

### **FISH HEALTH MANAGEMENT**

January 1 - December 31, 2000

**GRANT F-75-R-17** 

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#### **TABLE OF CONTENTS**

	<u>Page</u>
ABSTRACT	1
PERIOD COVERED BY THIS REPORT	2
FISH HEALTH MONITORING AND MANAGEMENT ACTIVITIES OF	
DEPARTMENT OF FISH AND GAME	∠
Resident Hatchery Activities	2
American Falls Hatchery	2
Ashton Hatchery	
Cabinet Gorge Hatchery	
Clark Fork Hatchery	
Clearwater Hatchery Resident Program	4
Grace Hatchery	
Hagerman State Hatchery	
Hayspur Hatchery	
Henrys Lake Hatchery	
Mackay Hatchery	
McCall Hatchery Resident Program	
Nampa Hatchery	
Sandpoint Hatchery	
Anadromous Hatcheries	7
Clearwater Hatchery and Crooked River, Powell and I	Red River
Satellite Facilities	
Clearwater Hatchery	7
Crooked River Satellite Facility	
Powell Satellite Facility	8
Red River Satellite Facility	8
Magic Valley Hatchery	8
McCall Hatchery	
Niagara Springs Hatchery	9
Oxbow Hatchery	
Pahsimeroi Hatchery	9
Rapid River Hatchery	10
Sawtooth Hatchery	10
Sockeye And Chinook Captive Broodstock	10
Redfish Lake Sockeye Salmon Captive Broodstock	11
Salmon River Chinook Captive Rearing Program	12

## **TABLE OF CONTENTS (Continued)**

		<u>Page</u>
IDAHO WILD	FISH SURVEY	12
TRANSPORT	TATION AND IMPORT PERMITS	13
REPORTS A	ND PRESENTATIONS	13
PRODUCTIO	N STUDIES AND SURVEYS TO ENHANCE FISH HEALTH	14
RECOMMEN	DATIONS	14
ACKNOWLE	DGEMENTS	16
APPENDICES	S	17
Appendix 1.	Fish Health Summary Report, 2000	18
Appendix 2.	Geographic Location of Idaho Department of Fish and Game Culture Facilities	40

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#### **ABSTRACT**

This report contains a description of the activities of the Eagle Fish Health Laboratory (EFHL), operated by the Idaho Department of Fish and Game (Department), for the calendar year 2000. The primary charge of this program is to monitor, inspect, and improve the health of fish raised at 11 resident hatcheries, 11 anadromous hatcheries and satellites, and Eagle Hatchery, which rears Endangered Species Act-listed salmon captive broodstocks. Results of these diagnostic cases are presented in the text by program and facility. The most significant diseases encountered in the resident and anadromous programs were bacterial coldwater disease, bacterial kidney disease, infectious hematopoietic necrosis virus, furunculosis, and bacterial gill disease. Bacterial kidney disease also caused considerable loss in one group of chinook captive broodstock. Mortality in groups of Lemhi River chinook captives due to infestations with the copepod parasite Salmonicola californiensis was controlled with a combination of manual removal and gastric intubation of Ivermectin. The Department fisheries managers, researchers, hatcheries, and EFHL pathologists utilized the wet laboratory during the year.

Wild salmonids from five of seven regions of the state were examined for the parasite *Myxobolus cerebralis*, the causative agent of whirling disease. The only new detections of whirling disease this year were from tributaries of drainages determined to be positive in prior years. We initiated research to determine the seasonal infectivity of *M. cerebralis* in the river water supplies of both Sawtooth and Pahsimeroi hatcheries. The staffs of both the EFHL and Eagle Hatchery supported this research.

The EFHL staff remained active participants in regional and national fish health issues. This included administering the Investigational New Animal Drug (INAD) program through the United States Fish and Wildlife Service (USFWS) and the University of Idaho. Examples of additional liaison activities are included in the text.

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#### PERIOD COVERED BY THIS REPORT

This report covers activities for grant F-75-R-17 Federal Aid in Fish Restoration January 1 to December 31, 2000 by the Idaho Department of Fish and Game (Department).

## FISH HEALTH MONITORING AND MANAGEMENT ACTIVITIES OF THE IDAHO DEPARTMENT OF FISH AND GAME

#### **Resident Hatchery Activities**

The Resident Hatchery Pathologist (RHP) provides service for hatcheries that rear and stock resident (non-anadromous) fish species. The RHP's duties include collection of samples from diagnostic and inspection cases for 11 resident facilities plus 2 anadromous hatcheries with resident programs and their associated captive and feral broodstocks, monitoring laboratory results, reporting results to hatchery management, recommending and supervising treatments, and preparing and maintaining files for Investigational New Animal Drug (INAD) reporting for each station. Samples were also obtained as part of a survey of wild salmonids of Idaho waters. In calendar year 2000, these activities included 22 laboratory accessions for the wild fish survey, 42 diagnostics, 27 routine hatchery inspections, and 17 inspections of feral broodstocks for the resident program. The results for these cases are included in Appendix 1 and are listed by Department region and for each fish culture facility. A brief summary of those results and activities for each resident station are as follows.

#### **American Falls Hatchery**

Bacterial coldwater disease (CWD), caused by *Flavobacterium psychrophilum*, was diagnosed in five lots of rainbow trout *Oncorhynchus mykiss*, and was the only significant disease problem at American Falls in 2000. These were the first significant epizootics of CWD in four production years. Low densities and reduced stress were the factors credited during the three previous years of no clinical CWD, but this year's losses were observed in lots of fish held at extremely low densities. The fish were successfully treated with Oxytetracycline (OTC) at the standard label dose and duration under INAD protocols. Prior to the epizootic-free years, it was becoming necessary to use higher doses and longer treatment duration for the same result. These good responses indicate that the trend toward antibacterial resistance at this hatchery may have been reversed by three years of drug abstinence.

Catchable-size groups of rainbow were inspected for pathogens and evaluated using an organosomatic index to provide baseline data for the second year of a research study comparing the return to creel of fish from three Department hatcheries (also see Hagerman State Hatchery and Nampa Hatchery). A carrier state of *F. psychrophilum* was the only significant pathogen detected in these groups.

#### **Ashton Hatchery**

No significant clinical disease episodes occurred at Ashton Hatchery in 2000. Populations of rainbow trout and cutthroat trout *O. clarki* fingerling were sampled for routine inspections. No replicating viruses, bacteria, or *Myxobolus* spores were detected from either population. The hatchery manager reported that the monogenetic trematode *Gyrodactylus* continues to be a chronic problem, but did not cause mortalities great enough to treat.

Ashton Hatchery continues to be at risk for contamination by *Myxobolus cerebralis* (MC), the causative agent of salmonid whirling disease. As more natural waters in the vicinity are shown to be positive for the parasite, there is increased probability that the uncovered portions of the spring and stream above the hatchery intake will become contaminated.

#### **Cabinet Gorge Hatchery**

The RHP visited Cabinet Gorge Hatchery twice in 2000, once in May to diagnose losses in production kokanee salmon *O. nerka kennerlyi*, and again in December to inspect spawning kokanee adults at the Sullivan Springs trap. So few fish returned to the Clark Fork River trap that no samples were taken this year. Bacterial gill disease was the diagnosis in May, and the fish were successfully treated with a combination of Chloramine-T (under an INAD protocol), density reduction, and changes in feed type and regimen. The condition of spawning adults at Sullivan Springs appeared very good, with an observed occurrence of encysted cestodes in the pyloric cecae and nematodes in the swim bladder similar to past years. There have never been any gross signs indicating that these parasites cause significant adverse effects on the fish. Historically, *Renibacterium salmoninarum* (RS) antigen has been detected in this population using the enzymelinked immunosorbent assay (ELISA), but the presence of viable organisms has never been demonstrated by the fluorescent antibody test (FAT). Only FAT was used this year due to a shortage of good reagents for ELISA at EFHL. No RS organisms, the causative agents of bacterial kidney disease (BKD), were detected.

#### **Clark Fork Hatchery**

Westslope cutthroat juveniles at Clark Fork Hatchery were sampled in February 2000. A mixed bacterial infection of *Flavobacterium*, *Aeromonas*, and *Pseudomonas* species was diagnosed. The fish were treated with OTC-medicated feed under the existing label. No other fish were sampled during the course of the year.

Due to the combined factors of fiscal constraints, pathogens carried by feral fish in the main water supply, and very cold water temperatures that lead to poor growth rates, it was decided to close down operation of Clark Fork Hatchery. The last production fish reared on-station were stocked out during the summer of 2000. The future of fish production on the facility is uncertain, but may be limited to natural kokanee spawning in gravel channels.

#### **Clearwater Hatchery Resident Program**

Two diagnostic examinations were conducted on the same lot of Hayspur-strain rainbow trout (R9) at Clearwater Hatchery. The first sample, taken June 5, detected *Aeromonas hydrophila*, the causative agent of motile aeromonad septicemia (MAS). No treatment was applied. The second sample, taken seven weeks later, detected *F. psychrophilum*. Oxytetracycline (OTC) was applied in medicated feed under an INAD protocol at standard dosage. Success was limited at best. The isolate of *F. psychrophilum* should have been susceptible to the drug, as indicated by *in vitro* tests, but the possibility of a mixed infection could explain the poor response. Historically, rainbow trout have not responded well to treatment at this hatchery. Better success might be achieved at the next similar episode by treating earlier with a higher dosage and longer duration.

#### **Grace Hatchery**

No significant clinical disease or fish losses occurred at Grace Hatchery in 2000. The hatchery was visited once in November to inspect fingerling-size rainbow trout. No replicating viruses or *Myxobolus* spores were detected, but a carrier state of *F. psychrophilum* was detected. Production was significantly reduced at Grace for much of the year due to reconstruction of the spring collection facilities and pipelines. Covering the main springs and the open ditch from the springs to the hatchery should significantly reduce the chance of pathogen introduction by wildlife vectors. The remaining, short section of open ditch and the open middle springs mean that the chance has not been completely eliminated.

#### **Hagerman State Hatchery**

A total of 26 diagnostic and 4 inspection cases were examined from Hagerman State Fish Hatchery in 2000 (compared to 21 and 2 in 1999). Losses among rainbow/Kamloops lots in the outside raceways frequently involved a combination of pathogens. Infectious hematopoietic necrosis virus (IHNV) was detected nine times, often in combination with one or more bacterial pathogens (*F. psychrophilum*, *F. columnare*, *A. hydrophila*, or *A. sobria*). The hatchery personnel observed several additional IHN episodes without calling on the EFHL for diagnostic confirmation. Several bacterial infections, primarily CWD and MAS, were diagnosed without the complication of virus. These episodes were treated with OTC-medicated feed, using the existing label or an INAD protocol, whichever was appropriate for the situation. Most of the treatments were successful. The number of INAD protocols to treat CWD was greatly increased in 2000.

Aeromonas salmonicida, the causative bacteria of furunculosis, was again detected at Hagerman in 2000. This pathogen was first detected at Hagerman in 1998, but not in 1999. The epizootic was treated successfully with Romet-30 incorporated in feed, under the existing label for the drug.

Catchable-size Kamloops rainbow trout on both the Riley Creek and Tucker Springs water sources were inspected for pathogens and evaluated using an organosomatic index to provide baseline data for Douglas Megargle's research study comparing the return to creel of fish from three Department hatcheries (also see American Falls Hatchery and Nampa Hatchery). Carrier levels of *Aeromonas/Pseudomonas* bacteria were the only pathogens detected in those fish.

#### **Hayspur Hatchery**

The RHP's work at Hayspur Hatchery involved considerable effort to inspect brood stock and brood stock replacement lots. The brood year 1998 (BY98) replacement rainbow (R9) and Kamloops (K1) populations were inspected in August and September. No viruses, *Myxobolus* spores, or significant bacteria were detected. In previous years, similar populations of fish have tested positive for RS antigen at low levels by ELISA, although clinical BKD has never been observed on this station. Due to a critical shortage of good ELISA reagents at EFHL, this year's fish were tested by FAT only. No RS was detected by FAT.

All BY99 replacement R9s and K1s were given a bath vaccination at 1.0 to 7.2 grams in size, using an autogenous *F. psychrophilum* bacterin. In addition, half of the R9s received a booster bath about five months later. The bacterin was produced by AquaHealth Ltd., Charlottetown, P.E.I., Canada from a bacterial isolate taken at Hayspur in 1998. None of the fish have shown signs of bacterial disease to date, and mortalities have been minimal. Since there were no control fish available, the benefit of the treatment is unproven. However, this is a direction for CWD-control that will receive much more effort in the future.

The major focus of the pathologist's work at Hayspur Hatchery was inspection of the brood populations. During the 2000 calendar year, a total of 328 female R9 and K1 brood fish were tested for viruses (ovarian fluids), and RS by ovarian fluid cell pellet fluorescent antibody test (OCP-FAT). In addition, 109 of the same females were sacrificed for kidney ELISA samples and tissue virology. No viruses were detected from any samples. Fluorescing organisms were detected by OCP-FAT from five of the R9 fishes and from none of the K1 fishes. There was some question about the five positive OCP-FAT results from the R9 population, because some of the organisms were of size and morphology consistent with RS but others were slightly larger. Samples from the same individuals were all negative by ELISA, which is generally considered to be the more sensitive of the two tests. This group of results may have been due to the presence of cross-reacting bacteria species, such as *P. fluorescens*, instead of RS. Because the evidence was not conclusive, and in order to stay consistent with established protocol, eggs from those fish were culled from the replacement program. ELISA detected RS antigen in kidney samples from 3 of 60 R9 and in 18 of 49 K1 fishes. Eggs from the females with an ELISA optical density above 0.110 were culled from the replacement broodstock lots.

#### **Henrys Lake Hatchery**

Fish health inspection samples were taken from spawning Yellowstone cutthroat *O. clarki bouvieri* at Henrys Lake Hatchery from March 6 through April 27, 2000. Ovarian fluids were collected by hatchery personnel and shipped to the EFHL where they were tested for viruses (280 females in 40 seven-fish pools) and RS by OCP-FAT (1,307 females in 165 seven-fish pools, 22 six-fish pools, and 20 individual samples). A group of 60 fish (both males and females) were sacrificed for kidney FAT, tissue virology, bacteriology (16 fish) and *Myxobolus* tests. Summer Macey, an Albertson's College of Idaho student, assisted in taking the samples as a part of her senior project. No viruses were detected in any of the tissue or ovarian fluid samples. Two pools of ovarian fluids tested positive for RS by OCP-FAT, and eggs from those pools were discarded. All of the kidney FAT samples were negative. Bacteriology samples showed carrier-level infections of *F. psychrophilum* from 5 of 16 fish, and *P. fluorescens* from two fish. No other bacterial pathogens were detected. *M. cerebralis* spores were detected in 9 of 12 pools of five fish each. This is of

concern in that the prevalence of the parasite in the population seems to be increasing. Clinical signs of whirling disease, primarily dished and shortened craniums, were observed.

#### **Mackay Hatchery**

No significant clinical disease or fish losses occurred at Mackay Hatchery in 2000. The RFP visited the hatchery twice during the year, sampling fingerling kokanee and rainbow trout in June, and fingerling Henrys Lake cutthroat in September. No replicating viruses, RS, or *Myxobolus* spores were detected. The only pathogen detected was a carrier state of *P. fluorescens* bacteria in the rainbow trout. The hatchery remains at risk from contamination from MC, due to the very close proximity of positive fish in the outflow stream and settling pond. The probability of detecting such contamination is extremely low due to the design of the hatchery and the likely low levels of prevalence and intensity.

