

Interdepartmental letterhead

Mail Station L- 231

Ext: 8711

August 13, 1973

Captain Gay

411568

~~Mr. Conroy~~  
Wolff

Detmer  
M. G. G. G.

MEMORANDUM

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

FROM: R. W. Hoff, Radiochemistry Division

SUBJECT: Eniwetok sample analytical program. Progress Report No. 14.  
Status as of 10 August 1973.

✓ Operation -  
Pool

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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 prior to 29 June 1973.

Details on completion rates, numbers of samples, laboratories involved, etc. in initial processing are available in earlier issues of this report.

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

Gamma counting of all samples has been completed as of 27 July 1973, with the exception of a few late soil and coconut samples. Current backlog is nine coconut samples collected in July 1973.

The data have been checked for accuracy; correction sheets on errors have been submitted to Bill Phillips

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

Samples counted and data in computer bank (LLL):

Soils	3058
Sediments	224
Cores	128
Fish	407
Algae	3
Seawater (Hydroxide fraction)	58
Plankton	16
Coral	2
Vegetation	208
Air Filters	61
Animals, birds, eggs, etc.	<u>273</u>
TOTAL	4438

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

As of 10 August 1973, the status of soil 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	1861 (MCL)	50
	1007 (LFE)	
	<u>486 (EIC)</u>	
TOTAL	3354	

Status of wet chemical analyses of fish, vegetation, and animal samples

Requested Analyses

Samples delivered	Total	Data in computer bank, as of 8/10/73				Fe (stable)	Ca (Stable)	L29I	Requested Analyses
		239Pu	90Sr	55Fe	63Ni, 147Pm, 113Cd, 241Am, 151Sm, 241Am				
Fish									
MCL (20-4/4/73, 101-6/26/73)	121	93	120	74	121				LLL 8 8 (6/26/73)
LFE (4-3/16/73, 192-6/20/73)	196	70	4	4	0				3 (6/20/73)
UW (12-2/20/73, 43-5/24/73, 13-6/19/73)	114	(22)	(7)	(24)	19				LLL 8 8 (2-7/27/73)
Undelivered	0								
Vegetation									
MCL	122	0	0	0					LLL 10 10 (8/8/73)
8/2/73 - 24 (Priority I)									
8/8/73 - 98 (Priority II)									
LFE	51	11	4	0					
5/21/73 - 40 (Priority I)									
7/23/73 - 11 (Priority I)									
Undelivered (Priority III)	18								
(Priority I)	9	(Coconut received 8/3/73)							2

Analyses table continued.

Status of wet chemical analyses of fish, vegetation, and animal samples

Requested Analyses

Samples delivered	Data in computer bank, as of 8/10/73				Fe (stable)	Ca (Stable)	Requested Analyses
	<sup>239</sup> Pu	<sup>90</sup> Sr	<sup>55</sup> Fe				
	<u>Total</u>						
MCL 8/8/73 - 4 (Priority II)	0	0	0	0			63Ni, 147Pm, 113Cd, 241Am 129I
LFE 8/1/73 - 105 (Priority I)	0	0	0	0			3H 14C 113L (8/2/73)
Undelivered (Priority II)							

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

	<u>13 July 1973</u>	<u>27 July 1973</u>	<u>10 August 1973</u>
Samples received (10 August - 1597 soils, 264 sediments and cores, 121 fish, 58 air filters, 122 vegetation, 4 animal, 16 plankton)	1832	1946	2182
Data reported on <sup>90</sup> Sr and Pu (10 August - 1282 soils, 231 sediments, 74 fish, 53 air filters)	1318	1469	1640
Chemistry complete, Samples counting	264	303	202
In process	250	174	340

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

	<u>13 July 1973</u>	<u>27 July 1973</u>	<u>10 August 1973</u>
Samples received			
Soils	881	963	963
Sediments	7	44	44
Fish	196	197	197
Vegetation	40	51	51
Animals	0	0	105
Algae	3	3	3
Water plant residues	2	2	2
TOTAL	1129	1260	1365

LFE continued -

	<u>13</u>	<u>1973</u>	<u>27 July 1973</u>	<u>10 August 1973</u>
Pu data reported				
Soils		4	734	848
Fish		4	22	70
Vegetation		4	4	11
Sr data reported				
Soils		9	653	697
Fish		4	4	4
Vegetation			4	4
<sup>55</sup> Fe data reported (analyses required only on fish samples)				
Fish			4	4

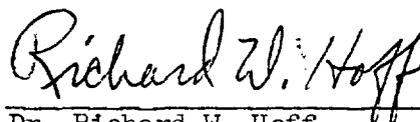
Eberline Instrument Company (EIC) - The work at EIC was begun on April 2, 1973.

	<u>13</u>	<u>27 July 1973</u>	<u>10 August 1973</u>
Samples received - soils		486	486
Pu data reported		319	319
Sr data reported		323	323
University of Washington			
Samples received (114 marine, 28 filter media)		142	142

University of Washington - continued

Analysis of all of the samples has been completed. Preliminary data have 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.



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Dr. Richard W. Hoff  
Deputy Division Leader  
Radiochemistry Division

RWH:mb