State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Anadromous Waters Catalog

Region: Southcentral

USGS Quad(s): CORDOVA B-4

Anadromous Waters Catalog Number of Waterway: 212-10-10010-2057 lake

Name of Waterway: Pipeline Lake 4

☐ USGS Name ☑ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #	14-706		
		Fisheries Scientist	Date
Revision Year:	2015		
Revision to:	Atlas ____ ____	Habitat Operations Manager	Date
	Both ____		9/18/14
		AWC Project Biologist	Date
Revision Code:	F-1		
		Cartographer	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
cutthroat trout	07/19/2011			✔	
cutthroat trout	04/29/2004	✔			
	Anadromy unknown				

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:

Dawn Poetter asked me to submit this nomination. The AWC currently lists the upper reach at the outlet of the lake (lower reach lat/long). There is a 6-ft beaver dam at this point that may or may not be a barrier. I suspect that the cutthroat in the lake are resident fish given the size of the fish captured in the lake, the observed spawning of small (5-10 inches) fish in the inlet stream, and the barrier. Larger cutthroat trout, 11 to 16 inches have been observed downstream of the lake during spawning season. The upper lat/long (above) is the upstream limit of where cutthroat trout have been observed spawning in the inlet stream. These were visually observed, not in hand, and identified as spawning cutthroat because of the spawning time in spring, paired fish, size, and eggs on bank from predated fish. Visibility was good in this small shallow stream. Five spawning fish were reported in the inlet creek in the attached 2004 report, however, in other years I have seen as many as 20 (undocumented). Again, no indication these are anadromous, but the species is present in this lake and inlet

Name of Observer (please print): Ken Hodges

Signature: 199.131.86.206 (Web Nomination) Date: 09/15/2014

Agency:

Address: POB 280 POB 2501

Cordova, AK 99574

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 Anadromous Waters Catalog.

Signature of Area Biologist: _____ Date: _____ Revision 02/08

Name of Area Biologist (please print):

Pipeline Lake 5 Cutthroat Trout Introduction
2004 Progress Report

Prepared by Dirk Lang

USDA Forest Service
Cordova Ranger District
Chugach National Forest

October 2004

Report for Alaska Department of Fish and Game Fish Resource Permit SF-2004-060

Introduction

During the 2001 summer field season the Cordova Ranger District (CRD) began a 5-year cutthroat trout stocking project in Pipeline Lake 5. The stocking was initiated in order to enhance recreational angling opportunities in the Pipeline Lakes complex. In recent years CRD fisheries personnel have been concerned about an apparent decline in cutthroat trout populations in the Pipeline Lakes, particularly Pipeline Lake 3 and 4. Low winter dissolved oxygen levels resulting from dense aquatic vegetation, restricted migration caused by beaver dams, and poor spawning habitat in the inlet streams of these lakes are possible contributing factors to the declines. Pipeline Lake 5, initially a fishless lake, has less vegetation, good overwintering conditions, and good access to quality spawning habitat in its inlet stream. Therefore, these habitat parameters, which appear to be limiting in the other Pipeline Lakes, show strong potential for establishing a self-sustaining cutthroat population in Pipeline Lake 5.

This report presents the results from the fourth season of cutthroat introductions into Pipeline Lake 5 conducted by the Chugach National Forest, Cordova Ranger District under permit No. SF-2004-060 from the Alaska Department of Fish and Game. This report also presents results from the monitoring of cutthroat trout populations in Pipeline Lakes 5 and 4.

Location

The Pipeline Lakes are a series of five small muskeg lakes approximately 21 miles southeast of Cordova (Figure 1). The lakes range in size from 3 to 8 acres and are within the Alaganik Slough drainage. Inlet and outlet streams associated with these lakes are relatively small and vary from about 3 to 5 feet wide and 3 to 18 inches deep. Pipeline Lake 5 is approximately 5 acres in area with a maximum depth of 13.8 feet. The lake has a small feeder stream (~ 4 cfs) and an outlet stream that drains into McKinley Lake.

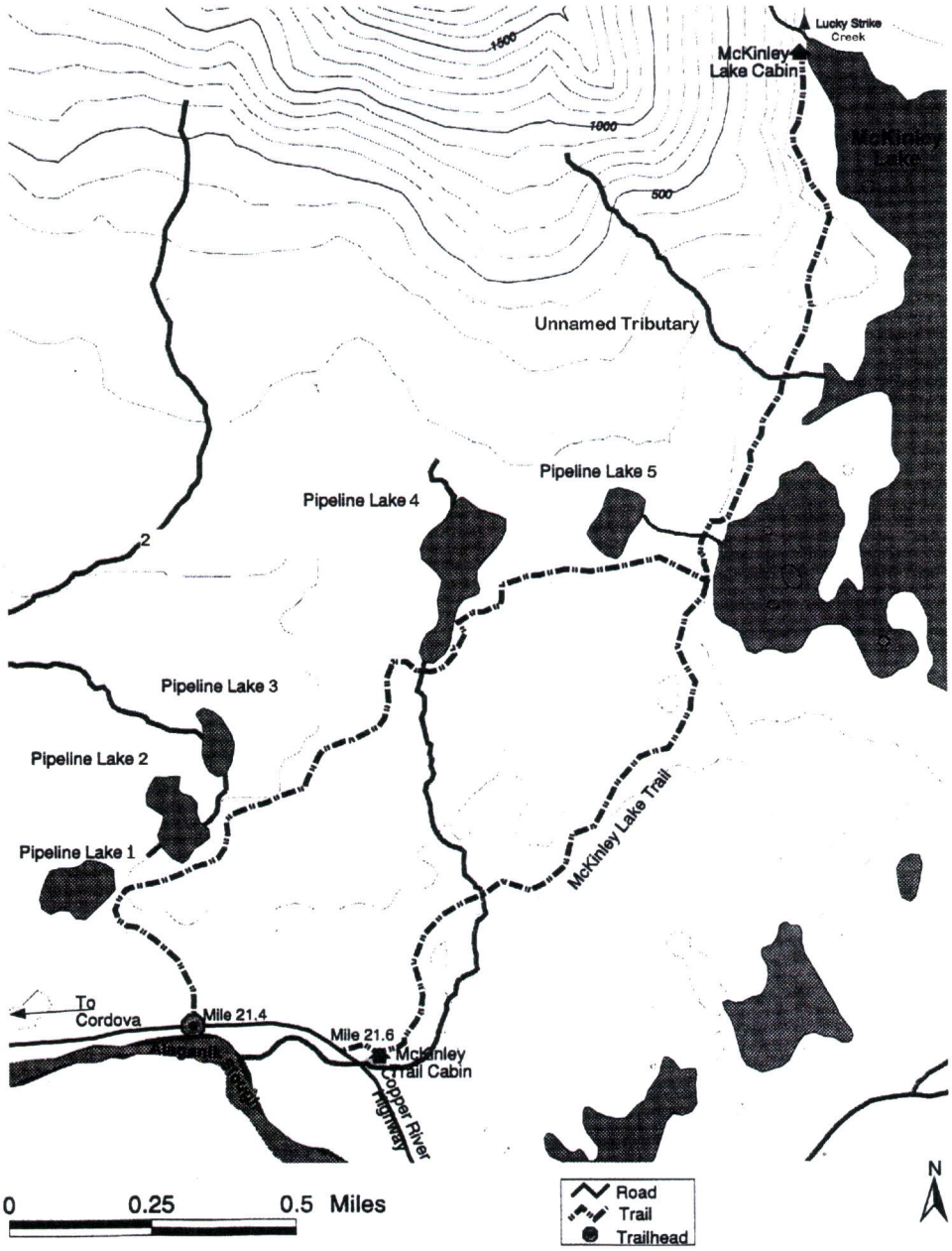
Methods

Fish Monitoring

Spawning and Recruitment Surveys

Spawning surveys were conducted on April 27 in the Pipeline Lake 5 inlet and in the inlets and outlets of Pipeline Lake 4. Two observers walked along the suitable spawning segments of these streams. The observers looked for spawning fish or evidence of spawning (i.e. redds or eggs). The location of spawning fish and redds were recorded, usually in the form of a GPS coordinate.

Figure 1. Map of the Pipeline Lakes system and access trails in the Chugach National Forest, Alaska.



Recruitment of fish in the inlet streams to these lakes was investigated. Minnow traps were set in the inlet streams of both lakes in late April (26 – 30) to capture stream rearing juveniles. Traps were baited and set overnight. Captured fish were identified, counted, and measured.

Population Density and Age Structure

Fish populations rearing in both lakes were sampled with fyke nets on three occasions: April (26 – 30), June (21 – 25), and September (20– 24). On each occasion, three fyke nets were used in each lake. The nets were baited with salmon roe and deployed in the lakes for two 24-hour sets. Nets were moved between the sets in Pipeline Lake 4 so that more area could be sampled. Fyke nets were the same size as have been used in the previous years (see Sloat 2002).

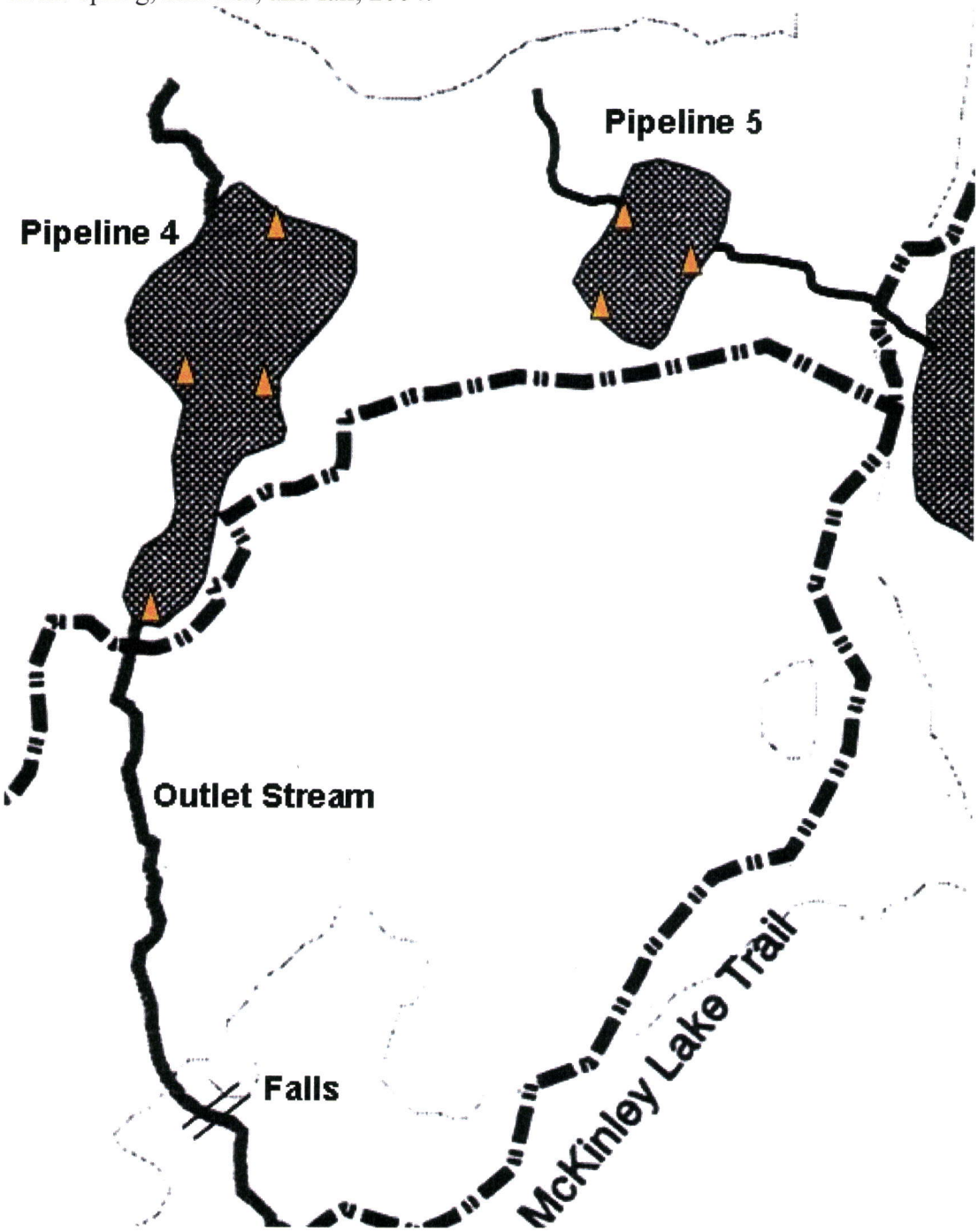
In Pipeline Lake 5, the fyke nets were deployed in the same locations as in the past: along the east shore south of the lake outlet, on the south shore, and on the west shore near the inlet (Fig. 2). In Pipeline Lake 4, the nets were deployed on the north shore by the gravel beach, on the south shore near the outlet, in the coves on the west and east shores near the beaver lodge (Fig. 2).

Captured fish were anesthetized with clove oil and visually inspected (fin clips) or scanned (PIT tags) to determine the presence of a mark from previous samples. Fish were weighed, measured, and marked if necessary during the spring and fall samples and only marked if necessary during the summer sample (no lengths and weights were taken). All fish in Pipeline Lake 5 that did not already have a PIT tag were given one. Some fish captured in Pipeline Lake 4 during the April sample were PIT tagged to monitor growth. Fin clips were given to fish in Pipeline Lake 4 that did not get a PIT tag. Fin clips were right ventral in April and left ventral in June. No fin clips were done in September.

The capture-recapture data from the three sample occasions was used to obtain population estimates for cutthroat trout in the lakes. Program Mark was used to choose a model that would best fit the data (White et al. 1982). The best model allowed the probability of capture to vary over time. The assumptions of the model are: 1) the population is closed; 2) marks are permanent throughout the experiment and will be seen if captured; and 3) there is no significant mortality or emigration in the population during the experiment. The abundance estimates were used to derive a density estimate and these were compared between the lakes.

The size and age composition of captured fish was determined by looking at the length-frequency distributions and through scale analysis. Scales were taken from at least 75 fish during the spring and fall samples in Pipeline Lake 4. Scales were taken from all fish in Pipeline Lake 5 that had not been PIT tagged previously. All other fish captured in Pipeline Lake 5 had previously been aged and so their current ages were known. Scales were taken from just above the lateral line and behind the dorsal fin. Scales were spread on an acetate card and ages of fish were determined by reading the scales on a microfiche projector.

Figure 2. Location of fyke nets set in Pipeline Lakes 4 and 5 during population sampling in the spring, summer, and fall, 2004.



Growth

The growth rate of fish rearing in the lakes was determined by the recapture of individuals with PIT tags and from the change in mean length at age over time. Individual growth rates were estimated for fish with the equation:

(1) $Gr = (((W_{t+1} - W_t) * W_t^{-1}) * D^{-1}) * 100$

Where Gr is the relative growth rate of a fish expressed as percent of initial weight gained per day over the growth period from capture at time t to recapture at time t + 1, W_t is the weight of an individual at time t, W_{t+1} is the weight of an individual at time of recapture, and D is the number of days occurring between time t and time t+1. Mean winter and summer growths were estimated for fish of a given age in Pipeline Lake 5. Combined growth of all fish in the summer was compared to that estimated for fish re-captured in Pipeline Lake 4.

Mean in length was compared between the two lakes with the ages acquired from scale samples taken in the spring and fall.

Stocking

During the September (20 – 24) fish sampling, cutthroat trout captured in Pipeline Lake 4 were introduced into Pipeline Lake 5. These fish were collected in the baited fyke nets (see previous section for more on the methods of capture). No fish were taken from streams this year because of the large number of fish that were captured in Pipeline Lake 4 during the fyke net sample occasions.

Unmarked fish that were captured during the last sample occasion in Pipeline Lake 4 were transferred to Pipeline Lake 5. Transferred fish were visually inspected for abnormalities including fungus, eye damage, pale gills, discoloration, spinal injuries and any other morphological deformities. Not all cutthroat captured were retained for transplant into Pipeline Lake 5. Those retained were selected by size to ensure a mix of age classes were represented in the transplant. Fish were transported to Pipeline Lake 5 in aerated coolers immediately after capture.

All transferred fish were anesthetized, weighed, measured, scaled, and PIT tagged before being introduced into the lake. Scales were taken from all fish to verify ages derived from the length frequency distribution of cutthroat released in Pipeline Lake 5. Prior to release, fish were acclimated to the water temperature of Pipeline Lake 5 over a period of 25-30 minutes by gradually mixing water from Pipeline Lake 5 into the aerated coolers. When all fish were removed from the cooler, the water was dumped away from the lake and the cooler was disinfected with isopropyl alcohol.

Results and Discussion

Fish Monitoring

Spawning and Recruitment Surveys

Cutthroat trout were observed spawning in the inlet and outlet streams of Pipeline Lake 4. Sixteen spawning fish and one redd were seen in the outlet stream while five fish were seen in the inlet stream. No fish were seen spawning in the inlet to Pipeline Lake 5.

Juvenile cutthroat trout were present in the inlet streams to both lakes. Three juvenile fish were captured in the minnow traps set in the inlet to Pipeline Lake 5 and six were captured in the inlet to Pipeline Lake 4. These fish were 50 – 80 mm in length and 1+ fish since spawning for the present year was just starting.