Mackay Hatchery received green eggs from the early-spawning kokanee in Deadwood Reservoir. The spawning population was inspected on September 1. No viruses or *Myxobolus* spores were detected in samples from 69 fish. Sixty fish were tested by the FAT method and no RS bacteria were detected. Due to the shortage of good ELISA reagents at the laboratory, only three pools (x3) of these adults were tested by this method. All three pools were positive for RS antigen at very low levels, which is consistent with the history of this population.

#### **McCall Hatchery Resident Program**

The Westslope cutthroat trout run at Fish Lake was again so low in 2000 that no samples were taken. It is likely that this program will be discontinued. As a replacement source of cutthroat for the high mountain lake program, eggs were purchased from a certified significant pathogen-free private hatchery in Montana. Fry from these eggs began to experience elevated mortality within 7-10 days after swim-up due to CWD. The fish were treated with OTC-medicated feed under an INAD protocol with very good response.

#### Nampa Hatchery

Bacterial CWD and MAS, primarily *A. hydrophila or A. sobria*, continue to be the most common diseases diagnosed in rainbow trout at Nampa Hatchery. Outbreaks of MAS in Hayspur rainbow reared in the small "A" raceways were frequent in the spring and early summer. The hatchery was at full production, and heavy loading may have been a contributing factor to these episodes. Treatments with OTC-medicated feed on the existing label were moderately successful, at best. Two episodes of CWD were treated under INAD protocols with better success.

Catchable-size Kamloops rainbow trout were inspected for pathogens and were evaluated using an organosomatic index. This was done to provide baseline data for Douglas Megargle's research study comparing the return to creel of fish from three Department hatcheries (also see American Falls Hatchery and Hagerman State Hatchery). A carrier state of *F. psychrophilum* was detected in one of these fish.

#### Sandpoint Hatchery

Sandpoint Hatchery was closed in 1999 and has not been in fish production since. This closure is expected to be permanent. If so, this will be the last mention of this facility in this report.

#### **Anadromous Hatcheries**

The Department anadromous hatchery facilities and associated satellite adult capture and release stations for steelhead *O. mykiss* and chinook *O. tshawytscha* are funded through Lower Snake River Compensation Plan (LSRCP) and Idaho Power Company (IPC). The anadromous pathologist (AFP) provides diagnostic and inspection services for chinook, sockeye, and steelhead that are spawned, reared and released from Department facilities. The AFP also cooperates with other state, private, federal, and tribal programs that could impact Idaho's fishery resource. The calendar year 2000 summary of results for the hatcheries and satellite stations is presented in Appendix 1 and totaled 181 inspection and diagnostic cases that were processed by the EFHL personnel. The following is a summary of that work and sample results.

#### Clearwater Hatchery and Crooked River, Powell, and Red River Satellite Facilities

#### Clearwater Hatchery

The Clearwater Hatchery is the main facility in a complex that produces steelhead and chinook in conjunction with Crooked River, Powell, and Red River satellite facilities. Dworshak National Fish Hatchery (DNFH) provides steelhead eggs for Clearwater's steelhead program. A total of 23 inspection and diagnostic cases were attributed Clearwater Hatchery. Three more inspection cases were performed on samples collected from brood steelhead at Dworshak National Fish Hatchery. In 2000, only the B strain steelhead suffered losses to an etiologic agent (*F. psychrophilum*). An application of OTC-medicated feed, stopped mortalities. Infectious hematopoietic necrosis virus (INHV) was isolated in B strain female steelhead brood fish at Dworshak National Fish Hatchery. The eggs from these positive fish were not transferred to Clearwater Hatchery. Adult chinook were transported from Red River and Crooked River (South Fork of the Clearwater spring chinook) and spawned at Clearwater Hatchery. All 376 females were examined for RS by ELISA. All but two females were found to be positive (optical densities above or equal to 0.100).

#### **Crooked River Satellite Facility**

At this satellite of the Clearwater Hatchery, fall and spring inspections were applied to acclimating chinook prior to their release. The only pathogen detected in these two preliberation samples was RS via ELISA examination, (8 of 8 five-fish pools were positive, all at low optical densities). No viral replicating agents or *Myxobolus* spores were detected. A total of 40 juvenile chinook were examined (20 per inspection).

#### **Powell Satellite Facility**

Juvenile fish were not reared at this facility during 2000. Spring releases of Powell juvenile chinook were examined for preliberation survey. These fish were pathogen free except for ELISA testing for RS that demonstrated two of four pools positive at low optical densities.

All other inspection cases at this satellite were of spawned brood chinook salmon. Routine viral examination of ovarian fluids detected IHNV in brood chinook during spawning. No *Myxobolus* spores were found at this facility in any of the fish health examinations. *Renibacterium* antigen was found by ELISA in 582 female chinook at spawning with only 24 having optical densities less than 0.1.

#### **Red River Satellite Facility**

Chinook salmon juveniles were not reared at this facility during 2000 due to the historic high mortality from *Ichthyophthirius multifilis* infestations that occurs here. A short acclimation period in the fall when water temperatures are low is used for fall-released juveniles. No pathogens were detected during fall and spring preliberation sampling, with the exception of low levels of RS antigen by ELISA.

#### **Magic Valley Hatchery**

Dworshak, East Fork, Pahsimeroi, and Sawtooth steelhead stocks required nine inspection cases and four diagnostic cases during 2000 at the Magic Valley Hatchery. In each of the four diagnostic trips, *F. psychrophilum* was found to be the etiologic agent. Mortalities were high enough to warrant medicated feed treatment, and were controlled with OTC-medicated feed applications under INAD # 9332 protocols.

The organosomatic index, done at preliberation exams, demonstrated very robust fish, with plenty of stored energy. No replicating viruses, furunculosis or MC were detected at Magic Valley Hatchery in 2000. To curtail any chance of horizontal transmission of etiologic agents a stringent, annual disinfection program has been applied to this facility.

#### McCall Hatchery

Twenty-two inspection cases were performed for McCall Hatchery and South Fork Trap. These included 10 inspection cases performed on Johnson Creek juveniles and brood fish for the Nez Perce Tribe (NPT) Fisheries Program. No serious pathogens were detected in McCall Hatchery juvenile chinook during this calendar year. Preliberation testing by ELISA found low optical densities for RS antigen in one of four pools sampled in the BY98 Johnson Creek chinook and four of four low optical density pools in BY98 South Fork Summer chinook. Two prophylactic treatments of Erythromycin medicated feed for 28 days each in June and September were applied to all juvenile chinook at this facility using INAD 6013/4333. An extra vitamin pack ("EIBS-fortified diet" from Bio-Oregon) was added to the normal feed ration and has eliminated spring mortality at this facility.

The South Fork Trap, a satellite facility of the McCall Hatchery, had 16 accessions logged into the EFHL during 2000. Brood summer chinook salmon from the South Fork Salmon River and Johnson Creek were examined for RS, MC, and viral replicating agents. No *Myxobolus* spores or viral replicating agents were detected. All spawned females were tested by ELISA, and optical density data was used to select the eggs to be culled. Egg lots from high optical density females represent the greatest risk for horizontal transmission of RS. Therefore, egg lots from females that measured ( $\geq$ 0.25) optical density were culled from the hatchery program. The EFHL is able to make a culling or segregation program to fit the needs of each Department chinook hatchery.

#### **Niagara Springs Hatchery**

Eleven inspection cases and one diagnostic case originated from Niagara Springs Hatchery during 2000. Hells Canyon and Pahsimeroi steelhead stocks were examined; *Pseudomonas* and F. *psychrophilum* were responsible for most mortalities. Future work should focus on inventory manipulations to maintain densities below stressful levels and to manage around opportunistic pathogens such as *Flavobacterium*.

#### Oxbow Hatchery

Six inspections were made to Oxbow Hatchery. Steelhead A group (STA) adults were examined during spawning for IHNV, IPNV, NAVHS, RS and WD. No pathogens were detected. Idaho Power Company has begun construction of new raceways and improvements on the wellwater sources in order to rear fall chinook salmon at this facility. The first eggs were received for this program from the Lyons Ferry Hatchery at the end of 2000.

#### Pahsimeroi Hatchery

Inspections of juvenile and adult chinook and adult steelhead at Pahsimeroi Hatchery resulted in 21 laboratory accessions to the EFHL in 2000, but no diagnostic cases. No evidence of virus was detected in any samples. *Renibacterium* was detected by ELISA in chinook juveniles at low levels. Prophylactic treatments of Erythromycin medicated feed were administered twice, in accordance with Pahsimeroi Hatchery's INAD protocols. Some high optical densities were found in the brood chinook adults, but in relatively low prevalence compared to many other hatcheries. In previous years, juvenile chinook have become positive for WD when reared on river water indicating the parasite is endemic to this drainage. In 2000, signs of clinical WD became apparent during the fall and winter months. By the March preliberation sampling, these fish had low levels of MC infection by pepsin/trypsin digest. The parasite was also detected in adult chinook and adult steelhead. The hatchery staff and EFHL staff, in conjunction with IPC, continue to explore many options to manage around MC in the hatchery water supply. A better water source for early rearing remains the primary focus of this cooperative investigation.

Experimental monthly exposures of sentinel rainbow trout to the river water supply of the upper facility demonstrated that infection with *M. cerebralis* was obtained each month of the year.

#### Rapid River Hatchery

There were 23 inspection cases from Rapid River Hatchery during 2000. Diagnostic sampling was not necessary. The majority of these cases were brood samples to establish ELISA optical densities for segregation and culling. External mycosis, "Fuzzy-tail," which had been a perennial problem at this hatchery in the late 80s and early 90s was almost non-existent. Kidney samples from juvenile chinook, examined via ELISA, had one of four pools positive for RS (at a low titer) for preliberation samples. No EIBS was found during routine examinations.

The BKD culling and/or a segregation program should be continued at Rapid River to maintain fundamental fish health conditions. Fish should also be fin clipped when water temperatures and turbidity are low.

#### Sawtooth Hatchery

Forty-four inspection cases were entered to examine juvenile and broodstock at Sawtooth Hatchery during 2000. Diagnostic cases were not necessary. Juveniles examined at this facility were Sawtooth and Pahsimeroi chinook stocks, and Redfish Lake sockeye. In addition, samples were taken or obtained from adult Sawtooth spring chinook, East Fork Salmon River steelhead B Group, and Sawtooth steelhead A Group. No evidence of virus resulted, but ELISA detected RS antigen in adults of both species.

Preliberation examination of juvenile chinook found five of five pooled kidney samples positive for RS, with one having a high titer. One pool of four was positive for MC. No pathogens were found in sockeye salmon during preliberation sampling. No replicating viruses were detected in either species.

Prolonged rearing on wellwater has resulted in decreased detection of WD in chinook. Monthly sentinel exposures had been completed in the Salmon River water supply and demonstrated the seasonality of *M. cerebralis* infection. This has been used in managing around exposure. It continues to be very important to rear the chinook at Sawtooth Hatchery until at least 75 mm on specific pathogen free (SPF) wellwater. Expanding the wellwater supply would also reduce incidence, intensity and prevalence of RS.

#### **Sockeye and Chinook Captive Broodstock**

The Department facilities at Eagle include both the EFHL and the Eagle Hatchery, which is dedicated to rearing ESA-listed Redfish Lake sockeye salmon *O. nerka* captive broodstock to maturity and the resulting progeny for release. This program began in 1991 and continues to the present. A similar experimental project was initiated in 1995 to include rearing ESA-listed chinook from collections of wild parr from three Idaho rivers. The site selected for the freshwater rearing portion of this project was Eagle Hatchery, which shares grounds with the EFHL. The marine site was the National Marine Fisheries Service's (NMFS) Manchester Marine Laboratory (MML). Both the sockeye and chinook programs generate considerable case workload for the EFHL. Program activities for 2000 are reported by species.

#### **Redfish Lake Sockeye Salmon Captive Broodstock**

The Eagle Fish Health Laboratory processed diagnostic and inspection samples from captive broodstock sockeye salmon, production sockeye salmon juveniles reared at Eagle and Sawtooth hatcheries, and anadromous adult sockeye salmon. Eighty-eight laboratory accessions involving 408 individual fish were processed in 2000. Cause of mortality and magnitude of loss for all sockeye salmon broodstocks and production groups maintained at Eagle and Sawtooth Fish Hatcheries during the term of the reporting period are presented in Appendix 1.

There was no evidence of viral pathogens in any of the production and broodstock groups in 2000. This result is consistent with results from previous years. In addition, no viral pathogens were detected in the 45 anadromous adults examined. The Redfish Lake population remains the only sockeye population in the Pacific Northwest that does not have infectious hematopoietic necrosis virus.

Clinical BKD did not occur in any production groups of sockeye juveniles reared at Eagle Hatchery or at Sawtooth Hatchery. There were a few cases from Sawtooth Hatchery where elevated ELISA optical density values were demonstrated but not at levels indicating clinical disease. Captive adult sockeye salmon spawned in 2000 were also free of clinical levels of BKD.

Following trapping, anadromous adults were assembled at the Sawtooth Hatchery and held for September release to Stanley Basin lakes or for transfer to Eagle Hatchery for spawning. Clinical BKD was present in five of 45 anadromous adults tested. There were two pre-spawn mortalities at the Sawtooth Hatchery during this holding, of which one had clinical BKD. The remaining four clinically infected fish were part of the group of 43 individuals transferred to Eagle Hatchery for spawning. Two of the four infected fish were female. Eggs from these two females were culled pursuant to criteria specified in NMFS permit No. 1120.

Furunculosis, (*A. salmonicida*), was detected in a single pre-spawn mortality at Sawtooth Hatchery. We administered intraperitoneal injections of both Oxytetracycline and Erythromycin shortly after furunculosis was demonstrated. This action probably prevented horizontal transmission of the bacteria to the other adults held in common vats.

Myxobolus cerebralis is present in the upper Salmon River. Eagle Fish Health Laboratory personnel initiated a study to demonstrate the seasonal infectivity in the river water supply of the Sawtooth Hatchery using sentinel rainbow trout fry. In addition, two groups of sockeye salmon fry were exposed as part of this study to examine relative susceptibility to the disease. These tests are still in progress but will be used to evaluate the risk of rearing sockeye salmon on river water if this rearing strategy becomes necessary. Forty-five anadromous sockeye adults were examined for presence of the parasite, and 18 fish (41%) were positive. Considering the fact that sockeye salmon have been reared almost exclusively on pathogen free well water at the Sawtooth Hatchery, these data suggest that smolts are being infected during seaward migration. In addition, since the inception of this project in 1991, M. cerebralis has not been identified in juveniles emigrating from Redfish, Pettit or Alturas lakes (ESA critical habitat).

The same 45 anadromous adults were also examined for the presence of *Piscirickettsia* salmonis. The test results were all negative indicating that this emerging pathogen has not yet become established in Idaho nor were these fish exposed in the migration corridor.

Two cases of neoplasm were detected in broodstock sockeye salmon reared at the Eagle Hatchery. A thymic lymphosarcoma was observed in one brood year 1998 sockeye salmon and a

nephroblastoma was observed in one brood year 1996 sockeye salmon. Thymic lymphosarcomas have been observed in past years at the Eagle Hatchery. However, this was the first time a nephroblastoma has been observed in this program. Slides and tissues of this tumor were deposited and cataloged in the National Registry of Tumors of Lower Vertebrates at George Washington University Medical Center, an arm of the Smithsonian Institute.

