

# SUMMARY OF OPERATIONS ON CONTRACT NO. W-28-094-eng-33 FOR THE MONTH OF DECEMBER 1946

(231)

Work continued on all phases of our project with the collection of data on the return of irradiated fish from the sea and the analysis of data for report writing receiving the major effort.

- I. Applied Fisheries Laboratory at the University of Washington
- 1. The basic program of measuring the effects of the exposure of aquatic organism in various stages of development to I-rays continued.

## \*Sections I and II

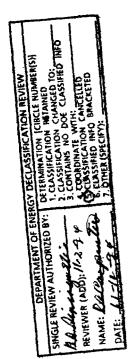
One additional spawning male chinook salmon was recovered during the month in the Samish River. This recovery brings the total spawners recovered to twenty three. These fish were produced by parents that were exposed to I-rays (100 r), prior to spawning in October of 1943, or from "control" fish.

Four of the fish recovered were females from which the eggs were removed and fertilized with sperm from a male chinook with a similar history of treatment. The four lots of eggs received are being incubated and data are being gathered on the different mortalities, development, etc. From fertilization to the "eyed" stage the eggs produced from the progeny of the 100 r parents have experienced a much higher mortality than those from the "controls".

#### Section III and IV

The run of adult sockeye salmon entering Cultus Lake, B.C. has been continuously inspected for marked fish. It was thought that some of the marked fingerling fish released into the lake,

\*Section numbers refer to the Project Chronology Chart, revised Jamary 2, 1946.



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February 22 and 27, 1945, might return this fall as adults.

To date, no marked fish have returned. Since the run has been completed for this year we must discontinue our observations until the fall of 1947 when it is hoped that the marked fish will return to the lake.

#### Section V

A summary of these data has not been completed.

#### Section VI, VII and VIII

Final reports have been submitted describing the data in these sections.

#### Section IX

This portion of the project has not been summarized as yet.

#### Section I

Completed and a report submitted.

#### Section II and II-a

The analysis of the data gathered is contiming.

A final report shall be ready by spring of 1947.

#### Section II-b

The fish being retained for second generation spawning are developing very slowly due to the abnormally cold water temperatures.

#### Section XI-c

The data gathered on the second spawning during the spring of 1946 of fish exposed to irradiations, awaits further analysis and summarisation.

## Section XII, XIII, and XIV

The statistical evaluation of the great mass of data gathered on this portion of the project is nearing completion. It should Control of the

be possible to prepare the final report soon.

Sections XV - XVIII

The material gathered during active work in these sections has not been prepared into final reports.

- 2. The study on the effect of X-rays upon micro-plankton carried on at the request of Col. Stafford L. Warren was further reviewed.

  A condensation of the report forwarded to the District in November was prepared for possible publication and will be started in January 1947 through channels to secure declassification for publication.

  II. Hanford Laboratory.
- 1. The laboratory in the 100-F area was put in operation with Mr. Phillip A. Olson in attendance.
- 2. Mr. Richard Foster made a business trip from Seattle to Hanford in connection with work at the laboratory.
- 3. On December 6, L. R. Donaldson and Richard Foster procured approximately 62,000 silver salmon eggs from 22 females at the Soos Creek Station of the State of Washington Department of Fisheries.

  These eggs were transferred to the 146 Building and the monitoring studies started.

# III. Crossroads Project.

- 1. The unpacking and identification of material collected at Bikini continued. Much of the material and many of the specimens continue to be radioactive.
- 2. Materials are being gathered and equipment assembled in preparation for initiating studies on absorption and transference of active materials in food chains.

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No. W-28-094-eng-33

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