The spawning surveys, combined with the fyke net samples, indicate that natural spawning and recruitment are occurring in both lakes. Many of the larger fish captured during the first fyke net occasion were ready to spawn. It is assumed that some of these fish eventually spawned in the inlet streams. Although no fish were seen spawning in the inlet to Pipeline Lake 5, these fish may have spawned later than April because the water temperatures are colder in this lake and inlet (Jurica 2004, USFS Cordova Ranger District Report). Fyke net samples in Pipeline Lake 5 also revealed that there were many untagged fish in the 70 – 190 mm size range. Scale analysis showed that these were 1 and 2 year old fish. These fish must have been spawned in the inlet stream of Pipeline Lake 5 because all fish of this age and size previously entering the lake were tagged.

Access to available spawning habitat may be a problem for the population in Pipeline Lake 4. During periods of low water, such as this past spring, the dam blocks the passage of fish into the outlet stream. No formal surveys have been conducted, but the outlet stream has the greatest quantity of quality spawning habitat in this system by far. In some years as many as 30 pairs of spawning cutthroat trout have been observed in the reach below Pipeline Lake 4 (USFS, Cordova Ranger District, unpublished data). The inlet streams are smaller and have fewer suitable places to spawn. These streams can also dry up in periods of low water. Spawning fish can be stranded and die in dry pools (personal observation).

A fish passage structure at the outlet of this lake could provide more consistent access to available spawning habitat and improve connectivity between the lake and the outlet stream for both adults and juveniles. The structure could be made with natural materials to blend in with the large beaver dam that creates the lake. A design survey would be needed and the structure would be constructed so as not to reduce the current water levels in the lake. The outlet is near a trail and would be seen by the public. An interpretive sign may be needed to explain the purpose of the passage structure. There is a small fall at the downstream end of this reach which limits (but does not entirely prevent) coho salmon migration up to the outlet and lake (Fig. 2). Thus the improved access to the lake would

not increase competition between cutthroat and coho salmon juveniles in the lake or inlet streams.

Population Density and Age Structure

A total of 344 cutthroat trout were captured with the fyke nets in Pipeline Lake 5 (Appendix 1). Two hundred and twenty-two of these were captured during the last occasion in September. Program Mark selected the Dorroch model which allows the probability of capture to vary over time as the best fit model for the data (White et al 1982). The model estimated that the population of cutthroat trout in the lake was 801 ± 93 (95% CI = 654 – 1020). This equates to an estimated density of between 130 – 204 cutthroat/acre.

In Pipeline Lake 5, captured fish ranged in size from 78 – 385 mm and from ages 1+ – 4+ during fyke net samples (Fig. 3 and Fig. 4). No 0+ fish were captured in the fyke nets at any time. In the spring sample, there was a distinct separation in the size and age classes captured. This separation was a result of the timing of past introductions and the fact that introductions consisted of mixed sizes and ages. The group on the right was composed of fish that were introduced prior to last year. These fish have had at least one summer or growing season in the lake. The group on the left was mostly fish introduced last fall. They have only had one winter in the lake. Therefore a separation between fish emerged, even between fish of the same age. The separation was closing by the fall sample as the smaller group of fish experienced a summer growth season. (Fig. 3 and 4).

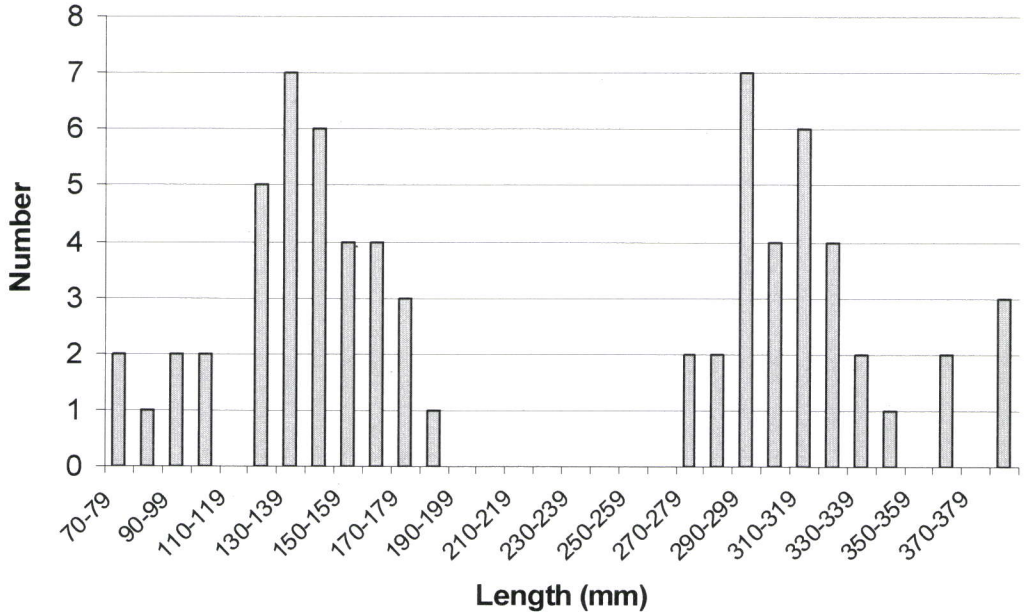
The spring sample in Pipeline Lake 5 contained approximately equal size and age classes but the fall sample was dominated by 2+ and 1+ individuals (Fig. 3 and 4). The capture of older fish may be easier in the spring when they are moving around looking for places to spawn. In addition, this capture pattern likely reflects the true population distribution as older fish die and younger fish are naturally recruited into the population.

A total of 546 cutthroat trout were captured with the fyke nets in Pipeline Lake 4 (Appendix 2). Most of these fish were captured during the first trapping occasion in April (430 fish). The model estimated that the population was 1841 ± 251 (95% CI = 1435 – 2433). This equates to an estimated density of between 179 – 304 cutthroat/acre.

In Pipeline Lake 4, captured fish ranged in size from 90 – 296 mm and from ages 1+ – 4+ during fyke net samples (Fig. 5 and Fig. 6). No 1+ fish were caught in the spring sample and no 0 year old fish were captured in the fyke nets at any time. In the spring sample, the population was dominated by 2+ and 3+ fish. In the fall, 1+ fish were first caught in the fyke nets and the number of 3+ and 4+ individuals captured decreased.

The large fish were less abundant in the fall samples in both lakes. Sample timing appears to be critical. In Pipeline Lake 4, 80% of the total number of fish captured was caught in April. The majority of fish captured in the fall in Pipeline Lake 5 were smaller fish. In the summer the larger fish may be in deeper areas of the lake and not moving along the shorelines. Some of these fish may migrate out of the lakes in search of spawning habitat

Figure 3. Length-frequency distributions of cutthroat trout captured with fyke nets set in Pipeline Lake 5 in April (top) and September (bottom), 2004.



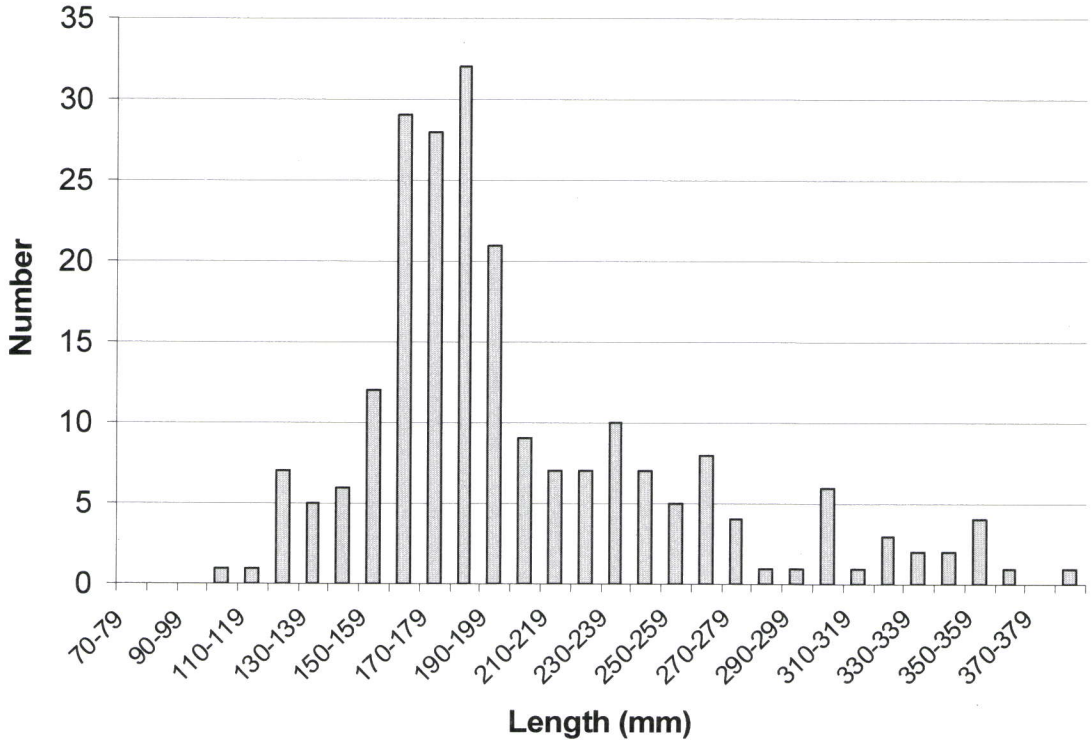


Figure 4. Age-frequency distributions of cutthroat trout captured with fyke nets set in Pipeline Lake 5 in April (top) and September (bottom), 2004.

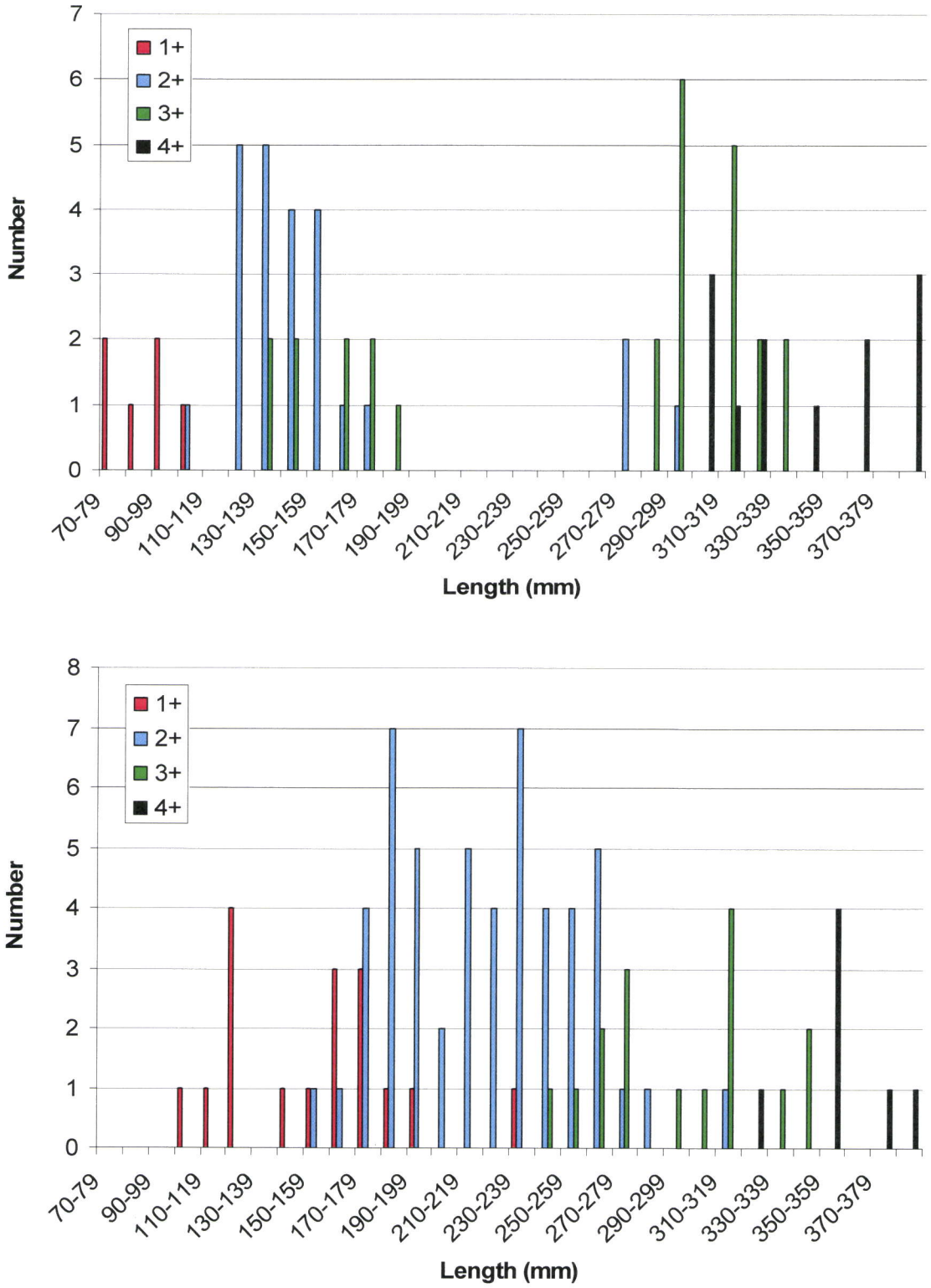
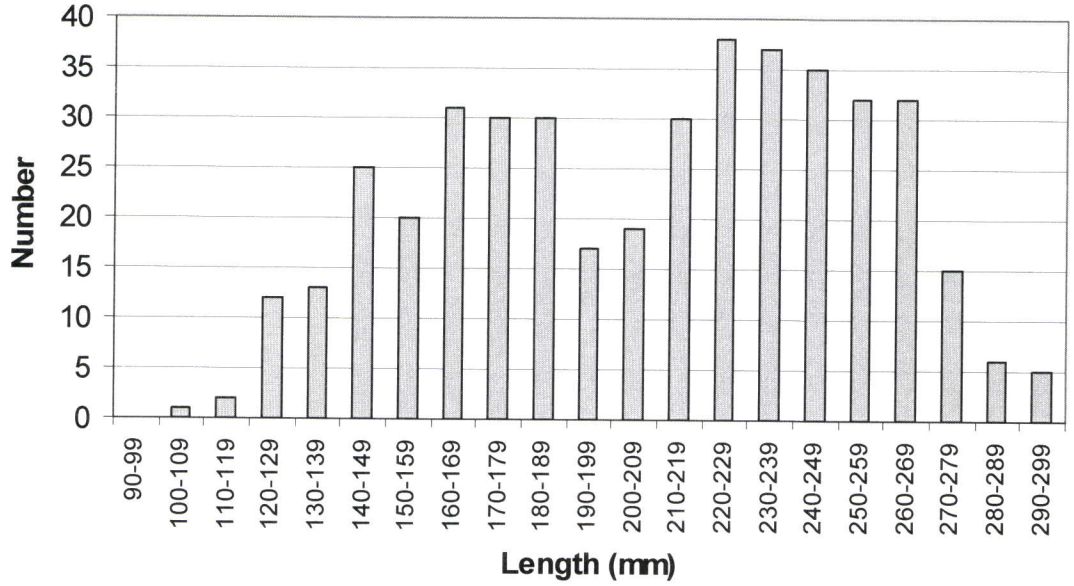


Figure 5. Length-frequency distributions of cutthroat trout captured with fyke nets set in Pipeline Lake 4 in April (top) and September (bottom), 2004.