#### **Salmon River Chinook Captive Rearing Program**

During the report period, 50 laboratory accessions, representing 82 individual fish, were generated at the EFHL for chinook salmon reared in captivity (Appendix 1). Principle pathogens detected included RS and MC. Maturing chinook salmon transferred to the State of Idaho from the NMFS Manchester Marine Laboratory in Washington State were screened for the North American strain of viral hemorrhagic septicemia (NAVHS) and *P. salmonis*. These pathogens do not occur in Idaho but have recently been identified in fish reared at a saltwater net pen location in close proximity to the NMFS facility. Because of the risk associated with the potential introduction of NAVHS, ovarian fluid and tissues sampled from NMFS-origin fish were "blind-passed" in the laboratory to improve our ability to detect the virus. No evidence of either of these exotic pathogens was detected by any procedures.

Monitoring for RS in captive chinook salmon has been routinely conducted since the inception of the program in 1995. Clinical levels of BKD have previously been detected in Department and NMFS chinook captive broodstocks: 30% of the mortalities in 1999 demonstrated clinical levels of BKD. In 2000, the fish of brood years 1997 and 1998 were vaccinated with the experimental RS vaccine Renogen (*Arthrobacter sp.* AquaHealth Ltd, Canada) as an effort to reduce future clinical levels of disease. Fish were anaesthetized and injected with 0.1 ml of the vaccine. Of the 82 fish examined in 2000, there were no demonstrated clinical levels of BKD.

In 1999, the parasitic gill copepod *Salmincola californiensis* was observed in brood year 1998 Lemhi River chinook natural parr. Fish infested with gill parasites were treated with the parasiticide Ivermectin in addition to manually removing the parasites with forceps. During the vaccination process of 2000, Lemhi River chinook were visually examined for the presence of parasites. No adult *Salmincola* were observed, indicating that the oral intubation of Ivermectin was effective in eliminating the parasite.

Natural chinook juveniles collected from the Lemhi River (and to a lesser extent, the West Fork Yankee Fork Salmon River) are infected with MC. The prevalence of infection in Lemhi River chinook salmon juveniles has averaged approximately 38%. No mortality has been attributed to the parasite, but occasional skeletal deformities have been observed.

#### **IDAHO WILD FISH HEALTH SURVEY**

An examination of samples obtained from wild fish in the State of Idaho has been ongoing at the EFHL since the late 1980s. The distribution of MC and the impact of the parasite on wild and hatchery salmonid populations has been a concern of the Department since 1987, when it was detected in trout which contracted the infection from Idaho waters. Efforts in 2000 concentrated on assembling MC infection data from naturally produced salmonids from the Henrys Fork Snake River and Henrys Lake. The only new positive locations for MC in Idaho waters were from tributaries of drainages previously found positive. Infection by MC was confirmed with the new nested polymerase

chain reaction technique (PCR). Spores of the neurotropic *Myxobolus* species (possibly *M. neurobius*) were detected from numerous sites demonstrating the need for accurate confirmation of which species is present.

The laboratory shared its fish health database with the USFWS Wild Fish Disease Survey and with Steve Intelmann, a graduate student of Dr. Christine Moffitt, University of Idaho. The graduate student project provided a display of pathogen occurrence in the western states and is an important effort in risk assessment modeling. The database of the lab has extensive fish health observations made over many years, which is useful at the regional and national level to understand how pathogens operate in wild fish populations. Some of these historic observations are from species that are currently ESA-listed, such as bull trout in Idaho.

#### TRANSPORT AND IMPORT PERMITS

The EFHL issued 113 transport or import permits for the Department Fisheries Bureau and regional offices during 2000. These permits are required when non-aquaculture species are released to public waters of the State of Idaho. Most (50) of these dealt with grass carp (white amur, *Ctenopharyngodon idella*) to be used for biological control of aquatic vegetation. The Department policy requires that grass carp be certified free of Asian tapeworm and to be sterile triploids. The United States Department of Agriculture Laboratory at Stuttgardt, Arkansas generated the certification for both conditions. Other permits were issued to the NMFS for importation of Redfish Lake sockeye smolts for release and adults for volitional spawning; to the USFWS for research activities in the Clearwater River system; to the Kootenai Tribe of Idaho for culture and release actions with endangered Kootenai River white sturgeon *Acipenser transmontanus*; to the Nez Perce Tribe for salmon culture activities; and to the University of Idaho Aquaculture Research Institute and Hagerman Fish Culture Experiment Station for research.

#### **REPORTS AND PRESENTATIONS**

Reports generated by the EFHL include the Annual Resident Hatchery report for 2000 and the monthly LSRCP and IPC facilities disease summary reports. Presentations were given on the fish disease status in Idaho at the anadromous fisheries management meeting; at the Department hatchery managers' meeting; at the Pacific Northwest Fish Health Protection Committee (PNFHPC) semi-annual meetings; the Western Fish Disease Workshop; Rocky Plains Fish Health Workshop; and Northwest Fish Culture Conference.

The EFHL personnel attended six meetings of the Snake River Sockeye Technical Oversight Committee and the Chinook Captive Rearing Technical Oversight Committee during 2000. We also participated in the Whirling Disease Foundation Symposium, the Idaho Chapter of the American Fisheries Society, a project review of captive broodstock technology by the Northwest Power Planning Council, NMFS genetics review, and LSRCP Cooperators review.

#### PRODUCTION STUDIES AND SURVEYS TO ENHANCE FISH HEALTH

The wet lab at EFHL was used by Department research biologists to evaluate triploid induction techniques with rainbow trout, studies on WD, to investigate control measures for *Salmincola*, and to demonstrate the safety of Renogen, an experimental vaccine for control of BKD.

We initiated a project to examine the seasonal pattern of infectivity of MC in the river water supplies of Sawtooth and Pahsimeroi hatcheries. Preliminary results demonstrated that sentinel rainbow trout became infected during every month of the year in the Pahsimeroi River. Additionally, EFHL assisted Dr. Ken Cain, (University of Idaho), write a successful grant to examine exposure to MC in the migration corridor from the upper Salmon River to the Snake River. This project will commence in 2001.

We were able to apply the expertise of Dr. Ron Roberts, University of Stirling, Scotland (ret.) who has been on sabbatical leave with the University of Idaho Aquaculture Research Institute. Dr. Roberts suggested several treatments to investigate for the control of *Salmincola*. These studies resulted in the use of Ivermectin, which was very effective in eliminating the parasite. These trials were published in the *Journal of Fish Diseases*.

Staff of the EFHL have cooperated during 2000 with colleagues in the fish health and fisheries management fields through the forum of the PNFHPC (California, Oregon, Washington, Montana, British Columbia, Alaska); Rocky Plains Fish Health Committee (Arizona, Nebraska, Colorado, Nevada, Utah, New Mexico, North Dakota, and South Dakota); membership in the American Fisheries Society, Fish Health Section; cooperative ESA broodstock efforts (U. S. Fish and Wildlife Service, National Marine Fisheries Service, Shoshone-Bannock, and Nez Perce tribes, Bonneville Power Administration); universities (University of Idaho, Washington State University, Oregon State University, University of California-Davis, College of Southern Idaho, and Utah State University); and with the Whirling Disease Foundation. We also examined three cases of wild trout collected by the New Mexico Department of Wildlife since their fish health program is just starting and their laboratory facilities are not yet fully operational.

Staff of the EFHL performed inspections of three private aquaculture facilities that import live tilapia into Canada. This service is provided free of charge and enhances export of Idaho aquaculture products.

#### **RECOMMENDATIONS**

The close proximity of surface waters that have been demonstrated to contain the infectious stage of MC to waters used for fish culture at Department hatcheries requires diligence of all culture personnel to ensure that contamination does not occur. This is true for Ashton, Hayspur, Henrys Lake, and Mackay hatcheries. The construction of bird exclusion structures over Hagerman, Niagara Springs, Clearwater, and Nampa Hatcheries has been successful in controlling losses to predation and reducing the spread of pathogens. Similar structures should be considered at all Department facilities.

Flavobacterium psychrophilum, the causative agent of bacterial coldwater disease, is the most universally encountered pathogen in Department hatcheries, including Hayspur Hatchery broodstocks. Pathologists with the California Department of Fish and Game have demonstrated that the pathogen can be vertically transmitted and that Penicillin G can be effective in preventing

vertical transmission. We recommend continuing to apply the practices developed in California at Hayspur Hatchery for CWD control. We have begun testing an autogenous CWD vaccine at Hayspur to see if it could also be useful. Results are pending.

Considerable progress has been made in the control of BKD in chinook cultured at all anadromous stations. This has occurred through diligent application of a four-pronged program including injection of all adults with Erythromycin, 100% sampling of brood females by ELISA, segregation or culling of eggs from females deemed "highs" by ELISA, and two treatments of progeny with Erythromycin. This program has been very effective. Clinical BKD in juveniles has been restricted to progeny of "high" females and the prevalence of BKD "high" adult females has been gradually decreasing over the last two generations. In general, pre-spawning mortality of all adults has been reduced. This program must continue as the highest fish health priority for Department hatcheries that raise chinook salmon.

Expansion of the pathogen-free well water at Pahsimeroi Hatchery needs to be given a high priority for funding by Idaho Power Company. The current program by which Pahsimeroi chinook are reared at Sawtooth Hatchery until a length of seven cm has created considerable competition for well-water between programs. Development of additional pathogen-free water at Pahsimeroi Hatchery has progressed through meetings with Idaho Power Company.

The practice of collecting naturally produced parr to initiate broodstocks of the chinook captive rearing program was re-evaluated. Losses to BKD and the handling stress from *Salmincola* control efforts have been unacceptably high and have limited the number of mature adults produced. Using protocols and equipment similar to those used by the Washington Department of Fish and Wildlife, Staff of Eagle Hatchery safely removing eyed-eggs from naturally-produced redds by hydraulic pumping. This technique was tried on an experimental basis during 2000 and avoided health-related problems in this program.

The Department has cooperated in past years with the program of the International Association of Fish and Wildlife Agencies for registration of additional therapeutic agents for aquaculture. Progress toward FDA registration has been slow although there has been expansion of label claims for two compounds. Funding for the Department's participation in this program has come from license sources. Because of fiscal constraints, the Department's participation was eliminated in 2000 due to a lack of measured progress toward registrations by FDA.

#### ACKNOWLEDGEMENTS

The staff of the EFHL would like to express our appreciation to the Lower Snake River Compensation Plan, Idaho Power Company, Sport Fish Restoration Program (USFWS), and the sportsmen of the State of Idaho for the financial support of our programs. We also greatly appreciate the assistance provided by the fish culture personnel of all the Department hatcheries in obtaining samples when our staff could not be present. This assistance has helped to keep costs down. The cooperative INAD programs of the USFWS and University of Idaho have allowed access to therapeutic compounds while they are in the process of registration by the FDA. The help of the hatchery staffs in the INAD process has likewise been appreciated.

**APPENDICES** 



# FISH HEALTH SUMMARY REPORT FOR ALL FISH HATCHERY PROGRAMS

**REPORT DATE: 5/18/2004** 

Idaho Department of Fish and Game
Eagle Fish Health Laboratory
Dates received: 1/1/00 to 12/31/00

LOCATION	ON	class														Page 1
				Sample		II									1	
	· Stock HWEST REGION	Species D	Accession	Date	IHN	IPN	NAVHS	BKD F	UR ERI	VI CV	ND M	AS	WHD	CSH	Exam Type	Diagnoses
		KOKANEE-EARLY SPAWN	00-246	9/1/2000	-	-		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60,WHD-DIGEST 0/60
BROOD	DEADWOOD RESERVOIR	KOKANEE-EARLY SPAWN	00-247	9/1/2000	<b>-</b>	-		+							RESEARCH	RS;VIRO 0/9, ELISA 3/3(X3) (OD=0.114,0.109, 0.120)
WILD	PIKE'S FORK CREEK	BROOK TROUT	00-420	11/14/2000	)								-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
WILD	(N.F. BOISE) S.F. BOISE RIVER	RAINBOW TROUT	00-421	11/1/2000									+		WILD FISH	WDH;PTD 4/4(X5)
4 MAGIC	VALLEY REGION	D													-	
FERAL	TUCKER SPRINGS	RAINBOW TROUT	00-021	2/16/2000	<b>-</b>	-			-   -		-	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/4, BACTE 0/4,WHD-DIGEST 0/60
WILD	TUCKER SPRINGS	SCULPIN (UNDETERMINED SPECIES)	00-022	2/16/2000	<b>-</b>	-									WILD FISH	NO PATHOGENS DETECTED; VIRO 0/5
WILD	TUCKER SPRINGS	CRAY FISH	00-023	2/16/2000	<b>-</b>	-									WILD FISH	NO PATHOGENS DETECTED; VIRO 0/3
WILD	SALMON FALL CREEK RESERVOIR	WALLEYE	00-148	4/16/2000											WILD FISH	NECROPSY ONLY, NO OBVIOUS CAUSE OF DEATH, FEMAL NEARING SEXUAL MATURITY
WILD	BIG WOOD RIVER	RAINBOW TROUT	00-311	9/26/2000									+		WILD FISH	WHD; PTD 6/22
WILD	BIG WOOD RIVER	RAINBOW TROUT	00-312	9/27/2000	)								+		WILD FISH	WHD; PTD 4/24
WILD	BIG WOOD RIVER	RAINBOW TROUT	00-313	9/28/2000	)										WILD FISH	MYXOBOLUS SPECIES-PTD 5/21, HISTO-MYXOBOLUS 2/2 (NOT M. CEREBRALIS)
BY01	BIG WOOD RIVER	BROOK TROUT	00-314	9/28/2000									+		WILD FISH	WHD; PTD 2/8
5 SOUTH	HEAST REGION	D														
WILD	DEMPSEY CREEK	YELLOWSTONE	00-416A	4/3/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
		CUTTHROAT TROUT													_	•
WILD	RAPID CREEK	YELLOWSTONE	00-416B	4/3/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
		CUTTHROAT TROUT														

