

Test Cdr. W. Wolff

Interdepartmental letterhead

411572

Mail Station L 231

Ext: 8711

July 5, 1973

~~Captain Gay~~
~~Mr. Carlson~~
~~Cdr Wolff~~
Major Getner Johnson
Major Giannotta

MEMORANDUM

TO: W. E. Nervik, Division Leader, Radiochemistry
FROM: R. W. Hoff, Radiochemistry Division
SUBJECT: Eniwetok sample analytical program. Progress Report No. 11.
Status as of 29 June 1973.

Operation
Radiol

This progress report summarizes the laboratory analytical effort being carried on at LLL by members of the Radiochemistry Division, Bio-medical Division, and Hazards Control Department, at the University of Washington (Dr. Allyn Seymour, Dr. Victor Nelson, Dr. William Schell), at McClellan Laboratory (Col. R. McBryde, Maj. W. Myers), at LFE Environmental (Mr. Leon Leventhal, Mr. William Major), and at Eberline Instrument Corporation (Mr. Eric Geiger, Mr. Ernest Sanchez).

I. Initial processing. All efforts completed as of 29 June 1973.

Soil, sediment, and core samples:

Initial processing efforts at LLL have been completed as of 15 June. A total of 3,950 samples were handled with the following breakdown:

- 3,560 soils
- 225 sediments
- 165 cores

The sediments and core samples were collected from the lagoon floor.

It now appears that the count of total samples processed in Building 412 is too high by a few hundred. This discrepancy was probably due to skipping blocks of numbers somewhere during the sample logging process. A revised total will be stated in the next edition of this progress report.

REPOSITORY DOE History Division
COLLECTION R6 326, Tommy McCraw Job 1320
BOX No. 5
FOLDER Radiological Survey

Fish samples (441 samples to be processed; breakdown - 407 fish, 28 seawater filters, 3 algae, 2 sediment, 1 coral):

Initial processing phase at UW, Seattle, complete as of 23 February 1973.

Dried samples subsequently dry-ashed at LLL - 121.

Terrestrial animals, eggs, etc. (281 samples to be processed):

Initial processing (LLL) - 281 samples completed as of 29 June 1973.

Seawater (58 samples collected):

Chemical separation (LLL) - initial separation chemistry completed as of 18 May 1973.

Initial processing completed on the following samples prior to 20 April 1973:

Vegetation (208 samples)

Plankton (16 samples)

Air filters (61 samples).

II. Gamma counting, precision Ge(Li) detector spectroscopy:

Samples counted and data in computer bank (LLL)

	<u>1 June 1973*</u>	<u>15 June 1973*</u>	<u>29 June 1973*</u>
Soils	2397	2760	2994 ✓
Sediments	(224)	(224)	(224) ✓
Cores	88	101	122 ✓
Fish	(407)	(407)	(407) ✓
Algae	2	2	(3)
Seawater (Hydroxide fraction)	(58)	(58)	(58) ✓
Plankton	(16)	(16)	(16) ✓
Coral	2	2	(2)
Vegetation	(208)	(208)	(208) ✓
Air Filters	(61)	(61)	(61) ✓
Animals, birds, eggs, etc.	<u>45</u>	<u>77</u>	<u>146</u> ✓
TOTAL	3508	3916	4240

* Parentheses indicates categories where gamma counting has been completed.

III. Chemical analyses, samples dissolved and elements isolated chemically:

As of 29 June 1973, the status of sample delivery to contract labs is the following:

<u>Sample type</u>	<u>Delivered for chem. anal.</u>	<u>Remain to be delivered</u>
Soils, sediments, cores	1656 (MCL) 887 (LFE) <u>486 (EIC)</u>	315
TOTAL	3029	
Fish	121 (MCL) 196 (LFE) <u>114 (UW)</u>	NONE
TOTAL	431	
Vegetation (208 samples gamma counted)	40 (LFE)	~ 130
Animals (281 samples gamma counted)	0	~ 200
Air filters	55 (MCL)	NONE

McClellan Laboratory (MCL) - The analytical work at MCL was begun in December 1972.

	<u>1 June 1973</u>	<u>15 June 1973</u>	<u>29 June 1973</u>
Samples received (29 June - 1446 soils, 210 sediments, 121 fish, 55 air filters)	1345	1477	1832
Data reported on ⁹⁰ Sr and Pu (29 June - 943 soils, 208 sediments, 11 fish, 53 air filters)	921	1041	1215

McClellan Laboratory - continued

	<u>1 June 1973</u>	<u>15 June 1973</u>	<u>29 June 1973</u>
Chemistry complete, samples counting	408	370	324
In process	16	66	293

LFE Environmental Analysis Laboratory (LFE) - The analytical work at LFE was begun on March 5, 1973.

	<u>1 June 1973</u>	<u>15 June 1973</u>	<u>29 June 1973</u>
Samples received			
Soils	679	679	880
Sediments	6	6	7
Fish	5	5	196
Vegetation	40	40	40
Algae	0	0	3
Water plant residues	<u>2</u>	<u>2</u>	<u>2</u>
TOTAL	732	732	1128

Pu data reported			
Soils	379	507	637
Fish	4	4	4
Vegetation	0	0	4

Sr data reported			
Soils	376	474	587
Fish	4	4	4

⁵⁵Fe data reported (analyses required only on fish samples)

Fish	4	4	4
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Eberline Instrument Company (EIC) - The analytical work at EIC was begun on April 2, 1973.

	<u>1 June 1973</u>	<u>15 June 1973</u>	<u>29 June 1973</u>
Samples received - soils	326	326	486
Pu data reported	102	220	314
Sr data reported	0	44	102

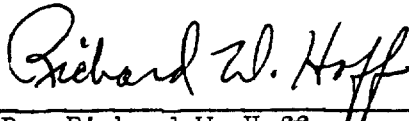
University of Washington

	<u>1 June 1973</u>	<u>15 June 1973</u>	<u>29 June 1973</u>
Samples received (114 marine, 28 filter media)	105	105	142

All samples have been ashed as of 29 June 1973.

Preliminary data has been reported by letter (22 Pu's, 7 Sr's, 24 Fe's). Computer card format has been received by UW and data cards should be forthcoming. Data reported columns will reflect data reported as final data on computer cards.

A progress report will be issued every two weeks.



Dr. Richard W. Hoff
Deputy Division Leader
Radiochemistry Division

RWH:mb