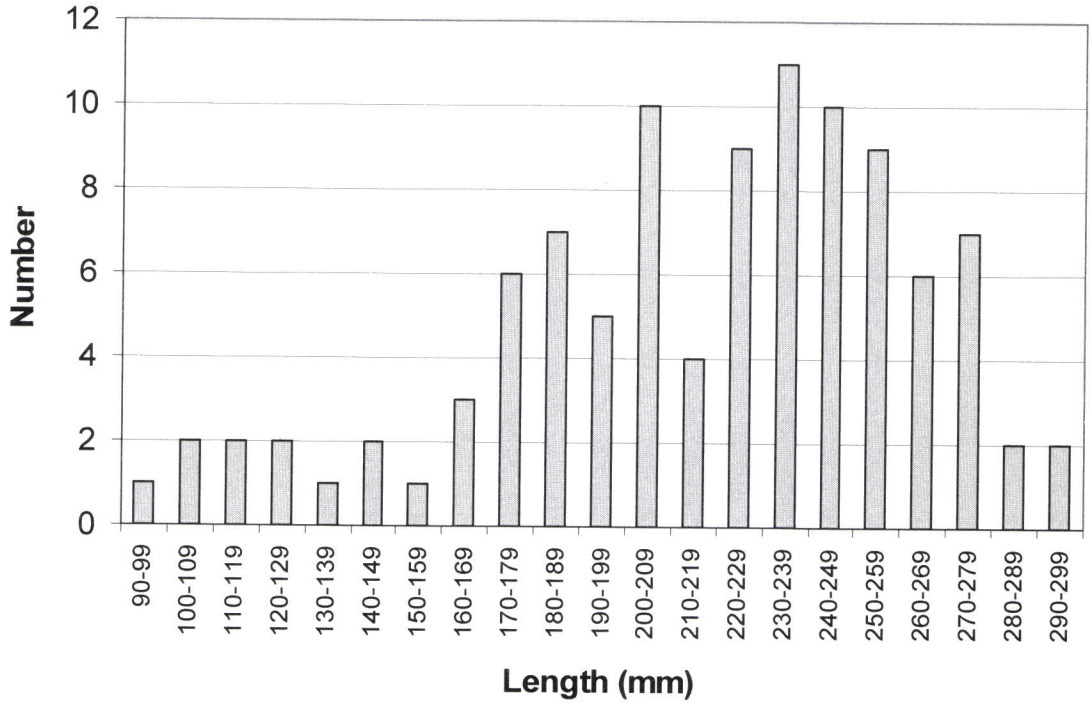
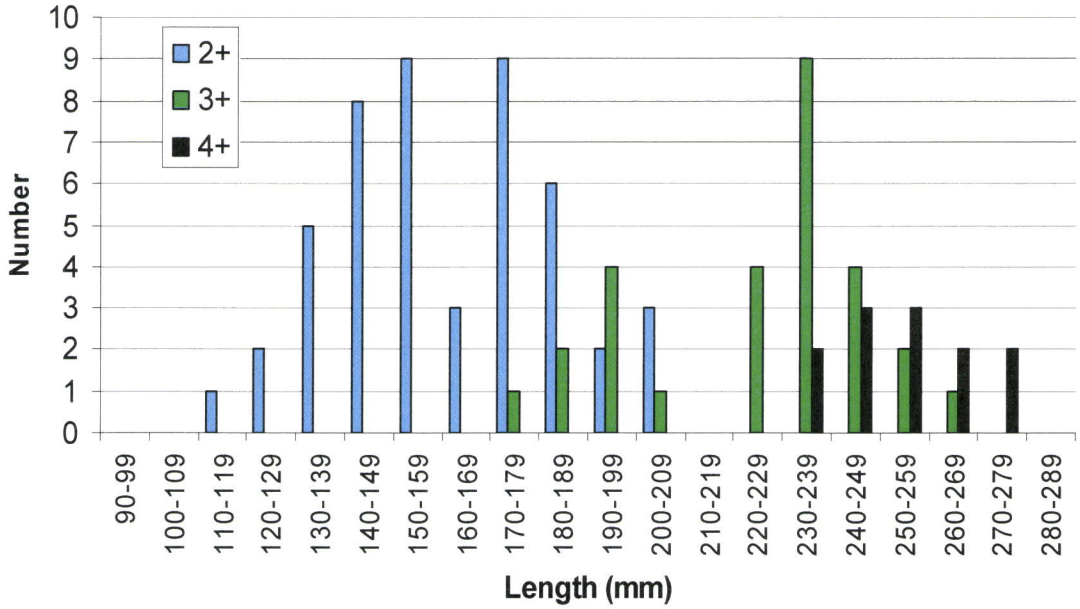
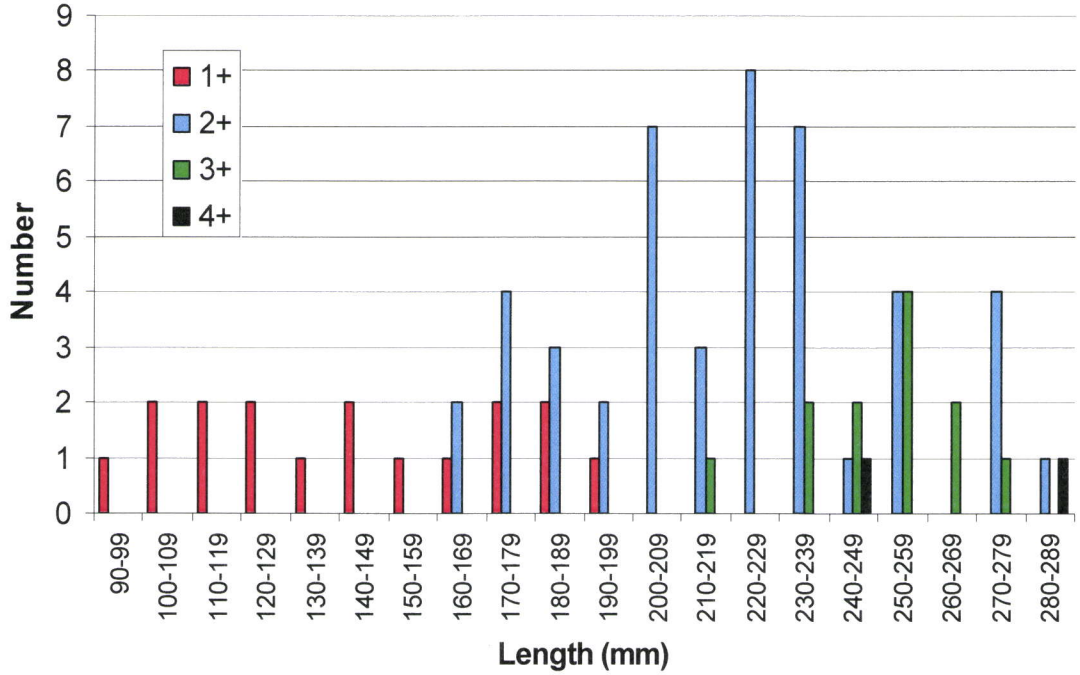


Figure 6. Age-frequency distributions of cutthroat trout captured with fyke nets set in Pipeline Lake 4 in April (top) and September (bottom), 2004.





and are then not able to return because of the beaver dams at the outlets. The older fish may also die after spawning. No fish older than 4+ was captured in either lake. If these fish died or migrated out of the population, some assumptions of the population estimates were violated.

One known mortality occurred in Pipeline Lake 4 during the sampling at both lakes (Appendix 2). Dolly Varden and coho salmon were also captured in the fyke nets at Pipeline Lake 4.

Growth

Fish transplanted into Pipeline Lake 5 thus far have experienced excellent growth. The best growth was observed in the spring recapture of fish that were transplanted in 2002 (Fig. 7). Fish that were transplanted as 0+ fish in 2002 grew on average about 8% of their body weight by recapture in the spring of 2004 (Fig. 7, 2+ fish). The other age classes have grown well also. These initial transplants seem to have greatly benefited from the low densities and abundant food supplies.

Over the winter of 2003, fish in Pipeline Lake 5 grew 1.57 % and 1.36% of their initial body weight for 2+ and 3+ fish respectively (Fig. 8). This growth was, on average, greater than the mean summer growth of the all combined ages estimated for fish in Pipeline Lake 4 (Fig. 9). The summer growth rates for fish in Pipeline Lake 5 depended a great deal on age with younger fish growing faster than older fish (Fig. 9).

The estimated summer growth rates of fish of all ages combined were greater in Pipeline Lake 5 than in Pipeline Lake 4 (Fig. 9). Fish in Pipeline Lake 5 grew approximately 1.56 % of their body weight per day while fish in Pipeline Lake 4 grew only 0.42% of their weight per day. However, this difference was not significant at the $p = 0.05$ level (two tailed t-test = 1.79, $p = 0.08$). The ages of fish could not be determined for all recaptured fish in Pipeline Lake 4 so we were not able to estimate growth by age classes. We also recaptured few PIT tagged fish in Pipeline Lake 4, so the sample size was small. These factors combined to make the true comparison between lakes difficult. In the future a better comparison will be possible if more PIT tagged fish are recaptured.

Based on our scale analysis, older fish have attained a much greater size in Pipeline Lake 5 than in Pipeline Lake 4 (Fig. 10 and 11). This difference was greatest with the 4+ fish. In the spring sample, the mean size of 4+ fish in Pipeline Lake 5 was 341 mm and it was only 242 mm for 4+ fish captured in Pipeline Lake 4. In the fall sample, 4+ fish from Pipeline Lake 5 averaged 351 mm while those in Pipeline Lake 4 averaged 262 mm. The older fish in Pipeline Lake 5 have had the advantage of being in a lake with little or no competition for a few years. These fish were likely put in the lake during the first or second stockings in 2001 and 2002. As the population in the lake grows it will be interesting to see if this trend continues.

Figure 7. Estimated growth of cutthroat trout introduced into Pipeline Lake 5 in the fall of 2002 and recaptured in the spring of 2004. Growth is estimated for different age classes at time of recapture.

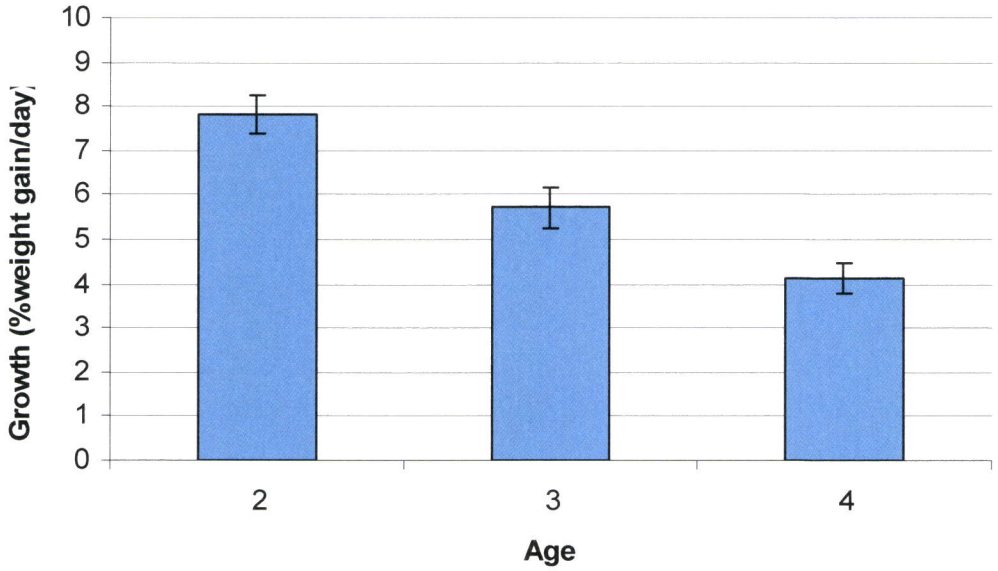


Figure 8. Estimated growth of cutthroat trout introduced into Pipeline Lake 5 in the fall of 2003 and recaptured in the spring of 2004. Growth is estimated for different age classes at time of recapture.

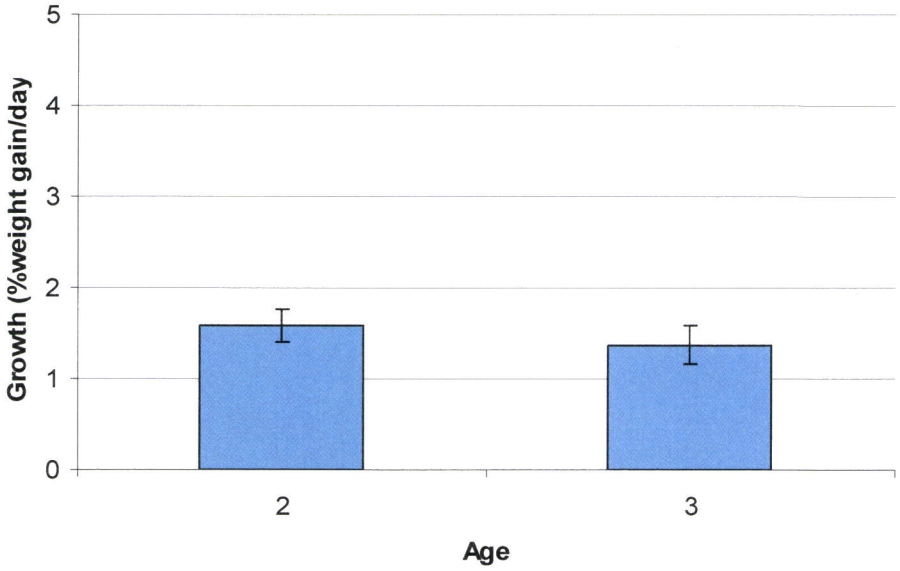
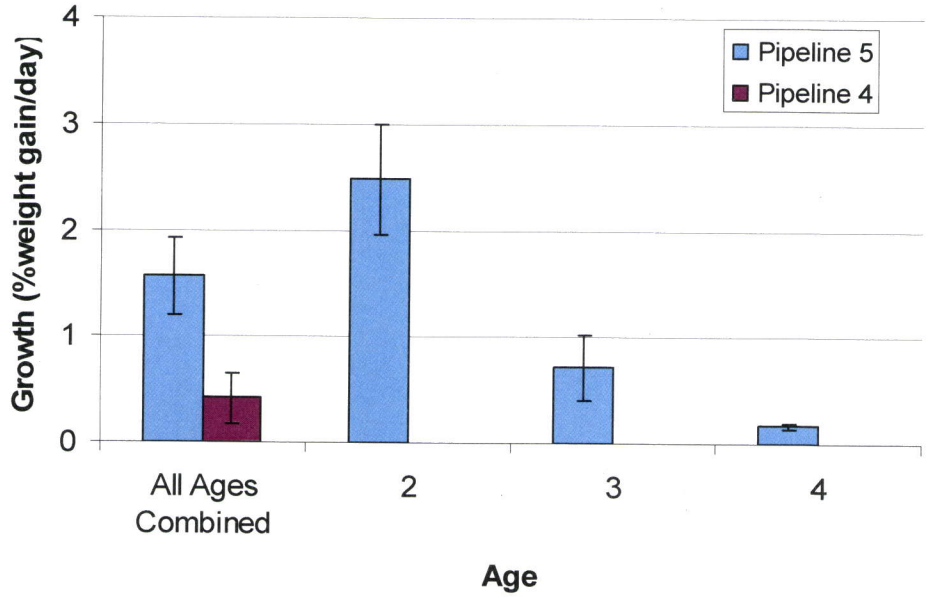


Figure 9. Estimated growth of cutthroat trout in Pipeline Lake 5 and 4 over the period from April – September, 2004. Growth is estimated for different age classes at time of recapture in Pipeline Lake 5, but all ages combined were used to estimate growth in Pipeline Lake 4 due to the small numbers and unknown ages of recaptured fish.



The differences in mean size at age between the ponds decreased with decreasing age (Fig. 10). In the spring samples, as we observed in the age and length frequencies, the 2+ and 3+ fish in Pipeline Lake 5 were divided into two groups. Fish that were in the lake longer were larger in size. The larger fish of these age classes were larger than those of the same age class captured in Pipeline Lake 4. Fish in these age classes that were put into Pipeline Lake 5 more recently were of a similar size to those in Pipeline Lake 4.

These trends indicate that growth may be slowing, especially for smaller fish. Many young fish were recruited into the population in Pipeline Lake 5. In the fall, the sampled fish in Pipeline Lake 5 were dominated by 1+ and 2+ fish that had not been tagged (Fig. 3 and 4). These these fish appear to be similar in size to fish in Pipeline Lake 4 (Fig. 10). As these fish get older the increased competition may result in smaller 3+ and 4+ fish. This year we transferred mostly 1+ and 2+ fish (see next section), so there should be increased competition in the older age classes next year. Encouraging the harvest of the older age classes may be one way to reduce competition and maintain larger sizes of fish. This type of harvest would likely benefit the population in Pipeline Lake 4.

Stocking

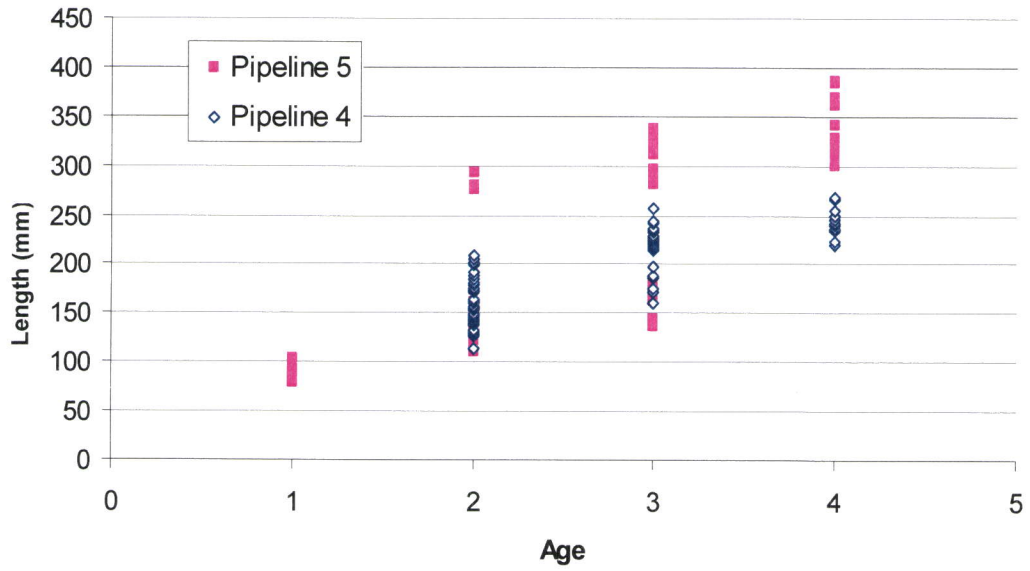
Eighty-three of the cutthroat trout captured in Pipeline Lake 4 during September were released into Pipeline Lake 5 (Table 1; Appendix 3). Dolly Varden and coho salmon were also caught in the fyke nets during this sampling but were not removed from the lake (Table 1). Total trap efficiency over the 120 hours of fishing was 0.85 cutthroat trout per hour of trap set.

We only took fish from Pipeline Lake 4 because of the estimated size of the population based on the mark-recapture experiment and the slower growth of larger individuals that may be a result of high fish density. These fish were smaller in size at age than fish in Pipeline Lake 5. The largest fish caught in Pipeline Lake 4 was 296 and 4 years old based on age-frequency distributions from this lake. In Pipeline Lake 5 several 4 year olds reached to 350 mm in length. We will monitor the population again next year to see if the fish removal promoted any response in the cutthroat population.

Cutthroat released into Pipeline Lake 5 ranged in lengths from 90 to 281 mm. Mean condition factor was 0.90, less than the 1.0 and 0.96 observed with the stream rearing fish from the previous two introductions. All 83 fish retained for transplant were PIT tagged. Fish were not held overnight because results from our past introductions suggest high tag retention and very low mortality associated with handling (Sloat 2002).