LOCATIO	ON	class		Sample												Page 2
BroodYr	Stock	Species	Accession	Date	IHN	IPN	NAVI	нs В	KD FUF	RERM	CWD	MAS	WHI	D CSH	Exam Type	Diagnoses
WILD	HARKNESS CREEK	YELLOWSTONE	00-416C	4/3/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
		CUTTHROAT TROUT		•											_	
WILD	TIN CUP CREEK	YELLOWSTONE	00-417A	4/5/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
		CUTTHROAT TROUT													<u> </u>	
WILD	CROW CREEK	YELLOWSTONE	00-417B	4/4/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/10
		CUTTHROAT TROUT		·											<b>=</b> _	
WILD	CROW CREEK	YELLOWSTONE	00-417C	5/9/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/10
		CUTTHROAT TROUT		<u>'</u>											=	
6 UPPER	SNAKE REGION	D													=	
WILD		YELLOWSTONE	00-415	4/5/2000									+		WILD FISH	WHD; Myxobolus cerebralis-DIGEST 1/4 (X5)
		CUTTHROAT TROUT													<u></u>	
WILD		YELLOWSTONE	00-418A	4/5/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/10
		CUTTHROAT TROUT													<u>-</u> _	
WILD		YELLOWSTONE	00-418B	4/5/2000									-		WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/10
		CUTTHROAT TROUT		•											_	
WILD		YELLOWSTONE	00-418C	4/5/2000									-		WILD FISH	MYXOBOLUS;MYXOBOLUS-DIGEST 1/4 (x5) HISTO 1/5-SPORES IN
		CUTTHROAT TROUT		•											_	NERVOUS TISSUE
WILD		YELLOWSTONE	00-419	5/10/2000									-		WILD FISH	MYXOBOLUS, HENNEGUYA; MYXOBOLUS-DIGEST 2/4 (x5) HISTO 3/5,
		CUTTHROAT TROUT														HENNEGUYA 4/4(x5)
7 SALMO	N REGION	D		·											_	
WILD	LOON CREEK	CUTTHROAT TROUT	00-184	7/20/2000	-	-			-	-	+	-			WILD FISH	NO PATHOGENS DETECTED; WHD-DIGEST 0/2
AMERICA	AN FALL HATCHERY	Α		ı											=	
1999	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-035	3/10/2000	-	-			-	-	+	-			DIAGNOSTIC	CWD;VIRO 0/5, Flavobacterium psychophilum 8/8
				1			1			1				ı	=	
1999	TROUTLODGE	KAMLOOPS RBT	00-077	4/6/2000					-	-	+	-			DIAGNOSTIC	CWD; Flavobacterium psychophilum 5/5
				1			1			1				ı	=	
1999	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-078	4/6/2000					-	-	+	-			DIAGNOSTIC	CWD; Flavobacterium psychophilum 3/4
				i			-								<b>-</b>	
1999	TROUTLODGE	KAMLOOPS RBT	00-100	4/19/2000	-	-			-   -	-	+	-			DIAGNOSTIC	CWD(carrier); VIRO 0/20, FAT 0/20, Flavobacterium psychophilum 1/12
				1		1	1		-	1	ı	ı	1	ı	7	
1999	TROUTLODGE	KAMLOOPS RBT	00-101	4/20/2000	-	-			-   -	-	+	-			DIAGNOSTIC	CWD(carrier); VIRO 0/20, FAT 0/20, Flavobacterium psychophilum 1/12
				ı			1			1	1	1		1	1	
2000	HAYSPUR	RAINBOW TROUT	00-142	5/18/2000					-	-	+	-			DIAGNOSTIC	CWD; Flavobacterium psychophilum 5/5
				İ			1	1			1	1	1		7	
1999	HAYSPUR	KAMLOOPS RBT	00-143	5/18/2000					-	-	+	-			DIAGNOSTIC	CWD; Flavobacterium psychophilum 2/5
AQUAHE	ALTH CANADA	D		İ		1		-1	-	1	1	1	1		Ī	
N/A	RENOGEN VACCINE		00-105	4/20/2000					•						RESEARCH	VACCINE SAFETY TRIAL; RS-FAT 0/1, ELISA 0/1 (O.D. 0.072)

LOCATIO	DN	class		Sample Page 3
BroodYr	Stock	Species	Accession	Date IHN IPN NAVHS BKD FUR ERM CWD MAS WHD CSH Exam Type Diagnoses
ASHTON 2000	HATCHERY HAYSPUR	B RAINBOW TROUT	00-383	11/1/2000 INSPECTION NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60, WHD-DIGEST 0/8 WHD-
2000	HENRYS LAKE	CUTTHROAT TROUT	00-384	DIGEST 0/60  11/1/2000 INSPECTION NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60, WHD-DIGEST 0/8 WHD-DIGEST 0/60
CABINET	GORGE HATCHERY	A		
2000	SULLIVAN SPRINGS	KOKANEE, LATE SPAWN	00-127	5/1/2000 DIAGNOSTIC BGD;VIRO 0/15, Aeromonas hydophia 3/3 (from gills)
BROOD	SULLIVAN SPRINGS	KOKANEE, LATE SPAWN	00-423	12/13/2000 + INSPECTION cwd (CRRIER); viro 0/60, fat 0/60, flavobacterium  PSYCHOPHILUM 5/8, WHD-DIGEST 0/60
CLARK F	ORK HATCHERY	С		
1999	CLARK FORK HATCHERY	WESTSLOPE CUTTHROAT TROUT	00-025	2/16/2000 + + + DIAGNOSTIC CWD, PSEUDOMONAS, MAS; VIRO 0/8, Flavobacterium psychophilum 5/8, Pseudomonas pseudomallei 3/8, aeromonas hydrophia/caviae 2/8
CLEARW	ATER HATCHERY	С		3/0, F 3-cadomonta pseudomano 3/0, actomontas nyarophilareaviae 2/0
1998	RAPID RIVER	SPRING CHINOOK SALMON	00-232	3/2/2000 INSPECTION NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20,WHD-DIGEST 0/20 WHD-
1999	N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-073	DIGEST 0/20 4/5/2000 INSPECTION NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20,WHD-DIGEST 0/20
2000	HAYSPUR	RAINBOW TROUT	00-152	6/5/2000 + INSPECTION MAS; VIRO 0/10, Aeromonas hydrophia 4/8
2000	HAYSPUR	RAINBOW TROUT	00-185	7/24/2000 + + - INSPECTION CWD; VIRO 0/10, Flavobacterium psychophilum 4/8
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-195	8/5/2000 + INSPECTION RS; ELISA 1/1 (1 LOW)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-209	8/11/2000 + INSPECTION RS; ELISA 5/5 (5 LOW)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-222	8/18/2000 + INSPECTION BKD; ELISA 4/4 (2 LOW, 2 HIGH))
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-225	8/22/2000 + INSPECTION RS; ELISA2/2 (2 LOW)
2000	N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-226	8/22/2000 + + INSPECTION CWD, MAS;, Flavobacterium psychophilum 8/8, Aeromonas hydrophia 8/8
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-242A	8/25/2000 + INSPECTION BKD; ELISA 4/5 (3 LOW, 1 HIGH)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-242B	8/28/2000 + INSPECTION BKD; ELISA 9/9 (6 LOW, 3 HIGH)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-265	9/5/2000 + INSPECTION BKD; ELISA 24/24 (16 LOW, 8 HIGH)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-266	9/1/2000 + INSPECTION BKD; ELISA 9/9 (3 LOW, 6 HIGH)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-283A	9/8/2000 + INSPECTION BKD; ELISA 26/275 (20 LOW, 6 HIGH)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-283B	9/12/2000 + INSPECTION BKD; viro 0/50, ELISA 50/50 (LOW 26, HIGH 24)
BROOD	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-298A	9/15/2000 + - INSPECTION BKD; ELISA 46/46 (27 LOW, 19 HIGH), WHD-DIGEST 0/20

LOCATION	class		Sample											Page 4
BroodYr Stock	Species	Accession	Date IHN IPN	NAVI	HS BKC	FUR	ERM	CWD	MAS	WHD	CSH	Exam Type	Diagnoses	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-298B	9/18/2000 + -	-	+							INSPECTION	INHV, BKD; IHNV 3/10, IPNV 0/10, NAVHS 0/10, ELISA, 46/46 (17 LOW, 29 HIGH)	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-308	9/22/2000		+							INSPECTION	BKD; ELISA 59/59 (24 LOW, 35 HIGH)	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-309	9/26/2000		+							INSPECTION	BKD; ELISA 40/40 (21 LOW, 19 HIGH)	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-324	9/29/2000		+							INSPECTION	BKD; ELISA 29/29 (7 LOW, 22 HIGH)	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-325	10/3/2000		+							INSPECTION	BKD; ELISA 14/14 (1 LOW, 13 HIGH)	
BROOD S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-338	10/10/2000		+							INSPECTION	BKD; ELISA 6/6 (6 LOW)	
1999 POWELL	SPRING CHINOOK SALMON	00-370	10/27/2000		-	-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; FAT 0/10, BACTE 0/4	
2000 N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-371	10/27/2000			-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; BACTE 0/4	
1999 S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-401	11/15/2000	-	-	-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/8	
CROOKED RIVER SATELLITE	С			_		1	ı	1	1	1	ı	_		
1998 S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-071	4/5/2000	-	+					-		INSPECTION	RS;VIRO 0/20, FAT 0/20, ELISA 4/4(x5) WHD-DIGEST 0/20	
1999 S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-307	9/26/2000		+					-		INSPECTION	RS;VIRO 0/20, ELISA 4/4(x5, LOW), WHD-DIGEST 0/20	
DWORSHK NFH	С					1	ı		1	1	1	_		
BROOD N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-034	3/7/2000	-								INSPECTION	NO PATHOGENS DETECTED; VIRO 0/40	
BROOD N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-037	3/14/2000	-								INSPECTION	NO PATHOGENS DETECTED; VIRO 0/75	
BROOD N.F. CLEARWATER RIVER	STEELHEAD, B GROUP	00-048	3/21/2000 + -	-								INSPECTION	IHV; IHNV 9/59, IPNV 0/59	
EAGLE HATCHERY	D													
BY98 EAST FORK SALMON RIVER	CHINOOK SALMON	00-003	1/7/2000		+					-		DIAGNOSTIC	RS;VIRO 0/1, ELISA 1/1(OD=0.116), WHD-DIGEST 0/1	
BY98 REDFISH LAKE	SOCKEYE SALMON	00-004	1/16/2000		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1	
BY98 EAST FORK SALMON RIVER	CHINOOK SALMON	00-005	1/17/2000		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1,ELISA 0/1,WHD- DIGEST 0/1	
BY96 REDFISH LAKE	SOCKEYE SALMON	00-006	1/19/2000		-							DIAGNOSTIC		
BY96 REDFISH LAKE	SOCKEYE SALMON	00-010	1/23/2000									DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1	
BY98 EAST FORK SALMON RIVER	CHINOOK SALMON	00-013	2/3/2000									DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1	
BY98 EAST FORK SALMON RIVER	CHINOOK SALMON	00-014	2/6/2000		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1,ELISA 0/1,WHD-	
BY96 REDFISH LAKE	SOCKEYE SALMON	00-017	2/15/2000									DIAGNOSTIC	DIGEST 0/1 NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1	

LOCATI	ON	class		Sample										Page 5
BroodYr	Stock	Species	Accession	Date IHN IPN	N NA	AVHS BKD	FUR	ERM	CWD	MAS	WHD	CSH	Exam Type	Diagnoses
BY98	REDFISH LAKE	SOCKEYE SALMON	00-030	2/29/2000		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-040	3/19/2000		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY96	LEMHI RIVER	CHINOOK SALMON	00-041	3/20/2000	-	-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1 WHD-DIGEST 0/1, PRS 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-049	3/24/2000		_							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-057	3/30/2000		+							DIAGNOSTIC	RS;VIRO 0/2, FAT 0/2, ELISA 1/2(OD=0.122)
BY98	REDFISH LAKE	SOCKEYE SALMON	00-064	4/3/2000		_							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY99	EAST FORK SALMON RIVER	CHINOOK SALMON	00-075	4/6/2000		_							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-076	4/6/2000		_							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY94	EAST FORK SALMON RIVER	CHINOOK SALMON	00-082	4/8/2000	-	+					-		DIAGNOSTIC	RS;VIRO 0/1, ELISA 1/1(OD=0.135), WHD-DIGEST 0/1
BY98	LEMHI RIVER	CHINOOK SALMON	00-088	4/14/2000	-	-					+		DIAGNOSTIC	WHD; VIRO 0/1, FAT 0/1, ELISA 0/1, Myxobolus cerebralis-DIGEST 1/1
BY98	LEMHI RIVER	CHINOOK SALMON	00-091	4/17/2000	-	-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, WHD- DIGEST 0/1
BY98	REDFISH LAKE	SOCKEYE	00-092	4/17/2000		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY98	EAST FORK SALMON RIVER	CHINOOK SALMON	00-098	4/18/2000		-					-		DIAGNOSTIC	ANESTHETIC OVERDOSE, NO PATHOGENS DETECTED; VIRO 0/2, FAT 0/2, ELISA 0/2, WHD-DIGEST 0/2
BY98	W.F. YANKEE FORK	CHINOOK SALMON	00-099	4/19/2000	-	+					-		DIAGNOSTIC	RS; FAT 0/1, VIRO 0/1, ELISA 1/1(OD=0.102), WHD-DIGEST 0/1
BY98	EAST FORK SALMON RIVER	CHINOOK SALMON	00-104	4/20/2000		+					-		DIAGNOSTIC	RS; FAT 0/1, VIRO 0/1, ELISA 1/1(OD=0.101), WHD-DIGEST 0/1
BY98	LEMHI RIVER	CHINOOK SALMON	00-111	4/21/2000	-	+	-	-		+	+		DIAGNOSTIC	RS, MAS, WHD; VIRG 0/3, ELISA 3/3 (OD=0.109, 0.102, 0.100), Pseudomonas xanotrophomonas, maltophila or possible Arthrobacter 3/3 Myxobolus cerebralis-DIGEST 3/3
BY97	LEMHI RIVER	CHINOOK SALMON	00-112	4/21/2000	-	+	-	-		-	-		DIAGNOSTIC	RS; VIRO 0/2, BACTE 0/2, FAT 0/2, ELISA 1/2(OD=0.112), WHD-DIGEST 0/2
BY96	LEMHI RIVER	CHINOOK SALMON	00-114	4/21/2000		+					+		DIAGNOSTIC	RS, WHD; VIRG 0/6, FAT 0/6, ELISA 5/6 (OD=-0.103, 0.135, 0.104,
BY96	W.F. YANKEE FORK	CHINOOK SALMON	00-118	4/21/2000		+					-		DIAGNOSTIC	0.110, 0.104), Myxobolus cerebralis-DIGEST 5/6 RS;VIRO 0/1, FAT 0/1, ELISA 1/1(OD=0.122), WHD-DIGEST 0/1
BY98	LEMHI RIVER	CHINOOK SALMON	00-119	4/22/2000		+					-		DIAGNOSTIC	RS;VIRO 0/1, FAT 0/1, ELISA 1/1(OD=0.107), WHD-DIGEST 0/1
BY96	REDFISH LAKE	SOCKEYE SALMON	00-120	4/25/2000									DIAGNOSTIC	NO PATHOGENS DETECTED; FAT 0/1, VIRO 0/1, ELISA 0/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-124	4/28/2000		-	-	-		+	-		DIAGNOSTIC	MAS; VIRO 0/1, ELISA 0/1, Aeromonas hydrophia 1/1, whd-digest 0/1,
BY98	REDFISH LAKE	SOCKEYE SALMON	00-128	5/3/2000	-	-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1

