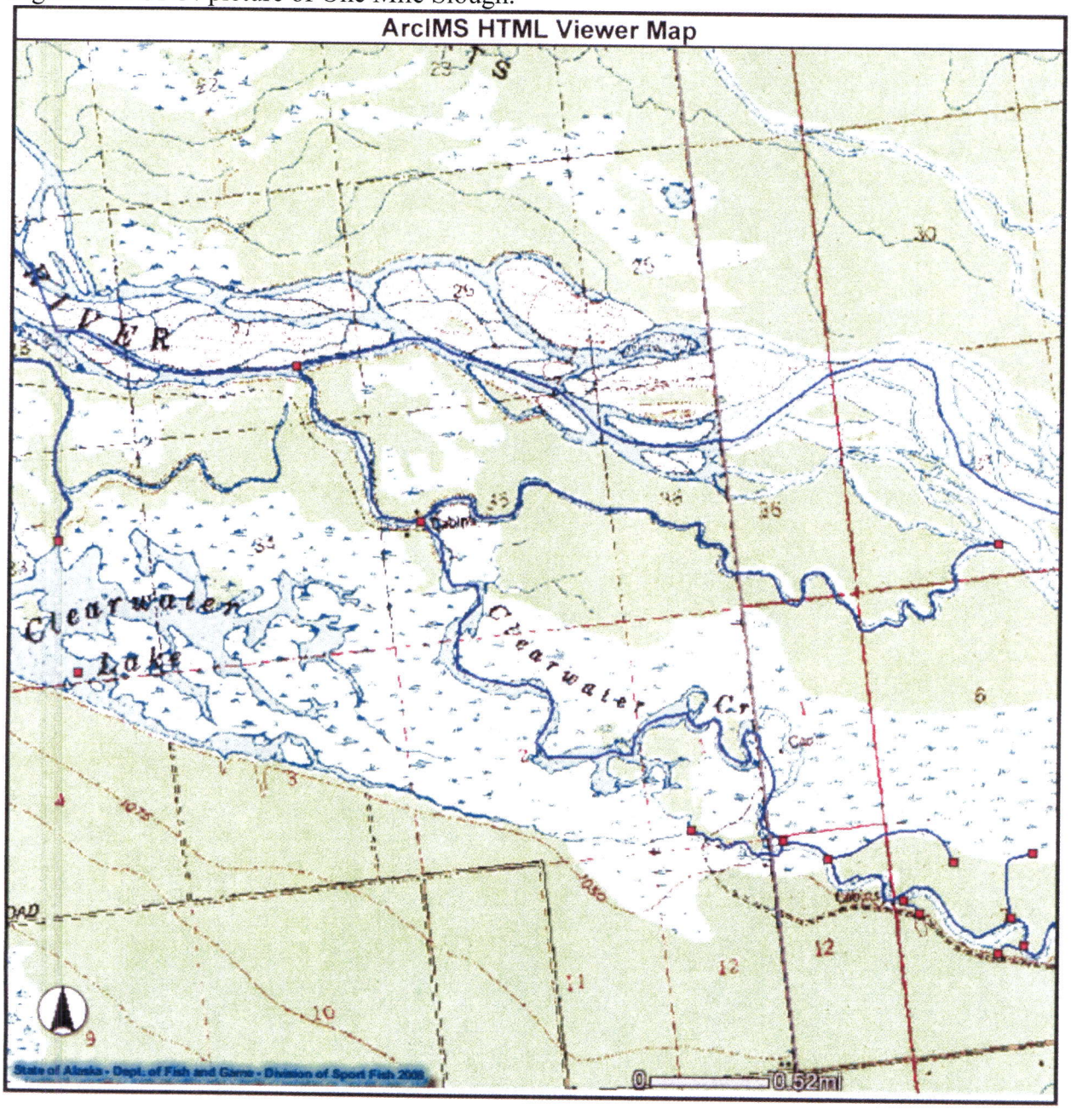


Figure 2. Google Earth picture of One Mile Slough. Note the inundation of Tanana silt-laden water in the wetland areas.