Based on age and length-frequencies, most of the released fish were 1 and 2 year olds (Fig. 12). Ages derived from scales samples indicated that we released 17 age 1, 46 age 2, 12 age 3, and 2 age 4 fish. Scales from 6 fish could not be read or were not collected.

Figure 10. Length at age of cutthroat trout captured in Pipeline Lake 5 and 4 in April (top) and September (bottom), 2004. Ages were based on scales taken from a sub sample of the total caught at each lake.



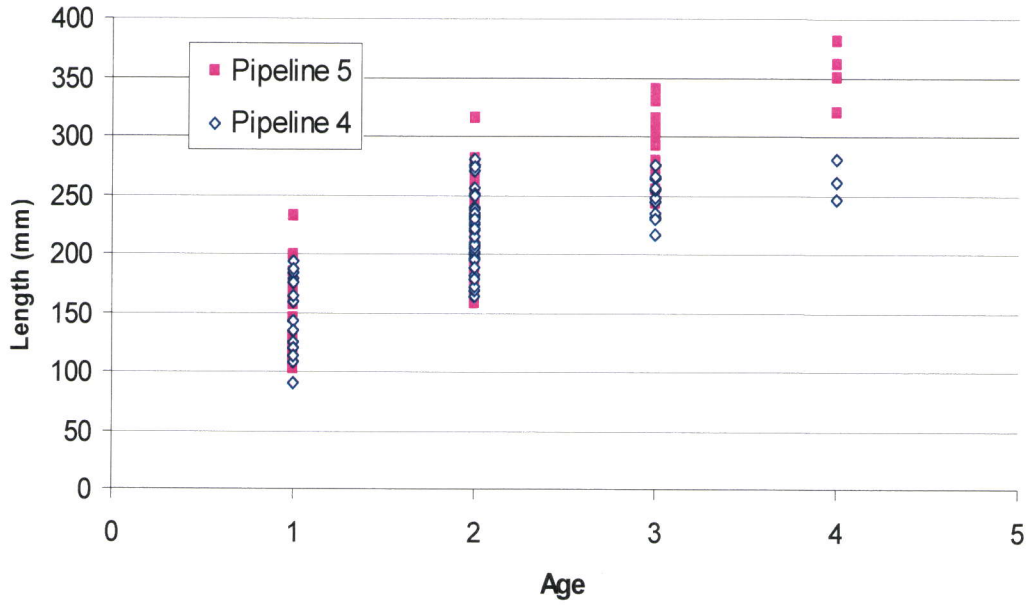
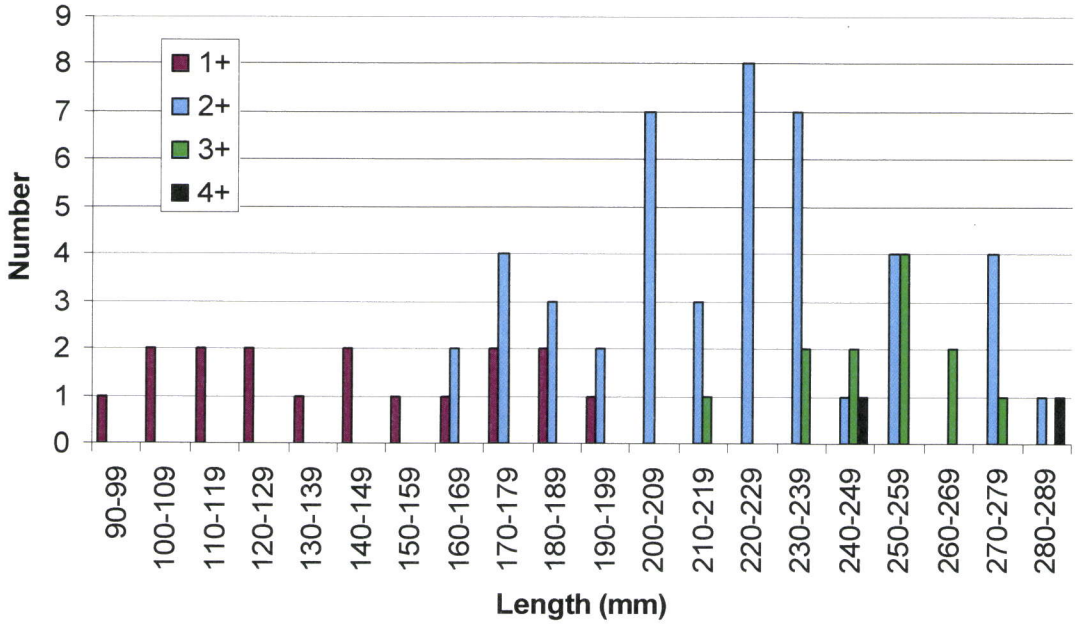


Figure 11. Photo comparing typical large size class of cutthroat trout captured from Pipeline Lake 5 (fish on top) and Pipeline Lake 4 (fish on bottom).

Table 1. Summary of trapping efforts and transplants during Pipeline Lake 5 stocking September 2004.

Location	Trap Sets	Duration (hrs)	Cutthroat Caught	Cutthroat Retained	Cutthroat/Trap	Coho	Dolly Varden
East Shore	1	24	37	31	37	1	2
North Fan	1	24	3	3	3	0	0
Outlet	1	24	23	21	23	0	9
West Shore	1	24	29	26	29	3	1
West Shore	1	24	10	2	10	0	6
Totals	**5**	**120**	**102**	**83**	**20.4**	**4**	**18**

Figure 12. Age-length frequency distributions for the fish introduced into Pipeline Lake 5 during September of 2004.



References

Sloat, Matt. 2002. Pipeline Lake 5 Cutthroat Trout Introduction. Cordova Ranger District, Chugach National Forest. 2001 Progress Report. 14pp.

Stash, Sean. 2001. Pipeline Lake 5 Cutthroat Trout Introduction. Cordova Ranger District, Chugach National Forest. 2001 Progress Report. 7pp.

White, G. C., Anderson, D. R., Burnham, K. P., and Otis, D. L. 1982. Capture – Recapture and removal methods for sampling closed populations. Los Alomos National Laboratory, Los Alamos, New Mexico.

Appendix 1. Data including date, net location, trial, species, fork length (mm), weight (g), tag number, tag status, and age from the fish captured with fyke nets set in Pipeline Lake 5 in April, June, and September, 2004.

date	net location	trial	length	weight	tag #	tag status	age
4/27/2004	pl5inl	1	78	none	4426093c29	new	1
4/27/2004	pl5inl	1	83	none	44235d6665	new	1
4/27/2004	pl5inl	1	91	none	44257c5713	new	1
4/27/2004	pl5out	1	143	40	442373297c	new	2
4/27/2004	pl5out	1	103	20	4423131977	new	1
4/27/2004	pl5out	1	90	none	4421571e60	new	1
4/27/2004	pl5ssh	1	329	380	44256f5c5d	new	3
4/27/2004	pl5ssh	1	300	270	44236f1449	new	
4/27/2004	pl5ssh	1	368	500	4426027f63	new	4
4/27/2004	pl5ssh	1	361	500	4424063109	new	4
4/27/2004	pl5ssh	1	383	560	44226c145e	new	4
4/27/2004	pl5ssh	1	314	320	44223c680b	new	3
4/27/2004	pl5ssh	1	292	260	4423096c16	new	2
4/27/2004	pl5ssh	1	385	560	4425634941	new	4
4/28/2004	pl5inl	1	79	4	4422260148	new	1
4/28/2004	pl5out	1	130	17.3	4425630e35	new	2
4/28/2004	pl5ssh	1	281	280	4423614a1a	new	3
4/27/2004	pl5ssh	1	283	240	44237a2d25	new	3
4/27/2004	pl5ssh	1	383	540	no tag	none	4
4/27/2004	pl5inl	1	165	60	4423061476	recap	
4/28/2004	pl5ssh	1	139	18.4	4423624635	recap	3
4/27/2004	pl5out	1	135	40	4424087378	recap	3
4/28/2004	pl5out	1	152	36.5	4425572724	recap	2
4/28/2004	pl5inl	1	120	14.1	4425711028	recap	2
4/27/2004	pl5ssh	1	155	60	4426151924	recap	2
4/28/2004	pl5ssh	1	148	25.7	4422685e59	recap	2
4/27/2004	pl5ssh	1	310	300	424b3b0670	recap	3
4/27/2004	pl5ssh	1	315	340	424d022808	recap	4
4/27/2004	pl5inl	1	290	220	424d1a254c	recap	3
4/27/2004	pl5ssh	1	290	240	424d1b7820	recap	3
4/27/2004	pl5inl	1	336	360	424d334756	recap	3
4/27/2004	pl5ssh	1	278	220	424d3c2627	recap	2
4/27/2004	pl5ssh	1	311	320	424d414105	recap	3
4/27/2004	pl5ssh	1	295	280	424d41517b	recap	3
4/27/2004	pl5ssh	1	340	380	424d61035f	recap	4
4/27/2004	pl5inl	1	308	280	424d684917	recap	4
4/27/2004	pl5ssh	1	331	340	424d6d406a	recap	3
4/27/2004	pl5ssh	1	276	220	424e084223	recap	2
4/27/2004	pl5ssh	1	323	320	424e15373d	recap	3
4/27/2004	pl5ssh	1	290	280	424e201347	recap	3
4/27/2004	pl5inl	1	300	280	424e28507e	recap	4

4/27/2004	pl5ssh	1	301	260	424e2f3542	recap	4
4/27/2004	pl5ssh	1	327	400	424e476a2f	recap	4
4/27/2004	pl5ssh	1	323	380	424e4e0f2f	recap	4
4/27/2004	pl5ssh	1	290	280	424e554e3d	recap	3
4/27/2004	pl5ssh	1	313	280	424e557c74	recap	3
4/27/2004	pl5out	1	314	360	424e6d0846	recap	3
4/27/2004	pl5ssh	1	295	240	424e6e5911	recap	3
4/27/2004	pl5out	1	182	70	44212d0939	recap	3
4/28/2004	pl5ssh	1	138	23.0	4421594b62	recap	2
4/27/2004	pl5out	1	125	30	442224465b	recap	2
4/27/2004	pl5out	1	126	30	44224b3338	recap	2
4/27/2004	pl5out	1	146	40	44225f5a47	recap	2
4/28/2004	pl5ssh	1	165	44.4	4423170b31	recap	3
4/28/2004	pl5out	1	170	54.2	4423675f36	recap	3
4/28/2004	pl5ssh	1	126	19.3	4423687c0a	recap	2
4/27/2004	pl5inl	1	176	65	44237e3b79	recap	3
4/28/2004	pl5ssh	1	148	30.1	4424034f7d	recap	2
4/28/2004	pl5out	1	109	10.9	44240f4e05	recap	2
4/27/2004	pl5out	1	131	40	44255d7c42	recap	2
4/28/2004	pl5out	1	156	37.5	4425650d49	recap	2
4/28/2004	pl5ssh	1	134	22.5	44256d3b4d	recap	2
4/27/2004	pl5out	1	128	40	44257f6e78	recap	2
4/27/2004	pl5inl	1	140	40	4426085c87	recap	3
4/28/2004	pl5ssh	1	160	41.9	4426113a3c	recap	2
4/27/2004	pl5out	1	150	60	4426113b1f	recap	2
4/27/2004	pl5ssh	1	143	50	442614467c	recap	3
4/27/2004	pl5inl	1	137	40	4426674a49	recap	2
4/27/2004	pl5out	1	173	70	4426737e4e	recap	2
4/27/2004	pl5ssh	1	162	60	442703460b	recap	3
6/22/2004	outlet	2	~150			new	
6/22/2004	outlet	2				new	
6/22/2004	trailside	2	~150			new	
6/22/2004	trailside	2			44223f7a32		
6/22/2004	trailside	2			442271501e		
6/22/2004	trailside	2	~150			new	
6/22/2004	trailside	2					
6/22/2004	trailside	2	~150			new	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2			4423115c50	recap	
6/22/2004	inlet	2			4424087378	recap	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2			44256d6b4a	recap	
6/22/2004	inlet	2				new	
6/22/2004	inlet	2				new	

6/22/2004	inlet	2			4426081824	recap	
6/22/2004		2				new	
6/22/2004		2			424d684917	recap	
6/23/2004	trailside	2				new	
6/23/2004	trailside	2				new	
6/23/2004	trailside	2			4426034578	recap	
6/23/2004	trailside	2				new	
6/23/2004	trailside	2				new	
6/23/2004	trailside	2				new	
6/23/2004	trailside	2				new	
6/23/2004	inlet	2			44257c5713	recap	
6/23/2004	inlet	2				new	
6/23/2004	inlet	2				new	
6/23/2004	inlet	2				new	
6/23/2004	inlet	2				new	
6/23/2004	inlet	2				new	
9/21/2004	inlet	3	265	126	424d013d3c	recap	
9/21/2004	inlet	3	227	126.9	4423040a0d	recap	
9/21/2004	inlet	3	340	510	424d374f1c	recap	
9/21/2004	inlet	3	243	158.9	4421591117	recap	
9/21/2004	inlet	3	281	225.3	44235b5564	recap	
9/21/2004	inlet	3	315	305	424d431351	recap	
9/21/2004	inlet	3	235	120.6	4423104b37	recap	
9/21/2004	inlet	3	248	157.5	4422324072	recap	
9/21/2004	inlet	3	350	435	424e547426	recap	
9/21/2004	inlet	3	268	197.9	44212e5606	recap	
9/21/2004	inlet	3	278	221	44267b6849	recap	
9/21/2004	south shore	3	255	150.4	44222a4c15	recap	
9/21/2004	south shore	3	235	131.6	4426765d42	recap	
9/21/2004	south shore	3	239	140.8	44214f780f	recap	
9/21/2004	south shore	3	270	198.8	442306147c	recap	
9/21/2004	south shore	3	254	164.4	44237b5e22	recap	
9/23/2004	east shore	3			424b3f6511	recap	
9/23/2004	east shore	3	243	137.7	4422402241	recap	
9/23/2004	north shore	3			424d1b0f2d	recap	
9/23/2004	north shore	3	224	107.6	44235f186e	recap	
9/23/2004	north shore	3	272	220.2	4422200d7f	recap	
9/23/2004	north shore	3	265	183.9	4422293329	recap	
9/21/2004	inlet	3	269	193.7	4423170b31	recap	
9/21/2004	inlet	3	265	174.2	4426737e4e	recap	
9/21/2004	inlet	3	235	131.2	44255d7c42	recap	
9/21/2004	inlet	3	350	485	4424063109	recap	
9/21/2004	inlet	3	315	420	424e201347	recap	
9/21/2004	inlet	3	360	480	424e476a2f	recap	
9/21/2004	inlet	3	236	120.6	4425711028	recap	
9/21/2004	inlet	3	350	425	424d61035f	recap	
9/21/2004	inlet	3	237	129.1	4426081824	recap	
9/21/2004	inlet	3	340	420	44223c680b	recap	

9/21/2004	inlet	3	312	340	424e6e5911	recap	
9/21/2004	inlet	3	266	185.2	4426113a3c	recap	
9/21/2004	south shore	3	267	188.2	44223f7a32	recap	
9/21/2004	south shore	3	236	131.4	442271501e	recap	
9/21/2004	south shore	3	198	74.2	44235d6665	recap	
9/21/2004	south shore	3	242	147.3	44257f6e78	recap	
9/21/2004	south shore	3	229	85.6	44224b3338	recap	
9/21/2004	south shore	3	330	340.2	424d1b7820	recap	
9/21/2004	south shore	3	231	114.5	4423131977	recap	
9/21/2004	south shore	3	350	505	424e4e0f2f	recap	
9/21/2004	south shore	3	266	181.5	442703460b	recap	
9/21/2004	south shore	3	214	102.7	44240f4e05	recap	
9/21/2004	south shore	3	320	323	424e2f3542	recap	
9/21/2004	south shore	3	292	262.2	424e084223	recap	
9/21/2004	south shore	3	335	365.7	44236f1449	recap	
9/21/2004	south shore	3	272	180.3	4425572724	recap	
9/23/2004	east shore	3	225	122.5	4426034578	recap	
9/23/2004	north shore	3	310	312	424d1a254c	recap	
9/23/2004	north shore	3	264	190.2	4424034f7d	recap	
9/23/2004	north shore	3	258	163.3	44225f5a47	recap	
9/23/2004	east shore	3	176	54.4	424d591139	recap	
9/23/2004	east shore	3	185	64.4	424f21443d	recap	
9/23/2004	east shore	3	187	58.7	424d7e2849	recap	
9/23/2004	east shore	3			424d324c13	recap	
9/23/2004	east shore	3			424d1c5400	recap	
9/23/2004	east shore	3			424d114f60	recap	
9/23/2004	north shore	3			424d0f1f37	recap	
9/23/2004	north shore	3	253	149.1	44222a4c15	recap	
9/23/2004	north shore	3	246	153.4	4421591117	recap	
9/23/2004	north shore	3	202	80.7	424f2c4646	recap	
9/23/2004	north shore	3	234	188.9	4423104b37	recap	
9/23/2004	north shore	3	247	154.5	4422324072	recap	
9/23/2004	north shore	3	234	124.5	442120614a	recap	
9/21/2004	south shore	3	190	67.6	AFC	new	
9/23/2004	east shore	3	184	58.6	424d5d206b	recap	
9/23/2004	north shore	3	189	68.2	424d3c665e	recap	
9/23/2004	north shore	3	174	57.6	424f130b13	recap	
9/21/2004	inlet	3	175	46	424d7e1072	recap	
9/21/2004	inlet	3	223	96.9	424e6f2e0c	recap	
9/21/2004	inlet	3	265	124.4	424e26745b	recap	
9/21/2004	inlet	3	234	102.1	424f154173	recap	
9/21/2004	south shore	3	234	121.4	424d044671	recap	
9/21/2004	south shore	3	231	90.8	424b1c0a44	recap	
9/21/2004	south shore	3	167	41.5	424e037b1f	recap	
9/21/2004	south shore	3	200	71.3	424b27340e	recap	
9/21/2004	south shore	3	208	88.5	424f0d3762	recap	
9/21/2004	south shore	3	213	85.3	424e58101d	recap	
9/21/2004	south shore	3	195	62	4250012510	recap	