OCATION		Class		Sample												Page 6
BroodYr	Stock	Species	Accession		HIN	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHD	СЅН	ExamType	Diagnoses
BY98	EAST FORK SALMON RIVER	CHINOOK SALMON	00-130	5/6/2000	-	-		+							DIAGNOSTIC	RS; VIRO 0/1, FAT 0/1, ELISA 1/1 (OD=0.102)
BY98	EAST FORK SALMON RIVER	CHINOOK SALMON	00-131	5/8/2000	•	-		-	-	•	+	+			DIAGNOSTIC	CWD, MAS, VIRO 0/2, FAT 0/2, ELISA 0/2, Flavobacterium psychrophilum 1/2, Acinetobacter calcoaceticus 1/2, Pseudomonas vesicularus 1/2, Comamonas/ Pseudomonas/ Alcaligenes group 1/2
BY97	REDFISH LAKE	SOCKEYE SALMON	00-136	5/10/2000	-	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-137	5/11/2000	-	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED, VIRO 0/1, FAT 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-138	5/12/2000	•	-		-	•	•	+	+			DIAGNOSTIC	CWD, MAS, EXTERNAL MYCOSIS; VIRO 0/2, EIBS 0/2, FAT 0/2, ELISA 0/2, Flavobacterium psychrophilium 1/2, Aeromonas hydrophila 2/2, Pseudomonas fluorescens 2/2,
3Y98	REDFISH LAKE	SOCKEYE SALMON - HATCHERY SMOLT	00-145	5/22/2000	•	-		+					-		INSPECTION	RS; VIRO 0/25, FAT 0/21, ELISA 4/4(x5, O.D.s = 0.146, 0.142, 0.124, 0.292), WHD-DIGEST 0/20
3Y98	REDFISH LAKE	SOCKEYE SALMON - WILD SMOLT	00-146	5/22/2000	-	-		+					-		INSPECTION	RS; VIRO 0/7, FAT 0/7, ELISA 2/2(x384, O.D.s = 0.130, 0.118), WHD- DIGEST 0/7
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-154	6/7/2000	-	-	•	+					-		DIAGNOSTIC	RS; VIRO 0/1, FAT 0/1, ELISA 1/1 (O.D.=0.104), WHD-DIGEST 0/1, PRS 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-155	6/8/2000	•	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-158	6/9/2000	-	-		+	-	•	-	-			DIAGNOSTIC	RS; VIRO 0/1, ELISA 1/1(O.D.=0.131), BACTE 0/1
3Y98	REDFISH LAKE	SOCKEYE SALMON	00-161	6/12/2000	•	-		+	•	-	•	-			DIAGNOSTIC	RS; VIRO 0/1, FAT 0/1, ELISA 1/1(O.D.=0.111), BACTE 0/1
BY <b>98</b>	REDFISH LAKE	SOCKEYE SALMON	00-162	6/13/2000	-	-		•	-	•	-	-			DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1, PRS 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-164	6/22/2000	-	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY96	LEMHI RIVER	CHINOOK SALMON	00-165	6/30/2000	•	-		-					+		DIAGNOSTIC	WHD; VIRO 0/1, FAT 0/1, ELISA 0/1, MYXOBOLUS CEREBRALIS- DIGEST 1/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-170	7/2/2000	_	-		•					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1 , FAT 0/1, ELISA 0/1, WHD- DIGEST 0/1, PRS 0/1
BY97	LEMHI RIVER	CHINOOK SALMON	00-171	7/3/2000	•	-		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, WHD- DIGEST 0/1
BY96	REDFISH LAKE	SOCKEYE SALMON	00-172	7/3/2000	•	-		-		,		<u> </u>			DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/2, FAT 0/2, ELISA 0/2, WHD- DIGEST, FUNGUS 0/2, SWIMBLADDER BACTERIA, MACROPHAGES 1/2, LYMPHOCYTES 1/2,
BY97	LEMHI RIVER	CHINOOK SALMON	00-173	7/4/2000	-	-		-					+		DIAGNOSTIC	WHD; VIRO 0/1, FAT 0/1, ELISA 0/1, Myxobolus cerebralis-DIGEST 1/1
3Y99	REDFISH LAKE	SOCKEYE SALMON	00-174	7/6/2000	-	-		-	•	-	•	-			DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1
Y98	REDFISH LAKE	SOCKEYE SALMON	00-175	7/7/2000	•	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
3Y98	REDFISH LAKE	SOCKEYE SALMON	00-178	7/17/2000	-	-		•	-	-	-	-	T		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1

LOCATION		Class		Sample								-				Page 7
BroodYr	Stock	Species	Accession	Date	HN	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHD	CSH	ExamType	Diagnoses
BY98	REDFISH LAKE	SOCKEYE SALMON	00-182	7/18/2000	•	-		-	-	-	-	-			DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-183	7/20/2000	•	-		-						-	DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-188	7/31/2000	-	-		•							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY99	REDFISH LAKE	SOCKEYE SALMON	00-189	7/31/2000	•	•		+							DIAGNOSTIC	RS; VIRO 0/1, FAT 0/1, ELISA 1/1(O.D.=0.107)
BY97	REDFISH LAKE	SOCKEYE SALMON	00-194	8/5/2000	-	-		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY96	LEMHI RIVER	CHINOOK SALMON	00-204	8/15/2000	-	•		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, WHD- DIGEST 0/1
BY96	REDFISH LAKE	SOCKEYE ANADROMOUS ADULT	00-205	8/15/2000	-	-		+	+	-	-	+	+	-	DIAGNOSTIC	RS, FURUNCULOSIS, MAS, WHD; VIRO 0/1, FAT 0/1, ELISA 1/1(O.D.=0.103), Aeromonas salmonicida 1/1, Aeromonas sobria 1/1, PTD-MYXOBOLUS 1/1, CSH 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-207	8/16/2000	•	•	-	+	-	-	•	-			DIAGNOSTIC	RS; VIRO 0/2, FAT 0/2, ELISA 2/2 (O.D.s=0.117, 0.105), BACTE 0/2
BY99	W.F. YANKEE FORK	CHINOOK SALMON	00-216	8/21/2000	•	•		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-238	8/29/2000	•	-		+	-	-	-	-			DIAGNOSTIC	RS; VIRO 0/10, ELISA 2/10 (OD=0.113, 0.109), BACTE 0/6
BY99	EAST FORK SALMON RIVER	CHINOOK SALMON	00-250	9/4/2000											INSPECTION	GENETICS ONLY; DELETED SAMPLE DATE SO WILL NOT APPEAR ON SUMMARY REPORTS
BY99	LEMHI RIVER	CHINOOK SALMON	00-251	9/4/2000											INSPECTION	HANDLING LOSS, GENETICS ONLY, DELETED SAMPLE DATE SO WILL NOT APPEAR ON SUMMARY REPORT
BY94	LEMHI RIVER	CHINOOK SALMON	00-255	9/5/2000	-	•		-		•			+		DIAGNOSTIC	WHD; VIRO 0/1, FAT 0/1, ELISA 0/1, Myxobolus cerebralis-DIGEST 1/1, PRS 0/1
BY96	REDFISH LAKE	SOCKEYE ANADROMOUS ADULT	00-256	9/5/2000				+							DIAGNOSTIC	BKD, EXTERNAL MYCOSIS; VIRO 0/1, FAT 1/1 (TNTC), ELISA 1/1 (OD=2.875), BACTE 0/1, WHD-DIGEST 0/1, CSH 0/1
BY97	REDFISH LAKE	SOCKEYE SALMON	00-263	9/6/2000	-	•		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY96	REDFISH LAKE	SOCKEYE SALMON	00-264	9/7/2000	-	•		-							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-275	9/9/2000	•	-		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, WHD- DIGEST 0/1, PRS 0/1
BY99	REDFISH LAKE	SOCKEYE SALMON	00-276	9/10/2000	-	•		•							DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-277	9/10/2000	-	-	-	+					-		DIAGNOSTIC	RS; VIRO 0/1, ELISA 1/1(OD=0.102), WHD-DIGEST 0/1
BY97	LEMHI RIVER	CHINOOK SALMON	00-284	9/14/2000	•	-		-					-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, WHD-DIGEST 0/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-285	9/14/2000	-	-		•					•		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, WHD-DIGEST 0/1
BY96	LEMHI RIVER	CHINOOK SALMON	00-293	9/15/2000	-	-		+				^.	-		DIAGNOSTIC	RS; VIRO 0/1, ELISA 1/1 (OD=0.134), WHD-DIGEST 0/1

LOCATION		Class		Sample											Page 8
BroodYr	Stock	Species	Accession	Date	HHN	IPN	NAVHS	BKD	FUR	ERM	CWD MA	us Wi	но сян	ExamType	Diagnoses
BY94	EAST FORK SALMON RIVER	CHINOOK SALMON	00-294	9/17/2000	•	-		•					-	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, WHD-DIGEST 0/1, PRS 0/1
BY99	REDFISH LAKE	SOCKEYE SALMON	00-295	9/18/2000	-	-		-						DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-297	9/20/2000	•	-		+	-	-	- 4	<b>-</b>		DIAGNOSTIC	MAS, RS; VIRO 0/1, ELISA 1/1 (OD=0.132), Aeromonas hydrophia 1/1 Sphingomonas paucimobilis 1/1, PRS 0/1
BY99	W.F. YANKEE FORK	CHINOOK SALMON	00-299	9/21/2000	•	-		-						DIAGNOSTIC	NO PATHOGENS DETECTED, PIT TAG TRAUMA; VIRO 0/1, ELISA 0/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-302	9/22/2000	-	-		+					-	DIAGNOSTIC	RS; VIRO 0/1, ELISA 1/1(OD=0.106), WHD-DIGEST 0/1, PRS 0/1
BY96	REDFISH LAKE	SOCKEYE SALMON	00-303	9/25/2000				+						DIAGNOSTIC	Nephroblastoma, Kidney Tumor, RS; FAT 0/1, ELISA 1/1 (OD=0.101), NEPHB 1/1
BY99	REDFISH LAKE	SOCKEYE SALMON	00-310	9/28/2000	-	-	T	-						DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY96	W.F. YANKEE FORK	CHINOOK CAPTIVE SPAWNER	00-317	10/2/2000	-	-		+				•	<b>-</b>	INSPECTION	RS; VIRO 0/1, ELISA 1/1 (OD=0.154), WHD-DIGEST 0/1, PRS 0/1
BY94	W.F. YANKEE FORK	CHINOOK CAPTIVE SPAWNER	00-318	10/2/2000	-	-		-				4	+	INSPECTION	WHD; VIRO 0/1, ELISA 0/1, Myxobolus cerebralis-DIGEST 1/1, PRS 0/1
BY96	LEMHI RIVER	CHINOOK SALMON	00-319	10/2/2000	•	-	T	-				1	+	INSPECTION	WHD; VIRO 0/1, ELISA 0/1, Myxobolus cerebralis-DIGEST 1/1
BY97	W.F. YANKEE FORK	CHINOOK SALMON	00-320	10/3/2000	-	-		+				] •	-	DIAGNOSTIC	RS; VIRO 0/1, ELISA 1/1 (OD=0.109), WHD-DIGEST 0/1, PRS 0/1
BY97	W.F. YANKEE FORK	CHINOOK CAPTIVE SPAWNER	00-321	10/4/2000	-	-		+				•	•	INSPECTION	RS; VIRO 0/7, ELISA 7/7 (OD=0.133, 0.169, 0.146, 0.126, 0.120, 0.118, 0.124) , WHD-DIGEST 0/7, PRS 0/7
BY97	W.F. YANKEE FORK	CHINOOK CAPTIVE SPAWNER	00-322	10/4/2000	-	-		+					-	INSPECTION	RS; VIRO 0/8, ELISA 8/8 (ODs = 0.110, 0.127, 0.171, 0.215, 0.137, 0.124, 0.136, 0.141), WHD-DIGEST 0/8, CRYO MALES
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNER	R 00-326	10/5/2000	_	-	-	+	-	-		-   -	+ -	INSPECTION	BKD, WHD; VIRO 0/5, ELISA 2/5 (OD = 0.105, 2.123), BACTE 0/5, Myxobolus cerebralis-DIGEST 1/5, CSH 0/5, PRS 0/5
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-327	10/11/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/14, ELISA 0/14
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNER	R 00-331	10/11/2000	-	-		+	-	-	Ι.	-   -	+ -	INSPECTION	RS, WHD; VIRO 0/6, ELISA 1/6 (OD=0.119), BACTE 0/6, Myxobolus cerebralis-DIGEST 1/7, CSH 0/5, PRS 0/6
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-332	10/11/2000	-	-	T	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-335	10/12/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-336	10/12/2000	-	-	Ī	+						INSPECTION	RS; VIRO 0/7, ELISA 1/7 (OD=0.116)
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-339	10/13/2000	•	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, ELISA 0/10
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNER	R 00-340	10/13/2000	-	<b>!</b>	-	-	•	-		-	<b>.</b>   <b>.</b>	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, BACTE 0/1, WHD- DIGEST 0/1, CSH 0/1, PRS 0/1
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-341	10/17/2000	•	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/13, ELISA 0/13

LOCATION		Class		Sample											Page 9
BroodYr	Stock	Species	Accession		HH	1PN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHD CS	ExamType	Diagnoses
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-342	10/17/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-344	10/18/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/22, ELISA 0/22
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-346	10/18/2000	-	•		•						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3, ELISA 0/3
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-347	10/19/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/8, ELISA 0/8
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-348	10/18/2000	-	-		-						INSPECTION	NO PATHOGÊNS DETECTED; VIRO 0/2, ELISA 0/2
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-352	10/20/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/18, ELISA 0/18
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-353	10/20/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/14, ELISA 0/14
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNE	R 00-354	10/20/2000	-	-	-	-	-	-		-	+ -	INSPECTION	WHD; VIRO 0/2, ELISA 0/2, BACTE 0/2, Myxobolus cerebralis-DIGEST 1/2, CSH 0/2, PRS 0/2
BY98	REDFISH LAKE	SOCKEYE SALMON	00-355	10/22/2000	-	-		-						DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-356	10/23/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, ELISA 0/20
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-357	10/23/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNE	R 00-358	10/24/2000	•	-	-	-	-	•		-	+ -	INSPECTION	WHD; VIRO 0/7, ELISA 0/7, BACTE 0/7, Myxobolus cerebralis-DIGEST 4/7, CSH 0/7, PRS 0/7
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-359	10/24/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, ELISA 0/10
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-360	10/24/2000		-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-361	10/25/2000	-	-		-	Ī					INSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, ELISA 0/5
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-362	10/25/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-364	10/26/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/12, ELISA 0/12
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-365	10/26/2000	-	-		-		Ī				INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY96/ RY0	) REDFISH LAKE	SOCKEYE ANAD SPAWNE	R 00-366	10/27/2000	•	-	•	+	-	•	-	+	+ -	INSPECTION	BKD, MAS, BACTEREMIA, WHD; VIRO 0/7, ELISA 1/7 (OD = 0.455), Aeromonas hydrophia 2/7, Flavobacterium spp. 3/7, WHD-DIGEST 2/7, CSH 0/7, PRS 0/7
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-367	10/27/2000	-	•		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-372	10/28/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY99	REDFISH LAKE	SOCKEYE SALMON	00-373	10/29/2000	•	-		•	-	-	-	-		DIAGNOSTIC	BACTEREMIA; VIRO 0/1, ELISA 0/1, Acinetobacter spp. 1/1
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-374	10/30/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/8, ELISA 0/8
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-375	10/31/2000	•	-	Ī	•				٠,		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/15, ELISA 0/15
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LOCATION	[	Class		Sample											Page 10
BroodYr	Stock	Species	Accession		HH	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	<b>WHO</b>   С\$H	ExamType	Diagnoses
BY98	LEMHI RIVER	CHINOOK SALMON	00-376	11/1/2000	•	-		+					+	INSPECTION	RS, WHD; VIRO 0/3, ELISA 1/3, Myxobolus cerebralis-DIGEST 2/3, PRS 0/3
BY98	W.F. YANKEE FORK	CHINOOK CAPTIVE SPAWNER	00-377	11/1/2000	-	-		•					-	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3, ELISA 0/3, WHD-DIGEST 0/3, PRS 0/3
BY98	EAST FORK SALMON RIVER	CHINOOK CAPTIVE SPAWNER	00-378	11/1/2000	-	-		•					•	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3, ELISA 0/3, WHD-DIGEST 0/3, PRS 0/3, CRYO
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-379	11/2/2000	•	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/15, ELISA 0/15
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-380	11/2/2000	_	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1
BY96/ RY00	REDFISH LAKE	SOCKEYE ANAD SPAWNER	00-381	11/2/2000	-	-		+	-	-		-	+ -	INSPECTION	WHD; VIRO 0/2, ELISA 1/2, BACTE 0/2, Myxobolus cerebralis-DIGEST 1/2, CSH 0/2, PRS 0/2
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-390	11/6/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/42, ELISA 0/41
BY98	REDFISH LAKE	SOCKEYE SPAWNER	00-391	11/6/2000	-	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/12, ELISA 0/12
BY96/ RY00	) REDFISH LAKE	SOCKEYE ANAD SPAWNER	00-392	11/8/2000	-	•	-	+	•	•		+	+ -	INSPECTION	MAS, WHD; VIRO 0/11, ELISA 6/11(Ods = 0.129, 0.130, 0.202, 0.108, 2.068, 1.386), Pseudomonas fluorescens 2/11, Myxobolus cerebralis- DIGEST 4/11, CSH 0/11, PRS 0/11
BY97	REDFISH LAKE	SOCKEYE SPAWNER	00-393	11/8/2000	•	-		-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, ELISA 0/5
BY98	EAST FORK SALMON RIVER	CHINOOK SALMON	00-396	11/14/2000	•	-		•	-	-	-	-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, BACTE 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-397	11/14/2000	-	-		-	-	-	-	-		DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, BACTE 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-405	11/21/2000	-	-		-						DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/2, ELISA 0/2
BY96	LEMHI RIVER	CHINOOK SALMON	00-422	12/13/2000	-	-		-	-	-	-	-	-	DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1, WHD-DIGEST 0/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-425	12/19/2000	-	-		-						DIAGNOSTIC	Lymphosarcoma; VIRO 0/2, ELISA 0/2, Lymphosarcoma 1/1
BY98	LEMHI RIVER	CHINOOK CAPTIVE	00-427	12/21/2000	•	-		-	-	- [	•	-	+	DIAGNOSTIC	WHD; VIRO 0/1, FAT 0/1, ELISA 0/1, BACTE 0/1, Myxobolus cerebralis- DIGEST 1/1
BY98	REDFISH LAKE	SOCKEYE SALMON	00-428	12/22/2000	•	-		-						DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
BY99	EAST FORK SALMON RIVER	CHINOOK CAPTIVE	00-429	12/31/2000	-	-								DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/1, FAT 0/1, ELISA 0/1
EAGLE V	VET LAB	D													
2000	HAYSPUR	RAINBOW TROUT	00-181	7/18/2000	-	-		-	-	-	•	+		RESEARCH	MAS; VIRO 0/1, FAT 0/1, Aeromonas hydrophila 1/1
2000	HAYSPUR	KAMLOOPS RBT ·	00-210	8/17/2000									-	RESEARCH	NO PATHOGENS DETECTED; WHD-DIGEST 0/20
2000	HAYSPUR	KAMLOOPS RBT	00-211	8/17/2000									+	RESEARCH	WHD; Myxobolus cerebralis-DIGEST 17/20
2000	HAYSPUR	KAMLOOPS RBT	00-212	8/17/2000		Ī							+	RESEARCH	WHD; Myxobolus cerebralis-DIGEST 13/20

