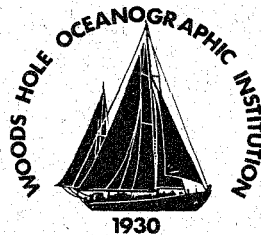
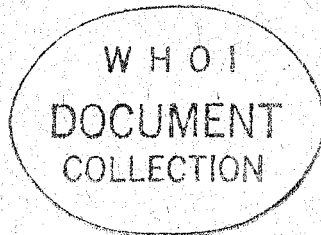


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## Fallout Nuclides in Atlantic and Pacific Water Columns: GEOSECS Data

by

H. D. Livingston, V. T. Bowen, S. A. Casso, H. L. Volchok,  
V. E. Noshkin, K. M. Wong, and T. M. Beasley

May 1985

### Technical Report

*Funding was provided by the United States Department of Energy  
under Contract DE-AC02-EV03563.*

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GEOSECS Data**

by

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*Funding was provided by the U.S. Department of Energy under  
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**Robert B. Gagosian, Chairman**  
Department of Chemistry



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### Abstract

This report contains results of measurements of the fallout radionuclides  $^{90}\text{Sr}$ ,  $^{137}\text{Cs}$ ,  $^{239,240}\text{Pu}$ , and  $^{241}\text{Am}$  in large volume seawater samples collected between 1972 and 1974 in the Atlantic and Pacific as part of Geochemical Ocean Sections (GEOSECS) program. The stations for which data are reported include both the North and South Atlantic oceans and latitudes north of 20°S in the Pacific Ocean. The  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  data set has been corrected by a procedure which estimates independently the analytical blank for the laboratory which made the analysis. When the data quality and spacing permit, water column inventory estimates were made for each nuclide over depth intervals appropriate to the nuclide's distribution.

### Introduction

The GEOSECS (Geochemical Ocean Sections) program, which began to be funded by the National Science Foundation in 1971, was the first really large-scale, multi-ocean, multi-laboratory and multi-discipline attempt to combine high quality physical oceanographic measurements with chemical measurements of both natural and anthropogenic chemical substances, both stable and radioactive, in the world's oceans. Broadly stated, it had a goal of trying to understand the physical and biogeochemical controls which determine the properties and behavior of chemical substances in the ocean. Through 1979, the program produced five volumes of collected papers published in Earth and Planetary Science Letters (e.g. Craig and Turekian, 1980) and hydrographic data tables and atlases published by the National Science Foundation (Bainbridge et al., 1981-83). A further series of data reports and atlases devoted to the shore-based chemical measurements is planned for the near future.

This report has been prepared to tabulate the results obtained by the various laboratories of the concentrations and distributions in the Atlantic and Pacific Ocean of some of the bomb-derived fallout radionuclides introduced to the oceans subsequent to atmospheric nuclear weapons tests. This report contains data obtained on samples collected as part of the GEOSECS program in these oceans and is part of the continuing study of these substances in the world ocean and of their use as tracers to study a variety of physical and biogeochemical oceanic processes.

The radionuclides for which data are reported include the fission product radionuclides  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  and the transuranic elements Pu and Am - produced by neutron capture and decay chain processes. This suite of radioele-

ments encompasses a range of chemical reactivities with respect to particle scavenging - ranging from the soluble end ( $^{137}\text{Cs}$  and  $^{90}\text{Sr}$ ), where the processes controlling the nuclide distributions are primarily physical, to the reactive end ( $^{241}\text{Am}$ ), where uptake and transport on settling particles becomes an important process. Plutonium appears to lie somewhere in the middle of the range. Initially it was believed to exhibit relatively high particle reactivity but recent studies are beginning to point to a lower degree of particle reactivity than was originally postulated. As chemical analogues,  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  would be hard to distinguish from  $^3\text{H}$ , based on their observed oceanic distribution patterns, while  $^{241}\text{Am}$  appears likely to have a chemical reactivity approaching that of Th.

A discussion of distribution patterns of fallout radionuclide patterns in the Pacific, based primarily on GEOSECS data, provided a first large-scale review, in a single ocean, of the fate of these fallout radionuclides (Bowen et al., 1980). It was stated in this paper that the individual data upon which the paper was based would be published in a forthcoming report. Partly, then, this report is intended to complete this plan. In addition, it includes the available data set for fallout nuclides measured in Atlantic GEOSECS samples and a suite of  $^{241}\text{Am}$  data which were not discussed in the above paper.

One comment may be appropriate at this point in respect to the quality of the reported data, although this is discussed later. As would be expected, data quality deteriorates as ambient concentrations approach sensitivity limits. As the input of fallout has varied to the oceanic areas for which data are reported here, the uncertainties in the data, especially in the deeper samples, increase as the level of the fallout input decreases. The fallout

input decreased in the order North Pacific > North Atlantic > South Atlantic. An additional factor which resulted in the quality of the transuranic data in the Pacific samples being higher than that of the Atlantic samples is the fact that the Pacific samples were generally analyzed at a later time than were the Atlantic ones. Improved chemical recoveries, increased detector availability, and hence counting times, all worked to produce a Pacific transuranic data set of significantly higher precision than that obtained for the Atlantic samples.

#### Sampling, Methods and Quality Control

A fairly detailed account of the techniques used in collection and fallout radionuclide analyses of the large volume water samples from the Atlantic and Pacific GEOSECS cruises appeared in a paper discussing the Pacific data set (Bowen et al., 1980). This account, though directed at the samples collected on the Pacific GEOSECS cruises, is also generally relevant to the collection and analyses of Atlantic GEOSECS samples. We therefore include here an abbreviated outline of these procedures, supplemented by remarks which are relevant to the fuller data set presented in this report.

In both Atlantic and Pacific GEOSECS cruises, large volume sample collection for fallout nuclide analysis was made primarily by the 260 liter Gerard samplers. After  $^{14}\text{C}$  extraction, 60 liter samples were returned to shore-based laboratories for fallout nuclide analyses - in some cases, following Rn extraction for  $^{226}\text{Ra}$  analysis. Fallout radionuclide analyses were subsequently completed in a variety of combinations of radionuclides analyzed by a given laboratory. Four different laboratories performed or contracted the various radiochemical analyses.

(1) Some samples were analyzed by commercial laboratories, under contract to the (now) U. S. Dept. of Energy, Environmental Measurements Laboratory in New York City, NY. H. L. Volchok, of that laboratory, supervised the contracting and reporting. These analyses were restricted to measurement of  $^{90}\text{Sr}$  alone or for  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$ .

(2) Some samples were analyzed by V. E. Noshkin's group at Lawrence Livermore Laboratories (LLL). Mostly  $^{137}\text{Cs}$  and Pu isotopes were determined by LLL although a few sample series were processed for  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  by a contractor laboratory after LLL isolated a Pu fraction.

(3) Some samples were analyzed by V. T. Bowen and H. D. Livingston's group at Woods Hole Oceanographic Institution (WHOI). These analyses typically included  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$ , Pu isotopes and, for a subset,  $^{241}\text{Am}$ .

(4) A number of samples, from the Atlantic GEOSECS sample suite, were analyzed for Pu and  $^{241}\text{Am}$  by T. M. Beasley's laboratory at Oregon State University (OSU). A small number of these samples were, in addition, processed to isolate a Cs fraction at OSU, and then the radiochemistry and sample counting completed at WHOI.

The analytical methods used by these various laboratories have been described in detail elsewhere (if not proprietary) and are referenced in Bowen et al. (1980). The methods used by the OSU laboratory were generally similar to those used by WHOI or LLL with the exception of a solvent extraction based radiochemical procedure for  $^{241}\text{Am}$ .

Throughout the analytical program for these GEOSECS samples, a considerable analytical effort was devoted to activities which provided assurance of data quality. These efforts are again described in detail by Bowen et al.



(1980) and include the analyses of known 'blind' samples, duplicates, environmental blanks, reagent blanks and interlaboratory intercomparison exercise samples. In addition, both Atlantic and Pacific data sets have been subjected to a "deep ocean blank" procedure for blank correcting measured values for  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  obtained both by different laboratories and at different times. Details of this procedure have been reported for Atlantic samples by Kupferman and Livingston (1979) and essentially the same approach was followed for blank correction to the GEOSECS Pacific data set.

### Results

Radiochemical and hydrographic data from GEOSECS Atlantic and Pacific stations are compiled in the Tables of this report. The first set of tables lists the data for most of the Atlantic GEOSECS large volume stations. The second set lists data from Pacific GEOSECS large volume stations north of  $20^{\circ}\text{S}$ . In some cases no samples for fallout nuclide analyses were collected at South Pacific stations, or were collected by methods which did not protect the integrity of the sample with respect to contamination during storage; some South Pacific large volume samples remain unanalyzed for reasons of lack of funding or scientific interest.

Each large volume station is identified by its GEOSECS station number preceded by the prefix GX. Hydrographic data for the large volume water samples were derived from the GEOSECS Atlantic and Pacific preliminary leg reports. Depths are best depths in meters. Salinities and potential temperatures are in conventional units; densities are listed as sigma theta. Concentrations of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$ ,  $^{239,240}\text{Pu}$  and  $^{241}\text{Am}$  are tabulated where measured in units of disintegrations per 100 kg of seawater as of date of collection. One sigma

counting uncertainties are listed in the columns labelled by the letter e (error).  $^{239,240}\text{Pu}$  concentrations are tabulated under the abbreviated Pu239 heading but are conventionally the sum of  $^{239}\text{Pu}$  and  $^{240}\text{Pu}$  concentrations - unresolvable by state-of-the-art alpha spectrometry. In a few cases no uncertainty is listed with a value for a radionuclide. For a variety of reasons no estimate of the counting uncertainty was obtained and the value listed should be regarded as an upper limit (or a less than value) for the actual concentration in the sample.

The final column in the tables lists the laboratory code which has been used to identify the laboratory or laboratories which performed the radiochemical analyses of each large volume sample. As described in the previous section, there were a variety of combinations of radiochemical analyses used over the several years during which the lengthy analyses were completed. A listing of these various combinations and of the laboratories involved is tabulated in Table 1.

Also listed in the tables are the results of integration of the various radionuclide concentrations measured over all or part of the water column at each station. The result of this calculation is an estimate of the radionuclide inventory in the water column at each station over the depth intervals over which these calculations were made. The inventory units are expressed as  $\text{mCi}/\text{km}^2$ . Where possible, the integration was carried out over the complete water column, but in many cases this was not possible or appropriate. At some stations or for some radionuclides the available data were not complete enough to define the water column distribution well enough to permit a meaningful inventory calculation. The other limiting factor was frequently analytical sen-

sitivity. In the deep ocean, especially in areas where atmospheric fallout input was minimal, the concentrations at depths below the main thermocline were often essentially zero or at the limit of available analytical sensitivities. In this situation, small overestimates of nuclide concentrations in the generally large portion of the water column below the main thermocline would result in substantial and erroneous overestimates of the actual nuclide inventory. The inventory calculations listed are therefore data limited and the depth intervals over which integration was made is noted at each station and for each nuclide. Deep water inventory calculations were also susceptible to overestimation when concentrations were close to sensitivity limits because of the nature of the inventory integration calculation itself. Firstly, no consideration was given to the precision of a given concentration - only the actual concentration value being used. At low deep water concentrations, the uncertainties in the measurement often produced apparent concentrations substantially higher than was reasonable, but with very large uncertainties. When these situations occurred, inventory overestimates were likely to be non-trivial. Secondly, only positive concentration values were computed in the inventory calculation. Blank correction procedures often produced negative concentration values for some nuclides from deep water. Exclusion of these again tends to bias inventory estimates. The integration calculation itself used the measured concentration of a nuclide at a given depth to represent the average concentration over the depth interval between the mid-points of the distances to the sample depths above and below the given depth.

The radionuclides  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  have been found to exhibit oceanic chemistries dominated by highly soluble characteristics such that their dis-

tributions are essentially controlled by purely physical processes of mixing (Kupferman and Livingston, 1979). Their oceanic distributions thus are generally found to correlate strongly with those of other soluble tracers introduced from the atmosphere with comparable temporal and spatial input histories - such as tritium, or to lesser extent, freons. Except in oceanic areas which have received recent deep ventilation, the distribution of these species is for practical purposes confined to depths shallower than the bottom of the main thermocline. Accordingly, integration of  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  distributions at such stations was in general only made to a depth where their concentrations became undetectable. The distributions of the particle active transuranic elements  $^{239,240}\text{Pu}$  and  $^{241}\text{Am}$  were integrated where the data permitted throughout the whole water column.

#### Acknowledgements

The collection and publication of the data in this report was made possible through the efforts of a large group of people who are too numerous to list here. They include the officers, crew and science parties on research vessels Knorr and Melville and the many radiochemists in the several laboratories represented who generated the basic data set. S. L. Kupferman and D. E. Moore provided the capability of the 'deep ocean blank' correction technique applied to  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  data. Without all of this skilled help, this work would not have been possible and it is our pleasure to acknowledge it here.

Support for this work has been variously funded as follows: at WHOI, subcontracts from EML, and directly to WHOI from the U. S. Department of Energy under contract 73-C-02-3563; at LLL, under the auspices of the U. S. Depart-

ment of Energy under contract number W-7405-ENG-48. We are very grateful to these agencies and to the several program administrators for this support.

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- Kupferman, S. L. and H. D. Livingston (1979) A procedure for independently estimating blanks and uncertainties for measured values of  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  concentrations in the Atlantic Ocean. J. Mar. Res. 37, 141-156.