9/21/2004	south shore	3	231	111.8	424e70426e	recap	
9/21/2004	south shore	3	224	98.5	424d6e7e0c	recap	
9/21/2004	south shore	3	183	66.5	424d703a3f	recap	
9/21/2004	south shore	3	258	151	424d5b4a08	recap	
9/21/2004	south shore	3	164	40.5	424e677b65	recap	
9/21/2004	inlet	3	193	72.8	423a381502	new	
9/21/2004	inlet	3	170	49.5	424d612451	new	
9/21/2004	inlet	3	175	55	424d621f0e	new	
9/21/2004	inlet	3	190	65.4	424d227567	new	
9/21/2004	inlet	3	185	66.8	424f097b4b	new	
9/21/2004	inlet	3	192	67.9	424d3e5c36	new	
9/21/2004	inlet	3	158	38.2	424d4f2254	new	
9/21/2004	inlet	3	168	46	424d300e39	new	
9/21/2004	inlet	3	180	57.2	424d583623	new	
9/21/2004	inlet	3	120	16.9	424f114939	new	
9/21/2004	inlet	3	201	77.5	424d355e26	new	
9/21/2004	inlet	3	184	58.6	424e080640	new	
9/21/2004	inlet	3	165	43.2	424d424b04	new	
9/21/2004	inlet	3	182	61	424e305271	new	
9/21/2004	inlet	3	214	101.6	424f272321	new	
9/21/2004	inlet	3	182	59.5	424d7e2849	new	
9/21/2004	inlet	3	101	9.9	424e685c43	new	
9/21/2004	inlet	3	126	18.8	424d142744	new	
9/21/2004	inlet	3	201	87.5	424f0d3378	new	
9/21/2004	inlet	3	129	19.5	424e750421	new	
9/21/2004	inlet	3	178	58.4	424d582d0c	new	
9/21/2004	inlet	3	247	152.7	424e49501c	new	
9/21/2004	inlet	3	156	38.4	424d4d0d7b	new	
9/21/2004	inlet	3	187	65.2	424f21443d	new	
9/21/2004	inlet	3	184	55.8	424e171260	new	
9/21/2004	inlet	3	170	43.4	424d3d2d62	new	
9/21/2004	inlet	3	180	55.4	424d3c1157	new	
9/21/2004	inlet	3	171	48.8	424e127a44	new	
9/21/2004	inlet	3	124	18.3	424e763e5d	new	
9/21/2004	inlet	3	169	52.2	424d112a23	new	
9/21/2004	inlet	3	191	64.8	424d067920	new	
9/21/2004	inlet	3	161	40.6	424d301722	new	
9/21/2004	inlet	3	182	61.9	424e3f090f	new	
9/21/2004	inlet	3	210	88.4	424d5c6125	new	
9/21/2004	inlet	3	160	40.7	424f2d7f4a	new	
9/21/2004	inlet	3	210	93.8	424d571a54	new	
9/21/2004	inlet	3	145	30.6	424f031c0c	new	
9/21/2004	inlet	3	225	112	44256c6c53	recap	
9/21/2004	inlet	3	191	69.5	423a28175a	new	
9/21/2004	inlet	3	171	48	424d5f2535	new	
9/21/2004	inlet	3	172	49.4	424d196b2e	new	
9/21/2004	inlet	3	160	43.8	424d555422	new	
9/21/2004	inlet	3	190	68.7	42501d3826	new	

9/21/2004	inlet	3	186	63.1	424b154a7e	new	
9/21/2004	inlet	3	315	395	424d5f7a79	new	
9/21/2004	inlet	3	183	61.2	424d324c13	new	
9/21/2004	inlet	3	182	56.6	424d591139	new	
9/21/2004	inlet	3	187	63.8	424d666574	new	
9/21/2004	inlet	3	189	68.1	424f2d2c5a	new	
9/21/2004	inlet	3	231	123.2	44236b305c	recap	
9/21/2004	inlet	3	190	66.8	424f2f7f2d	new	
9/21/2004	inlet	3	159	34.8	42500b1d1b	new	
9/21/2004	inlet	3	206	95.9	424f005440	new	
9/21/2004	inlet	3	166	44	424f00581c	new	
9/21/2004	inlet	3	176	54.6	424d441b68	new	
9/21/2004	inlet	3	242	140.4	4250235f16	new	
9/21/2004	inlet	3	380	610	424d532174	new	
9/21/2004	inlet	3	301	285	424d0f241b	new	
9/21/2004	inlet	3	205	84	424d1b0f29	new	
9/21/2004	south shore	3	178	53.5	424e3d296b	new	
9/21/2004	south shore	3	194	70.5	424f2b4639	new	
9/21/2004	south shore	3	163	39.9	424d1d3363	new	
9/21/2004	south shore	3	214	92.8	424f251218	new	
9/21/2004	south shore	3	199	73	424d51773a	new	
9/21/2004	south shore	3	190	74.7	424e5a3e11	new	
9/21/2004	south shore	3	159	37.2	424d4f6f52	new	
9/21/2004	south shore	3	162	39.1	424e444a5f	new	
9/21/2004	south shore	3	193	73.6	424d193541	new	
9/21/2004	south shore	3	205	83.7	424b055d61	new	
9/21/2004	south shore	3	176	51.5	424d45567a	new	
9/21/2004	south shore	3	175	50.2	424f353c1f	new	
9/21/2004	south shore	3	193	68	424e272937	new	
9/21/2004	south shore	3	167	43.8	423a2a2f06	new	
9/21/2004	south shore	3	121	17.8	424d5b1544	new	
9/21/2004	south shore	3	155	34.4	424d0f1f37	new	
9/21/2004	south shore	3	112	13.5	424e627721	new	
9/21/2004	south shore	3	184	61.7	423f3f6d07	new	
9/21/2004	south shore	3	257	182.9	442373701e	recap	
9/21/2004	south shore	3	242	139.7	424f067325	new	
9/21/2004	south shore	3	187	62.6	424e050f6a	new	
9/21/2004	south shore	3	330	410	424d6f7b21	new	
9/21/2004	south shore	3	164	41.9	424f092524	new	
9/21/2004	south shore	3	200	87.8	424e4d425a	new	
9/21/2004	south shore	3	205	80.5	424d114f60	new	
9/21/2004	south shore	3	173	36.1	424f0d1a1e	new	
9/21/2004	south shore	3	168	46.7	424d63794e	new	
9/21/2004	south shore	3	167	46	424e284539	new	
9/21/2004	south shore	3	145	31.3	424d1c5400	new	
9/21/2004	south shore	3	176	50	424b117b2c	new	
9/21/2004	south shore	3	194	65.9	424f2a2540	new	
9/21/2004	south shore	3	180	54.3	424e3b0e0e	new	

9/21/2004	south shore	3	175	51.2	424f0f331f	new	
9/21/2004	south shore	3	178	53.9	424f123726	new	
9/21/2004	south shore	3	150	32.2	424f062d4a	new	
9/21/2004	south shore	3	141	28.3	424e172c75	new	
9/21/2004	south shore	3	163	40.3	424e0b3826	new	
9/21/2004	south shore	3	188	69.2	424f2a5a0f	new	
9/21/2004	south shore	3	195	77.6	424e6a2771	new	
9/21/2004	south shore	3	195	71.1	424e3d177e	new	
9/21/2004	south shore	3	180	53.2	424b2b773b	new	
9/21/2004	south shore	3	185	61	424d7a5d78	new	
9/21/2004	south shore	3	148	32.7	424d3c6367	new	
9/21/2004	south shore	3	177	57.8	424e782243	new	
9/21/2004	south shore	3	212	92.1	424d4a1960	new	
9/21/2004	south shore	3	172	50.1	424e113c60	new	
9/21/2004	south shore	3	160	39.7	424e3e141a	new	
9/21/2004	south shore	3	203	82.1	424f2c4646	new	
9/21/2004	south shore	3	197	79	424e584400	new	
9/21/2004	south shore	3	159	42.2	424e6d762a	new	
9/21/2004	south shore	3	170	46.8	424f1f1144	new	
9/21/2004	south shore	3	133	23.1	424b0b4939	new	
9/21/2004	south shore	3	160	38.6	424e170727	new	
9/21/2004	south shore	3	152	34.2		new	
9/21/2004	south shore	3	197	78.9		new	
9/21/2004	south shore	3	175	58.6		new	
9/21/2004	south shore	3	146	32.3		new	
9/21/2004	south shore	3	188	65.8		new	
9/21/2004	south shore	3	140	25.3		new	
9/21/2004	south shore	3	183	54		new	
9/21/2004	south shore	3	186	60		new	
9/21/2004	south shore	3	176	52.5		new	
9/21/2004	south shore	3	214	97.3		new	
9/21/2004	south shore	3	191	71		new	
9/21/2004	south shore	3	163	44.6		new	
9/21/2004	south shore	3	188	63.9		new	
9/21/2004	south shore	3	192	72.7		new	
9/21/2004	south shore	3	185	71.2		new	
9/21/2004	south shore	3	211	91.9		new	
9/21/2004	south shore	3	248	131		new	
9/21/2004	south shore	3	259	178.5		new	
9/23/2004	east shore	3	222	104.9	424d42175f	new	
9/23/2004	east shore	3	187	65.9	424e326671	new	
9/23/2004	east shore	3	150	33.5	424e623f1e	new	
9/23/2004	east shore	3	185	67.4	424e4a4306	new	
9/23/2004	east shore	3	170	51.3	424b310c32	new	
9/23/2004	east shore	3	166	46.1	424f0a037a	new	
9/23/2004	north shore	3	182	57.9	424d774d49	new	
9/23/2004	north shore	3	183	59.1	424e5e677f	new	
9/23/2004	north shore	3	177	51.7	424e576f7a	new	

9/23/2004	north shore	3	172	50.3	424d1a4a7d	new	
9/23/2004	north shore	3	130	20.1	424d06387a	new	
9/23/2004	north shore	3	152	33.8	424d62645b	new	
9/23/2004	north shore	3	195	73.5	424d0a6a12	new	
9/23/2004	north shore	3	220	104.3	424e387132	new	
9/23/2004	north shore	3	167	44.8	424d1d477d	new	
9/23/2004	north shore	3	181	62.2	4250024337	new	
9/23/2004	north shore	3	155	39.3	423b243c37	new	
9/23/2004	north shore	3	201	75.9	424d4c2013	new	
9/23/2004	north shore	3	129	21.7	424e757732	new	
9/23/2004	north shore	3	137	26.3	424d573332	new	
9/23/2004	north shore	3	178	54.2	424f105c6a	new	
9/23/2004	north shore	3	162	43.7	424d6d6a1b	new	
9/23/2004	north shore	3	138	28.7	424f2a283f	new	
9/23/2004	north shore	3	218	119.7	44231b0b6a	recap	
9/23/2004	north shore	3	164	43.8	424d1e3233	new	
9/23/2004	north shore	3	165	46.2	424e467d48	new	
9/23/2004	north shore	3	168	49.5	4250354d5b	new	
9/23/2004	north shore	3	156	44.5	424e4b4843	new	
9/23/2004	north shore	3	174	53.5	424d4f5e0c	new	
9/23/2004	north shore	3	197	71	424d285908	new	
9/23/2004	north shore	3	173	48	424d403321	new	
9/23/2004	north shore	3	309	318.8	424e03792b	new	
9/23/2004	north shore	3	236	122	4422636551	recap	
9/23/2004	north shore	3	160	39.7	423b3e580b	new	
9/23/2004	north shore	3	152	37.3	424d7b6763	new	
9/23/2004	north shore	3	174	50.7	424e253e23	new	
9/23/2004	north shore	3	149	34.6	424f7f2258	new	
9/23/2004	north shore	3	199	79.6	424e16287b	new	
9/23/2004	north shore	3	169	45.9	424d6f765e	new	
9/23/2004	north shore	3	130	23.6	424d227349	new	
9/23/2004	north shore	3	173	51.3	424d6f3627	new	
9/23/2004	north shore	3	315	363.2	424d653a4b	new	
9/23/2004	north shore	3	189	71.2	424d4b0762	new	
9/23/2004	north shore	3	166	43.7	424b116003	new	
9/23/2004	north shore	3	153	35.8	424f0a4014	new	
9/23/2004	north shore	3	186	65.4	424e2d485e	new	
9/23/2004	north shore	3	166	44.8	424e6c3069	new	
9/23/2004	north shore	3	175	53.9	424e07611f	new	
9/23/2004	north shore	3	196	76.9	424d4e4c52	new	
9/23/2004	north shore	3	148	31.7	424f080707	new	
9/23/2004	north shore	3	181	56.4	424e586a6b	new	
9/23/2004	north shore	3	163	43	424f09785c	new	
9/23/2004	north shore	3	183	60.1	424d5c6232	new	
9/23/2004	north shore	3	187	59.9	424d7e731f	new	
9/23/2004	north shore	3	162	38.6	4250086227	new	
9/23/2004	north shore	3	259	180.1	4423731c38	recap	
9/23/2004	north shore	3	171	52.8	424e2e0d6d	new	

9/23/2004	north shore	3	123	20.7	424e430726	new	
9/23/2004	north shore	3	182	61.3	424d734a48	new	
9/23/2004	north shore	3	181	57.8	42500d3535	new	
9/23/2004	north shore	3	166	46.8	424d223d58	new	

Appendix 2. Data including date, trap location, trial, species, fork length (mm), weight (g), tag number, and comments from the fish captured with fyke nets set in Pipeline Lake 4 in April, June, and September, 2004.

date	net location	trial	species	length	weight	tag #	comments
4/29/2004	west shore	1	ct	220	92	44260e5c2c	
4/29/2004	west shore	1	ct	138	204	4423737e76	
4/29/2004	west shore	1	ct	132	18	4423776555	
4/29/2004	west shore	1	ct	175	44	4426147f64	
4/29/2004	west shore	1	ct	154	31	44237f1425	
4/29/2004	west shore	1	ct	140	24	442377752b	
4/29/2004	west shore	1	ct	225	90	44214e1213	
4/29/2004	west shore	1	ct	250	120	4422426e03	
4/29/2004	west shore	1	ct	235	113	4423790e42	ripe male
4/29/2004	west shore	1	dv	265	192	4421293e45	
4/29/2004	west shore	1	ct	221	92	442613256e	
4/29/2004	west shore	1	ct	175	2	44257f090f	
4/29/2004	west shore	1	ct	208	66	44230f2755	
4/29/2004	west shore	1	ct	155	22	4425606759	
4/29/2004	west shore	1	ct	205	68	44236c5b08	
4/29/2004	west shore	1	ct	161	34	4422734629	
4/29/2004	west shore	1	ct	201	69	44240e1773	
4/29/2004	west shore	1	ct	185	80	4422615c2e	
4/29/2004	west shore	1	ct	175	70	4424120037	
4/29/2004	west shore	1	dv	300	280	44260f1a6f	
4/29/2004	west shore	1	ct	215	120	4423714f4f	
4/29/2004	west shore	1	ct	254	160	4424114209	
4/29/2004	west shore	1	ct	141	23	4424047739	
4/29/2004	west shore	1	ct	138	19	44236b760b	
4/29/2004	west shore	1	ct	199	66	4422382735	
4/29/2004	west shore	1	ct	178	44	44260e565e	
4/29/2004	west shore	1	ct	149	129	4421385435	
4/29/2004	west shore	1	ct	152	31	4422267475	
4/29/2004	west shore	1	ct	223	115	4422600e09	
4/29/2004	west shore	1	ct	232	107	44237c3661	
4/29/2004	west shore	1	ct	144	28	44214e6217	
4/29/2004	west shore	1	ct	152	29	44235a6f7f	
4/29/2004	west shore	1	ct	213	80	442668006a	
4/29/2004	west shore	1	ct	160	33	4425797e6d	