LOCATION		Class		Sample											Page 11
BroodYr	Stock	Species	Accession		HW	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHD CSH	ExamType	Diagnoses
2000	HAYSPUR	KAMLOOPS RBT	00-296	9/18/2000									+	RESEARCH	WHD; Myxobolus cerebralis-DIGEST 42/60
2000	HAYSPUR	KAMLOOPS RBT	00-343	10/18/2000									+	RESEARCH	WHD; WHD-DIGEST 59/60
2000	HAYSPUR	KAMLOOPS RBT	00-409	11/22/2000									+	RESEARCH	WHD; Myxobolus cerebralis-DIGEST 45/50
2000	HAYSPUR	KAMLOOPS RBT	00-424	12/18/2000									+	RESEARCH	WHD; Myxobolus cerebralis-DIGEST 56/60
GRACE H	ATCHERY	A													
2000	HAYSPUR	RAINBOW TROUT	00-385	11/2/2000	•	-		•	-	-	+	•	-	INSPECTION	CWD(carrier); VIRO 0/59, FAT 0/59, Flavobacterium psychrophilum 1/8, WHD-DIGEST 0/60
HAGERM	IAN SFH	С												_	
2000	HAYSPUR	RAINBOW TROUT	00-007	1/19/2000	-	-	-		-	-	+	+		DIAGNOSTIC	MAS, CWD; VIRO 0/5, Aeromonas hydrophia 3/4, Aeromonas caviae 2/4, Flavobacterium psychrophilum 1/4
1999	TROUTLODGE	KAMLOOPS RBT	00-008	1/19/2000	-	-	-		-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/4, Flavobacterium psychrophilum 2/4
1999	TROUTLODGE	KAMLOOPS RBT	00-009	1/19/2000	•	-	-		-	-	+	+		DIAGNOSTIC	CWD, PSEUDOMONAS; VIRO 0/5, Flavobacterium psychrophilum 2/4, Pseudomonas mallei 1/4
1999	HAYSPUR	RAINBOW TROUT	00-018	2/16/2000	-	-			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/5, Flavobacterium psychrophilum 3/4
2000	HAYSPUR	KAMLOOPS RBT	00-019	2/16/2000	-	-			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/5, Flavobacterium psychrophilum 4/4
1999	TROUTLODGE	KAMLOOPS RBT	00-020	2/16/2000	+	-	-		-	-	+	-		DIAGNOSTIC	IHNV, CWD; IHNV 1/1(x4), IPNV 0/4, Flavobacterium psychrophilum 3/4
2000	HAYSPUR	RAINBOW TROUT	00-027	2/28/2000	-	-			-	-	+	•		DIAGNOSTIC	CWD; VIRO 0/4, Flavobacterium psychrophilum 2/4
2000	HAYSPUR	RAINBOW TROUT	00-028	2/28/2000	•	•			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/4, Flavobacterium psychrophilum 4/4
1999	TROUTLODGE	KAMLOOPS RBT	00-029	2/28/2000	+	•			+	-	+	•		DIAGNOSTIC	IHNV, FUR, CWD; IHNV 1/1(X5), IPNV 0/5, Aeromonas salmonicida 2/5, Flavobacterium psychrophilum 2/5
2000	HAYSPUR	RAINBOW TROUT	00-043	3/21/2000	•	-								DIAGNOSTIC	COS; VIRO 0/5, Ichthyobodo necator 2/2
1999	HAYSPUR	RAINBOW TROUT	00-044	3/21/2000	-	-			-	-	+	•		DIAGNOSTIC	CWD, BACTEREMIA; VIRO 0/10, Flavobacterium psychrophilum 6/8, Plesiomonas shigelloides 2/8
1999	HAYSPUR	KAMLOOPS RBT	00-045	3/21/2000	•	-			-	-	+	+		DIAGNOSTIC	CWD, MAS; VIRO 0/10, Flavobacterium psychrophilum 7/8, Aeromonas sobria 1/8
1999	TROUTLODGE	KAMLOOPS RBT	00-046	3/21/2000	+	•			-	-	+	+		DIAGNOSTIC	EGD, IHN, CWD, MAS; IHNV 3/3 (X2), IPNV 0/6, Aeromonas sobria 6/6, Flavobacterium psychrophilum 3/6, GILL FUNGUS 6/6
1999	TROUTLODGE	KAMLOOPS RBT	00-106	4/20/2000	-	-	L	-	-	_	-	+		INSPECTION	MAS; VIRO 0/20, FAT 0/20, Aeromonas caviae 1/12, PKX 0/1
1999	TROUTLODGE	KAMLOOPS RBT	00-107	4/20/2000	-	-		-	-	-	-	+		INSPECTION	MAS; VIRO 0/20, FAT 0/20, Pseudomonas mallei 3/12, PKX 0/1
1999	TROUTLODGE	KAMLOOPS RBT	00-108	4/20/2000	-	-		-	-	-	-	•		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, BACTE 0/12
2000	HAYSPUR	RAINBOW TROUT	00-109	4/20/2000	-					-	+	-		DIAGNOSTIC	CWD; VIRO 0/5, Flavobacterium psychrophilum 4/4

LOCATION	ł	Class		Sample											Page 12
BroodYr	Stock	Species	Accession		##H	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHO CSH	ExamType	Diagnoses
2000	HAYSPUR	RAINBOW TROUT	00-110	4/20/2000	•	<b>-</b> ,			-	-	+	+		DIAGNOSTIC	CWD, MAS; VIRO 0/5 Flavobacterium psychrophilum 4/4, Aeromonas hydrophia 1/4
1999	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-153	6/6/2000	+	-			-	-	-	-		DIAGNOSTIC	IHNV, COL, BGD; IHNV 2/2 (x5), IPNV 0/10, Flavobacterium columnare 7/8, Aeromonas hydrophia 7/8 (gills)
1999	TROUTLODGE	KAMLOOPS RBT	00-163	6/21/2000	+	-		-	-	-	+	+		DIAGNOSTIC	IHNV, CWD, MAS; IHNV 1/1(x3), IPNV 0/3, FAT 0/3, Pseudomonas spp. 3/3, Flavobacterium psychrophillum 3/3, Citrobacter spp. 1/3
2000	HAYSPUR	KAMLOOPS RBT	00-167	6/30/2000	-	-			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/5, Flavobacterium psychrophilum 4/4,
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-168	6/30/2000	-	-			-	-	+	+		DIAGNOSTIC	CWD, MAS; VIRO 0/5, Flavobacterium psychrophilum 4/4 Aeromonas hydrophia 3/4, Pasteurella multicida 3/4
1999	TROUTLODGE	KAMLOOPS RBT	00-169	6/30/2000	+	•			-	-	+	-		DIAGNOSTIC	IHNV, COL, BGD, CWD; IHNV 1/1(X5), IPNV, 0/5, Flavobacterium columnare 2/3 (gills), Aeromonas hydrophia 3/3 (gills), Flavobacterium psychrophilum 4/4, PKX 0/4
2000	TROUTLODGE	KAMLOOPS RBT	00-386	11/4/2000	-	-			-	-	+	-		INSPECTION	CWD; VIRO 0/5, Flavobacterium psychrophilum 4/4
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-387	11/4/2000	-	•			•	•	+	+		DIAGNOSTIC	CWD, MAS; VIRO 0/5, Flavobacterium psychrophilum 3/4, Aeromonas sobria 1/4
2000	HAYSPUR	RAINBOW TROUT	00-388	11/4/2000	-	-			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/3, Flavobacterium psychrophitum 2/3
2000	HAYSPUR	KAMLOOPS RBT	00-389	11/4/2000	+	-			•	-	+	-		DIAGNOSTIC	IHNV, CWD; IHNV 1/1(X5), IPNV 0/5, Flavobacterium psychrophilum 3/4
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-410	11/27/2000	-	-			-	-	+	-		DIAGNOSTIC	CWD; VIRO 0/7, Flavobacterium psychrophilum 4/7
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-411	11/27/2000	+	-			•	-	+	-		DIAGNOSTIC	CWD, IHNV; IHNV 1/1(X5), IPNV 0/5, Flavobacterium psychrophilum 3/4
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-412	11/27/2000	+	-			-	-	+	-		DIAGNOSTIC	CWD, IHNV; IHNV 1/1(X5), IPNV 0/5, FLAVOBACTERIUM PSYCHROPHILUM 3/4
HAYSPU	R HATCHERY	С	· · · · · · · · · · · · · · · · · · ·	······································								•			
1998	HAYSPUR	RAINBOW TROUT	00-198	8/9/2000	-	-	-	-	-	-	-	-	-	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60 , BACTE 0/16, WHD DIGEST 0/60 $$
1997	HAYSPUR	KAMLOOPS RBT	00-199	8/9/2000					•	-	-	-		DIAGNOSTIC	NO PATHOGENS DETECTED; BACTE 0/1
1998	HAYSPUR	KAMLOOPS RBT	00-286	9/14/2000	-	-		-	-	-	-	•	•	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60, BACTE 0/16, WHD-DIGEST 0/60
BROOD	HAYSPUR	RAINBOW TROUT	00-333	10/11/2000	-	-	-	+				-		INSPECTION	RS; VIRO 0/20, OCP-FAT 0/20, ELISA 3/10 (3 LOW)
BROOD	HAYSPUR	KAMLOOPS RBT	00-345	10/18/2000	-	-	-	+						INSPECTION	RS; VIRO 0/30, OCP-FAT 0/30, ELISA 2/12 (2 LOW)
BROOD	HAYSPUR	RAINBOW TROUT	00-363	10/25/2000	-	•	-	•						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/30, OCP-FAT 0/30, ELISA 0/10
BROOD	HAYSPUR	KAMLOOPS RBT	00-382	11/1/2000	-	-	-	+						INSPECTION	RS; VIRO 0/50, OCP-FAT 0/50, ELISA 5/10 (5 LOW)
BROOD	HAYSPUR	RAINBOW TROUT	00,395	11/8/2000	-	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/50, OCP-FAT 0/50, ELISA 0/10

LOCATION		Class		Sample												Page 13
BroodYr	Stock	Species	Accession	Date	IHN	IPN	NAVHS	BKD	FUR	ERM	CWD	MAS	WHD	CSH	ExamType	Diagnoses
BROOD	HAYSPUR	KAMLOOPS RBT	00-398	11/15/2000	-	-	-	+							INSPECTION	RS; VIRO 0/25, OCP-FAT 0/25, ELISA 1/10M (LOW)
BROOD	HAYSPUR	RAINBOW TROUT	00-406	11/21/2000	-	-	-	•							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/50, OCP-FAT 0/50, ELISA 0/10
BROOD	HAYSPUR	KAMLOOPS RBT	00-413	11/29/2000	-	-	-	+							INSPECTION	RS; VIRO 0/24, OCP-FAT 0/23, ELISA 10/17 (10 LOW)
BROOD	HAYSPUR	RAINBOW TROUT	00-414	12/6/2000	-	-	-	+							INSPECTION	RS; VIRO 0/30, OCP-FAT 5/30, ELISA 0/10
BROOD	HAYSPUR	RAINBOW TROUT	00-426	12/20/2000	-	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, OCP-FAT 0/20, ELISA 0/10
HENRYS	LAKE	С														
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-038A	3/6/2000				-							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-038B	3/9/2000				+							INSPECTION	RS; OCP-FAT 2/15 (x7)
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-038C	3/13/2000	-	_	-	•							INSPECTION	NO PATHOGENS DETECTED; VIRO 070, OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-055A	3/16/2000				-							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-055B	3/20/2000				-							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/20
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-055C	3/23/2000				-							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-055D	3/27/2000	-	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0770, OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-063	3/31/2000	•	-	-	-	-	-	+	+	+		INSPECTION	CWD (carrier), MAS (carrier), WHD; VIRO 0/60, FAT 0/60, Pseudomonas fluorescens 2/16, Flavobacterium psychrophilum 5/16, PTD 9/12(x5)
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-066A	3/30/2000	-	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/70, OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-066B	4/3/2000	-	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/70, OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-096A	4/6/2000				-							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-096B	4/13/2000				T -							INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-096C	4/17/2000				-	T						INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/105
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-129A	4/20/2000			<del>                                     </del>	-	T	-					INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/72
BROOD	HENRYS LAKE	CUTTHROAT TROUT	00-129B	4/27/2000				-	Ī						INSPECTION	NO PATHOGENS DETECTED; OCP-FAT 0/60
	OWER COMPANY	D			-			-								
WILD	MALAD RIVER (MIDDLE REACH)	RAINBOW TROUT	00-139	5/11/2000	•	•		+					-	-	WILD FISH	RS; VIRO 0/31, RS-FAT 0/31, ELISA 7/7 (6x5 + 1, ALL LOW), WHD- DIGEST 0/31, CSH 0/20
WILD	MALAD RIVER (LOWER REACH)	RAINBOW TROUT	00-140	5/11/2000	•	-	•	+					-	-	WILD FISH	RS; VIRO 0/38, RS-FAT 0/38, ELISA 8/8 (6x5 + 2x4, ALL LOW), WHD- DIGEST 0/38, CSH 0/20
MACKAY	HATCHERY	В														