TABLE 1

Radionuclide Analysis by Laboratory

<u>Lab Code</u>	<u>Cs</u>	<u>Sr</u>	<u>Pu</u>	<u>Am</u>
J	W	T	W	W
K	T	T	W	W
L	L	L	L	
O	O	O	O	O
P	W	T	O	O
Q	T	T	L	
R	O	T	O	O
S	T	T	O	O
T	T	T		
t	t	t		
U	O	t	O	
V	W	T,W*	W	W
W	W	W	W	W
X	W	W,W*	W	W
Y	W,t*	W,t*	W	W
Z	L	T	L	

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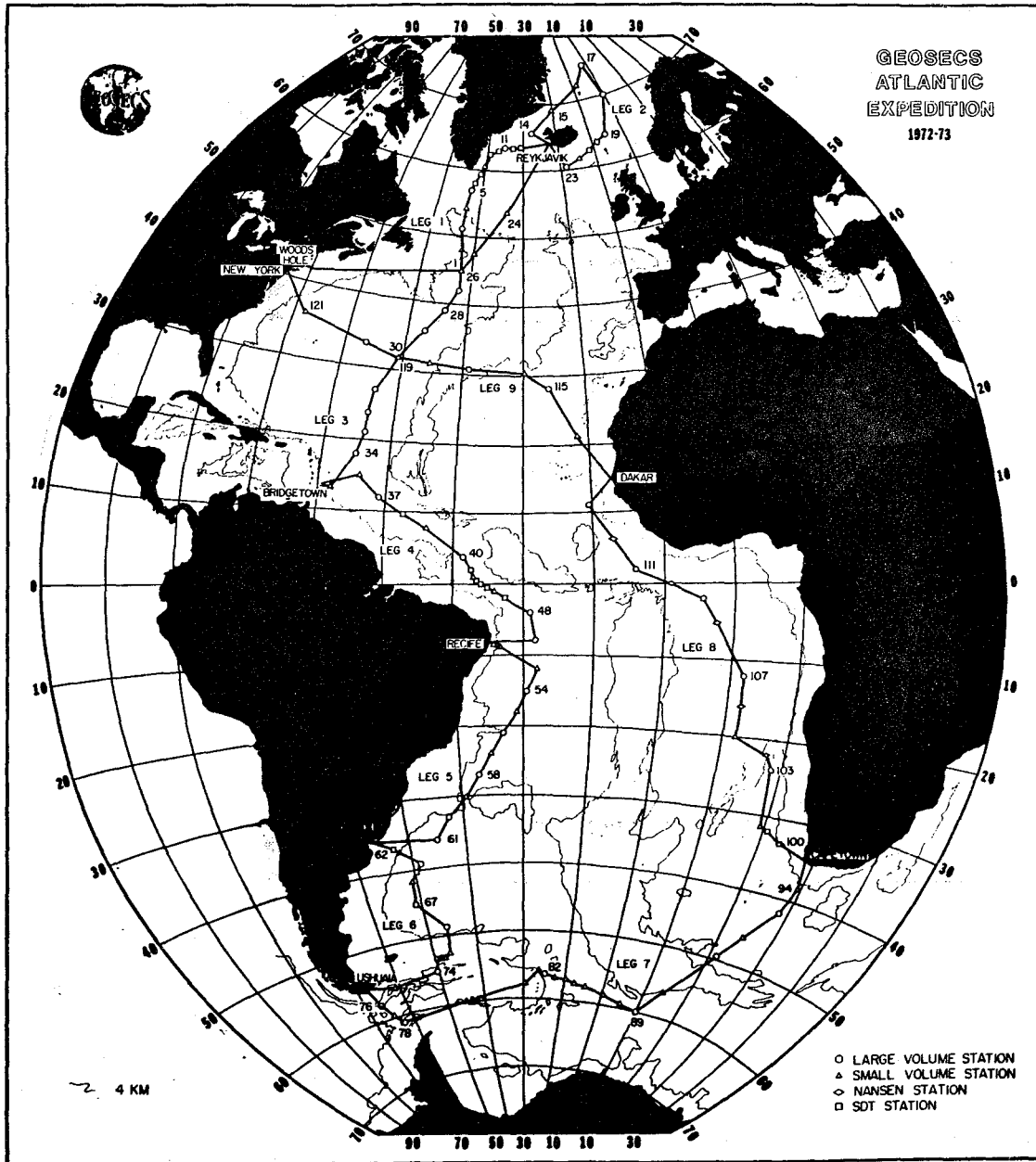
L = Lawrence Livermore Laboratory  
O = Oregon State University  
T = Trapelo West (now Environmental Analysis Laboratory)  
t = Teledyne  
W = Woods Hole Oceanographic Institution  
\* = Value reported is the mean of two measurements

SECTION 1

Radiochemical Data (GEOSECS Atlantic)







CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-3	51	1.0	N	07/28/72	4321 M
	43	1.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
0	34.347			30.6	0.6	22.2	0.3	0.120	0.030		W
71	35.062			13.8	1.0	16.2	0.9				T
225	34.884	7.300	27.315	14.3	0.6	10.4	0.5	0.160	0.030		W
303	34.923	6.900	27.401	18.0	1.1	13.0	1.1				T
511	34.866	5.230	27.582	12.5	0.6	10.6	0.2	0.140	0.030		W
661	34.965			13.6	0.9	7.9	1.2				T
814	34.960			16.2	0.6	11.1	0.4	0.220	0.040		W
1117	34.948	4.030	27.779	16.0	1.0	11.6	1.4				T
1321	34.945			13.7	0.8	8.7	0.2	0.200	0.040		W
2048	34.953	3.400	27.846	5.0	0.9	2.9	0.6	0.060	0.020		W
2766	34.946			4.7	0.9	2.3	0.9				T
3279	34.936	2.330	27.927	4.9	1.0	3.8	0.1	0.170	0.050		W
3792	34.919			8.3	0.6	4.4	0.2	0.100	0.020		W
4306	34.920	1.630	27.968	12.1	1.1	8.9	0.4	0.190	0.070		W

CS137 FROM 0 M TO 4321 M= 188.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 4321 M= 128.1 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4321 M= 2.78 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-5	56 54.0 N 42 47.0 W	07/31/72	3390 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
5	34.130			18.4	1.0	15.7	0.9	t
100	34.745					12.6	0.5	t
200	34.837			25.8	1.2	12.4	0.3	t
307	34.879	4.010	27.727	24.4	1.3	11.8	0.7	t
350	34.849					13.7	0.6	t
615	34.860					14.8	0.7	t
922	34.866	3.430	27.773	11.2	0.7	9.2	0.4	t
1230	34.933					7.6	0.4	t
1643	34.940			3.6	0.4	2.0	0.3	t
2052	34.955	3.200	27.866			3.2	0.2	t
2672	34.962	2.750	27.912	4.1	0.5	3.3	0.4	t
2877	34.943					3.7	0.4	t
3082	34.915			6.2	0.4	4.6	0.4	t
3287	34.924					6.0	0.3	t

CS137 FROM 0 M TO 3390 M= 141.2 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3390 M= 103.1 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-11	63 30.0 N 35 14.0 W	08/05/72	2392 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
8	34.956			20.5	0.6	13.9	0.4	0.210	0.030		W
28	34.966			21.1	1.0	10.2	1.1	0.080	0.010		Q
100	35.035			18.9	0.6	12.7	0.7	0.120	0.040		W
203	35.034	5.830	27.641	18.7	1.1	10.5	1.2	0.160	0.010		Q
305	34.957			18.3	0.5	12.3	0.8	0.300	0.050		W
408	34.935	4.600	27.708	17.4	0.9	14.2	0.8				T
612	34.922			18.3	0.6	12.4	0.5	0.090	0.030		W
819	34.915			13.0	3.0	11.2	0.9	0.220	0.050		Q
1026	34.911			14.7	0.8	10.6	0.3	0.230	0.050		W
1232	34.923	3.690	27.793	12.8	0.9	8.5	0.8	0.160	0.010		Q
1440	34.953			7.9	0.6	5.6	0.3	0.110	0.030		W
1646	34.948	3.480	27.834	7.0	0.9	4.1	1.2				T
1822	34.966			6.0	0.7	4.1	0.4	0.090	0.030		W
2027	34.936			8.6	1.1	7.4	0.9	0.130	0.010		Q
2130	34.926			9.9	1.0	7.9	0.3	0.110	0.020		W
2233	34.915			13.7	1.1	10.5	1.7				T

CS137 FROM 0 M TO 2392 M= 139.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 2392 M= 99.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 2392 M= 1.61 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-14	65	55.7	N	08/13/72	646 M
	27	27.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e	e	e	e	e	e		
7	30.054	5.990	23.694	64.5	0.9	51.1	2.3	0.180	0.060		W
83	33.102			55.9	0.9	46.8	0.2	0.130	0.030		W
214	34.538			27.5	0.5	20.5	0.8	0.200	0.050		W
316	34.626	0.740	27.792	23.7	0.6	14.2	0.2	0.250	0.060		W
417	34.866			18.2	0.5	12.2	0.4	0.220	0.030		W
604	34.926	-0.200	28.085	13.0	0.4	6.5	0.4	0.130	0.090		W

CS137 FROM 0 M TO 646 M= 84.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 646 M= 61.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 646 M= 0.54 mCi/km<sup>2</sup>

CRUISE-STATION POSITION COLLECTION DATE BOTTOM DEPTH  
 GX-17 74 56.2 N 08/18/72 3740 M  
 1 7.2 W  
 3560M=3470+3582+3623M COMPOSITE

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
4	34.479	4.700	27.335	20.5 0.3	12.1 0.5	0.130 0.050	0.300 0.200	X
40	34.750	-0.930	27.974	16.1 0.4	11.6 0.4	0.050 0.020		Y
76	34.810	-1.720	28.049	19.1 0.4	10.9 0.2	0.180 0.040		W
153	34.831	-1.660	28.064	18.5 0.5	10.9 0.3	0.170 0.020	0.020 0.010	Y
230	34.855	-1.320	28.073	16.3 0.5	9.8 0.1	0.140 0.030		W
306	34.873	-1.110	28.080	12.0 0.4	9.2 0.2	0.190 0.030	0.030 0.020	Y
511	34.906			10.4 0.4	7.0 0.2	0.190 0.040		W
820	34.900	-1.210	28.106	4.5 0.2	4.1 0.2	0.090 0.020	0.010 0.010	Y
1025	34.901	-1.140	28.104	6.0 0.4	3.3 0.2	0.040 0.020		W
1332	34.901	-1.200	28.106	3.7 0.6	2.8 0.1			t
1836				6.6 0.5	3.5 0.2	0.080 0.030		W
2079	34.896			3.7 0.3	4.1 0.2	0.090 0.010		Y
2386	34.891			6.2 0.4	3.7 0.4	0.090 0.030		W
2592	34.890	-1.320	28.101	4.3 0.3	4.0 0.2	0.060 0.010		Y
3055	34.886	-1.310	28.098	5.7 0.6	3.5 0.1	0.040 0.030		W
3069	34.887			3.4 0.5	6.4 0.5			t
3261	34.883	-1.320	28.096	5.8 0.8	4.5 0.2	0.020 0.020		W
3416	34.891	-1.320	28.102	5.8 0.4	3.3 0.2	0.060 0.010		Y
3560				7.1 0.3	3.7 0.6	0.130 0.020		W

CS137 FROM 0 M TO 3740 M= 113.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3740 M= 78.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 3740 M= 1.47 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-18	70	0.4	N	08/22/72	3287 M
	0	0.7	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
4	35.079			24.9	1.2	14.2	0.5	t
74	35.153			26.7	0.7	21.4	1.1	t
148	35.122					18.3	1.3	T
250	35.116			21.8	1.2	15.4	0.5	t
341	35.130					18.1	0.8	T
1213	34.918			6.1	0.6	4.2	0.4	t
1685	34.912	-0.790	28.100			-0.5	0.8	T
1972	34.915					1.0	0.2	t
2486	34.915	-1.000	28.111			0.0	0.7	t
2693	34.909	-1.040	28.107			2.6	0.7	T
2897	34.909	-1.050	28.107	-1.6	0.3	-0.4	0.3	t
3182	34.910	-1.060	28.109			0.9	0.8	T
3198	34.904	-1.050	28.103			1.6	0.9	T

CS137 FROM 0 M TO 1500 M= 96.2 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1500 M= 75.4 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-19	64	10.0	N	08/25/72	3390 M
	5	36.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e	e	e	e	e	e		
4	35.045	10.310	26.973	21.9	0.6	14.7	0.5	0.100	0.020		W
66	35.146	6.820	27.599	25.5	0.9	13.8	0.3	0.190	0.030		W
144	34.990	4.750	27.735	23.0	1.0	19.2	1.2				T
247	34.918	3.630	27.795	26.3	0.9	17.6	0.4	0.330	0.040		W
349	34.931	2.020	27.948	27.3	1.4	16.3	2.1				T
458	35.014	1.870	28.026	27.6	1.0	17.4	0.3	0.230	0.030		W
558	34.997	1.440	28.044	26.2	1.1	17.9	0.8				T
663	34.963	0.840	28.057	22.4	0.4	13.6	0.3	0.220	0.050		W
765	34.930			17.4	0.9	11.8	1.1				T
866	34.919	-0.100	28.074	12.7	0.5	7.4	0.2	0.110	0.030		W
969	34.913	-0.360	28.082			4.2	0.9				T
1113	34.918	-0.550	28.095	1.6	0.6	0.4	0.3	0.010	0.010		W
1532	34.917	-0.860	28.107	1.3	0.9	0.7	1.2				T
2455	34.918	-1.050	28.115	0.4	1.0	1.8	1.6				T
2866	34.914	-1.050	28.112	0.6	0.4	1.0	0.6	0.030			W
3278	34.915	-1.060	28.113	0.0	1.0	1.9	0.9				T

CS137 FROM 0 M TO 3390 M= 100.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3390 M= 76.9 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 0.9 mCi/km<sup>2</sup>



CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-23	60	24.1	N	08/29/72	2523 M
	18	37.8	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
7	35.104	10.840	26.924	25.2	0.9	18.4	1.7	T
53	35.102	10.830	26.924			15.6	0.6	t
105	35.175	10.980	26.954	24.7	1.1	18.0	2.0	T
182	35.205	9.580	27.223	27.2	1.3	18.0	1.1	T
362	35.236	8.920	27.356	22.8	1.6	18.4	1.5	T
440	35.213	8.820	27.354			13.8	0.7	t
517	35.130	7.920	27.428	21.2	1.0	13.6	1.6	T
616	35.114	7.530	27.474			13.4	1.0	T
822	35.086	6.320	27.619	11.5	1.0			T
1028	35.056	5.260	27.728			5.8	0.5	t
1233	34.966	4.310	27.764	11.3	1.0	9.5	1.1	T
1438	34.947	3.930	27.788			4.8	1.2	T
1572	34.937	3.780	27.796	7.8	0.9	5.3	1.2	T
1776	34.933	3.580	27.812			3.4	1.2	T
1984	34.950	3.440	27.839	4.2	0.9	3.2	0.9	T
2190	34.971	3.260	27.874			2.6	1.1	T
2396	34.994	2.920	27.923	7.8	1.0	-1.4	1.0	T
2499	34.998	2.570	27.957			7.4	0.9	t

CS137 FROM 0 M TO 2523 M= 141.3 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 2523 M= 93.5 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-27	41	59.0	N	09/12/72	4875 M
	42	1.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	36.034			32.2	0.6	22.3	0.4	0.360 0.080	W
70	36.231					24.2	1.1		T
120	36.347			33.4	0.5	24.8	0.5	0.480 0.140	W
225	36.079					19.3	1.2		T
260	35.967	14.980	26.752			21.6	1.6		T
320	35.945			27.2	0.7	19.7	0.3		W
400	35.715	13.640	26.848	23.1	0.4	14.4	0.4	0.410 0.080	W
585	35.518					14.2	0.8		T
695	35.253	9.710	27.239	8.3	0.5	5.4	0.1	0.120 0.050	W
735	34.889	9.000	27.071			7.1	0.9		T
970	35.074	6.070	27.642	8.3	0.5	6.4	0.2	0.120 0.050	W
1096	35.040	5.180	27.725			7.7	0.8		T
1245	35.021	4.680	27.767	10.1	0.6	6.1	0.3	0.260 0.070	W
1394	35.036	4.480	27.801			5.2	0.7		T
1543	34.994	4.160	27.802	8.3	0.7	3.5	0.5	0.080 0.030	W
1693	34.992	3.990	27.818			3.5	1.2		T
1893	34.981	3.770	27.832	3.0	0.7	1.5	0.2	0.110 0.020	W
2543	34.958	3.230	27.866			1.8	1.1		T
3162	34.941	2.690	27.901	1.1	0.5	0.3	0.4	0.080	W
3778	34.919	2.190	27.925			0.3	1.0		T
4396	34.901	1.890	27.934	0.9	0.7	0.8	0.5	0.090 0.030	W
4653	34.902	1.840	27.938			2.2	0.8		T
4859	34.907	1.820	27.944	4.4	0.8	4.5	0.3	0.050 0.020	W