4/29/2004	west shore	1	ct	131	12	4425721562	
4/29/2004	west shore	1	ct	223	99	442364677e	
4/29/2004	west shore	1	ct	178	51	44222b1f11	
4/29/2004	west shore	1	ct	128	18	44255c446d	
4/29/2004	west shore	1	ct	180	47	44212c5a3d	
4/29/2004	west shore	1	ct	187	52	44212c5a3d	
4/29/2004	west shore	1	ct	186	51	4423142856	
4/29/2004	west shore	1	ct	266	152	4425710a24	
4/29/2004	west shore	1	ct	139	22	44222e366f	
4/29/2004	west shore	1	ct	180	48	4426093c29	
4/29/2004	west shore	1	ct	143	23	44236a7b60	
4/29/2004	west shore	1	ct	262	190	44223b4c6d	
4/29/2004	west shore	1	ct	197	60	4423136f5d	
4/29/2004	west shore	1	ct	241	145	4426662930	
4/29/2004	west shore	1	ct	178	68	44256d0d1e	
4/29/2004	west shore	1	ct	160	37	4423715f31	
4/29/2004	west shore	1	ct	229	102	44237c561b	
4/29/2004	west shore	1	ct	237	111	4426100330	
4/29/2004	west shore	1	ct	156	33	4423100308	
4/29/2004	west shore	1	ct	146	25	4423096573	
4/29/2004	west shore	1	ct	215	90	4423607b50	
4/29/2004	west shore	1	ct	241	120	44255b4f43	
4/29/2004	west shore	1	ct	257	150	442229074e	
4/29/2004	west shore	1	ct	153	34	44235d7c69	
4/29/2004	west shore	1	ct	180	51	44260c5a65	
4/29/2004	west shore	1	ct	159	29	44256f0d79	
4/29/2004	west shore	1	ct	243	127	442362497e	mort
4/29/2004	west shore	1	ct	127	18	44236f0f66	
4/29/2004	west shore	1	ct	164	36	44225d4949	
4/29/2004	west shore	1	ct	142	22	4426791d13	
4/29/2004	west shore	1	ct	155	32	424d725f1b	
4/29/2004	west shore	1	ct	152	29	424e467c6b	
4/29/2004	west shore	1	ct	240	126	424f034174	
4/29/2004	west shore	1	ct	174	45	424f0e0558	
4/29/2004	west shore	1	ct	191	56	424d247e5d	
4/29/2004	west shore	1	ct	220	99	424d773e5a	
4/29/2004	west shore	1	ct	172	41	424f06542b	
4/29/2004	west shore	1	ct	234	94	424d425726	
4/29/2004	west shore	1	ct	187	51	424e631e2a	
4/29/2004	west shore	1	ct	160	33	424e7a0304	
4/29/2004	west shore	1	ct	254	140	424e6d753d	
4/29/2004	west shore	1	ct	228	100	424d625d43	
4/29/2004	west shore	1	ct	268	150	424e1b046b	
4/29/2004	west shore	1	ct	245	120	424e657f18	
4/29/2004	west shore	1	ct	173	41	424e204174	
4/29/2004	west shore	1	ct	188	54	424d000727	
4/29/2004	west shore	1	ct	188	54	424d345c06	

4/29/2004	west shore	1	ct	225	106	424b1d543f	
4/29/2004	west shore	1	ct	217	81	425009462a	
4/29/2004	west shore	1	ct	187	51	424e061a5e	
4/29/2004	west shore	1	ct	237	110	424e6d491c	
4/29/2004	west shore	1	ct	234	104	424f385c2a	
4/29/2004	west shore	1	dv	243	143	424b3f0a20	
4/29/2004	west shore	1	ct	226	100	424e0a5a7c	
4/29/2004	west shore	1	ct	226	88	424d774b67	
4/29/2004	west shore	1	dv	263	176	424e65321e	
4/29/2004	west shore	1	ct	237	104	424e3e2a0f	
4/29/2004	west shore	1	ct	172	42	424d6e2906	
4/29/2004	west shore	1	ct	179	47	424d233c6f	
4/29/2004	west shore	1	ct	180	none	44223a734f	
4/29/2004	west shore	1	ct	145	none	424d0b000e	
4/29/2004	west shore	1	ct	214		42502a5858	
4/29/2004	west shore	1	ct	197		424f300c7a	
4/29/2004	west shore	1	ct	128		424e707027	
4/29/2004	west shore	1	ct	228	120	424e07387d	
4/29/2004	west shore	1	ct	137		424e0e3e10	
4/29/2004	west shore	1	ct	161		424d7c0471	
4/29/2004	west shore	1	ct	135		424f330d2a	
4/29/2004	west shore	1	ct	144		424e1f7a0b	
4/29/2004	west shore	1	ct	230		424e066a5a	no 104
4/29/2004	west shore	1	ct	234		424d1c3559	
4/29/2004	west shore	1	ct	271	190	4422715858	
4/29/2004	west shore	1	ct	152		424d774115	
4/29/2004	west shore	1	ct	262	150	42500f2b44	
4/29/2004	west shore	1	ct	196		424b386811	
4/29/2004	west shore	1	ct	201		44225d6b7e	
4/29/2004	west shore	1	ct	184		424e502114	
4/29/2004	west shore	1	ct	264	140	42501f1313	
4/29/2004	west shore	1	ct	200		424d710333	
4/29/2004	west shore	1	ct	113		424f0a2379	
4/29/2004	west shore	1	ct	167		424e7d4221	
4/29/2004	west shore	1	ct	238	130	424d38041c	
4/29/2004	west shore	1	ct	162		424f057b10	
4/29/2004	west shore	1	ct	236	125	424e573870	
4/29/2004	west shore	1	ct	220		4250256b1a	
4/29/2004	west shore	1	ct	216		424d537264	
4/29/2004	west shore	1	ct	260	150	424d7b5130	
4/29/2004	west shore	1	ct	262	140	424e6e4533	
4/29/2004	west shore	1	ct	144		42501b131f	
4/29/2004	west shore	1	ct	276	170	424d38491a	
4/29/2004	west shore	1	ct	256	170	4425743b62	
4/29/2004	west shore	1	ct	214	81	4423632e1d	
4/29/2004	west shore	1	ct	170	42	424e060345	
4/29/2004	west shore	1	ct	248	160	424f15202a	

4/29/2004	west shore	1	ct	155	35	424d1d296f	
4/29/2004	west shore	1	ct	233	105	424f137923	
4/29/2004	west shore	1	ct	251	130	42501d1257	
4/29/2004	west shore	1	ct	253	150	424d2c5a13	
4/29/2004	west shore	1	ct	236	114	424d795240	
4/29/2004	west shore	1	ct	169	37	424d4e6b5c	
4/29/2004	west shore	1	ct	197	68	424f06635b	
4/29/2004	west shore	1	ct	243	134	424d6f1533	
4/29/2004	west shore	1	ct	175	44	424e19240f	
4/29/2004	west shore	1	ct	245	113	424e765358	
4/29/2004	west shore	1	ct	133	18	424d6a6638	
4/29/2004	west shore	1	ct	226	100	424e730e38	
4/29/2004	west shore	1	ct	203	73	42501f162a	
4/29/2004	west shore	1	ct	235	113	424e7c4f4a	
4/29/2004	west shore	1	ct	235	120	424d056c14	
4/29/2004	west shore	1	ct	190	60	424e46135a	
4/29/2004	west shore	1	ct	186	57	424d5e676c	
4/29/2004	west shore	1	ct	216	88	424d5c791d	
4/29/2004	west shore	1	ct	123	15	424e087644	
4/29/2004	west shore	1	ct	152	32	424d5a4b3f	
4/29/2004	west shore	1	ct	133	21	424f007b08	
4/29/2004	west shore	1	ct	148	28	4426134437	
4/29/2004	west shore	1	ct	230	115	42500f337c	
4/29/2004	west shore	1	ct	234	110	424e3c0f52	
4/29/2004	west shore	1	ct	146	28	424e5d3232	
4/29/2004	west shore	1	ct	275	170	424b390500	
4/29/2004	west shore	1	ct	275	156	424e252e5d	
4/29/2004	west shore	1	ct	170	36	424d060578	
4/29/2004	west shore	1	dv	276	200	4421204f21	
4/29/2004	west shore	1	ct	240	123	none	
4/29/2004	north inlet	1	ct	220	93	4424002732	
4/29/2004	north inlet	1	ct	268	167	424f7e0158	
4/29/2004	north inlet	1	ct	284	170	44226a4f63	
4/29/2004	north inlet	1	ct	251	117	424d422b7e	
4/29/2004	north inlet	1	ct	260	150	424e136751	
4/29/2004	north inlet	1	ct	261	140	424e2c5d0d	
4/29/2004	north inlet	1	ct	257	140	424b060a18	
4/29/2004	north inlet	1	ct	256	133	424e3d1a01	
4/29/2004	north inlet	1	ct	206	75	44236c6862	
4/29/2004	north inlet	1	ct	263	148	424d083f4b	
4/29/2004	north inlet	1	ct	263	166	442608176f	
4/29/2004	north inlet	1	ct	265	147	42500e0315	
4/29/2004	north inlet	1	ct	247	135	424e7e530f	
4/29/2004	north inlet	1	ct	236	116	424e3d5707	
4/29/2004	north inlet	1	dv	258	172	lv fin clip	
4/29/2004	north inlet	1	ct	273	173	lv fin clip	
4/29/2004	north inlet	1	ct	193	59	lv fin clip	

4/29/2004	north inlet	1	ct	214	81	lv fin clip	
4/29/2004	north inlet	1	ct	177	none	lv fin clip	
4/29/2004	north inlet	1	ct	170	none	lv fin clip	
4/29/2004	north inlet	1	ct	214	none	lv fin clip	
4/29/2004	north inlet	1	ct	233	none	lv fin clip	
4/29/2004	north inlet	1	ct	247	none	lv fin clip	
4/29/2004	north inlet	1	ct	215	none	lv fin clip	
4/29/2004	north inlet	1	ct	156	none	lv fin clip	
4/29/2004	north inlet	1	ct	278	none	lv fin clip	
4/29/2004	north inlet	1	ct	204	none	lv fin clip	
4/29/2004	north inlet	1	ct	156	none	lv fin clip	
4/29/2004	north inlet	1	ct	225	none	lv fin clip	
4/29/2004	north inlet	1	ct	243	none	lv fin clip	
4/29/2004	north inlet	1	ct	197	none	lv fin clip	
4/29/2004	north inlet	1	ct	249	none	lv fin clip	
4/29/2004	north inlet	1	ct	225	none	lv fin clip	
4/29/2004	north inlet	1	ct	202	none	lv fin clip	
4/29/2004	north inlet	1	ct	263	none	lv fin clip	
4/29/2004	north inlet	1	ct	270	none	lv fin clip	
4/29/2004	north inlet	1	ct	164	none	lv fin clip	
4/29/2004	north inlet	1	ct	275	none	lv fin clip	
4/29/2004	north inlet	1	ct	177	none	lv fin clip	
4/29/2004	north inlet	1	ct	148	none	lv fin clip	no 199
4/29/2004	north inlet	1	ct	260	none	lv fin clip	
4/29/2004	north inlet	1	ct	217	none	lv fin clip	
4/29/2004	north inlet	1	ct	241	none	lv fin clip	
4/29/2004	north inlet	1	ct	144	none	lv fin clip	
4/29/2004	north inlet	1	ct	259	none	lv fin clip	
4/29/2004	north inlet	1	ct	255	none	lv fin clip	
4/29/2004	north inlet	1	ct	255	none	lv fin clip	
4/29/2004	north inlet	1	ct	200	none	lv fin clip	
4/29/2004	north inlet	1	ct	239	none	lv fin clip	
4/29/2004	north inlet	1	ct	225	none	lv fin clip	
4/29/2004	north inlet	1	ct	250	none	lv fin clip	
4/29/2004	north inlet	1	ct	185	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	220	none	lv fin clip	
4/29/2004	north inlet	1	ct	256	none	lv fin clip	
4/29/2004	north inlet	1	ct	215	none	lv fin clip	
4/29/2004	north inlet	1	ct	272	none	lv fin clip	
4/29/2004	north inlet	1	ct	150	none	lv fin clip	
4/29/2004	north inlet	1	ct	236	none	lv fin clip	
4/29/2004	north inlet	1	ct	182	none	lv fin clip	
4/29/2004	north inlet	1	ct	234	none	lv fin clip	
4/29/2004	north inlet	1	ct	174	none	lv fin clip	
4/29/2004	north inlet	1	ct	210	none	lv fin clip	
4/29/2004	north inlet	1	ct	256	none	lv fin clip	

4/29/2004	north inlet	1	ct	237	none	lv fin clip	
4/29/2004	north inlet	1	ct	197	none	lv fin clip	
4/29/2004	north inlet	1	ct	225	none	lv fin clip	
4/29/2004	north inlet	1	ct	141	none	lv fin clip	
4/29/2004	north inlet	1	ct	164	none	lv fin clip	
4/29/2004	north inlet	1	ct	162	none	lv fin clip	
4/29/2004	north inlet	1	ct	164	none	lv fin clip	
4/29/2004	north inlet	1	ct	183	none	lv fin clip	
4/29/2004	north inlet	1	ct	248	none	lv fin clip	
4/29/2004	north inlet	1	ct	275	none	lv fin clip	
4/29/2004	north inlet	1	ct	243	none	lv fin clip	
4/29/2004	north inlet	1	ct	206	none	lv fin clip	
4/29/2004	north inlet	1	ct	127	none	lv fin clip	
4/29/2004	north inlet	1	ct	176	none	lv fin clip	
4/29/2004	north inlet	1	ct	193	none	lv fin clip	
4/29/2004	north inlet	1	ct	235	none	lv fin clip	
4/29/2004	north inlet	1	ct	215	none	lv fin clip	
4/29/2004	north inlet	1	ct	258	none	lv fin clip	
4/29/2004	north inlet	1	ct	196	none	lv fin clip	
4/29/2004	north inlet	1	ct	214	none	lv fin clip	
4/29/2004	north inlet	1	ct	226	none	lv fin clip	
4/29/2004	north inlet	1	ct	134	none	lv fin clip	
4/29/2004	north inlet	1	ct	147	none	lv fin clip	
4/29/2004	north inlet	1	ct	162	none	lv fin clip	
4/29/2004	north inlet	1	ct	270	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	205	none	lv fin clip	
4/29/2004	north inlet	1	ct	206	none	lv fin clip	
4/29/2004	north inlet	1	ct	211	none	lv fin clip	
4/29/2004	north inlet	1	ct	215	none	lv fin clip	
4/29/2004	north inlet	1	ct	267	none	lv fin clip	
4/29/2004	north inlet	1	ct	280	none	lv fin clip	
4/29/2004	north inlet	1	ct	275	none	lv fin clip	
4/29/2004	north inlet	1	ct	179	none	lv fin clip	
4/29/2004	north inlet	1	ct	269	none	lv fin clip	
4/29/2004	north inlet	1	ct	154	none	lv fin clip	
4/29/2004	north inlet	1	ct	240	none	lv fin clip	
4/29/2004	north inlet	1	ct	248	none	lv fin clip	
4/29/2004	north inlet	1	ct	278	none	lv fin clip	
4/29/2004	north inlet	1	ct	268	none	lv fin clip	
4/29/2004	north inlet	1	ct	169	none	lv fin clip	
4/29/2004	north inlet	1	ct	201	none	lv fin clip	
4/29/2004	north inlet	1	ct	245	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	227	none	lv fin clip	
4/29/2004	north inlet	1	ct	211	none	lv fin clip	
4/29/2004	north inlet	1	ct	224	none	lv fin clip	

4/29/2004	north inlet	1	ct	259	none	lv fin clip	
4/29/2004	north inlet	1	ct	278	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	266	none	lv fin clip	
4/29/2004	north inlet	1	ct	265	none	lv fin clip	
4/29/2004	north inlet	1	ct	217	none	lv fin clip	
4/29/2004	north inlet	1	ct	188	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	183	none	lv fin clip	
4/29/2004	north inlet	1	ct	176	none	lv fin clip	
4/29/2004	north inlet	1	ct	201	none	lv fin clip	
4/29/2004	north inlet	1	ct	295	none	lv fin clip	
4/29/2004	north inlet	1	ct	293	none	lv fin clip	
4/29/2004	north inlet	1	ct	180	none	lv fin clip	
4/29/2004	north inlet	1	ct	191	none	lv fin clip	
4/29/2004	north inlet	1	ct	252	none	lv fin clip	
4/29/2004	north inlet	1	ct	206	none	lv fin clip	
4/29/2004	north inlet	1	ct	228	none	lv fin clip	
4/29/2004	north inlet	1	ct	144	none	lv fin clip	
4/29/2004	north inlet	1	ct	141	none	lv fin clip	
4/29/2004	north inlet	1	ct	230	none	lv fin clip	
4/29/2004	north inlet	1	ct	155	none	lv fin clip	
4/29/2004	north inlet	1	ct	224	none	lv fin clip	
4/29/2004	north inlet	1	ct	182	none	lv fin clip	
4/29/2004	north inlet	1	ct	268	none	lv fin clip	
4/29/2004	north inlet	1	ct	132	none	lv fin clip	
4/29/2004	north inlet	1	ct	154	none	lv fin clip	
4/29/2004	north inlet	1	ct	265	none	lv fin clip	
4/29/2004	north inlet	1	ct	166	none	lv fin clip	
4/29/2004	north inlet	1	ct	160	none	lv fin clip	
4/29/2004	north inlet	1	ct	266	none	lv fin clip	
4/29/2004	north inlet	1	ct	216	none	lv fin clip	
4/29/2004	north inlet	1	ct	215	none	lv fin clip	
4/30/2004	outlet	1	ct	244	114	424e060448	
4/30/2004	outlet	1	ct	249	136	424d18114c	
4/30/2004	outlet	1	dv	260	165	423b3f0e36	
4/30/2004	outlet	1	ct	281	190	424f2d7122	
4/30/2004	outlet	1	ct	220	87	424f2c1a1d	
4/30/2004	outlet	1	ct	130	18	424d572a29	
4/30/2004	outlet	1	ct	256	135	424b0a7738	
4/30/2004	outlet	1	ct	212	72	424f1e3367	
4/30/2004	outlet	1	ct	256	138	424e140d26	
4/30/2004	outlet	1	ct	175	47	424d392011	
4/30/2004	outlet	1	ct	164	34	424d40673c	
4/30/2004	outlet	1	dv	245	141	424d22460d	
4/30/2004	outlet	1	ct	242	144	424d21156e	
4/30/2004	outlet	1	ct	218	92	424f214e4f	