LOCATION		Class		Sample												Page 14
BroodYr	Stock	Species	Accession		HM	IPH	NAVHS	вко	FUR	ERM	CWD	MAS	WHO	СЅН	ExamType	Diagnoses
1999	DEADWOOD RESERVOIR	KOKANEE-EARLY SPAWN	00-156	6/8/2000	•	-		-	-	•	-	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60, BACTE 0/8, WHD- DIGEST 0/60
2000	ARLEE	RAINBOW TROUT	00-157	6/8/2000	•	-		-	-	-	-	+	•		INSPECTION	MAS; VIRO 0/60, FAT 0/60, Pseudomonas fluorescens 1/8, WHD-DIGEST 0/60
2000	HENRYS LAKE	CUTTHROAT TROUT	00-280	9/11/2000	•	•		-	•	•	•	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/60, FAT 0/60, BACTE 0/8 , WHD-DIGEST 0/60 $$
MAGIC V	ALLEY HATCHERY	С													<del> </del>	
1999	SAWTOOTH	STEELHEAD, A GROUP	00-059	3/30/2000	-	-		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, PTD 0/20
1999	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-060	3/30/2000	-	-		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, PTD 0/20
1999	PAHSIMEROI	STEELHEAD, A GROUP	00-061	3/30/2000	-	-		-					-	- "	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, PTD 0/20
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-080	4/7/2000	•	-		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, WHD-DIGEST 0/20
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-081	4/7/2000	-	•		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, WHD-DIGEST 0/20
2000	DWORSHAK	STEELHEAD, B GROUP	00-141	5/17/2000	-	-			-	-	+	-			DIAGNOSTIC	CWD; VIRO 0/10, Flavobacterium psychrophitum 8/8
2000	DWORSHAK	STEELHEAD, B GROUP	00-166	6/30/2000	-	-			-	-	+	-			DIAGNOSTIC	CWD; VIRO 0/10, Flavobacterium psychrophilum 8/8
2000	DWORSHAK	STEELHEAD, B GROUP	00-186	7/28/2000	-	-			-	-	+	-			DIAGNOSTIC	CWD; VIRO 0/10, Flavobacterium psychrophilum 4/4
2000	PAHSIMEROI	STEELHEAD, A GROUP	00-187	7/28/2000	-	-			•	-	+	+			DIAGNOSTIC	CWD, MAS; VIRO 0/10 , Flavobacterium psychrophilum 2/4, Aeromonas hydrophia 2/4
2000	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-349	10/19/2000	•	-			-	-	-	•			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, BACTE 0/4
2000	SAWTOOTH	STEELHEAD, A GROUP	00-350	10/19/2000	-	-			•	-	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, BACTE 0/4
2000	PAHSIMEROI	STEELHEAD, A GROUP	00-351	10/19/2000	-	-			-	-	-	+			INSPECTION	MAS; VIRO 0/5, Pseudomonas fluorescens 1/4
2000	DWORSHAK	STEELHEAD, B GROUP	00-394	11/8/2000	-	-			-	-	-	-			INSPECTION	EXTERNAL FLAVOBACTERIOSIS; VIRO 0/10, Flavobacterium psychrophilum 4/4
MCCALL	HATCHERY	C														
1998	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-024	2/16/2000	•	-		+		·			•		INSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 1/4 (x5), WHD-DIGEST 0/20
1998	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-033	3/7/2000	•	•		+					-		INSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 1/4 (x5, LOW), WHD-DIGEST 0/20
1999	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-176	7/12/2000	-	-		•	•	•	•	+			INSPECTION	MAS; VIRO 0/10, FAT 0/10, Pseudomorias spp. 4/8

LOCATION		Class		Sample												Page 15
BroodYr	Stock	Species	Accession	Date	HH	IPN	KAVH	ВКО	FUR	ERM	CWD	MAS	WHD	CSH	ExamType	Diagnoses
2000	WESTSLOPE TROUT COMPANY	WESTSLOPE CUTTHROAT TROUT	00-215	8/21/2000	•	-			-	-	+	•			DIAGNOSTIC	CWD; VIRO 0/5, Flavobacterium psychrophilum 8/8
1999	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-316	9/29/2000	-	-		+					-		INSPECTION	RS; VIRO 0/20, ELISA 4/4(X5, LOW), WHD-DIGEST 0/20
1999	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-368	10/26/2000				•	-	-	-	+			INSPECTION	MAS; FAT 0/10, Pseudomonas putida 1/8
1999	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-399	11/14/2000		-	•	•	-	•	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/8
NAMPA I	HATCHERY	A														
1998	TROUTLODGE	KAMLOOPS RBT	00-001	1/4/2000	-	-			-	•	+	•			DIAGNOSTIC	CWD; VIRO 0/10, Flavobacterium psychrophilum 5/5
1998	HAYSPUR	RAINBOW TROUT	00-002	1/4/2000	-	T -			-	-	-	-			DIAGNOSTIC	NO PATHOGENS DETECTED; VIRO 0/8, BACTE 0/5
2000	HAYSPUR	RAINBOW TROUT	00-050	3/27/2000					-	-	+	+			DIAGNOSTIC	CWD, MAS; Flavobacterium psychrophilum 4/4, Aeromonas sobria 4/4 (lesion), Aeromonas hydrophia 4/4 (systemic)
2000	HAYSPUR	KAMLOOPS RBT	00-051	3/27/2000					-	-	-	+			DIAGNOSTIC	MAS; Aeromonas hydrophia 2/4
1999	TROUTLODGE	KAMLOOPS RBT	00-115	4/21/2000	-	-		-	-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, BACTE 0/12
1999	TROUTLODGE	KAMLOOPS RBT	00-116	4/21/2000	-	•		-	-	-	+	-			INSPECTION	CWD (CARRIER); VIRO 0/20, FAT 0/20, Flavobacterium psychrophilum 1/12, Pasteurella sp. 1/12
1999	TROUTLODGE	KAMLOOPS RBT	00-117	4/21/2000	-	-	T	-	-	-	-	T -			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, BACTE 0/12
2000	TROUTLODGE	KAMLOOPS RBT-TRIPLOID	00-334	10/12/2000	-	•	Ī		-	-	+	+			DIAGNOSTIC	CWD, MAS; VIRO 0/10, Flavobacterium psychrophilum 3/8, Pseudomonas vesicularis 3/8, Sphingomonas paucimoblis 5/8
NEW ME	XICO DEPT GAME & F	TISH D						_	-							
WILD	POSO CREEK	BROOK TROUT	00-149	5/25/2000									-		INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/59
WILD	RIO CHAMITA	BROWN TROUT	00-150	5/31/2000				1					-		INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/60
WILD	RIO CHAMITA	RAINBOW TROUT	00-151	5/31/2000			Ī						-		INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/1
NIAGAR	A SPRINGS HATCHER	C C														
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-011	1/26/2000	•	-			•	-	+	+			INSPECTION	CWD, MAS; VIRO 0/10, Flavobacterium psychrophilum 4/4, Pseudomonas aureofaciens 4/4
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-012	1/26/2000	•	•			-	-	+	_			INSPECTION	CWD, BACTEREMIA; VIRO 0/10, Flavobacterium psychrophilum 4/8, Acinetobacter spp. 4/8
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-052	3/28/2000	-	-		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, PTD 0/20
1999	PAHSIMEROI	STEELHEAD, A GROUP	00-053	3/28/2000	-	<b>_</b>		-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/20, FAT 0/20, PTD 0/20

LOCATION		Class		Sample											Page 16
BroodYr	Stock	Species	Accession	•	HM	IPN	NAVHS	BKD F	UR	ERM	CWD	MAS	WHD CSH	ExamType	Diagnoses
1999	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-058	3/30/2000					-	-	+	+		DIAGNOSTIC	MAS, CWD; Pseudomonas spp. 3/8, Flavobacterium psychrophilum 2/8, Aeromonas hydrophia 1/8
2000	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-191	8/1/2000	-	•			-	-	•	-		INSPECTION	BACTEREMIA; VIRO 0/10, Streptococcus sp. 4/4
2000	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-192	8/1/2000	•	-			-	-	•	•		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, BACTE 0/10
2000	PAHSIMEROI	STEELHEAD, A GROUP	00-267	9/7/2000	-	-			-	-	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, BACTE 0/8
2000	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-268	9/7/2000	-	-			-	-	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, BACTE 0/8
2000	PAHSIMEROI	STEELHEAD, A GROUP	00-337	10/12/2000	•	-			-	-	-	•		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, BACTE 0/8
2000	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-407	11/21/2000	-	-			-	•	-	+		INSPECTION	MAS; VIRO 0/10, Aeromonas hydrophia 3/8, Aeromonas caviae 2/8
2000	PAHSIMEROI	STEELHEAD, A GROUP	00-408	11/21/2000	_	-			-	-	-	-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, BACTE 0/8
OXBOW	HATCHERY	С								-					
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-039	3/16/2000	•	<b>-</b>	•	•					•	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/50, FAT 0/20, WHD-DIGEST 0/20
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-042	3/20/2000	•		-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/34, FAT 0/34
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-079	4/6/2000	•	-	-	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/17, FAT 0/4
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-083	4/10/2000	•	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/26
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-087	4/13/2000	•	-								INSPECTION	NO PATHOGENS DETECTED; VIRO 0/19
BROOD	HELLS CANYON (SNAKE RIVER)	STEELHEAD, A GROUP	00-093	4/17/2000	•	•	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/4
PAHSIM	EROI HATCHERY	С													
1998	PAHSIMEROI	SUMMER CHINOOK SALMON	00-015	2/10/2000	-	-		+					-	INSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 2/4 (x5), WHD-DIGEST 0/20
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-047	3/20/2000	-	-	-						-	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, WHD-DIGEST 0/5
BROOD	PAHSIMERO	STEELHEAD, A GROUP	00-054	3/27/2000	•	-	-						+	INSPECTION	WHD; VIRO 0/51, PTD 1/1 (x5)
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-065	3/30/2000	-	-							-	INSPECTION	NO PATHOGENS DETECTED; VIRO 0/51, WHD-DIGEST 0/5

LOCATION		Class		Sample											Page 17
BroodYr	Stock	Species	Accession	_ :	HH	IPN	NAVH	SBKD	FUR E	RM C	WD M	s w	ID CSH	ExamType	Diagnoses
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-068	4/3/2000	-	-						-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/24, WHD-DIGEST 0/5
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-074	4/4/2000	-	-	-					-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/24, WHD-DIGEST 0/5
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-085	4/10/2000	-	_	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/24
BROOD	PAHSIMEROI	STEELHEAD, A GROUP	00-097	3/20/2000	-	-	-	T -						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/12, FAT 0/60
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-244	8/28/2000	•	-		•				-		INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1, ELISA 0/1, WHD-DIGEST 0/1
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-271	9/1/2000				+				•		INSPECTION	BKD; ELISA 3/3 (2 LOW, 1 HIGH), WHD-DIGEST 0/3
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-272	9/5/2000	-	-	-	+				•		INSPECTION	RS; VIRO 0/5, ELISA 5/5 (5 LOW), WHD-DIGEST 0/5
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-278	9/8/2000				+						INSPECTION	RS; ELISA 9/11 (9 LOW)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-279	9/11/2000	•	•	-	+				+		INSPECTION	BKD; VIRO 0/15, ELISA 9/16 (8 LOW, 1 HIGH), Myxobolus cerebralis- DIGEST 2/3(X5)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-287	9/14/2000	•	-	-	+					I	INSPECTION	RS; VIRO 0/18, ELISA 1/18 (1 LOW)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-300	9/18/2000				+						INSPECTION	RS; ELISA 17/21(17 LOW)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-301	9/21/2000	•	-		+						INSPECTION	BKD; VIRO 0/15 , ELISA 14/15 (12 LOW, 2 HIGH)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-304	9/25/2000	-	-		+						INSPECTION	BKD; VIRO 0/6, ELISA 13/16 (11 LOW, 2 HIGH)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-328	9/29/2000				+						INSPECTION	BKD; ELISA 9/9 (8 LOW, 1 HIGH)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-329	10/2/2000				+						INSPECTION	BKD; ELISA 11/12 (8 LOW, 3 HIGH)
BROOD	PAHSIMEROI	SUMMER CHINOOK SALMON	00-330	10/5/2000				+						INSPECTION	RS; ELISA 1/1(1 LOW)
1999	PAHSIMEROI	SUMMER CHINOOK SALMON	00-403	11/16/2000	-	-		-	. [					INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/8
OWELL	SATELLITE	С		<del>.</del>											
998	POWELL	SPRING CHINOOK SALMON	00-072	4/4/2000	-	-		+				-		INSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 2/4 (x5), WHD-DIGEST 0/20
ROOD	POWELL	SPRING CHINOOK SALMON	/ I 00-193	8/3/2000	+	_		+	Ť	T	Ť	T.	Ħ	INSPECTION	BKD IHNV; VIRO 6/39, ELISA 38/39 (33 LOW 5 HIGH) , WHD-DIGEST 0/2

LOCATIO	N	Class		Sample													Page 18
BroodYr	Stock	Species	Accession	•	9444	IPN	NAVH	SBKO	FUR	ERM	CWI	MAS	WHO	CSH	ExamType	Diagnoses	- espe 16
BROOD	POWELL	SPRING CHINOOK SALMON	N 00-196	8/7/2000	-	-	-	+						T	INSPECTION	BKD; VIRO 0/21, ELISA 40/40 (37 LOW, 3 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	₹ 00-200	8/10/2000				+			Ī	T	İ		INSPECTION	BKD; ELISA 49/55 (44 LOW, 5 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	00-208	8/14/2000				+		Ī	T	T	Ť	T	INSPECTION	BKD; ELISA 118/12 (105 LOW, 13 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	l 00-221	8/17/2000				+	T		İ		T	<del>                                     </del>	INSPECTION	BKD; ELISA 74/77 (67 LOW, 7 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	00-223	8/21/2000				+		<u> </u>		†	<del> </del>	†	INSPECTION	BKD; ELISA 50/52 (44 LOW, 6 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	00-224	8/21/2000				+			<del> </del>	T	<del>                                     </del>		INSPECTION	BKD; ELISA 97/103, (88 LOW, 9 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	00-243A	8/24/2000				+	<u> </u>		T	<del> </del>		<del> </del>	INSPECTION	BKD; ELISA 56/59 (51 LOW, 5 HIGH)	
BROOD	POWELL	SPRING CHINOOK SALMON	00-243B	8/8/2000				+	I				<del> </del>	<u> </u>	INSPECTION	RS; ELISA 5/5 (5 LOW)	
PRIVATE		D			<u> </u>					L					J		
1999	EPICENTER AQUACULTURE	TILAPIA	00-016	2/15/2000	-	•		-	-	•		+	•	<b>_</b>	CERTIFICATION	MAS; VIRO 0/60, FAT 0/60, Aeromonas caviae 23/60, Aeromo hydrophia 12/60, WHD-DIGEST 0/60, CSH 0/60	onas
999	ARRAINA, INC	TILAPIA	00-026	2/22/2000	-	-		-	-	-	•	-	-	-	CERTIFICATION	BACTEREMIA; VIRO 0/60, FAT 0/60, Plesiomonas shigelloid WHD-DIGEST 0/60, CSH 0/60	les 10/6
999-2000	ARRAINA, INC	TILAPIA	00-147	6/26/2000	-	-		-	•	-	-	+		-	CERTIFICATION	BACTEREMIA; VIRO 0/60, FAT 0/60, Plesiomonas shigefloide Pseudomonas spp. 1/60, WHD-DIGEST 0/60, CSH 0/60,	les 4/60
DULT	UNKNOWN	RAINBOW TROUT	00-190	8/1/2000	-	-			-	•	-	+	-		DIAGNOSTIC	MAS; VIRO 0/2, Aeromonas sobria 2/2, Acinetobacter spp. 1/2 DIGEST 0/2	, WHD
999	EPICENTER AQUACULTURE	TILAPIA	00-404 1	11/20/2000	•	-		-	-	•	•	+	-	-	CERTIFICATION	MAS, STRP; VIRO 0/60, FAT 0/60, Aeromonas hydrophia 4/60 Streptococcus sp. 4/60, WHD-DIGEST 0/60, CSH 0/60	<b>)</b> ,
RANGEN	AQUA CTR	D															
2000	RANGEN	RAINBOW TROUT	00-123	4/18/2000				-					-		INSPECTION	NO PATHOGENS DETECTED; FAT 0/60, WHD-DIGEST 0/60	,
APID RI	VER HATCHERY	С		***************************************													
998	RAPID RIVER	SPRING CHINOOK SALMON	00-031	3/2/2000	•	-		+					-		INSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 1/4(x5, LOW), WHD-DIGEST	0/20
999	RAPID RIVER	SPRING CHINOOK SALMON	00-144	5/19/2000	-	-		-	-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, FAT 0/5, BACTE 0/4	4
999	RAPID RIVER	SPRING CHINOOK SALMON	00-177	7/14/2000	-	•		-	-	-	-	-			INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE	0/8
ROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-201	8/14/2000	-	-		+				1			INSPECTION	RS; VIRO 0/4, ELISA 4/4 (4 LOW )	
ROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-202	8/14/2000								T	-	$\equiv$	INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/20	
ROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-217	8/21/2000	-	-	-	+							INSPECTION	BKD; VIRO 0/60, ELISA 80/93 (72 LOW, 8 HIGH)	
ROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-220	8/22/2000				+				T			INSPECTION	BKD; ELISA 1/2 (1 HIGH)	
ROOD	RAPID RIVER	SPRING CHINOOK SALMON	00.004	8/24/2000 <b>[</b>				+		_						• •	