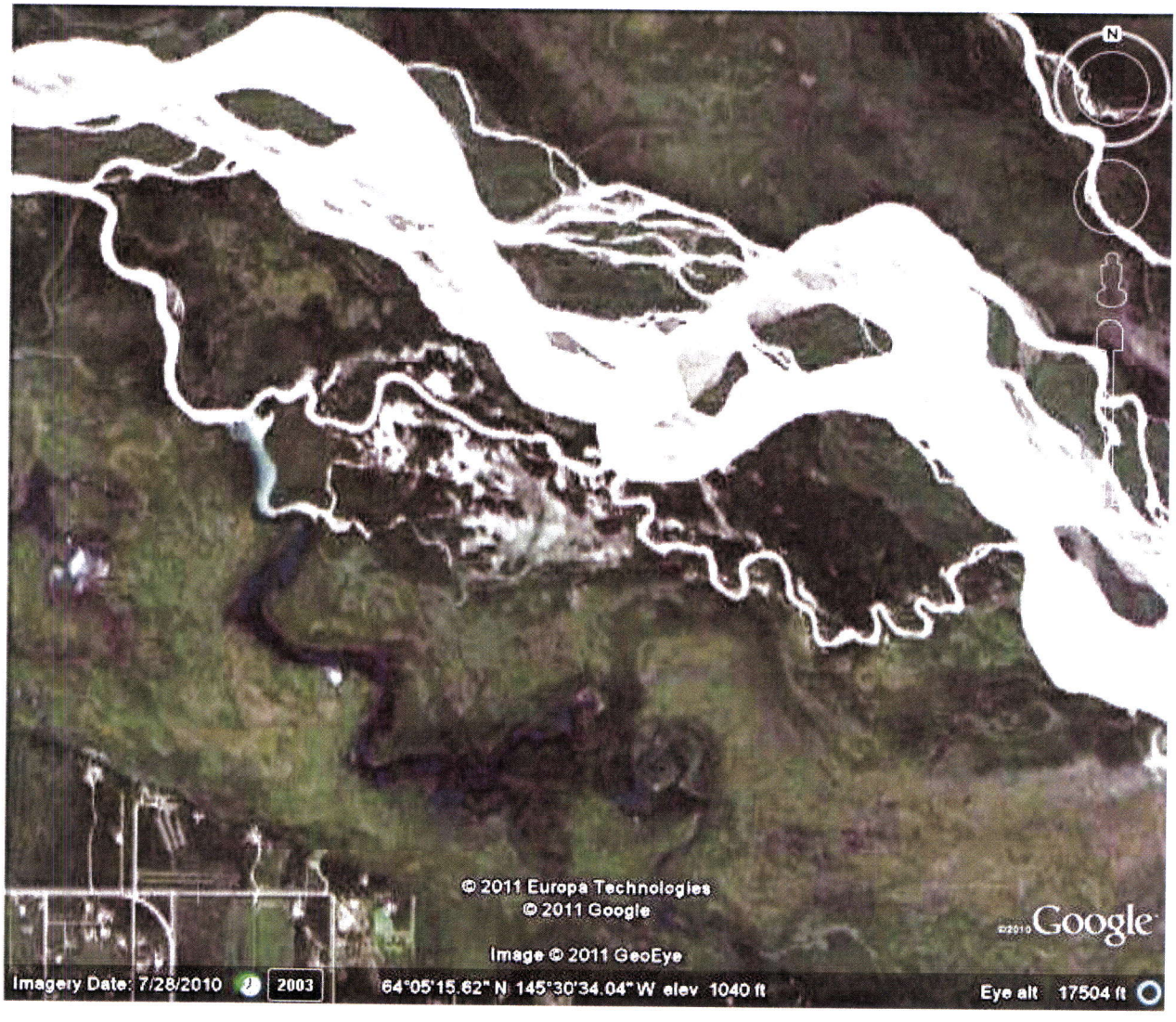
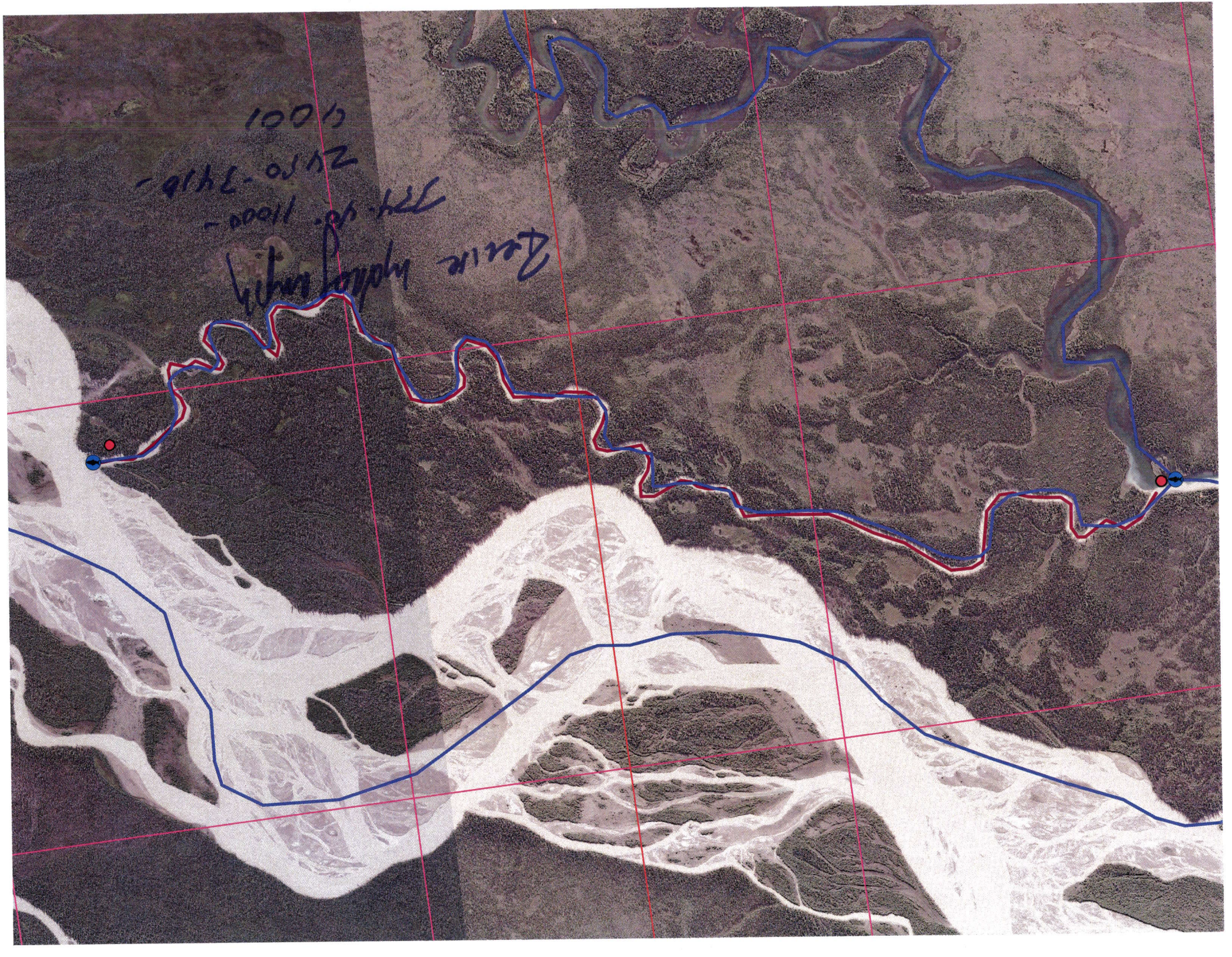


Table 1. Catch of coho salmon in fyke traps at Mile One Slough, 1976 - 1985, by date.

	Year and Beginning and Ending Dates of Test Fishing								
	1976	1977	1978	1979	1980	1981	1982	1984	1985
	4/20	4/21	4/18	4/18	4/14	4/15	4/19	4/16	4/23
Date	5/1	5/5	5/5	5/3	5/2	5/1	5/7	5/11	5/8
4/14					31				
4/15									
4/16					24				
4/17						10		18	
4/18			23	27	10				
4/19			153						
4/20			13	65		56		33	
4/21	12	96	20		5	67			
4/22	6	74							
4/23	6			100	40		11	225	
4/24	11			97	18	680			28
4/25			33	102	8			120	
4/26		85	41	134			7		37
4/27	114	20	100	140		1274			
4/28		154	20		147		1	182	
4/29		100			179	564			67
4/30					88		9	303	
5/1	169			287		157		108	438
5/2			84	425	62				
5/3			76	367			49	681	64
5/4			74					603	
5/5		152	61						
5/6							18		286
5/7							258	303	
5/8									
5/9								577	
5/10									
5/11								411	
Totals	318	681	698	1744	612	2808	353	3563	920