

Ch. W. Wolff

Interdepartmental letterhead

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Mail Station ⁸⁷²¹ **REPOSITORY** DOE History Division

Ext: 8721 **COLLECTION** R6326, Tommy McCraw Job # 1320 April 12, 1973

BOX No. 5
MEMORANDUM
FOLDER Radiological Survey

- Captain Gay
- Mr. Carlson
- CDR Wolff
- Major Fava
- Major Cotner
- Mr. Little
- Maj. Giannotta
- Mr. Stewart

TO: W. E. Nervik, Division Leader, Radiochemistry

FROM: R. W. Hoff, Radiochemistry Division

SUBJECT: Eniwetok sample analytical program. Progress Report No. 5. Status as of 6 April 1973.

Operation Radiology

This progress report summarizes the laboratory analytical effort being carried on at LLL by members of the Radiochemistry Division, Biomedical Division, and Hazards Control Department, at the University of Washington (Dr. Allyn Seymour, Dr. Victor Nelson), 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).

Soil, sediment, and core samples:

- (estimate 2,800 soil samples to be processed)
- (224 sediment samples collected - initial processing complete)
- (165 core samples from collection of 36 cores - initial processing complete on 80 samples as of 6 April 1973)

Initial processing (LLL, Bldg. 412) - Samples in process or completed; cumulative number includes soil, sediment, and core samples,

- as of 6 April 1973 - 2,470
- as of 23 March 1973 - 1,990
- as of 9 March 1973 - 1,640

Current rate for completed samples: 180 samples per week.



University of California

LAWRENCE LIVERMORE LABORATORY

Fish samples (441 samples to be processed):

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

Dried samples subsequently dry-ashed at LLL - 20.

Vegetation (210 samples to be processed):

Initial processing (LLL) - complete as of 6 April 1973.

Terrestrial animals, eggs, etc. (estimate 100 samples to be processed):

Initial processing (LLL) - in various stages of completion
as of 6 April 1973; samples not yet released for analysis.

Seawater (58 samples collected):

Chemical separation (LLL) - chemistry completed on
29 samples as of 6 April 1973.

Plankton (16 samples collected):

Initial processing (LLL) - complete as of 6 April 1973.

Air filters (61 samples collected):

Initial processing (LLL) - complete as of 6 April 1973.

Gamma counting, precision Ge(Li) detector spectroscopy:

Samples counted and data in computer bank (LLL) -

	<u>9 March 1973</u>	<u>23 March 1973</u>	<u>6 April 1973</u>
Soils	442	686	990
Sediments	223	224	224
Cores	0	0	2
Fish	212	310	346
Algae	0	0	1
Seawater (hydroxide fraction)		0	0
Plankton	0	0	0
Coral	0	0	1
Vegetation	16	46	46
Air filters	<u>11</u>	<u>11</u>	<u>11</u>
TOTAL	904	1277	1621

Chemical analyses, samples dissolved and elements isolated chemically:

McClellan Laboratory (MCL) -

	<u>9 March 1973</u>	<u>23 March 1973</u>	<u>6 April 1973</u>
Samples received (6 April - 637 soils, 208 sediments, 20 fish, 7 air filters)	614	738	872
Data reported on ⁹⁰ Sr and Pu (6 April - 392 soils, 208 sediments, 2 air filters)	411	554	602
Data reported on ⁹⁰ Sr or Pu	15	45	0
Chemistry complete, samples counting	107	15	123
In process	81	124	147

LFE Environmental Analysis Laboratory (LFE) -

Samples delivered to LFE as of 6 April 1973 - 423 soils, 4 dried fish for ^{90}Sr and ^{239}Pu analyses (plus ^{55}Fe on fish samples). Have received preliminary data on Pu concentrations in 25 soil samples. The results are acceptable. We have suggested an approach for them to use in calculating upper limits.

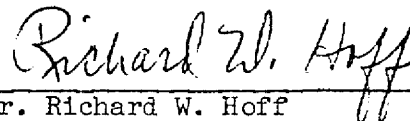
Eberline Instrument Company (EIC) -

Analyses began on 2 April 1973. Two batches (102 samples) of soils have been shipped to EIC for ^{239}Pu and ^{90}Sr analysis. Some preliminary results will be reported to LLL as soon as they are available.

University of Washington, Seattle (UW) -

Analysis of a set of 12 selected fish samples for ^{239}Pu , ^{90}Sr , and ^{55}Fe is in progress at UW and MCL. Data will be compared to assure accurate calibration of tracers, etc. We expect some data to be reported by each lab before the next progress report.

A progress report will be issued every two weeks.



Dr. Richard W. Hoff
Deputy Division Leader
Radiochemistry Division