

Enclosure 3/1

List of Addressees Contacted for Nuclear Debris Materials

1. DOD

Air Force Cambridge Research Center

Naval Research Laboratory

Nuclear Defense Laboratory

AFTAC, Headquarters *2 Air Force Sources*

10

0071531

2. AEC

Argonne National Laboratory

~~Health and Safety Laboratory NYO~~
Lawrence Radiation Laboratory

Los Alamos Scientific Laboratory

Robert A. Tart Sanitation and Engineering Center

3. Universities

Columbia (Lamont Geological Observatory)

California (UCRL) *Berkeley*

U.C.L.A. (~~Biology and~~ *nuclear* Medicine)

Washington (Laboratory of Radiation Biology)

Hawaii (Marine Laboratory)

Scripps Institute of Oceanography

4. Other Organizations

USDA Soil Conservation Service

PHS Laboratory of Physical Biology

Sandia Corp

Tracerlab (Richmond, Calif. and Waltham, Mass.)

Woods Hole Oceanographic Institution

Isotopes, Inc.

Reynolds Electrical and Engineering Corp.

US DOE ARCHIVES
326 US STEEL RD BLDG
RC
Collection DBM-EC FILES
Box 2703 Job# 7239
Folder U.S. Naval Radiological Defense Agency

DOE ARCHIVES

M-074-77

312

(11)

Nuclear Debris Samples From LASL

<u>Operation</u>	<u>Shot</u>	<u>Solid Sample No.</u>	<u>Liquid Sample No.</u>
Upshot Knothole	Nancy	2028L	311
	Dixie	4037	331A
Castle	Bravo	1-032L	416A-1
	Union	4-1086R	441A-1
Teapot	Wasp	1-049R	471A
	Moth	2-055R	482A
Redwing	Lacrosse	1-038R	644A
	Eric	5-053L	682A
	Flathead	7-504L 1/2	703A
	Osage	10-037R	734A
Plumbbob	Baltzmann	046R	811A
	Priscilla	501L-1	851A
	John	504RO-L	883A
	P		923A
	C	046R	1021A
Hardtack I	Cactus	503R2	1133A
	Butternut	503L-1	1151A
	Wahoo	503R-1	1173A-1
Hardtack II	Eddy	498R-1	1494A
	Quay	504L-2	1582A
	C	504L-1	1562A
Dominic II	Little Feller II	827L 1/2	2-872A
	Little Feller I	842R-2	2943A-1

DOE ARCHIVES

(12)

NUCLEAR DEBRIS SAMPLES FROM IRL

<u>Operation</u>	<u>Shot</u>	<u>Sample No.</u>
Hardtack	Fir	502RHSB-2
	"	498 R HSB-1
	Nutmeg	501 R 1/2 HS-2
	"	496 R HS-1
	Pine	980L HT-15
	"	979 R HT-11
	Poplar	981R 1/2 HT-15
	"	496 R HT-2
	Redwood	977R H-T-11
	"	498R HT-3
Redwing	Apache	504R 1/2
	"	502L
	I	043R
	"	038R
	M	502 R1/2
	"	500 R1/2
	TEWA	501 R 1/2A
	"	046 R
Dominic	A	PS #1
	Bighorn	AC 982
	"	A/C 976,R1,R2
	E	lx, 2x
	Pamlico	Pot 3A
"	Pot 6	

DOE ARCHIVES

(13)

~~TABLE~~ NRDL INVENTORY OF NUCLEAR DEBRIS SAMPLES.

Operation	SHOT	SAMPLE TYPE AND APPROXIMATE NO. OF SAMPLES AMOUNT	PREDOMINANT RADIONUCLIDES FOUND BY GAMMA-RAY SPECTROMETRY (1964)
TRINITY 1945	—	FUSED ROCK 1	Cs ¹³⁷ , Co ⁶⁰ , Eu ^{152,154}
CROSSROAD 1946	BAKER	BLACK SPHERES ABOUT 20 gm	Cs ¹³⁷ , Eu ^{152,154}
IVY 1952	MIKE	CORAL SOIL 25 GAL	Cs ¹³⁷ , Sb ¹²⁵ , Co ⁶⁰
BUSTER-JANDE 1951	UNCLE	CRATER SOIL 1/4 lb	Cs ¹³⁷ , Eu ^{152,154}
CASTLE 1954	BRAVO	SOIL PROFILE ABOUT 100 TUBES	Cs ¹³⁷ , Sb ¹²⁵ , Co ⁶⁰
REDWING 1956	ZUNI	CORAL AND CLOUD RESIDUE 10 gm	Cs ¹³⁷ , Sb ¹²⁵ , Co ⁶⁰ , Mn ⁵⁴
	"I"	CORAL 5 lb	Cs ¹³⁷ , Sb ¹²⁵ , Co ⁶⁰
TEAPOT 1955	-	SOIL SAMPLES 8	—
DOMINIC 1962	SWORDFISH	SEA WATER 5 gal	Ce ¹⁴⁴ , Sb ¹²⁵ , Ru ¹⁰⁶ , Mn ⁵⁴ , Co ⁶⁰
"	JOHNNY BOY	SOIL, SIEVED, 32	Ce ¹⁴⁴ , Co ⁶⁰ , Cs ¹³⁷
"	SMALLBOY	SOIL, SIEVED, 100	Ce ¹⁴⁴ , Sb ¹²⁵ , Ru ¹⁰⁶ , Cs ¹³⁷ , Mn ⁵⁴ , Co ⁶⁰
"	SEDAN	SOIL 8 AND ONE SET SIEVED SAMPLES	W ¹⁸¹ , Sb ¹²⁵ , Ru ¹⁰⁶ , Cs ¹³⁷ , Mn ⁵⁴ , Co ⁶⁰ , Zn ^{65(?)}