CS137 FROM 0 M TO 4875 M= 141.0 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 4875 M= 98.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4875 M= 3.06 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-29	35 58.0 N 47 1.1 W	09/17/72	4974 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	36.006			27.2	1.6	18.8	1.2	0.360 0.020 0.022 0.005	S
31				22.5	1.1	17.1	1.1		T
70	36.424			27.6	0.8	24.0	1.5	0.210 0.010 0.024 0.005	R
140	36.524			35.0	1.9	21.8	1.6	0.300 0.020 0.043 0.008	S
190	36.449					22.8	1.8	0.330 0.020	R
250	36.434			37.0	1.7	26.2	0.9	0.380 0.020	S
373	36.251			36.9	0.4	21.7	0.8	0.300 0.040 0.040 0.030	V
440				23.6	0.4	16.1	0.4	0.320 0.030	W
469	36.095	15.530	26.725	26.6	1.6	21.4	0.8		T
554	35.862	14.190	26.843	20.1	0.4	13.2	0.8	0.280 0.030 0.080 0.020	V
630	35.696	12.940	26.979	17.4	0.3	13.4	1.1	0.240 0.020	V
723	35.490	11.450	27.111			9.2	0.8		T
787	35.217	9.390	27.265	5.9	0.3	4.4	0.4	0.090 0.010	W
905	35.068			4.9	0.3	4.3	0.8	0.110 0.020	V
1052	35.010	5.540	27.658	12.2	1.1	8.1	1.1	0.100 0.010	Z
1346	35.001	4.440	27.777	11.1	0.9	7.6	0.8		T
1637	34.991	4.020	27.814	6.2	0.4	3.5	0.8	0.080 0.010	Z
1925				2.0	0.4	1.4	0.9	0.110 0.030	Z
2123	34.972	3.540	27.848	1.4	0.2	1.4	1.0		W
2653	34.959	3.000	27.888	0.9		-0.3	0.9	0.020 0.004	Z
3182	34.938	2.500	27.914	1.0	0.9	4.0	1.1	0.040 0.006	Q
3712	34.908	2.040	27.928	0.9	0.3	0.5	0.8	0.060 0.007	Z
4241	34.898	1.880	27.933	0.8	0.9	1.4	0.9	0.070 0.009	Q
4639	34.905			3.6	0.5	0.6	0.8	0.050 0.006	Z

CS137 FROM 0 M TO 3000 M= 138.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3000 M= 96.1 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4974 M= 2.21 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-31	27	0.0	N	09/22/72	6009 M
	53	31.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
10	36.837			31.9	0.6	20.8	0.8	0.260	0.030		W
70	36.781					21.1	0.7	0.240	0.002		U
100	36.995			39.3	0.4	26.6	0.8	0.430	0.030		W
160	36.688					25.4	1.4	0.310	0.020		U
240	36.418			35.0	0.8	22.4	0.3	0.400	0.040		W
320	36.396			30.6	0.4	19.8	0.7	0.340	0.020		U
422	36.301	16.940	26.553	35.1	0.3	21.4	0.5	0.400	0.040		W
610	35.845	13.750	26.926	20.5	0.4	13.5	0.7	0.360	0.060		W
816	35.359	9.740	27.316			-0.4	0.4				t
914	35.227	8.250	27.455	1.7	0.6	1.0	0.2	0.100	0.020		W
1013	35.156					0.0	0.6	0.044	0.007		U
1261	35.159	5.550	27.774	0.8	1.1	1.5	0.9				T
1486	35.096	4.670	27.828			1.9	0.2	0.034	0.006		U
1735	35.064	4.100	27.864	0.6	0.8	-0.1	0.7	0.020	0.004		S
1985	35.025	3.560	27.887			0.8	0.3				t
2484	34.972	2.920	27.905			-0.4	0.3	0.007	0.002		U
2882	34.966	2.600	27.929	0.5	0.9	0.4	0.8	0.020	0.004		S
3512	34.914	2.160	27.924	-0.2	0.7	0.5	0.7	0.003			W
4011	34.893	1.910	27.926			0.1	0.3				t
4509	34.869	1.720	27.921	0.0	0.4	0.5	0.2	0.060	0.020		W
5008	34.873					0.8	0.4				t
5508				0.1	0.2	1.4	0.9	0.013	0.003		R

CS137 FROM 0 M TO 1500 M= 108.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1500 M= 67.1 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 6009 M= 1.88 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-33            21    0.0    N            09/26/72            5195 M  
                  54    2.0    W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
15	35.910			23.5	1.5	15.0	1.6	0.130 0.010	S
70	37.302					25.2	1.7		T
100	37.303			37.3	2.1	28.4	1.7	0.450 0.020	S
160	37.070					25.2	0.9	0.320 0.020	S
240	36.482			44.1	1.9	26.8	1.8	0.140 0.010 0.072 0.009	S
320	36.310					25.7	0.8		T
396	36.065	15.040	26.014	30.8	3.3	20.0	1.0	0.370 0.030 0.007 0.009	S
451	35.846	13.620	26.953			15.3	1.1		T
531	35.649	12.400	27.052	13.0	1.0	7.3	1.3	0.210 0.010 0.063 0.008	S
606	35.505	11.090	27.190			2.0	0.8		T
688	35.200			2.0	1.1	1.2	2.1	0.059 0.007	S
763	35.113					-0.4	0.8		T
892	35.024	6.790	27.507	1.5	0.9	0.5	1.0	0.019 0.004	S
995	34.956	5.930	27.567			1.4	0.9		T
1093	34.959	5.500	27.623			4.0	1.2	0.016 0.004	S
1493	35.031	4.400	27.806			-1.2	0.9		T
1842	35.019	3.700	27.869	-1.6	1.3	-0.9	0.7	0.020 0.005	S
2238	34.978	3.000	27.895			0.5	1.6		T
2702	34.946	2.620	27.910			1.3	1.8		T
3200	34.922	2.330	27.916			-0.5	0.8		T
3697	34.908	2.000	27.925	1.0	0.8	-0.7	1.1		T
4195	34.896	1.870	27.931			1.0	1.1		T
4682	34.862	1.610	27.924	-1.0	0.9	0.0	1.5		T
5191	34.849	1.490	27.922			0.1	0.9		T

CS137 FROM 0 M TO 1000 M= 86.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 54.9 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5195 M= 1.17 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-37	12 1.5 N 51 0.0 W	10/13/72	5064 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
5	35.984			27.5	1.3	11.9	1.4	0.067 0.008	S
75	36.608			19.6	0.4	10.7	0.3	0.050 0.010	W
101	36.780	22.130	25.550	26.5	0.4	16.8	2.2	0.092 0.013 0.021 0.006	F
162	36.349	17.440	26.466	32.0	0.4	18.3	0.4	0.270 0.030	W
306	35.168	10.720	26.995	7.3	0.9	3.0	0.9		T
408	34.983	9.260	27.102	2.4	0.4	2.3	0.4	0.080 0.020	W
510	34.778					1.0	2.9		T
712	34.661	6.110	27.310	-0.1	0.3	-0.6	0.5	0.006 0.002	W
993	34.724	5.160	27.491	0.0	0.4	0.1	0.3	0.007 0.010 0.007	W
1094	34.015	4.980	27.569	0.8	0.9	1.3	0.9		T
1690	34.980					0.8	1.5		T
1983	34.964	3.300	27.863	0.4	0.4	0.2	0.5	0.030 0.020	W
2441	34.950	2.850	27.894	0.7	0.8	0.9	0.8		T
3472	34.906	2.196	27.914			0.3	0.8		T
3985	34.895			-0.2	0.3	-0.5	0.1		W
4499	34.873	1.760	27.921	0.5	0.9	-0.4	1.1		T
5014	34.808	1.179	27.910	1.5	0.2			0.016 0.006 0.002	O

CS137 FROM 0 M TO 1000 M= 35.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 19.7 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 0.34 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-40	3	30.0	N	10/19/72	4273 M
	38	0.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e		e		e		e		
5	36.004			13.7	1.0	10.0	1.1	0.050	0.010	0.009	0.003	S
80	36.083					8.0	2.2	0.038	0.005			S
100	36.151			18.2	1.1	14.5	1.3	0.045	0.005	0.005	0.004	S
149	35.398	13.830	26.561	8.9	0.5	5.7	0.8	0.070	0.010			Z
197	35.054	11.130	26.831	4.5	0.5	3.3	0.9	0.110	0.150			Z
296	34.896	9.810	26.942	5.1	0.9	1.9	0.9					T
392	34.779	8.500	27.063	2.0	0.4	0.2	0.8	0.040	0.005			Z
496	34.712			0.0	0.9	-0.2	0.8	0.030	0.005			Q
605	34.549	5.450	27.304			0.4	0.9					T
790	34.554	4.830	27.379	0.8	0.9	0.2	1.0					T
889	34.604	4.640	27.440	1.1	0.7	0.0	0.9	0.011	0.003			Z
988	34.650	4.470	27.495	0.5	0.3	-0.5	0.8	0.060	0.008			Z
1086	34.728	4.440	27.560			0.5	1.0					T
1386	34.927	4.300	27.733	0.9		1.3	1.4	-0.010	0.010			Z
1685	34.972			0.9				0.020	0.006			L
1979	34.968	3.459	27.851	1.5	0.4	0.5	0.9	0.007	0.005			Z
2477	34.941	2.826	27.888	0.9		0.5	1.0	0.007	0.002			Z
2970	34.920	2.436	27.905	1.6	0.6	-0.6	0.8	0.030	0.005			Z
3467	34.909			3.6	1.5	0.3	0.9	-0.007	0.002			Z
3974	34.885	1.861	27.923	1.3	0.4	0.1	0.8	0.034	0.008			Z
4170	34.828	1.361	27.914	1.1	0.3	2.4	1.4	0.016	0.007			Z

CS137 FROM 0 M TO 1000 M= 17.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 9.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 0.19 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-4B	4 59.0 S 28 0.0 W	10/26/72	5073 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
70	36.722				9.8	0.9		T	
160	35.237				5.6	0.9		T	
195	35.049	11.210	26.812	3.1	0.4	1.8	0.3	0.200 0.040	W
295	34.781	8.940	26.996			0.6	1.1		T
492	34.538					-1.0	1.0		T
840	34.495	4.210	27.400			0.6	1.2		T
1070	34.683	4.160	27.554			1.2	0.9		T
1804	34.959	3.587	27.832			1.1	1.1		T
2652	34.922	2.662	27.888			0.9	0.9		T
4101	34.797	1.200	27.899			1.9	1.8		T
5031	34.692	0.210	27.874			1.3	1.0		T

SR90 FROM 0 M TO 1000 M= 8.6 mCi/km<sup>2</sup>



CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-49	7	12.6	5	10/29/72	5581 M
	20	0.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
6	36.281	26.180	23.974	12.8	0.4	9.5	0.2	0.340	0.030		W
66	36.272	26.060	24.006	13.6	0.9	8.1	0.9				T
116	36.456	22.420	25.223	8.0	0.4	8.2	0.3	0.240	0.020		W
166	35.741	16.410	26.248	6.7	1.1	5.4	0.9				T
255	35.033			-0.8	0.2	0.0	0.3	0.040	0.020		W
375	34.603	7.123	27.130	-0.5	1.0	1.5	0.9				T
445	34.584			0.2	0.2			0.010	0.020		W
598	34.509	5.612	27.253	-0.3	0.9	0.1	0.8				T
742	34.469			1.2	0.2			0.010	0.006		W
844	34.479	4.350	27.372	-1.0	0.7	0.2	0.9				T
1245	34.774	4.040	27.638	-0.7	1.1	0.2	0.8				T
1292	34.809	4.050	27.666	1.7	0.3	1.5	0.4	0.030	0.070		W
1688	34.959	3.670	27.824	-0.8	1.1	-0.5	0.9				T
2087	34.943	3.070	27.868	-0.2	0.2	0.5	0.3	0.000	0.010		W
2370	34.920			0.1	0.9	0.1	0.4				T
3363	34.907	2.270	27.908	-1.0	0.9	-0.3	0.8				T
4457	34.743	0.610	27.893	-0.8	1.2	0.7	0.9				T
4995	34.722	0.296	27.894	0.3	1.5	-0.1	0.8				T

CS137 FROM 0 M TO 500 M= 9.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 8.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 500 M= 0.26 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-54	15 0.0 S 29 32.0 W	11/09/72	5175 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
20	36.836			14.5 0.6	9.7 0.5	0.030 0.010		W
80	37.026			14.6 0.3	8.5 0.4	0.050 0.010		W
150	36.820			14.9 0.3	9.7 0.6	0.040		W
200	35.967			7.0 0.4	4.8 0.3	0.100 0.020		W
250	35.465			10.2 0.6	7.1 0.4	0.070 0.010		W
300	35.279			13.5 0.5	9.1 0.4	0.050 0.010		W
394	34.852			4.5 0.9	1.3 0.9			T
494	34.577			0.6 0.4	0.3 0.5	0.030 0.010		W
742	34.399	4.160	27.329	0.0 0.3	-0.2 0.3	0.010		W
1036	34.566			-0.1 0.4	0.1 0.5	0.010		W
1192	34.708	3.750	27.616	0.5 0.4	0.7	0.000 0.010		W
1391	34.852	3.800	27.725	0.2 0.4	0.4 0.2	0.004		W
1592	34.915			0.0 0.2	0.7 0.4	0.005 0.010		W
1841	34.934			-0.4 0.6	-0.1 0.5	0.006		W
2188	34.921	2.820	27.873	0.0 0.2	0.5 0.2	0.020 0.010		W
2739	34.910	2.530	27.889	0.2 0.3	0.9 0.6	0.008		W
3348	34.910	2.300	27.908	0.1 0.2	-0.3 0.1	0.000 0.010		W
3841	34.866	1.820	27.910	-0.4 0.4	-0.5 0.3	0.005 0.009		W
4137	34.809	1.260	27.905	-0.1 0.1	1.0 0.1	0.000 0.020		W
4435	34.749	0.800	27.886	0.2 0.3	-1.0 0.8	0.016 0.009		W
4734	34.718	0.460	27.882	0.1 0.1	1.0 1.0	0.010 0.010		V
5034	34.694	0.050	27.885	-0.2 0.4	-0.2 0.3	0.010 0.010		W

CS137 FROM 0 M TO 1000 M= 22.3 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 13.8 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 0.15 mCi/km<sup>2</sup>