4/30/2004	outlet	1	ct	252	149	424b166f37	
4/30/2004	outlet	1	ct	282	195	424d4f0257	
4/30/2004	outlet	1	ct	113	12	424e6f5f2b	
4/30/2004	outlet	1	ct	160	34	424d076516	
4/30/2004	outlet	1	ct	200	60	424d5a7e7b	
4/30/2004	outlet	1	ct	181	52	424f312d4e	
4/30/2004	outlet	1	ct	269	155	424d462c7f	
4/30/2004	outlet	1	ct	181	51	424e1f3a72	
4/30/2004	outlet	1	ct	162	40	425126a3d	
4/30/2004	outlet	1	ct	230	103	424d29353a	
4/30/2004	outlet	1	ct	230	100	423f471326	
4/30/2004	outlet	1	ct	235	122	424e47381c	
4/30/2004	outlet	1	ct	226	94	423a454b38	
4/30/2004	outlet	1	ct	296	190	424e3d6b26	
4/30/2004	outlet	1	ct	128	17	424f0b4f4b	
4/30/2004	outlet	1	ct	135	21	424d3f5c22	
4/30/2004	outlet	1	ct	194	54	424d657806	
4/30/2004	outlet	1	ct	194	61	424e15780f	
4/30/2004	outlet	1	ct	143	27	424e752b69	
4/30/2004	outlet	1	ct	180	50	424f390146	
4/30/2004	outlet	1	dv	135	24	424d155443	
4/30/2004	outlet	1	ct	244	130	424e5b4764	
4/30/2004	outlet	1	ct	221	111	424e0d3411	
4/30/2004	outlet	1	ct	222	76	424f205a3f	
4/30/2004	outlet	1	ct	149	27	424b10006d	
4/30/2004	outlet	1	ct	169	41	424f304348	
4/30/2004	outlet	1	ct	254	137	424e580c3f	
4/30/2004	outlet	1	ct	238	109	424d366c1c	
4/30/2004	outlet	1	ct	248	133	424d654c61	
4/30/2004	outlet	1	ct	163	38	424b207a60	
4/30/2004	outlet	1	ct	207	73	424d707739	
4/30/2004	outlet	1	ct	121	17	424d184e00	
4/30/2004	outlet	1	ct	129	21	424f0a0259	
4/30/2004	outlet	1	ct	236	110	424d103e53	
4/30/2004	outlet	1	ct	222	93	424d1f2e05	
4/30/2004	outlet	1	ct	233	115	424f051e53	
4/30/2004	outlet	1	ct	210	85	424f0b5b2f	
4/30/2004	outlet	1	ct	240	113	424f0b5e16	
4/30/2004	outlet	1	ct	177	43	424e432a5a	
4/30/2004	outlet	1	ct	236	112	424d0d2b37	
4/30/2004	outlet	1	ct	236	112	424e382850	
4/30/2004	outlet	1	ct	247	135	424e583404	
4/30/2004	outlet	1	ct	249	135	424e11545c	
4/30/2004	outlet	1	ct	152	30	424d5c7c24	
4/30/2004	outlet	1	ct	276	190	424b265654	
4/30/2004	outlet	1	ct	292	210	424f22656e	
4/30/2004	outlet	1	ct	252	149	423a44383	

4/30/2004	outlet	1	dv	161	44	425026620c	
4/30/2004	outlet	1	ct	243	113	424d213f1f	
4/30/2004	outlet	1	ct	291	211	424d6d7a65	
4/30/2004	outlet	1	ct	140	24	424e512f68	
4/30/2004	outlet	1	ct	122	97	424d106505	
4/30/2004	outlet	1	ct	210	80	424f105618	
4/30/2004	outlet	1	ct	250	130	424e5c6853	
4/30/2004	outlet	1	ct	243	125	424f386706	
4/30/2004	outlet	1	ct	142	25	424e79764a	
4/30/2004	outlet	1	ct	264	159	424e585f2f	
4/30/2004	outlet	1	ct	256	146	424f102111	
4/30/2004	outlet	1	ct	257	149	424f076f13	
4/30/2004	outlet	1	ct	181	50	424e373357	
4/30/2004	outlet	1	ct	264	155	424e6d7c58	
4/30/2004	outlet	1	ct	140	23	424d524734	
4/30/2004	outlet	1	ct	188	54	424f204875	
4/30/2004	outlet	1	ct	215	76	423f3f1e14	
4/30/2004	outlet	1	ct	255	135	424d71743a	
4/30/2004	outlet	1	ct	224	100	424d6e6139	
4/30/2004	outlet	1	dv	275	185	424b3e1d47	
4/30/2004	outlet	1	ct	215	92	424d1c6a15	
4/30/2004	outlet	1	ct	282	184	424e063869	
4/30/2004	outlet	1	dv	284	168	424f376e4b	
4/30/2004	outlet	1	dv	250	163	424d7d0465	
4/30/2004	outlet	1	ct	246	139	424d6b083e	
4/30/2004	outlet	1	ct	187	54	424b035d0a	
4/30/2004	outlet	1	ct	129	18	424d0a5e75	
4/30/2004	outlet	1	ct	164	39	424f015743	
4/30/2004	outlet	1	ct	259	145	424e132940	
4/30/2004	outlet	1	ct	264	157	424e681903	
4/30/2004	outlet	1	ct	262	159	424f163027	
4/30/2004	outlet	1	dv	287	230	424d267e3a	
4/30/2004	outlet	1	ct	225	107	424d730459	
4/30/2004	outlet	1	ct	171	41	424f044725	
4/30/2004	outlet	1	ct	282	195	424b123c2b	
4/30/2004	outlet	1	dv	207	89	424d3c500d	
4/30/2004	outlet	1	dv	264	144	424d20487c	
4/30/2004	outlet	1	dv	312	264	424e6e2367	
4/30/2004	outlet	1	ct	235	111	424d70435e	
4/30/2004	outlet	1	dv	185	71	424d1f5473	
4/30/2004	outlet	1	dv	280	209	424b311e78	
4/30/2004	outlet	1	ct	174	46	424f300e4e	
4/30/2004	outlet	1	ct	165	39	423f3b1153	
4/30/2004	outlet	1	ct	240	111	424d544e3a	
4/30/2004	outlet	1	ct	109	11	424e583b4f	
4/30/2004	outlet	1	ct	162	36	424e660d5b	
4/30/2004	outlet	1	ct	124	15	424f036759	

4/30/2004	outlet	1	ct	171	44	424e4d5856	
4/30/2004	outlet	1	ct	180	53	424e1f524e	
4/30/2004	outlet	1	ct	266	145	424e2a4902	
4/30/2004	outlet	1	ct	164	39	424d3e7647	
4/30/2004	outlet	1	ct	190	59	424f10042b	
4/30/2004	outlet	1	ct	261	161	424b341b59	
4/30/2004	outlet	1	ct	259	160	424d076e47	
4/30/2004	outlet	1	ct	146	26	424b111007	
4/30/2004	outlet	1	ct	140	24	424f162677	
4/30/2004	outlet	1	ct	126	17	424e34473a	
4/30/2004	outlet	1	ct	245	135	424e453e55	
4/30/2004	outlet	1	ct	226	105	424e315e39	
4/30/2004	outlet	1	ct	210	79	423a435b2d	
4/30/2004	outlet	1	ct	245	140	424d690a6d	
4/30/2004	west shore	1	ct	186	77	424f2a7d01	
4/30/2004	west shore	1	ct	248	136	424d2c4f54	
4/30/2004	west shore	1	ct	230	114	424e7a271d	
4/30/2004	west shore	1	ct	185	49	424f1d6709	
4/30/2004	west shore	1	ct	238	122	424e324446	
4/30/2004	west shore	1	ct	165	41	424b064130	
4/30/2004	west shore	1	ct	173	45	424f077d59	
4/30/2004	west shore	1	ct	152	26	424d6f1c56	
4/30/2004	west shore	1	ct	259	135	424e3f1971	
4/30/2004	west shore	1	ct	172	49	4250045a47	
4/30/2004	west shore	1	ct	187	58	424f300331	
4/30/2004	west shore	1	ct	197	65	424f0f123f	
4/30/2004	west shore	1	ct	173	49	424e6f4309	
4/30/2004	west shore	1	ct	175	48	424d306726	
4/30/2004	west shore	1	ct	248	131	424d002f62	
4/30/2004	west shore	1	ct	212	76	424f2e3532	
4/30/2004	west shore	1	ct	167	43	424e316a5e	
4/30/2004	west shore	1	ct	167	42	424d594710	
4/30/2004	west shore	1	ct	162	36	4250312d2d	
4/30/2004	west shore	1	ct	203	77	424e567c07	
4/30/2004	west shore	1	ct	160	35	424f32411b	
4/30/2004	west shore	1	ct	235	117	424e7c1628	
4/30/2004	west shore	1	ct	257	138	424e3a0834	
4/30/2004	west shore	1	ct	261	163	424f040a23	
4/30/2004	west shore	1	ct	260	155	424d627d40	
6/24/2004	outlet	2	ct			44240e1773	recap
6/24/2004	outlet	2	dv			rv fin clip	
6/24/2004	outlet	2	ct			rv fin clip	
6/24/2004	outlet	2	ct			rv fin clip	
6/24/2004	outlet	2	ct			rv fin clip	
6/24/2004	outlet	2	ct			rv fin clip	
6/24/2004	outlet	2	ct			rv fin clip	
6/24/2004	west shore	2	ct			44236b760b	recap

6/24/2004	west shore	2	ct			rv fin clip	
6/24/2004	west shore	2	ct			424d233c6f	recap
6/24/2004	west shore	2	ct			rv fin clip	
6/24/2004	west shore	2	ct			rv fin clip	
6/24/2004	west shore	2	ct			rv fin clip	
6/24/2004	west shore	2	ct			424f137923	recap /
6/24/2004	west shore	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			4426134437	
6/24/2004	north fan	2	ct			lv fin clip	recap
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	ct			lv fin clip	
6/24/2004	north fan	2	dv			423b3f0e36	recap
6/24/2004	north fan	2	ct			424d38491a	recap
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	dv			424d7d0465	recap
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	dv			rv fin clip	
6/24/2004	north fan	2	ct				
6/24/2004	north fan	2	ct			4423790e42	recap/
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/24/2004	north fan	2	ct			rv fin clip	
6/25/2004	outlet	2	ct			rv fin clip	
6/25/2004	outlet	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			lv fin clip	recap
6/25/2004	west shore	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			424e2a4902	recap
6/25/2004	west shore	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			lv fin clip	recap
6/25/2004	west shore	2	ct			rv fin clip	
6/25/2004	west shore	2	ct			lv fin clip	recap
6/25/2004	north fan	2	dv			rv fin clip	
6/25/2004	north fan	2	dv			rv fin clip	

6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	dv			rv fin clip	
6/25/2004	north fan	2	dv			424f376e4b	recap /
6/25/2004	north fan	2	ct			424e7e530f	recap /
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	dv			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
6/25/2004	north fan	2	dv			rv fin clip	
6/25/2004	north fan	2	dv			rv fin clip	
6/25/2004	north fan	2	ct			rv fin clip	
9/15/2004	west shore	3	ct	90	7	424e1d6a12	
9/15/2004	west shore	3	ct	159	41.7	424d227c02	
9/15/2004	west shore	3	ct	222	97.6	424d6e7e0c	
9/15/2004	west shore	3	coho	103	13		smolt
9/15/2004	west shore	3	coho	114	17.4		smolt
9/15/2004	west shore	3	ct	200	76.2	424d707872	
9/15/2004	west shore	3	ct	201	75.4	424e061a5e	recap /
9/15/2004	west shore	3	ct	264	130.3	424d013d3c	
9/15/2004	west shore	3	ct	178	53.4	42500a1b21	
9/15/2004	west shore	3	ct	255	138.3	424d580c2c	
9/15/2004	west shore	3	ct	264	128.4	424e26745b	recap-LVF
9/15/2004	west shore	3	ct	231	89.9	424b1c0a44	
9/15/2004	west shore	3	coho	110	16.6		smolt
9/15/2004	west shore	3	ct	125	19.7	424f217025	
9/15/2004	west shore	3	ct	108	13	424d5f2416	
9/15/2004	west shore	3	ct	164	41.7	424e037b1f	
9/15/2004	west shore	3	ct	275	185	424d276f73	
9/15/2004	west shore	3	ct	183	58.7	424e3f082c	
9/15/2004	west shore	3	ct	176	57.2	424e5c7f20	
9/15/2004	west shore	3	ct	239	124	424e702103	
9/15/2004	west shore	3	ct	292	205.7	424e3b6b26	recap
9/15/2004	west shore	3	ct	240	120.9	424d7a3544	
9/15/2004	west shore	3	ct	255	137.5	424d1b0062	
9/15/2004	west shore	3	ct	172	47.5	424d7e1072	
9/15/2004	west shore	3	ct	234	104	424f154173	recap
9/15/2004	west shore	3	ct	244	121.7	424b312760	recap-LVF
9/15/2004	west shore	3	ct	200	72.9	4250191556	
9/15/2004	west shore	3	ct	241	118.3	424f137923	recap /
9/15/2004	west shore	3	ct	231	118.4	424e70426e	recap-LVF
9/15/2004	west shore	3	ct	255	141.9	424d5b4a08	
9/15/2004	west shore	3	ct	210	87.7	4250261f77	
9/15/2004	west shore	3	ct	232	114.5	424d044671	
9/15/2004	west shore	3	dv	270	203.8	424e3f5a1f	

9/16/2004	north fan	3	ct	246	123.1	424e204679	recap-LVF
9/16/2004	north fan	3	ct	281	165.8	424e027f11	recap-LVF
9/16/2004	north fan	3	ct	248	115	424f0b283c	
9/16/2004	outlet	3	ct	249	145	424f2f247b	
9/16/2004	outlet	3	ct	143	28	424e742436	
9/16/2004	outlet	3	ct	254	145	424e4f2364	
9/16/2004	outlet	3	ct	197	74.2	424b27340e	
9/16/2004	outlet	3	ct	209	79.9	424e58101d	
9/16/2004	outlet	3	ct	185	62.4	424d442270	recap-LVF
9/16/2004	outlet	3	ct	276	205	424b3a504d	
9/16/2004	outlet	3	ct	206	84.3	424e181b2d	recap-LVF
9/16/2004	outlet	3	dv	225	125.3		
9/16/2004	outlet	3	ct	226	78.8	4250031875	recap-LVF
9/16/2004	outlet	3	dv	193	74.3		
9/16/2004	outlet	3	ct	179	53.5	424d596b4f	
9/16/2004	outlet	3	dv	189	75.9		
9/16/2004	outlet	3	ct	221	98	424e6f2e0c	
9/16/2004	outlet	3	ct	182	64.8	424d703a3f	recap-RVF
9/16/2004	outlet	3	dv	172	51.4	424f17373e	
9/16/2004	outlet	3	dv	264	172.6	424f376e4b	recap /
9/16/2004	outlet	3	dv	282	225	424b3e1d47	recap /
9/16/2004	outlet	3	ct	202	73.8	424e13043c	
9/16/2004	outlet	3	dv	108	12.7	424d564b64	
9/16/2004	outlet	3	ct	251	137.4	424e643424	
9/16/2004	outlet	3	ct	276	139.7	424e006a31	
9/16/2004	outlet	3	ct	270	151.3	42502f6d04	
9/16/2004	outlet	3	dv	212	96.3		
9/16/2004	outlet	3	ct	109	11.9	424b3f6511	
9/16/2004	outlet	3	dv	176	55.1	424f34710d	
9/16/2004	outlet	3	ct	189	59.7	424c753f4a	
9/16/2004	outlet	3	ct	198	73.2	424f304348	recap /
9/16/2004	outlet	3	ct	184	59.5	424d184e00	recap /
9/16/2004	outlet	3	ct	280	161	424d72775e	
9/16/2004	outlet	3	ct	256	148.5	424d6e1b4f	
9/16/2004	outlet	3	ct	266	166.6	424f0f4969	recap-LVF
9/17/2004	east shore	3	ct	164	40	424e677b65	
9/17/2004	east shore	3	ct	237	127.1	424e7e6d1a	
9/17/2004	east shore	3	ct	273	185	424f0d2306	recap-RVF
9/17/2004	east shore	3	ct	193	63.7	4250012510	
9/17/2004	east shore	3	ct	195	65.8	424d3b5072	
9/17/2004	east shore	3	ct	205	76.3	424f251721	
9/17/2004	east shore	3	ct	255	144.8	424f10261c	
9/17/2004	east shore	3	ct	209	91.1	424f0d3762	
9/17/2004	east shore	3	ct	142	27.2	424d38415c	
9/17/2004	east shore	3	ct	225	94.9	424e157744	
9/17/2004	east shore	3	ct	258	121	424d08715a	
9/17/2004	east shore	3	ct	227	113.5	424f1b5b43	recap-LVF