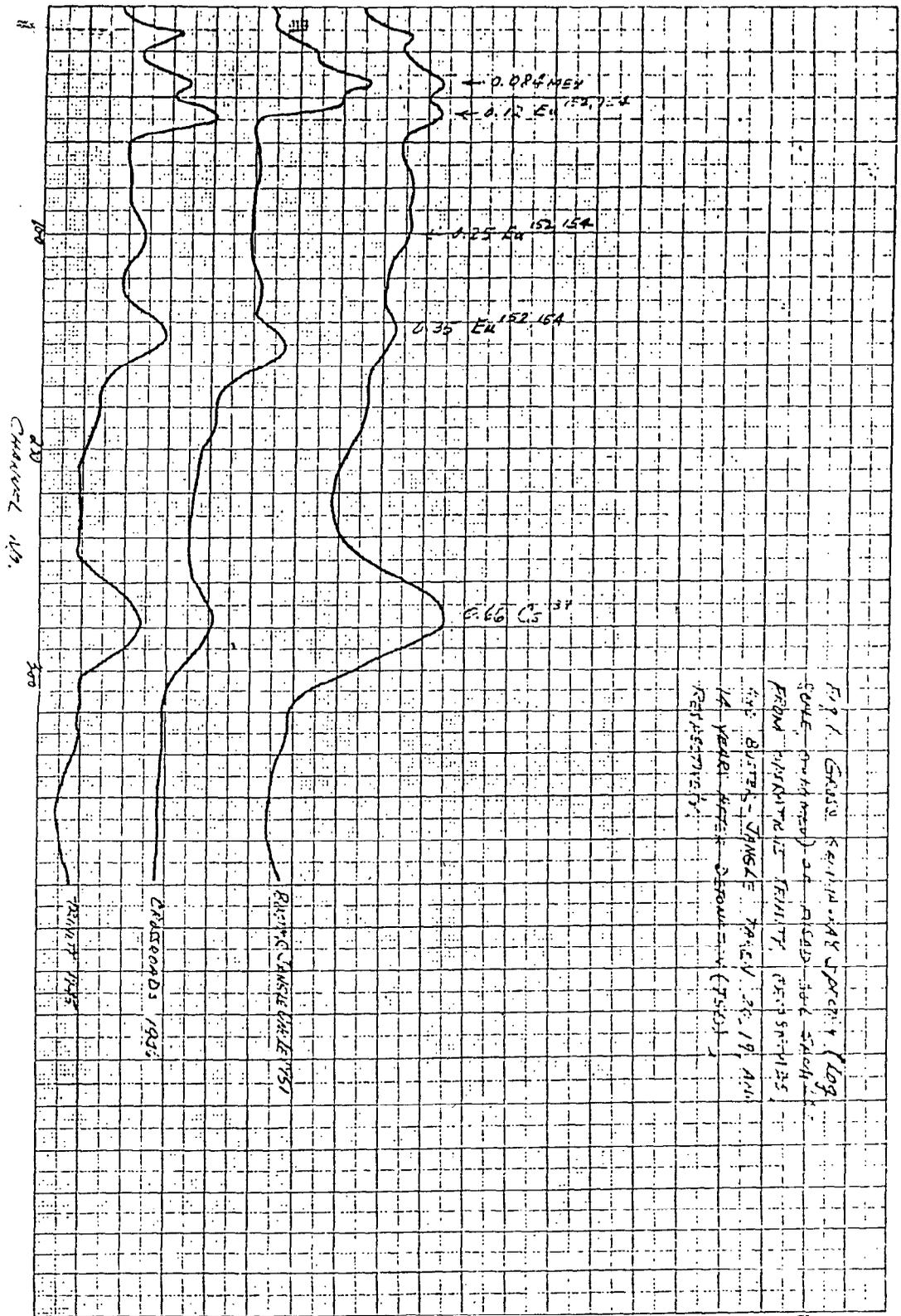
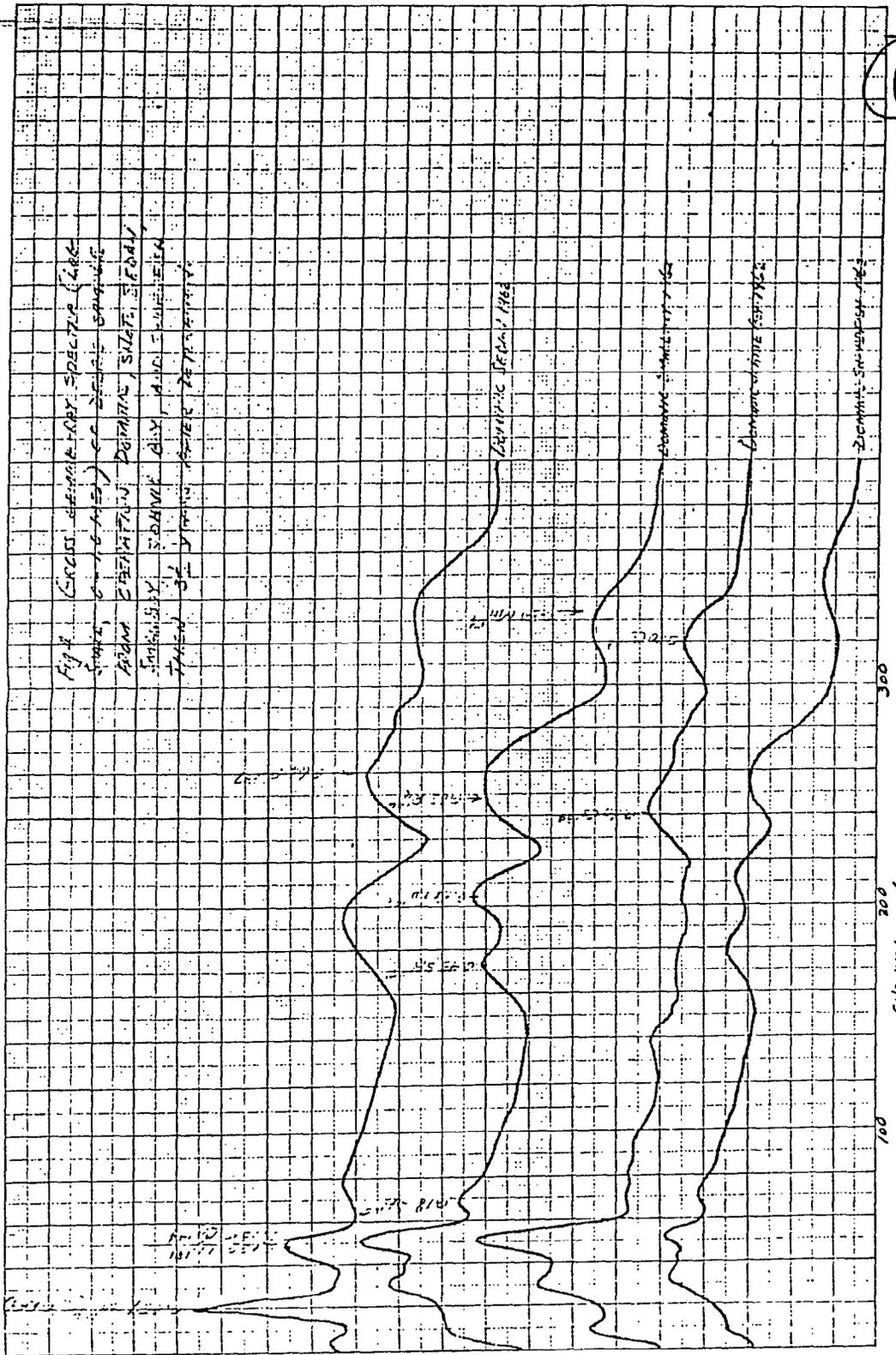


Fig. 1. CRANFORDS CANALS CANALS 1935 (Log scale - on hand) at RANTON CANALS CANALS FROM RANTON CANALS CANALS 1935. RANTON CANALS CANALS 1935. RANTON CANALS CANALS 1935. RANTON CANALS CANALS 1935.

402

DOE ARCHIVES

Fig. 1. CROSS SECTIONAL SPECTRUM (LRC
SCALE, 0-100 MS) OF SIGNAL
FROM ELECTRON DEPTH
ANALYZER, SANDY CLAY AND SILT
TAKEN AT VARIOUS WATER DEPTHS.



CHANNEL NO.

5