CRUISE-STAN#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-56	21	1.5	S	11/13/72	4313 M
	33	0.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
25	37.068			18.5	0.4	11.8	0.9	0.040	0.010		W
90	37.075					12.4	0.9				T
110	36.996			20.9	0.4	16.0	0.5				W
230	35.667					13.9	1.0				T
299	35.339			15.7	0.3	9.4	0.3	0.080	0.020		W
418	34.979					3.9	0.9				T
517	34.705			3.3	0.5	1.9	0.1	0.050	0.020		W
687	34.408	5.160	27.226			0.6	0.5				T
987	34.470	3.369	27.464	0.0	0.3	0.2	0.4	0.020	0.010		W
1087	34.566	3.413	27.536			1.1	1.7				T
1283	34.783					-1.1	0.9				T
1474	34.931	3.890	27.779	0.4	0.3	-0.2	0.3	0.020	0.010		W
1874	34.956					-0.4	1.1				T
2370	34.937	2.880	27.880			-0.5	0.8				T
3340	34.892					0.4	0.9				T
3486	34.873	1.910	27.909	-0.1	0.4	-0.2	0.6	0.004			W
3733	34.811					-0.1	0.7				T
3977	34.767	0.900	27.895	0.5	0.3	-0.1	0.5				W

CS137 FROM 0 M TO 1000 M= 38.0 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 24.2 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-58	27 0.0 S	11/18/72	4586 M
	37 0.0 W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
15	36.711			18.2	1.2	13.0	2.0	T
60	36.620					13.3	1.7	T
140	35.840			23.6	2.7	18.2	2.2	T
210	35.558					11.2	1.5	T
280	35.470			13.9	1.7	8.9	1.7	T
340	35.336					9.3	1.4	T
430	35.063			7.0	1.1	8.4	1.2	T
498	34.832					3.3	1.0	T
583	34.584			1.6	0.9	2.2	1.0	T
685	34.418					2.1	0.8	T
795	34.337			2.9	1.6	0.1	0.8	T
893	34.342					0.8	1.0	T
986	34.369			2.3	1.7	0.6	1.1	T
1084	34.426					0.2	1.9	T
1182	34.504			1.0	0.8	-0.7	0.8	T
1482	34.722					1.3	0.9	T
1780	34.892			0.3	1.1	0.6	1.7	T
2177	34.927					1.3	0.9	T
2597	34.929			2.6	1.2	0.7	1.1	T
2997	34.914					-1.7	1.1	T
3396	34.890			-0.6	0.9	1.2	2.1	T
3795	34.781					-2.0	1.4	T
4141	34.681			-0.9	0.9	-2.7	1.0	T
4491	34.683					2.1	0.9	T

CS137 FROM 0 M TO 1000 M= 39.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 28.0 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
6X-60	32 58.0 S 42 31.0 W	11/22/72	4401 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE		
20	36.000			19.6	0.5	13.4	0.5	0.090 0.030	W	
80	35.979					14.8	1.3		T	
150	35.764			17.0	0.6	12.1	0.4	0.080 0.030	W	
220	35.622			13.5	0.6	9.6	0.9	0.080 0.020	Z	
300	35.531			13.6	0.4	9.2	0.3	0.090 0.020	W	
350	35.407					8.4	1.2		T	
412	35.235			10.0	0.5	6.2	0.3	0.090 0.020	W	
493	34.904			5.3	0.6	-0.4	0.7	0.120 0.015	Z	
593	34.577			4.0	0.4	2.5	0.1	0.060 0.010	W	
693	34.341	5.730	27.105			2.4	0.3		T	
793	34.299	4.800	27.172	2.2	0.4	1.4	0.4	0.030	W	
992	34.269	3.660	27.275			0.6	1.0	0.018 0.005	Z	
1109	34.342	2.970	27.398	0.6	0.4	-0.1	0.1	0.030 0.010	W	
1306	34.468	2.720	27.520	0.5	0.4	0.2	0.8	0.011 0.005	Z	
1703	34.696			0.2	0.3	-0.7	0.6	0.005	0.007 0.004	W
2101	34.868	2.980	27.816			-0.6	1.1	0.007 0.007	Z	
2504	34.917	2.890	27.864	0.1	0.6	0.2	0.2	0.020	W	
3167	34.912	2.430	27.899	1.1				0.016 0.003	L	
3464	34.838	1.740	27.894	-0.5	0.6	0.6	0.2	0.005	W	
3762	34.741	0.710	27.806			-0.1	0.8	0.005 0.002	Z	
3961	34.688			0.3	0.4	0.9	0.2	0.010	W	
4159	34.676	-0.150	27.800	0.1	0.1	0.5	0.8		Z	
4358	34.681	-0.220	27.800	-0.6	0.4	0.1	0.2	0.010	W	

CS137 FROM 0 M TO 1000 M= 37.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 24.7 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4401 M= 0.48 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-64	39	3.5	S	12/05/72	5340 M
	48	33.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e	AM241 e	LAB CODE
2	34.443	14.300	25.710	13.2	0.9	9.9	0.9			T
51	34.883	12.640	26.409			8.9	0.9			T
101	34.918	12.590	26.446	8.8	1.1	7.6	0.8			T
250	34.590					3.8	1.1			T
397	34.226			3.7	1.0	1.6	0.8			T
594	34.197					1.7	0.9			T
793	34.246	3.120	27.308	1.5	0.9	0.0	0.8			T
1012	34.338	2.760	27.413			1.5	0.8			T
1453	34.516			0.2	0.9	1.5	1.0			T
1575	34.586	2.460	27.636			-0.3	0.8			T
1935	34.707			-0.5	0.9	-0.7	0.9			T
2475	34.840			-0.6	1.0	1.7	0.8			T
2980	34.816					-0.5	0.9			T
3460	34.743			-0.9	0.9	0.9	0.9			T
3948	34.706			-0.7	0.9	0.0	0.8			T
4446	34.678	0.040	27.872			0.7	1.1			T
5195	34.668			-0.3	0.9	0.5	0.8			T

CS137 FROM 0 M TO 1000 M= 19.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 12.5 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-67	44	58.0	S	12/10/72	5846 M
	51	10.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
5	34.601	8.250	26.962	9.3	0.4	6.4	0.4	0.040	0.010		W
95	34.675	8.890	26.922			8.9	1.1				T
180	34.595	7.850	27.019	9.3	0.4	5.7	0.5	0.040	0.010		W
295	34.292	5.360	27.111			5.8	0.9				T
391	34.196	4.440	27.139	4.9	0.3	4.4	0.2	0.050	0.020		W
700	34.217	3.220	27.276	2.5	0.4	1.6	0.6	0.040	0.010		W
840	34.275			1.6	0.3	1.3	0.4	0.060	0.020		W
1022	34.334			1.2	0.3	0.5	0.4	0.020	0.010		W
1173	34.417	2.560	27.493			0.0	0.7				T
1378	34.513	2.480	27.576	0.3	0.3	1.2	0.2	0.020	0.020		W
1721	34.640	2.440	27.681			-0.2	5.1				T
1870	34.717	2.440	27.743	-0.1	0.4	-0.2	0.0	0.020	0.010		W
2437	34.830	2.530	27.825			0.0	0.8				T
3203	34.781	1.660	27.854			0.3	0.8				T
4759	34.676	0.000	27.873			0.7	1.0				T

CS137 FROM 0 M TO 1200 M= 22.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1200 M= 17.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1200 M= 0.22 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-73	53	26.4	S	12/17/72	2676 M
	49	48.2	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
2	34.170	5.790	26.963	5.1	0.4	3.2	0.5	0.024	0.000		W
240	34.188	3.210	27.253	3.2	0.5	1.8	0.4	0.038	0.011		W
488	34.242	2.490	27.359	1.6	0.6	0.5	1.8	0.016	0.004		W
637	34.354			1.0	0.4	1.0	0.6	0.028	0.008		W

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-74	54	58.5	S	12/18/72	4147 M
	58	14.8	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
19	34.189	4.670	27.044	4.2	0.5	3.1	0.6	0.030	0.020		W
145	34.013	1.050	27.352	3.1	0.2	1.8	0.4	-0.010	0.010		W
241	34.149	1.560	27.355	2.5	0.5	2.4	1.0				W
394	34.424	2.470	27.506	0.2	0.3	0.6	0.2	0.031	0.013		W
492	34.477	2.340	27.559	-0.3	0.0	0.4	0.1	0.020	0.012		W
777	34.602	2.110	27.677	0.0	0.3	-0.3	0.1	0.140	0.000		W
1022	34.675	1.610	27.777	0.9	0.5	-0.4	0.4	0.004			W
2292	34.715	1.070	27.846	0.0	0.6	0.5	0.2	0.020	0.020		W
2869	34.704	0.720	27.852			0.0	0.8				T
3666	34.682	0.240	27.863	0.0	0.4	-0.3	0.4	0.002			W
3881	34.682					-0.2	1.4				T

CS137 FROM 0 M TO 500 M= 4.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 3.8 mCi/km<sup>2</sup>



CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-76	57	42.5	S	01/01/73	4602 M
	66	12.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
64	33.813	1.530	27.080	4.3	0.4	4.4	0.2	0.027	0.007		W
176	33.970	-0.030	27.306	3.7	0.3	4.3	0.3	0.020	0.010		W
252	34.053	0.990	27.316			2.9	0.8				T
324	34.141	1.120	27.379	2.8	0.3	1.5	0.1	0.040	0.020		W
400	34.236					1.1	0.8				T
493	34.309	1.860	27.462	0.8	0.4			0.020	0.005		W
693	34.472					1.8	0.8				T
842	34.547	2.210	27.625	0.3	0.2	0.3	0.2	0.020	0.020		W
980	34.602					-0.7	0.9				T
1202	34.648	2.100	27.715	0.4	0.4						W
1401	34.684					-0.6	0.9				T
2090	34.722					-0.3	0.8				T
3218	34.714					0.1	0.8				T
4510	34.702					-0.6	0.8				T

CS137 FROM 0 M TO 500 M= 6.8 mCi/km<sup>2</sup>

SR90 FROM 0 M TO 500 M= 6.3 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-78	61	2.3	S	01/03/73	3713 M
	62	56.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
95	33.900	-0.350	27.264	2.4	1.1	2.7	0.8				T
189	34.220	1.230	27.435	0.8	1.0	0.5	0.8				T
345	34.490	2.030	27.594	-0.2	1.0	-0.3	0.9				T
545	34.604			0.2	0.9	-0.5	0.9				T
889	34.696	2.030	27.759	-0.1	1.1	0.6	0.9				T
1589	34.724	1.320	27.833	-1.0	0.8	-0.6	0.9				T
2481	34.715			-0.4	0.9	-0.7	1.0				T
3478	34.700	0.240	27.879	-1.0	0.7	-0.4	0.8				T

CS137 FROM 0 M TO 400 M= 2.0 mCi/km<sup>2</sup>

SR90 FROM 0 M TO 400 M= 2.0 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-82	56	15.0	S	01/12/73	7835 M
	24	59.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
12	33.727	1.320	27.034	3.0	0.3	0.9	0.1	0.040	0.050		W
52	33.737	0.910	27.067			1.6	1.1				T
85	33.931	-0.710	27.303	2.4	0.4	2.6	0.2	0.010	0.020		W
145	34.211	-0.360	27.515			0.8	0.8				T
234	34.469	0.590	27.674	1.1	0.5	1.3	0.3	0.190	0.030		W
395	34.604	0.750	27.773			0.2	1.0				T
500	34.698	1.530	27.798	0.6	0.4	0.1	0.3				W
647	34.697					0.3	0.8				T
795	34.686	1.010	27.823	0.6	0.5	0.7	0.2	0.030	0.050		W
991	34.707					-0.2	0.7				T
1585	34.665					-0.8	0.7				T
2298	34.664	-0.040	27.865			-0.5	0.8				T
3664	34.652	-0.510	27.878			-0.9	0.8				T
4657	34.642	-0.680	27.877			-0.1	0.8				T
6780	34.654	-0.800	27.891			-0.2	0.9				T

CS137 FROM 0 M TO 1000 M= 4.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 2.9 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 6X-89      59 58.5 S      01/22/73      5268 M  
           0 7.6 W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e	AM241 e	LAB CODE
52	34.118	-0.088	27.427	3.9	1.1	2.7	1.0			T
105	34.403	-1.888	27.720	4.5	0.4	3.0	0.5	0.050		W
137	34.438	-1.532	27.741			1.1	0.3			T
199	34.676	0.500	27.846	1.7	1.8	0.3	0.2	0.020	0.010	W
400	34.687	0.440	27.858			-0.7	0.9			T
797	34.685					0.4	0.9			T
1000				0.0	0.4	0.4	0.2	0.000	0.010	W
1095	34.679	0.070	27.871	-0.1	0.5			0.030		W
1436	34.670	-0.080	27.872	0.5	0.9	0.0	0.8			T
2134	34.663	-0.320	27.878			0.3	0.9			T
2832	34.661					2.1	0.9			T
3531	34.656	-0.638	27.886			0.8	0.9			T
4230	34.653	-0.764	27.889			-0.3	0.9			T
4928	34.651	-0.870	27.892			0.7	0.8			T

CS137 FROM 0 M TO 300 M= 4.0 nCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 300 M= 1.9 nCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-91	49	34.3	S	01/29/73	4190 M
	11	30.8	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
19	33.853	4.200	26.891	4.3	0.9	3.4	0.8				T
99	33.888	2.674	27.062			5.3	0.9				T
153	33.921	1.450	27.181	4.3	1.0	2.9	0.9				T
346	34.333	1.920	27.477			1.1	0.7				T
545	34.500	2.000	27.604	0.3	1.0	-0.4	0.8				T
746	34.611	2.120	27.684			0.0	0.7				T
988	34.686	2.110	27.744	1.3	1.1	-0.6	0.9				T
1288	34.728	1.980	27.789			-0.5	0.8				T
1588	34.748	1.740	27.822	-0.5	0.9	-0.9	0.8				T
1783	34.737	1.520	27.829			-0.1	0.8				T
2084	34.723	1.200	27.840	-0.6	0.9	1.6	0.9				T
2384	34.712	0.970	27.846			0.2	0.8				T
2685	34.705	0.760	27.854	-0.6	1.0	0.6	0.9				T
3185	34.692			0.3	0.9	-0.7	1.1				T
3486	34.689	0.390	27.863			0.2	0.8				T
3785	34.680			0.2	0.9	-0.3	0.8				T

CS137 FROM 0 M TO 500 M= 7.0 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 5.1 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-93	41	47.2	S	02/02/73	4923 M
	18	26.0	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
86	35.156	13.450	26.457	15.8	0.3	10.2	0.3	0.040	0.030		W
244	34.836	10.630	26.753	10.1	0.3	10.0	0.2	0.030	0.020		W
394	34.620	8.790	26.894	1.7	0.2	1.0	0.3				W
740	34.375			2.1	0.7	-0.5	0.4	0.000	0.040		W