9/17/2004	east shore	3	ct	234	125.1	424e4d190c	
9/17/2004	east shore	3	ct	262	104.5		
9/17/2004	east shore	3	ct	274	155.3	424d6a3225	
9/17/2004	east shore	3	ct	235	107.8	424d476660	
9/17/2004	east shore	3	ct	222	105.6	424d5e6f2a	
9/17/2004	east shore	3	ct	125	20.5	424e49476f	
9/17/2004	east shore	3	ct	219	105.8	424e08582f	
9/17/2004	east shore	3	ct	240	140.9		
9/17/2004	east shore	3	ct	169	44.4	424d093220	
9/17/2004	east shore	3	ct	220	96	424d5e147f	recap-LVF
9/17/2004	east shore	3	ct	119	15.6	424b0f3a26	
9/17/2004	east shore	3	ct	230	110.9	424e417a3a	
9/17/2004	east shore	3	ct	187	55.9	424d402571	
9/17/2004	east shore	3	ct	209	89.4	424e543803	
9/17/2004	east shore	3	ct	250	137.9	424d1a0a04	
9/17/2004	east shore	3	ct	172	45.9	424e3a3e67	
9/17/2004	east shore	3	dv	209	97.7	424e5b5c4b	
9/17/2004	east shore	3	ct	249	137.5		no tag
9/17/2004	east shore	3	ct	224	109		no tag
9/17/2004	east shore	3	ct	275	185.7		recap-LVF
9/17/2004	east shore	3	coho	95	10.7		smolt
9/17/2004	east shore	3	ct	217	92.6	424b174148	
9/17/2004	east shore	3	ct	215	91.2	424e004806	
9/17/2004	east shore	3	ct	189	63.9	424e607c17	
9/17/2004	east shore	3	dv	243	154.9		no tag
9/17/2004	east shore	3	ct	241	136.3		no tag
9/17/2004	east shore	3	ct	134	21.9	424d256566	
9/17/2004	east shore	3	ct	113	13.6	424e0f3642	
9/17/2004	west shore	3	ct	294	170.7		no tag
9/17/2004	west shore	3	ct	268	155.9		no tag
9/17/2004	west shore	3	dv	261	187	424b3f0a20	recap /
9/17/2004	west shore	3	ct	179	54.7	424f272a44	
9/17/2004	west shore	3	dv	265	175.3		no tag
9/17/2004	west shore	3	ct	261	139.9	4425710a24	recap /
9/17/2004	west shore	3	ct	240	127.8		recap-LVF
9/17/2004	west shore	3	dv	187	76.8		no tag
9/17/2004	west shore	3	dv	270	189.7		no tag
9/17/2004	west shore	3	ct	230	119.4	424d773e5a	recap /
9/17/2004	west shore	3	ct	234	125.2		recap-LVF
9/17/2004	west shore	3	ct	209	93.2		no tag
9/17/2004	west shore	3	dv	185	65.4	424d155443	recap /
9/17/2004	west shore	3	ct	222	89.2	424b1f557b	
9/17/2004	west shore	3	dv	164	45.2		no tag
9/17/2004	west shore	3	ct	196	70.4		recap-LVF

Appendix 3. Date, trap location in Pipeline 4, tag number, fork length (mm), weight (g), condition factor, and ages determined from fish scales for all cutthroat trout planted into Pipeline Lake 5 in September, 2004.

date	trap location	length	weight	condition	tag #	age
9/15/2004	west shore	90	7	0.96	424e1d6a12	1
9/15/2004	west shore	108	13	1.03	424d5f2416	1
9/16/2004	outlet	109	11.9	0.92	424b3f6511	1
9/17/2004	east shore	113	13.6	0.94	424e0f3642	1
9/17/2004	east shore	119	15.6	0.93	424b0f3a26	1
9/15/2004	west shore	125	19.7	1.01	424f217025	1
9/17/2004	east shore	125	20.5	1.05	424e49476f	1
9/17/2004	east shore	134	21.9	0.91	424d256566	1
9/17/2004	east shore	142	27.2	0.95	424d38415c	1
9/16/2004	outlet	143	28	0.96	424e742436	1
9/15/2004	west shore	159	41.7	1.04	424d227c02	1
9/15/2004	west shore	164	41.7	0.95	424e037b1f	1
9/15/2004	west shore	176	57.2	1.05	424e5c7f20	1
9/15/2004	west shore	178	53.4	0.95	42500a1b21	1
9/15/2004	west shore	183	58.7	0.96	424e3f082c	1
9/17/2004	east shore	187	55.9	0.85	424d402571	1
9/17/2004	east shore	193	63.7	0.89	4250012510	1
9/17/2004	east shore	164	40	0.91	424e677b65	2
9/17/2004	east shore	169	44.4	0.92	424d093220	2
9/15/2004	west shore	172	47.5	0.93	424d7e1072	2
9/17/2004	east shore	172	45.9	0.90	424e3a3e67	2
9/16/2004	outlet	179	53.5	0.93	424d596b4f	2
9/17/2004	west shore	179	54.7	0.95	424f272a44	2
9/16/2004	outlet	182	64.8	1.07	424d703a3f	2
9/16/2004	outlet	189	59.7	0.88	424c753f4a	2
9/17/2004	east shore	189	63.9	0.95	424e607c17	2
9/17/2004	east shore	195	65.8	0.89	424d3b5072	2
9/16/2004	outlet	197	74.2	0.97	424b27340e	2
9/15/2004	west shore	200	76.2	0.95	424d707872	2
9/15/2004	west shore	200	72.9	0.91	4250191556	2
9/16/2004	outlet	202	73.8	0.90	424e13043c	2
9/17/2004	east shore	205	76.3	0.89	424f251721	2
9/16/2004	outlet	206	84.3	0.96	424e181b2d	2
9/17/2004	east shore	209	91.1	1.00	424f0d3762	2
9/17/2004	east shore	209	89.4	0.98	424e543803	2
9/15/2004	west shore	210	87.7	0.95	4250261f77	2
9/17/2004	east shore	215	91.2	0.92	424e004806	2
9/17/2004	east shore	219	105.8	1.01	424e08582f	2
9/17/2004	east shore	220	96	0.90	424d5e147f	2
9/16/2004	outlet	221	98	0.91	424e6f2e0c	2
9/15/2004	west shore	222	97.6	0.89	424d6e7e0c	2
9/17/2004	east shore	222	105.6	0.97	424d5e6f2a	2
9/17/2004	west shore	222	89.2	0.82	424b1f557b	2

9/17/2004	east shore	225	94.9	0.83	424e157744	2
9/16/2004	outlet	226	78.8	0.68	4250031875	2
9/17/2004	east shore	227	113.5	0.97	424f1b5b43	2
9/17/2004	east shore	230	110.9	0.91	424e417a3a	2
9/15/2004	west shore	231	118.4	0.96	424e70426e	2
9/15/2004	west shore	232	114.5	0.92	424d044671	2
9/17/2004	east shore	234	125.1	0.98	424e4d190c	2
9/17/2004	east shore	235	107.8	0.83	424d476660	2
9/17/2004	east shore	237	127.1	0.95	424e7e6d1a	2
9/15/2004	west shore	239	124	0.91	424e702103	2
9/15/2004	west shore	240	120.9	0.87	424d7a3544	2
9/17/2004	east shore	250	137.9	0.88	424d1a0a04	2
9/16/2004	outlet	251	137.4	0.87	424e643424	2
9/15/2004	west shore	255	138.3	0.83	424d580c2c	2
9/15/2004	west shore	255	137.5	0.83	424d1b0062	2
9/16/2004	outlet	270	151.3	0.77	42502f6d04	2
9/17/2004	east shore	274	155.3	0.75	424d6a3225	2
9/16/2004	outlet	276	205	0.98	424b3a504d	2
9/16/2004	outlet	276	139.7	0.66	424e006a31	2
9/16/2004	outlet	280	161	0.73	424d72775e	2
9/17/2004	east shore	217	92.6	0.91	424b174148	3
9/15/2004	west shore	231	89.9	0.73	424b1c0a44	3
9/15/2004	west shore	234	104	0.81	424f154173	3
9/15/2004	west shore	244	121.7	0.84	424b312760	3
9/16/2004	north fan	248	115	0.75	424f0b283c	3
9/16/2004	outlet	254	145	0.88	424e4f2364	3
9/15/2004	west shore	255	141.9	0.86	424d5b4a08	3
9/17/2004	east shore	255	144.8	0.87	424f10261c	3
9/16/2004	outlet	256	148.5	0.89	424d6e1b4f	3
9/15/2004	west shore	264	130.3	0.71	424d013d3c	3
9/16/2004	outlet	266	166.6	0.89	424f0f4969	3
9/15/2004	west shore	275	185	0.89	424d276f73	3
9/16/2004	north fan	246	123.1	0.83	424e204679	4
9/16/2004	north fan	281	165.8	0.75	424e027f11	4
9/16/2004	outlet	185	62.4	0.99	424d442270	
9/16/2004	outlet	209	79.9	0.88	424e58101d	
9/16/2004	outlet	249	145	0.94	424f2f247b	
9/17/2004	east shore	258	121	0.70	424d08715a	
9/15/2004	west shore	264	128.4	0.70	424e26745b	
9/17/2004	east shore	273	185	0.91	424f0d2306	

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Summary report of fish collection activity. Samuel Hochhalter contacted about permit amendment and sampling initiation on July 7 and again on July 18, 2011.

Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	390	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	271	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	212	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	224	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	276	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	222	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	365	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	350	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	232	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	272	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	213	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	279	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/12/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	225	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	235	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	215	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	278	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	268	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	252	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	320	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	222	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult						
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	285	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	285	fork				
	60.44750	-145.23331	NAD83	MAP	Pipeline Lake 1	7/14/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	302	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	270	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	198	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	195	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	234	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	135	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	291	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	187	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	192	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	264	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	282	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	294	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	187	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	305	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	186	fork				

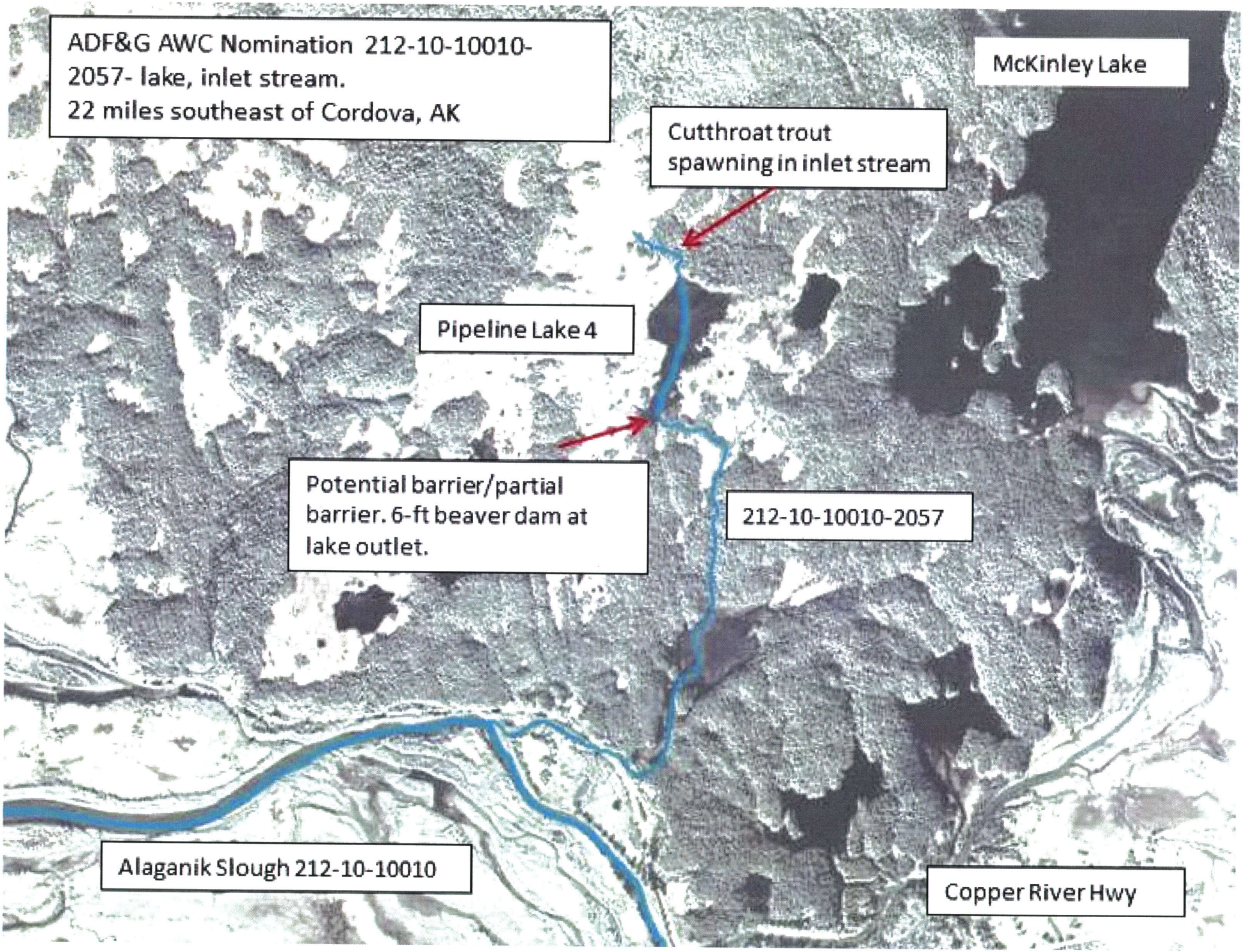
Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/13/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	244	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	258	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	311	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	237	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	310	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	221	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	249	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	309	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	258	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	173	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	233	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	220	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	209	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	179	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	171	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	277	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	257	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	coho salmon	juvenile/adult	178	fork				
	60.44916	-145.22779	NAD83	MAP	Pipeline Lake 2	7/15/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	250	fork				
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	252	fork				
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	205	fork	86.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	205	fork	76.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	Dolly Varden	juvenile/adult	100	fork	10.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	201	fork	80.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	154	fork	35.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	139	fork	28.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	211	fork	100.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	210	fork	91			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	226	fork	105.3			

Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	164	fork	47.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	301	fork	264.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	214	fork	94.3			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	163	fork	47			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	225	fork	115.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	187	fork	64.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	159	fork	42.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	155	fork	41.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	206	fork	87.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	171	fork	52.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	229	fork	109.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	231	fork	111.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	176	fork	54.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	91	fork	9.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	110	fork	13.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	150	fork	33.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	213	fork	87.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	190	fork	71.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	190	fork	73			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	118	fork	101			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	167	fork	58			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	120	fork	18.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	225	fork	100			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	115	fork	17.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	235	fork	130			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	115	fork	94.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	211	fork	99.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	210	fork	100			

Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	175	fork	54.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	209	fork	95			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	244	fork	141.3			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	173	fork	53.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	238	fork	122.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	220	fork	97.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	195	fork	73.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	232	fork	112.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	213	fork	98.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	182	fork	61.3			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	112	fork	15			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	211	fork	93.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	220	fork	100.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	160	fork	43.3			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	209	fork	84.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	259	fork	142.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	127	fork	20			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	188	fork	65.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	152	fork	39.1			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	122	fork	18.3			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	183	fork	57.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	195	fork	73.7			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	167	fork	50			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	117	fork	18.3			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	180	fork	51.3			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	185	fork	60.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	198	fork	74			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	118	fork	18.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	205	fork	80.8			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	208	fork	74.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	178	fork	57.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	174	fork	56			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	187	fork	65			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	132	fork	27.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	200	fork	72			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	183	fork	59.8			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	189	fork	66.8			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	173	fork	55.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	110	fork	13.7			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	178	fork	53			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	175	fork	52.1			

Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	214	fork	84.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	185	fork	59.6			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	112	fork	14.1			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	207	fork	78			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	190	fork	59.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	133	fork	27.1			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	200	fork	78.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	189	fork	68.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	134	fork	22.7			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	230	fork	111			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	137	fork	30.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	138	fork	27.1			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	122	fork	18.9			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	123	fork	19.7			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	115	fork	17.3			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	198	fork	70			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	171	fork	51.3			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	138	fork	28.2			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/19/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	203	fork	88			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	210	fork	83.4			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	174	fork	50.6			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	178	fork	54.4			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	220	fork	100.5			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	156	fork	36.4			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	208	fork	87.7			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	223	fork	91.4			
	60.45591	-145.21304	NAD83	MAP	Pipeline Lake 4	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	212	fork	86.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	142	fork	30.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	161	fork	44.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	211	fork	89.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	170	fork	46			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	98	fork	11.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	92	fork	8.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	121	fork	20.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/20/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	93	fork	8.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	159	fork	39.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	191	fork	66.9			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	99	fork	10.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	191	fork	68.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	243	fork	132			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	215	fork	89.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	164	fork	42			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	219	fork	96.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	185	fork	65.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	209	fork	85.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	105	fork	17.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	110	fork	14			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	108	fork	18			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	211	fork	42.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	133	fork	24.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	165	fork	50.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	200	fork	85			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	170	fork	60			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	147	fork	35.1			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	180	fork	47			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	225	fork	122.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	181	fork	57.1			

Location ID	Latitude	Longitude	Datum	Coordinate determination method	Name of water body	Date	Observer name (first name, middle initial, last name)	Fish collection method	Species	Life stage	Length (mm)	Length method	Weight (g)	Sex	Age	Age method
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	161	fork	43.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	228	fork	117.4			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	177	fork	52.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	219	fork	94.2			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	210	fork	89.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	209	fork	91.5			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	93	fork	8.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	111	fork	13.7			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	129	fork	21.6			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	108	fork	13.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	111	fork	14.3			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	171	fork	51			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	113	fork	14.8			
	60.45659	-145.20518	NAD83	MAP	Pipeline Lake 5	7/21/2011	James K. Hodges	Fyke Net	cutthroat trout	juvenile/adult	160	fork	51.7			


ADF&G AWC Nomination 212-10-10010-2057- lake, inlet stream.
22 miles southeast of Cordova, AK
McKinley Lake
Cutthroat trout spawning in inlet stream
Pipeline Lake 4
Potential barrier/partial barrier. 6-ft beaver dam at lake outlet.
212-10-10010-2057
Alaganik Slough 212-10-10010
Copper River Hwy