LOCATION	1	Class	-	Sample													Page 19
BroodYr	Stock	Species	Accession		IHN	IPN	NAVHS	BKD	FUR EF	em C	WD M	s w	HD CS	SH E	ExamType	Diagnoses	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	N 00-234A	8/28/2000				+							NSPECTION	BKD; ELISA 300/317 (279 LOW, 21 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	N 00-234B	8/28/2000											NSPECTION	See Accession # 00-234A	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	N 00-241	8/29/2000				+							NSPECTION	BKD; ELISA 64/102 (59 LOW, 5 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	N 00-245A	8/31/2000				+							NSPECTION	BKD; ELISA 213/295 (208 LOW, 5 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-245B	9/7/2000										II	NSPECTION	See Accession # 00-245A	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-259	9/1/2000				+							NSPECTION	RS; ELISA 10/37 (10 LOW)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-260	9/5/2000				+						ı	NSPECTION	BKD; ELISA 118/136 (115 LOW, 3 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-269	9/6/2000				+						11	NSPECTION	BKD; ELISA 41/85 (37 LOW, 4 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	₩ 00-270	9/7/2000				+						11	NSPECTION	BKD; ELISA 48/48 (45 LOW, 3 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-281	9/8/2000				+						it	NSPECTION	RS; ELISA 10/22 (10 LOW)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-282	9/11/2000				+						11	NSPECTION	BKD; ELISA 15/19 (14 LOW, 1 HIGH)	
BROOD	RAPID RIVER	SPRING CHINOOK SALMON	00-305	9/25/2000				+						11	NSPECTION	RS; ELISA 4/4 (4 LOW)	
1999	RAPID RIVER	SPRING CHINOOK SALMON	00-315	9/29/2000	-	-		-	Ţ					11	NSPECTION	NO PATHOGENS DETECTED; VIRO 0/5, FAT 0/5	
1999	RAPID RIVER	SPRING CHINOOK SALMON	00-369	10/26/2000				-	<b>.</b> .	. [	-   -			II.	NSPECTION	NO PATHOGENS DETECTED; FAT 0/10, BACTE 0/8	
1999	RAPID RIVER	SPRING CHINOOK SALMON	00-400	11/14/2000	•	-		-			-   -			11	NSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BA	ACTE 0/8
RED RIVE	ER SATELLITE	С															·
1998	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-070	4/3/2000	-	-		+				-	•	IN	NSPECTION	RS; VIRO 0/20, FAT 0/20, ELISA 3/4 (x5), WHD-DIGEST	0/20
1999	S.F. CLEARWATER RIVER	SPRING CHINOOK SALMON	00-306	9/26/2000	-	-		+					•	II.	NSPECTION	RS; VIRO 0/20, ELISA 4/4 (x5, LOW), WHD-DIGEST 0/	19
SAWTOO	TH HATCHERY	С															
1998	SAWTOOTH	SPRING CHINOOK SALMON	00-036	3/13/2000	•	-		+				4	<b>-</b>	11	NSPECTION	BKD, WHD; VIRO 0/20, FAT 2/20, ELISA 5/5(x4, 4 LOW, MYXOBOLUS CEREBRALIS-DIGEST 1/4 (x5)	1 HIGH)),
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-056	3/27/2000	-	-	-					1		IN.	ISPECTION	NO PATHOGENS DETECTED; VIRO 0/18	
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-062	3/30/2000		-				<u> </u>	$\overline{T}$	<del></del>	$\dagger$	IN	ISPECTION	NO PATHOGENS DETECTED; VIRO 0/26	
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-067	4/3/2000	-	-	•					T	1		ISPECTION	NO PATHOGENS DETECTED; VIRO 0/44	
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-069	4/4/2000	-	-	-	I			1	T	$\dot{\top}$		ISPECTION	NO PATHOGENS DETECTED; VIRO 0/2	
ROOD	SAWTOOTH	STEELHEAD, A GROUP	00-084	4/6/2000	-	_	-			T		T	+		ISPECTION	NO PATHOGENS DETECTED; VIRO 0/80	
										+		-		ᅴ	ISPECTION	NO PATHOGENS DETECTED; VIRO 0/60	

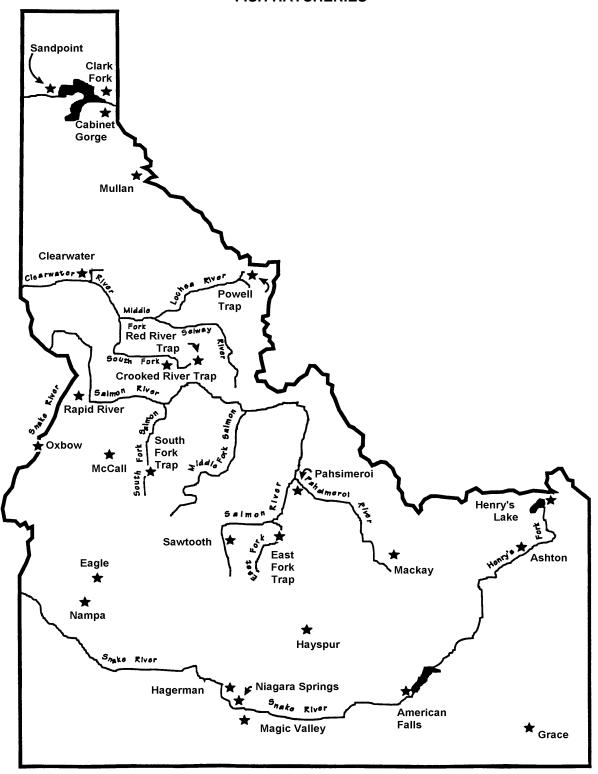
LOCATION		Class		Sample											Page 20
BroodYr	Stock	Species	Accession	Date	HHN	IPN	NAVHS	BKD	FUR EF	m C	MO MA	S WHO	CSH	ExamType	Diagnoses
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-089	4/11/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/40
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-090	4/11/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/4
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-094	4/13/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/40
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-095	4/14/2000	•	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-102	4/17/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/40
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-103	4/17/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-113	4/20/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/40
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-121	4/24/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/30
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-122	4/21/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-125	4/27/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/16
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-126	4/25/2000	-	-			T					INSPECTION	NO PATHOGENS DETECTED; VIRO 0/1
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-132	5/1/2000	-	-	-							INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-133	5/4/2000	-	-								INSPECTION	NO PATHOGENS DETECTED; VIRO 0/11
BROOD	SAWTOOTH	STEELHEAD, A GROUP	00-134	3/27/2000				-				-		INSPECTION	NO PATHOGENS DETECTED; FAT 0/60, WHD-DIGEST 0/20
BROOD	EAST FORK SALMON RIVER	STEELHEAD, B GROUP	00-135	3/14/2000				-				+		INSPECTION	WHD; FAT 0/17, Myxobolus cerebralis-DIGEST 1/4 (x5)
1999	SAWTOOTH	SPRING CHINOOK SALMON	00-159	6/8/2000	-	-		-	-   -					INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/4
1999	PAHSIMEROI	SUMMER CHINOOK SALMON	00-160	6/8/2000	-	-		-	-   -					INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/4
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-203	8/14/2000	-	-								INSPECTION	NO PATHOGENS DETECTED; VIRO 0/3
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-227	8/21/2000	-	-	-	+						INSPECTION	RS; VIRO 0/6, ELISA 6/6 (6 LOW)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-228	8/14/2000				+						INSPECTION	BKD; ELISA 2/3 (1LOW, 1 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-229	8/22/2000				+						INSPECTION	BKD; ELISA 24/25 (20 LOW, 4 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-230	8/14/2000				+		T				INSPECTION	RS; ELISA 2/2 (2 LOW)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-235	8/24/2000	-	•	•	+						INSPECTION	BKD; VIRO 0/14, ELISA 14/14 (13 LOW, 1 HIGH)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-236	8/28/2000	•	-	-	+						INSPECTION	RS; VIRO 0/16, ELISA 13/16 (13 LOW)

LOCATION	ł "	Class		Sample											Page 21
BroodYr	Stock	Species	Accession		HIN	IPN	NAVHS	BKD	FUR	ERM C	WD N	s w	но [СВН]	ExamType	Diagnoses
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-237	8/25/2000				+						INSPECTION	BKD; ELISA 11/11(10 LOW, 1 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-252	8/29/2000				+						INSPECTION	BKD; ELISA 9/9 (6 LOW, 3 HIGH)
BROOD	SAWTOOTH	SPRING CHINOOK SALMOI	N 00-253	8/31/2000	-	-	-	+						INSPECTION	BKD; VIRO 0/24, ELISA 23/24 (22 LOW, 1 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-254	9/1/2000				+						INSPECTION	BKD; ELISA 19/19 (17 LOW, 2 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-257	9/4/2000				+						INSPECTION	RS; ELISA 4/4 (4 LOW)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	N 00-258	9/4/2000	•	•		+						INSPECTION	BKD; VIRO 0/13, ELISA 11/13 (9 LOW, 2 HIGH)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	00-288	9/7/2000				+						INSPECTION	BKD; ELISA 5/6 (4 LOW, 1 HIGH)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-289	9/7/2000				+						INSPECTION	RS; ELISA 1/1(1LOW)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	N 00-290	9/1/2000				+						INSPECTION	BKD; ELISA 3/5 (2 LOW, 1 HIGH)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	N 00-291	9/14/2000				+						INSPECTION	RS; ELISA 2/2 (2 LOW)
BROOD	SAWTOOTH	SPRING CHINOOK SALMON	N 00-292	8/14/2000								+	•	INSPECTION	WHD; Myxobolus cerebralis-DIGEST 1/5(X5)
1999	REDFISH LAKE	SOCKEYE SALMON	00-323	10/4/2000	-	-		-	-	-   -	. +	•   -		INSPECTION	MAS; VIRO 0/8, FAT 0/8, ELISA 0/8, Pseudomonas paucimobilis 8/8, DIGEST 0/8
1999	SAWTOOTH	SPRING CHINOOK SALMON	N 00-402	11/17/2000	-	-		-	-	- ] -				INSPECTION	NO PATHOGENS DETECTED; VIRO 0/10, FAT 0/10, BACTE 0/10
SOUTH F	ORK TRAP	D							-						
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-197	8/8/2000								•		INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/51
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-206	8/15/2000	-	-	-	+						INSPECTION	RS; VIRO 0/1, ELISA 1/1 (1 LOW)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-213	8/18/2000	-	-		+						INSPECTION	RS; VIRO 0/9, ELISA 9/9 (9 LOW)
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-214	8/18/2000								-		INSPECTION	NO PATHOGENS DETECTED; WHD-DIGEST 0/7
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-218	8/22/2000				+						INSPECTION	BKD; ELISA 38/40 (31 LOW, 7 HIGH)
ROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-219	8/22/2000	-	-	-	+				T		INSPECTION	RS; VIRO 0/3, ELISA 4/4 (4 LOW)

LOCATION		Class	*	Sample												Page 22
BroodYr	Stock	Species	Accession	•	HW	IPN	NAVHS E	Ю	FUR E	RM C	WD M	IS W	HD CSH	ExamType	Diagnoses	raye 22
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-232	8/25/2000	•	-		+						INSPECTION	BKD; VIRO 0/60, ELISA 122/141 (106 LOW, 16 HIGH)	
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-233	8/25/2000	•	•		+						INSPECTION	RS; VIRO 0/4, ELISA 5/7 (5 LOW)	
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-239	8/29/2000	-	•	•	+						INSPECTION	RS; VIRO 0/6, ELISA 5/6 (5 LOW)	
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-240	8/29/2000				+						INSPECTION	BKD; ELISA 59/79 (54 LOW, 5 HIGH)	
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-248	9/1/2000	•	-	•	-						INSPECTION	NO PATHOGENS DETECTED; VIRO 0/2, EUSA 0/2	
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-249	9/1/2000				+						INSPECTION	BKD; ELISA 46/65 (42 LOW, 4 HIGH)	
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-261	9/5/2000			•	•						INSPECTION	BKD; ELISA 16/19 (14 LOW, 2 HIGH)	
BROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-262	9/5/2000				<b>-</b>						INSPECTION	BKD; ELISA 6/6 (3 LOW, 3 HIGH)	
BROOD	S.F. SALMON RIVER	SUMMER CHINOOK SALMON	00-273	9/8/2000			4	•						INSPECTION	BKD; ELISA 8/8 (6 LOW, 2 HIGH)	
ROOD	JOHNSON CREEK	SUMMER CHINOOK SALMON	00-274	9/8/2000			4	<b>-</b>						INSPECTION	RS; ELISA 13/16 (13 LOW)	
WHD RES	EARCH PROJECTS															·
000	HAYSPUR	KAMLOOPS RBT	00-179A	7/17/2000								4		RESEARCH	WHD; Myxobolus cerebralis-DIGEST 15/20	
000	HAYSPUR	KAMLOOPS RBT	00-179B	7/17/2000						İ		+		RESEARCH	WHD; Myxobolus cerebralis-DIGEST 16/20	
000	HAYSPUR	KAMLOOPS RBT	00-180	7/17/2000		·		T			Ť	1.		RESEARCH	NO PATHOGENS DETECTED; WHD-DIGEST 0/16	

Appendix 2. Geographic location of Idaho Department of Fish and Game fish culture facilities.

# IDAHO DEPARTMENT OF FISH AND GAME FISH HATCHERIES



Submitted by:	Approved by:
Keith Johnson Fish Pathologist Supervisor	Idaho Department Of Fish and Game
Douglas Burton Resident Fish Pathologist	
A. Douglas Munson Anadromous Fish Pathologist	Virgil K. Moore, Chief Bureau of Fisheries
	Keith Johnson Fish Pathologist Supervisor