CS137 FROM 0 M TO 500 M= 20.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 15.3 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-103	23 59.5 S 0 29.0 E	02/17/73	4632 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
3	35.604	22.700		16.7	0.4	10.9	0.7	W
93	35.562	16.420	26.108	20.8	1.0	14.1	1.1	T
142	35.495			19.0	1.6	12.7	0.4	W
291	35.007	11.600	26.707	10.6	0.8	5.1	0.2	W
391	34.777	9.400	26.918	3.3	0.9	2.8	0.8	T
489	34.606	7.480	27.081	0.6	0.3	0.8	0.2	W
690	34.417			0.2	0.9	0.3	0.7	T
888	34.460	4.060	27.388	0.1	0.7	0.5	0.3	W
1088	34.542			-0.5	0.9	0.0	0.7	T
1368	34.702	3.270	27.658	-0.8	1.0	-0.1	0.2	W
1665	34.836			-1.0	0.7	-0.9	0.7	T
1964	34.884	2.990	27.828	2.6	1.5	0.0	0.2	W
2460	34.873	2.550	27.858	-0.6	0.9	-0.4	0.9	T
2958	34.861	2.210	27.877	0.3	0.3	0.0	0.1	W
3454	34.860	2.000	27.893	-0.1	1.1	-0.1	0.8	T
3949	34.809	1.350	27.899	0.2	0.3	-0.5	0.3	W
4248	34.752	0.830	27.887	-0.4	0.8	0.1	0.8	T

CS137 FROM 0 M TO 1000 M= 26.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 17.8 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-107	12 0.0 S	02/22/73	5537 M
	1 58.5 E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	FU239 e	AM241 e	LAB CODE
48	36.565	22.150	25.384	9.9	1.1	7.6	0.9	T
147	35.209	12.360	26.718	2.8	0.9	1.7	0.8	T
346	34.867			0.2	0.9	-1.0	0.8	T
893	34.520	4.310	27.410	-1.4	1.0	-0.7	0.8	T
1390	34.848	3.690	27.734	-0.1	0.9	-0.5	0.8	T
2073	34.911	3.000	27.842	-0.8	0.9	-0.6	0.8	T
3069	34.894	2.280	27.897			0.7	1.0	T
4061	34.884	2.000	27.911			-0.6	0.8	T
5055	34.877	2.010	27.905			-0.5	0.7	T

CS137 FROM 0 M TO 500 M= 6.5 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 4.5 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-111            2    0.5    N            03/01/73            5163 M  
                   14   1.6    W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
1	35.460			14.7	0.2	7.9	0.2	0.030 0.009	W
50	36.024					12.2	0.9		T
100	35.532			2.8	0.4	3.6	0.1	0.050 0.010	W
150	35.410					3.3	0.9		T
200	35.249			1.2	0.4	2.7	0.3	0.060 0.010	W
262	35.147	11.000	26.777	3.8	0.3	2.4	0.3	0.050 0.010	W
313	35.037	10.860	26.868	2.0	0.3	0.9	0.3	0.046 0.017	W
511	34.597	6.470	27.213	0.7	0.3	0.3	0.9	0.020 0.010	W
726	34.524	4.990	27.338	0.2	0.3	0.4	0.1	0.007	W
931	34.594	4.320	27.467	0.7	0.3	0.0	0.3	0.030 0.010	W
1137	34.742	4.370	27.579	-0.3	0.3	-0.7	0.3	0.010	W
1445	34.958	4.060	27.783	0.3	0.3	0.0	0.2	0.008 0.004	W
1754	34.967	3.610	27.836	0.0	0.3	0.0	0.1	0.010 0.030	W
2062	34.954	3.190	27.866	-0.5	0.3	0.8	0.2	0.010 0.010	W
2586	34.931	2.680	27.894	-0.1	0.4	0.0	0.2	0.030 0.030	W
3100	34.915	2.380	27.906	0.2	0.3	0.6	0.2	0.010 0.010	W
3203	34.898	2.170	27.909	0.0	0.3	-0.4	0.2	0.033 0.013	W
4130	34.887	1.960	27.917	0.2	0.3	-0.1	0.2	0.010 0.010	W
4336	34.880	1.860	27.919	-0.3	0.3	-0.3	0.3	0.003 0.005	W
4541	34.873	1.810	27.917	-0.1	0.6	0.4	0.6	0.010 0.020	W
4748	34.868	1.780	27.915	0.0	0.3	0.2	0.3	0.007 0.011	W
4952	34.864	1.730	27.916	0.4	0.3	1.3	0.3	0.020 0.010	W
5158	34.861	1.700	27.916	-0.3	0.3	2.5	0.2	0.006 0.008	W

CS137 FROM 0 M TO 750 M=      7.9 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 750 M=      7.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5163 M=    0.42 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-113	10	59.1	N	03/05/73	4948 M
	20	31.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
1	35.774			4.8	0.6	4.3	0.2	0.100	0.020		W
150	35.428			5.6	0.9	2.3	0.8				T
310	35.128	10.470	27.009			-0.3	1.1				T
413	35.054	9.540	27.111	1.0	0.2	1.0		0.020	0.010		W
516	35.017	8.730	27.214	1.6	0.8	1.1	0.8				T
920	34.758	5.480	27.466			-0.5	0.9				T
1442	34.967	4.170	27.779	2.0	0.9	1.5	0.9				T
2198	34.955	3.060	27.879			0.8	0.8				T
3158	34.919					-0.4	1.0				T
4145	34.893	1.920	27.925			-0.3	0.9				T
4542	34.883	1.900	27.919			-0.4	0.8				T

CS137 FROM 0 M TO 300 M= 6.9 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 300 M= 3.1 mCi/km<sup>2</sup>



CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-115      28    6.0    N      03/15/73      5285 M  
           25    50.0   W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
197	36.576	17.190	26.705	38.7	0.4	21.8	0.1	0.310 0.030 W
296	36.318	15.860	26.820	32.3	0.4	23.2	0.3	0.220 0.040 W
397	36.026			32.1	0.3	19.9	0.3	0.300 0.030 W
596	35.583	11.470	27.179	15.1	0.4	8.6	0.2	0.240 0.030 W
697	35.484	10.420	27.295	6.1	0.2	3.6	0.1	0.120 0.020 W
796	35.356	9.160	27.411	2.2	0.3	2.4	0.2	0.060 0.020 W
896	35.290	8.240	27.505	1.3	0.3	0.1	0.3	0.060 0.010 W
1096	35.332	7.280	27.680	1.5	0.2	1.3		0.030 0.010 W
1191	35.324	6.880	27.731	1.2	0.2	0.7		0.020 0.010 W
1490	35.264	5.650	27.844	1.4	0.3	1.6	0.2	0.030 0.010 W
1987	35.094	4.020	27.895			2.3	0.9	0.042 0.006 R
2487	34.994	3.020	27.913	2.8	0.2	2.3		W
2985	34.941	2.490	27.918			-0.4	0.8	0.022 0.004 R
3484	34.920			0.6	0.3	0.9		0.040 0.020 W
3989	34.904	2.140	27.917	0.9	0.2	0.2	0.8	0.012 0.003 0.002 R
4478	34.896	1.940	27.926	0.7	0.3	0.7		0.010 0.010 W
5175	34.915	1.960	27.940			0.3	0.7	T

CS137 FROM 0 M TO 3000 M= 112.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3000 M= 71.4 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5285 M= 1.40 mCi/km<sup>2</sup>

CRUISE-STAN#	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-116	29	53.0	N	03/18/73	4502 M
	30	22.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
0	36.576	18.300		35.1 0.4	20.9 0.2	0.100 0.100		W

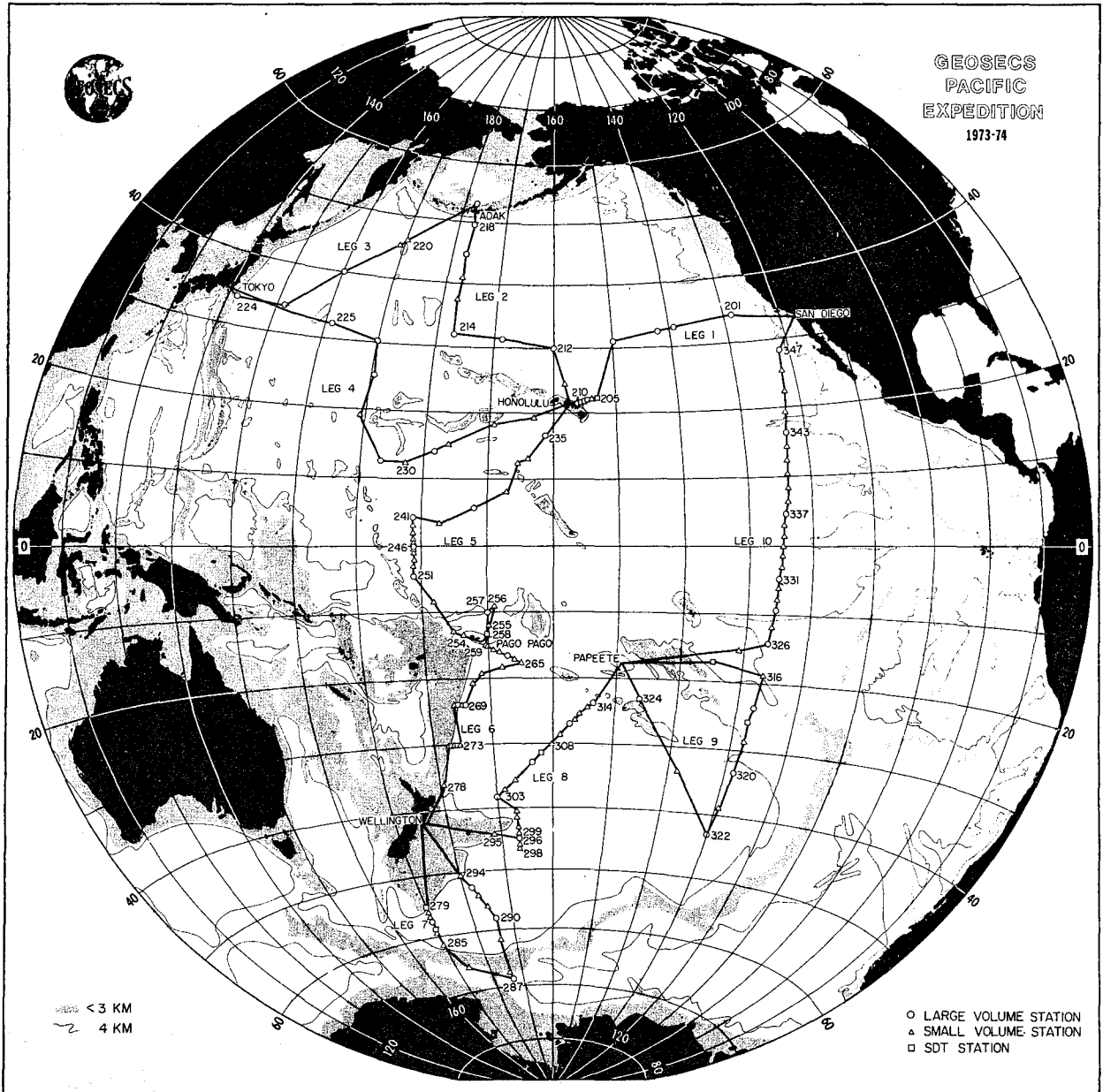
CRUISE-STAN#	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-117	30	44.5	N	03/21/73	3646 M
	38	58.2	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
2	36.738	19.590	26.215	35.5 0.4	22.2 0.3			W
100	36.733	19.360	26.272		20.5 1.1			T
295	36.403	17.010	26.613	34.0 0.6	19.5 0.2	0.310 0.030		W
393	36.176	15.680	26.754		20.5 0.9			T
539	35.803	13.800	26.944	26.0 0.3	15.0 0.2	0.250 0.040		W
686	35.607	11.770	27.142		10.2 1.4			T
1076	35.525	6.980	27.875	3.1 0.3	2.1 0.1			W
1215	35.231	6.200	27.749		1.8 0.9			T
1474	35.197	5.220	27.844		1.7 0.8			T
1954	35.095	3.940	27.905	3.3 0.9	0.7 0.4	0.050 0.010		W
2506	34.972	2.970	27.900		1.0 0.8			T
3425	34.926	2.410	27.912		-1.4 1.3			T

CS137 FROM 0 M TO 3000 M= 142.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3000 M= 76.9 mCi/km<sup>2</sup>

SECTION 2

Radiochemical Data (GEOSECS Pacific)



CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 6X-201            34 10.5 N            08/25/73            4800 M  
                   127 53.8 W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
2	33.005	17.610	23.930	52.2	1.5	39.4	0.8	0.091 0.010	Z
67	33.045	13.810	24.753	59.3	1.8	41.0	1.7		T
141	33.210	10.370	25.533	57.5		43.8	0.9	0.087 0.012	Z
216	33.837	8.670	26.302	47.3	1.9	33.0	1.4		T
295	34.010	7.630	26.592	24.2	1.0	13.9	1.0	0.360 0.025	Z
394	34.044	6.230	26.800	5.7	0.6	4.3	0.5		T
493	34.089	5.520	26.932	1.6	0.4	1.7	0.4	0.250 0.018	Z
592	34.205	5.100	27.073	0.2	0.4				T
741	34.323	4.590	27.223	0.4	0.8			0.110 0.020	L
889	34.415	4.030	27.355	-0.2	0.4	-1.0	0.5		T
1087	34.481	3.440	27.466	-0.2				0.098 0.013	L
1286	34.524	3.000	27.541	-1.1	0.4	0.1	0.6		T
1535	34.545	2.500	27.600	-0.2				0.078 0.012	L
1816	34.595	2.020	27.679	-0.6	0.4	-0.9	0.5		T
2114	34.629	1.770	27.725	-0.2				0.020 0.009	L
2724	34.651	1.470	27.764	0.4	1.0				L
3073	34.666	1.340	27.785	-0.3	0.3	0.4	0.7		T
3471	34.671	1.240	27.796	1.6	0.4	-0.6	0.2	0.030 0.010	Z
3868	34.681	1.180	27.808	-0.4	0.4	0.1	0.6		T
4264	34.683	1.160	27.811	-0.2				0.040 0.010	L
4707	34.667	1.120	27.800	-0.3	0.4	-0.3	0.4		T

CS137 FROM 0 M TO 1000 M= 75.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 54.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4800 M= 1.53 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-202	33	6.0	N	08/30/73	5129 M
	139	34.4	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
15	34.651	21.630	24.079	54.7	7.0	44.8	0.7	0.040	0.020		W
70	34.289	16.550	25.104	58.1	1.7	41.6	0.9				T
141	34.439	14.920	25.590	59.7	0.7	44.0	0.4	0.070	0.020		W
240	34.151	10.530	26.238	51.6	1.0	39.4	2.0				T
346	34.048	8.730	26.456	37.8	1.0	29.8	0.9	0.450	0.030		W
496	33.969	6.070	26.711			6.3	0.6				T
645	34.066	4.560	27.023			1.1	0.2	0.300	0.200		W
844	34.288	4.050	27.252	2.4	0.4	0.5	0.3				T
1045	34.415	3.630	27.395	-0.8	0.9	-0.5	0.2	0.080	0.030		W
1246	34.487	3.120	27.500			0.0	0.2				T
1446	34.526	2.710	27.568	-0.4	1.0	-0.3	0.5	0.060	0.040		W
1646	34.560	2.340	27.625	-0.2	0.4	-0.3	0.3				T
1847	34.584	2.000	27.671	0.0	0.5	-0.4	0.5	0.080	0.010		W
2136	34.624	1.710	27.725			-0.1	0.8				T
2437	34.644	1.560	27.752	1.0	0.8	-0.7	0.5	0.050	0.020		W
2736	34.570	1.410	27.703	1.0	0.4	0.3	0.2				T
3000	34.671	1.360	27.787	-0.3	0.9	-0.4	0.5	0.050	0.010		W
3084	34.654	1.320	27.777	-0.4	0.4	0.4	0.4				T
3431	34.673	1.210	27.799	-0.3	0.6	-0.1	0.1	0.010	0.010		W
3776	34.673	1.180	27.802	-0.5	0.4	-0.4	0.3				T
4122	34.685	1.160	27.813	-0.8	0.9	-0.8	0.5	0.040	0.020		W
4524	34.681	1.120	27.812	-0.3	0.3	-0.8	0.6				T

CS137 FROM 0 M TO 1000 M= 128.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 78.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5129 M= 1.99 mCi/km<sup>2</sup>

CRUISE-STATION POSITION COLLECTION DATE BOTTOM DEPTH  
 6X-204 31 22.8 N 09/05/73 5403 M  
 150 2.1 W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e		e		e		e		
13	35.233	23.530	23.981	60.1	0.8	32.9	1.4	0.200	0.020	0.020	0.008	W
55	34.760					39.3	1.2					T
154	34.442	13.790	25.835	55.9	0.7	34.7	1.6	0.200	0.020	0.030	0.010	W
304	34.238	10.600	26.293	41.2	1.2	35.1	0.7					T
430	34.061	8.210	26.546	32.0	0.5	20.1	1.8	0.550	0.040	0.210	0.020	W
566	33.988	5.550	26.849	-0.2	0.1	-0.5	0.1					T
776	34.214	4.060	27.192	-0.5	0.4	0.7	0.3	0.120	0.030	0.050	0.010	W
997	34.386	3.490	27.386			0.5	0.4					T
1196	34.489	3.080	27.505	-0.4	0.4	0.6	0.7	0.070	0.020	0.011	0.015	W
1405	34.541	2.660	27.584	0.3	0.8	-0.3	0.3					T
1544	34.562	2.430	27.620	0.0	0.2	0.6	0.2	0.090	0.030	0.020	0.010	W
1713	34.585	2.170	27.659	-0.3	0.4	-0.2	0.3					T
1902	34.607	1.940	27.695	-0.2	0.2	-0.2	0.3	0.020	0.010	0.009	0.004	W
2090	34.616	1.760	27.715	-0.8	0.7	-0.1	0.4					T
2398	34.641	1.540	27.751	-0.2	0.0	0.1	0.4	0.040	0.020	0.008	0.004	W
2698	34.656	1.400	27.773			0.2	0.5					T
3048	34.652	1.270	27.778	0.4	0.2	0.4	0.7	0.010	0.020	0.005	0.006	W
3397	34.674	1.210	27.800	-1.5	0.8	0.1	0.5					T
3746	34.683	1.160	27.811	1.0	0.3	0.8	0.3	0.057	0.014	0.016	0.005	W
4095	34.685					-0.5	0.7					T
4492	34.687	1.100	27.818			0.4	0.5	0.035	0.016	0.010	0.004	W
4889	34.689	1.100	27.820			0.1	0.5					T
5292	34.680	1.080	27.814	0.4	0.3	0.2	0.2	0.041	0.016	0.030	0.010	W

CS137 FROM 0 M TO 600 M= 103.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 600 M= 70.7 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5403 M= 2.08 mCi/km<sup>2</sup>  
 AM241 FROM 0 M TO 5403 M= 0.68 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-212            30    0.0    N            09/18/73            5877 M  
                   159   50.5   W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	35.470	25.200	23.666	59.8	0.5	35.1	0.9	0.170 0.020 0.000 0.100	W
60	34.990	17.700	25.369	55.5				0.200 0.030	L
120	34.670	15.000	25.752	53.5	0.5	29.0	0.3	0.110 0.020 0.030 0.020	W
190	34.380	12.900	25.972	54.9	1.0			0.210 0.008	L
260	34.270	11.300	26.201	58.9	0.5	31.3	0.4	0.240 0.030 0.090 0.020	W
426	34.128	9.070	26.465	30.5	0.3			0.730 0.060	W
595	34.006	6.010	26.806	6.1	0.3	5.9	0.4	0.510 0.040 0.120 0.020	W
956	34.321	3.650	27.318	-0.1	0.3	0.2	0.5	0.100 0.020 0.010 0.010	W
1391	34.520	2.760	27.558	0.1	0.2	0.4	0.4	0.050 0.040 0.040 0.030	W
1790	34.585	2.140	27.661	-0.3	0.3	-0.1	0.4	0.040 0.040 0.015 0.005	W
2442	34.630	1.540	27.742	0.9	0.3	0.6	0.5	0.050 0.020 0.020	W
3241	34.655	1.270	27.781	0.8	0.3	0.8	0.3	0.020 0.010	W
4039	34.656	1.160	27.789	1.0	0.3	1.2	0.2	0.080 0.040 0.010 0.010	W
4836	34.686	1.090	27.818	-0.2	0.2	0.1	0.4	0.050 0.010 0.010	W
5238	34.687	1.080	27.819	-0.3	0.2			0.086 0.014	W
5638	34.674	1.080	27.809	0.4	0.2	0.0	0.7	0.140 0.030 0.030 0.010	W

CS137 FROM 0 M TO 1000 M= 117.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 69.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5877 M= 3.08 mCi/km<sup>2</sup>  
 AM241 FROM 0 M TO 5877 M= 0.73 mCi/km<sup>2</sup>



CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-213	30	58.1	N	09/22/73	5761 M
	168	28.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e	e	e	e	e	e			
20	35.510	26.800	23.205	50.3	0.5	34.4	1.8					T
60	34.870	21.100	24.390	50.3	0.4	34.6	0.5	0.080	0.010			W
95	34.770	17.620	25.215	48.3	0.4	29.1	1.3	0.070	0.010			W
176	34.604	14.660	25.773	53.5	0.5	36.6	0.8					T
257	34.457	13.060	25.996	48.2	0.5	29.9	0.2	0.380	0.030	0.040	0.010	W
337	34.363	11.840	26.163	48.2	1.0							T
448	34.170	9.460	26.435	36.1	0.4	22.7	0.6	0.820	0.090	0.300	0.200	W
626	34.033	6.270	26.796	11.9	0.7	7.9	1.0					T
831	34.153	4.340	27.115	-0.5	0.4	-0.5	0.2	0.230	0.020	0.060	0.050	W
1044	34.336					-0.4	0.3					T
1197	34.426	3.100	27.446	0.2	0.3	0.5	0.3	0.090	0.020			W
1391	34.499	2.820	27.536			0.6	0.3					T
1590	34.544	2.460	27.603	0.9	0.4	0.0	0.3	0.070	0.010	0.030	0.050	W
1787	34.573	2.140	27.652			-0.4	0.5					T
2136	34.617	1.720	27.719	-0.6	0.4	-0.2	0.4					W
2434	34.634	1.580	27.742			-0.2	0.4					T
2823	34.651	1.410	27.768	0.2	0.3	-0.2	0.1					W
3622	34.674	1.220	27.800	-0.2	0.2	0.3	0.2					W
4418	34.683	1.130	27.813	-0.4	0.2	0.1	0.4					W
4817	34.686	1.100	27.817			-0.5	0.4					T
5216	34.683	1.090	27.816	-0.1	0.2	-0.4	0.2	0.120	0.040	0.050	0.010	W
5614	34.683	1.040	27.818			-1.1	0.1					T

CS137 FROM 0 M TO 5761 M= 124.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 5761 M= 79.3 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-214	32	1.5	N	09/25/73	5706 M
	176	59.9	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e		e		e		e		
20	34.560	25.800	22.799	50.8	1.0	34.4	1.5	0.104	0.013			K
60	34.700	17.700	25.144	53.2	1.1	35.6	1.4					T
105	34.676	15.800	25.573	54.2	0.4	29.0	0.8	0.240	0.060	0.019	0.008	W
155	34.571	14.460	25.791			32.8	2.0					T
216	34.463	13.190	25.975	41.3	0.4	29.6	0.5	0.275	0.021			V
276	34.403	12.310	26.103	44.9	0.4	31.0	0.4	0.390	0.070	0.026	0.009	W
345	34.324	11.290	26.236	38.6	0.4	26.5	1.2	0.400	0.030			V
474	34.174	9.040	26.506	32.1	0.4	21.0	0.2	0.500	0.100	0.062	0.012	W
628	34.034	6.330	26.789	12.9	0.3	10.6	0.3	0.520	0.040			W
777	34.110	4.620	27.052	2.4	0.5	2.5	0.2	0.210	0.050	0.120	0.020	W
896	34.222	3.940	27.211	4.7	0.5	2.1	0.5					T
1191	34.412	3.040	27.448	0.8	0.3	0.9	0.2	0.160	0.030	0.043	0.009	W
1840	34.569	1.990	27.661	0.2	0.4	-0.1	0.2	0.094	0.022	0.031	0.008	W
2542	34.631	1.480	27.747	0.0	0.3	0.3	0.2	0.080	0.010			W
3341	34.663	1.220	27.791					0.060	0.060	0.034	0.010	W
3739	34.671	1.160	27.801			0.3	0.3					T
4136	34.685			0.3	0.5	0.2	0.3	0.100	0.030	0.032	0.010	W
4936	34.688	1.070	27.821	-0.3	0.5	-0.3	0.3	0.140	0.040	0.030	0.009	W
5335	34.678	1.460	27.787	1.1	0.2	0.9	0.4	0.190	0.020	0.062	0.014	J

CS137 FROM 0 M TO 2000 M= 121.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 2000 M= 82.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5706 M= 3.85 mCi/km<sup>2</sup>  
 AM241 FROM 0 M TO 5706 M= 1.09 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-217	44 36.8 N 176 50.2 W	10/01/73	5983 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
5	33.040	11.100	25.273	37.5	0.3	19.8	0.2	W
25	33.050	10.900	25.319	37.4	0.4	21.5	0.6	0.100 0.050 W
95	33.485	5.670	26.437	33.2	0.5			0.180 0.020 W
155	33.569	5.790	26.510	32.7	0.5	20.5	0.4	W
236	33.904	6.050	26.721	26.7	0.5			0.330 0.030 W
296	33.863	5.010	26.813	24.0	0.3	16.4	0.8	0.430 0.060 W
356	33.873	4.440	26.882	17.0	0.3			0.330 0.030 W
500	34.045	3.960	27.069	8.5	0.3	5.6	0.1	0.190 0.050 W
645	34.182	3.700	27.203	3.7	0.3			0.210 0.030 W
795	34.257	3.300	27.301	1.7	0.3	0.9	0.2	0.330 0.100 W
994	34.357	2.920	27.414	-0.2	0.6			0.270 0.070 W
1142	34.414	2.640	27.484	0.2	0.3	-1.2	0.4	W
1490	34.509	2.220	27.595	-0.8	0.3	0.0	0.6	W
2085	34.585	1.740	27.692	-0.4	0.3	-0.7	1.0	W
4142	34.667	1.120	27.800	0.2	0.2			0.027 0.009 W
4936	34.685	1.100	27.816	0.4	0.5			0.130 0.030 W
5534	34.653	1.100	27.791	-0.1	0.2	0.5	1.2	0.091 0.018 W

CS137 FROM 0 M TO 5983 M= 65.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 5983 M= 46.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 1.18 mCi/km<sup>2</sup>  
 PU239 FROM 4000 M TO 5983 M= 0.78 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-218	50	26.8	N	10/04/73	7301 M
	176	35.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e		e		e		e		
5	32.660	12.000	24.815	38.7	0.4	23.3	0.8	0.040	0.010	0.014	0.014	W
80	33.990	3.500	27.069	34.2	0.4	18.1	0.9	0.100	0.010	0.033	0.007	W
140	33.540	3.000	26.682	22.2	0.6	12.6	0.5	0.230	0.020	0.045	0.009	W
195	33.717	3.580	26.845	21.6	0.6	13.1	0.2	0.250	0.020	0.059	0.012	W
344	33.950	3.480	27.040			5.8	0.3	0.250	0.030	0.079	0.011	W
543	34.165	3.340	27.224	4.3	0.8	3.0	0.3	0.200	0.020	0.031	0.009	W
742	34.287	3.070	27.345	0.0	0.7			0.198	0.018			L
992	34.381			-0.2	0.4	-0.1	0.3					T
1290	34.467	2.340	27.551	1.3	0.6			0.107	0.013			L
1589	34.531	2.060	27.624	-0.9	0.6	-0.4	0.3					T
1888	34.572			2.5	0.5			0.058	0.009			L
2060	34.600	1.120	27.747			-0.7	0.9					T
2195	34.596	1.790		-0.2				0.084	0.013			L
2593	34.637	1.470	27.753	0.5	0.6	0.5	0.4					T
2992	34.655	1.330	27.777	0.4	0.6			0.055	0.009			L
3390	34.668	1.240	27.794	0.2	0.8	1.8	0.6					T
3789	34.675	1.160	27.804	-0.2				0.060	0.009			L
4187	34.679			1.4	0.4	-0.3	0.5					T
4585	34.685	1.090	27.817	-0.2				0.053	0.007			L
4982	34.688	1.080	27.820	1.6	0.4	1.2	0.7	0.090	0.010	0.025	0.008	J
5378	34.681	1.070	27.815					0.130	0.040			L
6031	34.687	1.060	27.820	1.1	0.5	1.8	0.3	0.080	0.010	0.019	0.006	W
6433	34.685			1.1	1.5			0.100	0.012			L
7233	34.688	1.040	27.823	0.1	0.2	-0.2	0.6	0.130	0.020	0.026	0.009	W

CS137 FROM 0 M TO 1000 M= 48.5 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 28.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 7301 M= 3.28 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-219	53	6.6	N	10/08/73	3734 M
	177	17.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e	e	e	e	e	e			
20	33.070	7.300	25.900	30.3	1.2	20.5	0.9					T
70	33.340	4.300	26.476	24.0	0.5	16.1	0.2	0.110	0.020	0.028	0.009	W
150	33.490	3.300	26.689	23.5	0.7	16.7	0.9					T
250	33.740	3.600	26.863	20.8	1.3	11.7	0.7	0.270	0.020	0.048	0.009	W
343	33.909	3.510	27.004	11.8	1.0	6.3	0.8					T
494	34.082	3.360	27.156	7.1	0.3	4.8	0.2	0.200	0.020	0.039	0.009	W
895	34.321	2.870	27.390	0.7	0.5	1.4	0.5					T
1244	34.426	2.480	27.507	-0.2	0.3	0.6	0.2	0.090	0.010	0.024	0.006	W
2739	34.641	1.440	27.758	0.0	0.7	-0.2	0.5					T
3236	34.658	1.360	27.778	-0.8	0.7	0.0	0.2	0.090	0.010	0.009	0.003	W
3702	34.662	1.280	27.786	-0.2	0.4	0.2	0.6					T

CS137 FROM 0 M TO 3734 M= 48.3 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 3734 M= 35.3 mCi/km<sup>2</sup>

CRUISE-STAN	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-222	40	10.0	N	10/16/73	5647 M
	160	30.0	E		

DEPTH	SALINITY	PDT. T	SIGMA THETA	CS137		SR90		PU239		AM241		LAB CODE
				e	e	e	e	e	e	e		
10	34.130	15.700	25.176	33.3	0.4	28.4	0.7	0.092	0.014			W
100	34.060	9.200	26.393	27.4	0.3	22.6	0.6	0.392	0.026			W
180	33.900	6.900	26.607	28.9	0.7	22.1	0.4	0.370	0.050	0.044	0.008	W
220	33.840	6.400	26.630	27.0	0.3	18.7	0.3	0.334	0.024			W
270	33.870	5.400	26.777	24.3	0.5	17.9	0.1	0.250	0.060	0.034	0.008	W
425	33.968			11.6	0.2	8.6	0.7	0.252	0.021			W
560	34.108			6.4	0.5	4.7	0.5	0.260	0.030	0.064	0.012	W
695	34.216	3.540	27.246	2.3	0.6	2.0	0.2					T
845	34.294	3.180	27.341	1.7	0.3	0.6	0.1	0.170	0.020	0.048	0.009	W
1050	34.390	2.790	27.452	0.1	0.5	-0.2	0.4					T
1155	34.415			0.2	1.0	0.1	0.5	0.110	0.020	0.055	0.009	W
1810	34.560	1.940	27.657	1.1	0.5	-0.1	0.4					T
1990	34.578	1.800	27.681	0.3	0.9	0.4	0.1	0.080	0.020	0.023	0.006	W
2285	34.619			-0.8	0.2	-0.3	0.2					T
2640	34.643	1.470	27.758	-0.4	0.3	-0.1	0.5	0.060	0.010	0.011	0.005	W
2815	34.652			-0.4	0.6	-0.6	0.3					T
3095	34.642			0.1	0.4	0.6	0.1	0.050	0.010	0.017	0.005	W
3760	34.647					0.5	0.3					T
4760	34.651			-0.4	0.3	0.3	0.2	0.080	0.020	0.018	0.006	W

CS137 FROM 0 M TO 1000 M= 57.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 44.0 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5647 M= 2.65 mCi/km<sup>2</sup>  
 AM241 FROM 0 M TO 5647 M= 0.69 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-223	34 58.4 N 151 50.6 E	10/20/73	6140 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
10		22.600		41.3	1.7	29.0	1.2	T
70		21.200		43.3	0.6	26.5	1.0	W
125	34.780	19.000	24.844	43.3	1.8	31.0	1.3	T
200	34.770	17.400	25.275	46.5	0.5	27.2	0.2	W
300	34.740	16.500	25.447	48.3	1.0			T
397	34.690	15.700	25.608	43.5	0.4	25.3	1.4	W
547	34.424	11.900	26.199	29.9	1.0			L
697	34.223	8.110	26.688	18.5	0.3	13.5	0.4	W
897	34.076	4.350	27.053	12.9	1.0			L
1097	34.261	3.640	27.272	2.6	0.2	1.7	0.4	W
1495	34.440	2.650	27.504	0.0	0.2			W
2091	34.577	1.900	27.673	-0.4	0.2			W
2685	34.636	1.550	27.746	0.3	0.2	0.7		W
3205	34.658	1.340	27.778	1.8	0.2	0.1	0.2	W
4107	34.677	1.160	27.806	0.0	0.2	-0.5	0.3	W
5113	34.689	1.080	27.821	-0.6	0.2	-0.8	0.3	W

CS137 FROM 0 M TO 6140 M= 151.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 6140 M= 98.7 mCi/km<sup>2</sup>  
 PU239 FROM 70 M TO 6140 M= 3.49 mCi/km<sup>2</sup>  
 AM241 FROM 70 M TO 6140 M= 1.14 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-224	34	15.6	N	10/24/73	9198 M
	141	58.0	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e	e	e	e	e	e		
20	34.500	23.800	23.349	39.5	0.3	29.5	0.5	0.120	0.020		W
150	34.780	18.800	24.933	41.8	0.3	27.7	1.3	0.240	0.030		W
250	34.760	17.200	25.322			32.8	0.7				T
400	34.692	15.730	25.602	42.9	0.3	32.7	1.3	0.470	0.030		W
500	34.538	13.560	25.957	40.0	2.0	28.9	0.9				T
800	34.202	6.620	26.883	9.7	0.2	7.9	0.5	0.340	0.030		W
1345	34.408	3.070	27.441	0.7	0.2	0.5	0.2				W
2243	34.601	1.760	27.703	0.3	0.2	-0.4	0.4	0.100	0.003		W
3729	34.674	1.220	27.800	-0.1	0.3	0.7		0.062	0.014		W
5211	34.685	1.080	27.818	0.8	0.2			0.050	0.010		W

CS137 FROM 0 M TO 2500 M= 142.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 2500 M= 105.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5500 M= 3.66 mCi/km<sup>2</sup>



CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-225	32	37.0	N	11/06/73	5958 M
	161	55.0	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
10	34.560	23.500	23.484	42.0	1.3	19.9	1.0	0.055	0.010		Z
50	34.590	22.100	23.904			31.3	1.0				T
90	34.740	18.000	25.103	42.9	2.2	28.1	1.7	0.280	0.030		Z
130	34.720	16.900	25.353			30.9	1.9				T
180	34.700	16.300	25.487	45.5	1.9	30.9	0.6	0.275	0.011		Z
250	34.680	15.600	25.631			31.3	1.3				T
350	34.560	13.800	25.914	43.1	0.9	30.3	1.6	0.475	0.029		Z
399	34.490	13.100	26.014			27.5	1.4				T
599	34.114	8.170	26.593	27.5	0.9	18.8	1.2	0.424	0.025		Z
895	34.138	4.240	27.114			3.2	0.8				T
1191	34.354	3.170	27.390	0.2	0.5	1.2	0.5	0.160	0.027		Z
1488	34.471	2.490	27.543			0.1	0.5				T
1989	34.586	1.840	27.685	-0.2				0.091	0.009		L
2487	34.631	1.540	27.743			0.2	0.4				T
2692	34.648	1.440	27.764	-0.2				0.102	0.030		L
3187	34.666	1.290	27.788			-0.2	0.3				T
3684	34.673	1.190	27.801			-0.6	0.2	0.073	0.008		Z
4180	34.682	1.130	27.812			0.1	0.2				T
4679	34.687	1.080	27.819	-0.2		-0.1	0.2	0.100	0.012		Z
5177	34.681	1.030	27.817			1.7	0.4				T
5608	34.689	0.990	27.827	0.2	0.6	1.4	0.5	0.150	0.020		Z

CS137 FROM 0 M TO 1500 M= 145.8 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1500 M= 92.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5958 M= 4.04 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-226	30	34.0	N	11/09/73	5603 M
	170	36.5	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
10	35.030	24.700	23.475	44.5	0.4	27.0	0.3	0.140	0.010		W
40	35.030	24.700	23.482	46.4	1.0	32.5	0.7				T
80	34.850	23.700	23.647	50.5	0.1	26.6	0.3	0.110	0.010		W
150	34.730	16.200	25.529	48.6	1.0	36.4	1.9				T
250	34.580	14.400	25.808	43.6	0.4	29.0	0.3	0.430	0.030		W
350	34.430	13.200	25.950	35.3	2.8	30.1	1.2	0.530	0.040		J
452	34.292	10.460	26.360	35.0	0.3	18.0	0.6	0.510	0.040		W
533	34.147	8.560	26.560	27.7	1.4	20.4	0.4	0.480	0.030		K
645	34.042	6.410	26.784	17.2	0.3	8.9	0.5	0.480	0.030		W
904	34.211	3.900	27.206	0.6	0.4	0.3	0.6				T
1192	34.403	3.050	27.439	0.1	0.2	-0.2	0.3	0.170	0.020		W
1480	34.500	3.380	27.487	0.6	0.4	0.1	0.4				T
2499	34.642	1.460	27.758			0.1	0.3				T
3495	34.673	1.200	27.800	-0.2	0.3			0.031	0.015		W
4499	34.687	1.060	27.821	-1.1	0.5	-0.1	0.5				T
5434	34.688	0.970	27.827	-0.5	0.4	0.0	0.3				T

CS137 FROM 0 M TO 5603 M= 124.0 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 5603 M= 80.5 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5603 M= 3.27 mCi/km<sup>2</sup>

CRUISE-STA#      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-227            25   0.0   N            11/12/73            6061 M  
                   170   5.0   E

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	35.230	27.000	22.935	40.3	1.6	29.0	1.5	0.030 0.030	Q
50	35.240	27.200	22.880	40.7	1.3	25.1	0.7	0.120 0.020	W
150	34.440	18.900	24.652	47.3	0.9	32.3	0.7	0.180 0.020	W
250	34.650	16.900	25.309	45.3	1.4	35.0	1.4	0.510 0.050	Q
450	34.276	10.690	26.307	36.9	0.8	31.0	1.3	0.600 0.020	Q
619	34.079	6.800	26.761	9.7	0.9	7.7	1.6	0.450 0.020	W
897	34.293	4.040	27.257	0.8	0.5	0.6	0.8	0.150 0.040	Q
1196	34.467	3.100	27.486	0.2	7.0	0.9		0.090 0.010	W
1593	34.561	2.330	27.627	-0.1	0.4	-0.2	0.6	0.070 0.030	Q
1991	34.616	1.840	27.709	-0.6	1.6	0.7		0.050 0.010	W
2490	34.645	1.530	27.755	-0.2	0.3	-0.6	0.5	0.100 0.050	Q
3137	34.667	1.320	27.787	0.1	1.2	1.7	0.2	0.040 0.010	W
3630	34.672	1.200	27.799	0.1	0.4	0.7	0.6	0.080 0.030	Q
4133	34.682	1.120	27.812	0.2	0.2	2.0	0.2	0.070 0.010	W
4630	34.685	1.060	27.819	1.1	0.5	-0.7	0.7	0.140 0.040	Q
5128	34.687	0.970	27.826	0.8	0.2	1.8	0.2	0.100 0.010	W
5629	34.705	0.950	27.842	1.1	0.5	0.2	0.6		T
5957	34.692	0.920	27.834	1.1	0.2	0.2	0.1	0.040 0.010	W

CS137 FROM 0 M TO 1500 M= 112.0 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1500 M= 85.7 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 6061 M= 3.39 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-229	12 53.0 N	11/18/73	5729 M
	173 28.0 E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
10	34.440	27.900	22.052	27.9	1.2	0.049	0.007	L
50	34.580	27.900	22.161			19.6	0.0	T
70	34.621	27.870	22.199	31.7	1.4	0.029	0.009	L
172	34.948	28.180	24.696	64.2	1.3	41.2	1.7	T
249	35.005	13.650	26.299	53.3	1.1	0.293	0.023	L
345	34.313	9.590	26.524			9.0	0.5	T
444	34.348	7.310	26.903	19.4	0.6	0.331	0.023	L
693	34.490	5.480	27.253	-1.0	0.7	1.5	0.4	T
993	34.546	4.160	27.446	-0.2		0.296	0.023	L
1291	34.579	3.230	27.563			0.5	0.6	T
1590	34.602	2.590	27.638	-0.2		0.158	0.013	L
1888	34.626	2.150	27.693			0.1	0.2	T
2286	34.645	1.800	27.736	-0.2		0.093	0.013	L
2684	34.662	1.530	27.769			0.2	0.7	T
3184	34.674	1.340	27.792	-0.2		0.053	0.010	L
3684	34.682	1.170	27.809	-1.6	0.8	0.3	0.2	T
4186	34.691	1.060	27.824	2.0	0.8	0.029	0.006	L
4686	34.697	0.940	27.836			-0.3	0.3	T
5188	34.702	0.890	27.843	-0.2		0.044	0.011	L
5689	34.696	0.850	27.841			0.0	0.3	T

CS137 FROM 0 M TO 1000 M= 94.5 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 50.9 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5729 M= 2.95 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-231	14	7.0	N	11/22/73	5707 M
	178	34.0	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e	e	e	e	e	e		
10	34.790	27.200	22.540	31.1	0.3	23.5	0.4	0.046	0.007		W
140	35.100	22.500	24.186	50.5	1.5	34.5	0.5	0.097	0.015		W
285	34.359	11.340	26.253	27.8	0.5	20.5	0.7	0.340	0.030		W
446	34.492	8.050	26.909	0.6	0.3	0.4	1.1	0.420	0.030		W
1141	34.560	3.540	27.519	-0.3	0.3	-0.8	0.3	0.150	0.020		W
1984	34.631	2.000	27.709	1.2	0.3			0.130	0.020		W
2574	34.657	1.600	27.760			0.1	0.6	0.040	0.010		W
3201	34.674	1.290	27.795			-0.2	0.9	0.080	0.020		W
3995	34.687	1.110	27.818	-0.5	0.3	1.0	0.1	0.007	0.005		W
4795	34.699	0.890	27.841	0.2	1.0	0.2	0.3	0.033	0.014		W
5596	34.698	0.850	27.843	-0.3	0.3	0.5	0.2	0.049	0.013		W

CS137 FROM 0 M TO 1000 M= 62.1 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 44.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5707 M= 2.68 mCi/km<sup>2</sup>

CRUISE-STAN#	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-235	16	45.4	N	12/06/73	5564 M
	161	23.7	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
10	34.310	25.800	22.610	32.9	1.0			0.060	0.020		L
40	34.398	25.700	22.709	33.5	1.4	24.7	1.0				T
70	34.610	25.900	22.807	35.5	1.0			0.075	0.015		L
130	34.906	21.200	24.397			37.1	1.9				T
275	34.213	10.620	26.270	31.9	1.0			0.420	0.020		L
314	34.217	9.560	26.454			12.0	0.7				T
354	34.188	8.230	26.643	5.6	1.0			0.430	0.040		L
495	34.389	6.840	27.000			1.0	0.6				T
592	34.445	6.190	27.130					0.460	0.060		L
696	34.464	5.810	27.192	-0.1	0.3	1.6	0.4				T
1080	34.534	4.840	27.448					0.110	0.030		L
1496	34.589	2.800	27.610			0.8	0.2				T
1894	34.623	2.080	27.696					0.030	0.020		L
2293	34.641	1.730	27.737			0.2	0.3				T
3105	34.672	1.330	27.791			-1.2	0.2				T
3505	34.679	1.220	27.804					0.020	0.020		L
3905	34.682	1.140	27.811	0.6	0.6	0.3	0.4				T
4707	34.692	1.000	27.828			0.3	0.7				T
5108	34.696	0.960	27.834					0.013	0.010		L
5510	34.691	0.920	27.833			0.8	0.3				T

CS137 FROM 0 M TO 1000 M= 52.7 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 1000 M= 46.0 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5300 M= 2.07 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION	COLLECTION DATE	BOTTOM DEPTH
GX-239	5 53.0 N 172 0.9 W	12/12/73	5868 M

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	35.030	25.800	23.151	24.5	0.5	22.2	1.6	0.060 0.020	Q
50	35.030	25.500	23.247	21.7	0.4	16.1	0.4	0.041 0.011	W
80	35.158	25.410	23.367	22.3	1.4	17.4	1.0	0.040 0.030	Q
125	35.330	25.470	23.478	21.0	0.7	14.3	0.4	0.052 0.014	W
205	34.836	19.860	24.696	35.3	1.8	18.8	1.0	0.090 0.030	Q
293	34.649	10.420	26.644	4.6	0.3	2.8	0.5	0.172 0.005	W
440	34.635	8.640	26.931	0.2	0.6	0.7	0.8	0.280 0.070	Q
637	34.571	7.070	27.112	-0.9	0.3			0.223 0.030	W
865	34.545	5.230	27.326					0.240 0.040	L
1044	34.560	4.280	27.445	-0.3	0.2	0.8		0.186 0.015	W
1693	34.616	2.590	27.650	-0.3	0.2	1.9		0.039 0.007	W
2491	34.658	1.690	27.754	0.4	0.3	1.1		0.033 0.009	W
3290	34.676	1.310	27.795	-0.6	0.2	0.7		0.045 0.011	W
3690	34.683	1.190	27.809			0.3	0.3	0.034 0.013	W
4140	34.692	1.000	27.828			0.7	0.5	0.041 0.012	W
5041	34.697	0.860	27.841					0.117 0.024	W

CS137 FROM 0 M TO 750 M= 32.4 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 750 M= 22.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5868 M= 2.24 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-241            4    33.8    N            12/17/73            5727 M  
                   179   0.2    E

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
5	35.097	27.170	22.779	26.5	1.1	20.0	1.3	0.100 0.050	Q
50	35.114	27.160	22.794			17.3	1.1		T
150	35.230	26.310	23.147	24.8	0.5	17.8	1.1	0.050 0.030	Q
230	34.558	14.040	25.872	29.5	0.9	22.5	0.5		T
295	34.646	9.560	26.790	1.4	0.4	1.6	0.5	0.260 0.040	Q
549	34.583	7.310	27.088	0.5	0.4	0.5	0.8	0.210 0.050	Q
674	34.560	6.410	27.192			1.1	0.7		T
5670	34.699	0.810	27.846	-0.2	0.5			0.060 0.020	L

CS137 FROM 0 M TO 600 M= 32.9 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 600 M= 24.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 600 M= 0.47 mCi/km<sup>2</sup>

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-246            0    0.0    S            12/21/73            5422 M  
                   178   59.0   E

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE	
10	35.210	25.800	23.290	26.5	1.4	19.5	1.0	0.100 0.040	Q
90	35.250	25.700	23.354	25.0	0.9	14.7	0.4	0.060 0.010	W
160	35.550	23.500	24.230	19.0	0.5	15.4	1.1	0.120 0.050	Q
210	35.310	17.400	25.690	10.4	1.1	8.2	0.9	0.120 0.010	W
280	35.950	11.800	27.410	11.7	0.7	7.1	0.7	0.190 0.050	Q
350	34.790	10.300	26.784	3.6	0.2	3.2	0.6	0.200 0.020	W
438	34.643	9.500	26.958	0.6	0.4	2.0	0.7	0.300 0.040	Q
547	34.575	6.940	27.133	-0.4	0.5	1.2	0.3	0.130 0.020	W
658	34.545	5.850	27.252	0.5	0.5	-1.8	1.0	0.110 0.030	Q
778	34.544	5.250	27.323	0.4	0.5	0.9	0.3	0.110 0.020	W
998	34.558	4.260	27.445	0.1	0.4	-0.7	0.5	0.190 0.030	Q

CS137 FROM 0 M TO 500 M= 27.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M= 20.0 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 1000 M= 0.67 mCi/km<sup>2</sup>



CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-251	4	34.0	S	12/24/73	5519 M
	178	57.0	E		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
10	35.640	27.700	23.021	19.9	0.6	0.040	0.020	L
236	35.377	17.130	25.798	11.1	0.6	0.070	0.020	L
497	34.543	8.050	26.948	-0.7	0.3	0.100	0.020	L
895	34.561	4.950	27.372	0.2	0.6	0.040	0.010	L

CS137 FROM 0 M TO 500 M= 23.2 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 900 M= 0.28 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-263	16	41.9	S	01/10/74	5716 M
	167	3.7	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE		
40	34.670	28.400	22.071	21.6	0.4	14.0	0.6	0.040	0.010	W
150	35.810	23.100	24.550	17.4	0.3	7.1	0.2	0.050	0.010	W
348	35.142	15.490	26.003	15.1	0.6	6.0	1.2	0.120	0.020	W
599	34.373	6.400	27.046	-0.6	0.3	0.7		0.030	0.010	W
3666	34.688	1.200	27.812	0.3	0.4	2.1		0.020	0.010	W
4465	34.709	0.800	27.855	-0.6	0.2	-0.5	0.6	0.010		W
5676	34.709	0.640	27.865	0.3	0.6	0.7		0.010		W

CS137 FROM 0 M TO 600 M= 36.6 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 600 M= 17.4 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 5716 M= 0.65 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-326	14	3.3	S	05/20/74	3823 M
	126	15.7	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
10	35.620	21.400	24.877			16.0	1.4				T
110	36.430	24.200	24.696	20.5	1.1	12.0	0.7				T
197	35.797	20.410	25.281	19.4	0.6			0.320	0.040		Q
599	34.520	6.260	27.180	0.3	0.5			0.070	0.030		Q
799	34.508	5.010	27.323	0.0	0.4	-0.5	0.5				T
1047	34.531	4.000	27.450	1.3	0.4	0.2	0.8	0.004	0.004		Q
1295	34.567	3.210	27.555	0.1	0.4	-1.0	1.0				T
1546	34.595	2.690	27.625	-0.4	0.4	-1.4	0.8	0.000	0.020		Q

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
GX-328	9	16.9	S	05/21/74	4089 M
	125	32.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137		SR90		PU239		AM241	LAB CODE
				e		e		e		e	
1830	34.626	2.330	27.679	-0.4	0.4	0.1	0.5				T
2028	34.642	2.040	27.714	0.1	0.4	0.0	0.7	0.000	0.040		Q
2277	34.660	1.810	27.747	-0.5	0.4	0.4	0.7				T
2527	34.670	1.660	27.766	0.9	0.5	1.9	1.0	0.000	0.020		Q
2776	34.675	1.590	27.775	0.1	0.7	-0.6	0.4				T
3026	34.680	1.470	27.787					0.040	0.020		L
3276	34.684	1.350	27.799	0.4	0.4	0.7	0.9				T
3527	34.689	1.240	27.810					0.020	0.010		L
3829	34.690	1.190	27.815	0.3	0.4	-0.5	0.8				T

CRUISE-STATION      POSITION      COLLECTION DATE      BOTTOM DEPTH  
 GX-331            4 36.6 5            05/24/74            4490 M  
                   125 8.5 W

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
10	35.140	26.300	23.082	16.5	0.9	11.2	0.6	T
80	35.450	26.200	23.351	14.6	0.8		0.070 0.030	Q
90	35.330	22.100	24.467	14.9	0.8	8.8	0.6	T
100	35.200	18.200	25.404	11.8	0.6		0.020 0.020	Q
240	34.880	11.900	26.558	1.1	0.5	0.3	0.7	T
302	34.816	10.980	26.675	1.0	0.4	0.1	1.0	Q
382	34.729	9.580	26.852	0.1	0.5	0.3	0.6	T
503	34.624	7.970	27.024	0.0	0.5	-0.2	1.3	Q
632	34.570	6.480	27.190			-0.6	0.5	T
798	34.542	5.260	27.321	-0.2	0.4	1.1	0.7	Q
1099	34.564	4.090	27.467			-0.3	0.4	T
1400	34.591	3.200	27.576	-0.7	0.4	0.0	0.5	T
1701	34.616	2.570	27.651	1.0	0.5	1.5	0.8	Q
2002	34.640	2.145	27.705	0.1	0.4	1.1	2.1	T
3265	34.686	1.270	27.806	0.0	0.4	0.4	0.9	Q
3667	34.692	1.120	27.820			0.2	0.6	T
4066	34.694	1.100	27.824	0.1	0.4	0.0	0.7	T
4467	34.692	1.100	27.822	-0.2	0.4	-0.3	0.4	T

CS137 FROM 0 M TO 500 M=      11.5 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 500 M=      7.4 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4490 M=      0.57 mCi/km<sup>2</sup>

CRUISE-STATION	POSITION			COLLECTION DATE	BOTTOM DEPTH
BX-337	4	50.9	N	05/29/74	4346 M
	124	4.7	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e	SR90 e	PU239 e	AM241 e	LAB CODE
5	34.520	27.000	22.398	22.4	1.0	0.030	0.010	L
130	34.697	14.760	25.824	22.4	1.0	0.150	0.020	L
250	34.673	10.090	26.721	3.8	1.0	0.210	0.040	L
500	34.625	8.120	27.003	-1.1	0.4	0.200	0.030	L
798	34.550	5.480	27.300			0.080	0.030	L
1299	34.586	3.550	27.539	-0.7	0.2	0.080	0.030	L
3378	34.687	1.310	27.804	-0.7				L
4178	34.688	1.130	27.817			0.040	0.020	L

CS137 FROM 0 M TO 500 M= 22.3 mCi/km<sup>2</sup>  
PU239 FROM 0 M TO 4346 M= 1.56 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-343	16	31.3	N	06/03/74	4262 M
	122	59.5	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
10	34.610	22.500	23.805	41.5	0.7	27.2	0.9	0.020	0.010		W
120	34.070	18.800	24.392	56.5	0.4	31.9	1.7	0.110	0.010		W
200	34.700	11.800	26.437	5.2	0.3	2.7		0.120	0.010		W
300	34.660	10.300	26.681	1.9	0.2	0.7		0.110	0.010		W
450	34.522	7.790	26.971	-0.3	0.4	0.7		0.150	0.010		W
797	34.518	5.010	27.331	0.6	0.5	1.5		0.070	0.010		W
995	34.539	4.240	27.432	0.2	0.2	1.3	0.3	0.070	0.010		W
1251	34.567	3.480	27.530			0.5	0.2	0.030	0.010		W
1499	34.595	2.830	27.612	0.5	0.2	1.7	0.5	0.050	0.010		W
1746	34.620	2.370	27.671	0.4	0.5	0.4	0.3	0.060	0.010		W
2240	34.652	1.750	27.745	2.4	0.5	2.1		0.030	0.010		W
3403	34.678	1.280	27.799	1.3	0.9	1.8		0.060	0.010		W
3653	34.681	1.240	27.804	0.6	0.4	1.5		0.020	0.010		W
4153	34.684	1.170	27.811	1.1	0.2	1.5		0.050	0.010		W

CS137 FROM 0 M TO 450 M= 39.5 mCi/km<sup>2</sup>  
 SR90 FROM 0 M TO 450 M= 23.3 mCi/km<sup>2</sup>  
 PU239 FROM 0 M TO 4262 M= 1.10 mCi/km<sup>2</sup>

CRUISE-STA#	POSITION			COLLECTION DATE	BOTTOM DEPTH
6X-347	28	30.8	N	06/08/74	4283 M
	121	29.2	W		

DEPTH	SALINITY	POT. T	SIGMA THETA	CS137 e		SR90 e		PU239 e		AM241 e	LAB CODE
5	33.650	17.100	24.484	57.3	1.0			0.030	0.010		L
599	34.407	5.980	27.127	-0.4	0.3			0.060	0.020		L
1501	34.581	2.820	27.602					0.040	0.020		L
2003	34.633	1.980	27.712	0.2	0.7			0.020	0.020		L

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<b>REPORT DOCUMENTATION PAGE</b>	<b>1. REPORT NO.</b> WHOI-85-19	<b>2.</b>	<b>3. Recipient's Accession No.</b>
<b>4. Title and Subtitle</b> Fallout Nuclides in Atlantic and Pacific Water Columns: GEOSECS Data		<b>5. Report Date</b> May 1985	<b>6.</b>
<b>7. Author(s)</b> H.D. Livingston <sup>1</sup> , V.T. Bowen <sup>1</sup> , S.A. Casso <sup>1</sup> , H.L. Volchok <sup>2</sup> , V.E. Noshkin <sup>3</sup> , K.M. Wong <sup>3</sup> , and T.M. Beasley <sup>4</sup>		<b>8. Performing Organization Rept. No.</b> WHOI-85-19	
<b>9. Performing Organization Name and Address</b> 1. Woods Hole Oceanographic Institution, Woods Hole, MA 2. Environmental Measurements Laboratory, U.S. Dept. of Energy, New York, NY 3. Lawrence Livermore Lab., U. of California, Livermore, CA 4. School of Oceanography, Oregon State U., Newport, OR 97365		<b>10. Project/Task/Work Unit No.</b>	<b>11. Contract(C) or Grant(G) No.</b> (C) DE-AC02-EV03563 (G)
<b>12. Sponsoring Organization Name and Address</b>  United States Department of Energy		<b>13. Type of Report &amp; Period Covered</b>  Technical	
<b>15. Supplementary Notes</b>		<b>14.</b>	
This report should be cited as: Woods Hole Oceanog. Inst. Tech. Rept., WHOI-85-19.			
<b>16. Abstract (Limit: 200 words)</b>  This report contains results of measurements of the fallout radionuclides <sup>90</sup> Sr, <sup>137</sup> Cs, <sup>239,240</sup> Pu, and <sup>241</sup> Am in large volume seawater samples collected between 1972 and 1974 in the Atlantic and Pacific as part of Geochemical Ocean Sections (GEOSECS) program. The stations for which data are reported include both the North and South Atlantic oceans and latitudes north of 20°S in the Pacific Ocean. The <sup>90</sup> Sr and <sup>137</sup> Cs data set has been corrected by a procedure which estimates independently the analytical blank for the laboratory which made the analysis. When the data quality and spacing permit, water column inventory estimates were made for each nuclide over depth intervals appropriate to the nuclide's distribution.			
<b>17. Document Analysis a. Descriptors</b> 1. GEOSECS 2. CS-137 3. Sr-90 4. Pu-239,240 5. Am-241 6. Atlantic Ocean 7. Pacific Ocean  <b>b. Identifiers/Open-Ended Terms</b>    <b>c. COSATI Field/Group</b>			
<b>18. Availability Statement:</b>  Approved for publication; distribution unlimited.		<b>19. Security Class (This Report)</b> UNCLASSIFIED	<b>21. No. of Pages</b> 73
		<b>20. Security Class (This Page)</b>	<b>22. Price</b>