



GEOLOGICAL SURVEY OF CANADA

OPEN FILE 3052

**Geochemistry of marine sediments
from the Strait of Georgia,
British Columbia**

C.E. Dunn, R.G. Balma, and W.A. Spirito

1996



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GEOCHEMISTRY OF MARINE SEDIMENTS FROM THE STRAIT OF GEORGIA, BRITISH COLUMBIA

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INTRODUCTION

This Open File Report contains data from a geochemical study of surface marine sediments from the Strait of Georgia, and a few fluvial deposits from the Fraser River. Figure 1 shows a general outline of the area sampled, and Fig. 2 shows locations of all samples for which analytical data were obtained. This compilation has been prepared to provide baseline information on the distribution of a wide range of chemical elements in muds and sands from the survey area. Studies have been published on the content of a few metals in sediments from the Fraser River delta (e.g. Grieve and Fletcher, 1976), but no comprehensive regional geochemical studies have been undertaken on sediments from the Strait of Georgia. Delaney and Turner (1994) have provided a useful directory of element databases for the Vancouver area. Concern about the level of anthropogenic input of heavy metals and other elements into the sediments of the Fraser River system and the Strait of Georgia requires that present concentrations of elements be ascertained to provide a yardstick for future environmental evaluations.

The first section of this report deals with the methodology and highlights some of the element associations within the survey area. This is followed by maps with dots proportional to the relative concentration of each element accompanied by transparent overlay maps with sample numbers and bathymetry. A complete listing of the analytical data and summary statistics of each element are given in the appendices.

METHODS

Sample Collection and Preparation

A total of 172 surface grab samples of mud, sandy mud or sand were collected from the survey area during a scientific cruise on CSS Tully in November, 1992 (code-named TUL 92A). A Shipek grab sampler was lowered to the sea floor to scoop up approximately 200 - 500 g of the top 10 cm of sediment. Evoy *et al.* (1993) estimated that at an 'offshore background' site, west of Sturgeon Bank (Lulu Island, close to site #12 on Fig. 2), at a water depth of 200 m, the sedimentation rate is 0.76 cm/yr. From that location southward for 20 km, sediments from several cored sections were estimated to have accumulated at rates varying from 0.49 - >2.92 cm/yr (Evoy *et al.*, 1993). Assuming that similar rates occur throughout much of the Strait of Georgia, the top 10 cm of material collected for the present study comprises sediments that accumulated within the past 20 years, and perhaps less.

All sediment samples were freeze-dried. One portion was retained for sedimentological studies (the original purpose for collecting the samples), and a second was set aside as a reference sample for any future studies. Sufficient material (5 - 10 g) remained for geochemical

analysis of each of 127 samples from the reference set. This material was forwarded to the authors in Ottawa by Drs. V. Barrie and J. Luternauer.

Samples were gently disaggregated with an agate mortar and pestle, and any shell fragments or pebbles were removed with plastic tweezers. Clay-rich samples were ground to a fine powder in the agate mortar, and the sandy samples were ground in a ceramic ball mill. Although the maximum grain size was 50 μ , the great majority of the grains were <2 μ in diameter because most samples comprised clay-size particles.

Analysis

The analytical program used the following techniques:

- X-Ray Fluorescence (XRF) analysis for major oxides and some trace elements;
- Instrumental neutron activation analysis (INAA), mostly for trace elements;
- Inductively-coupled plasma emission spectrometry (ICP-ES) following an aqua regia digestion, mostly for trace elements;
- Ion chromatography for F, Cl, and S;
- Cold-vapour atomic absorption (AA) spectrometry for Hg.

There are several conventional methods of expressing and grouping analytical data. Because of the large number of determinations, in this report the data have been grouped by analytical method, and within each group they have been listed in alphabetical order of chemical symbol. The conventional method of expressing concentrations of major elements analyzed by XRF is by their oxides. Analyses by INAA and ICP-ES are normally expressed as elemental concentrations. The rare earth elements (REE) are commonly grouped together, but in this study the seven REE determined by INAA are arranged in alphabetical order with other determinations by this method. For ease of recognition of analytical method, data obtained by the three main techniques are listed on paper of different colours - white for XRF, blue for INAA, and yellow for ICP-ES. Determinations by miscellaneous analytical methods are listed on white paper,

a) XRF

Prior to XRF analysis, approximately 1.5 g of powder was ignited in a muffle furnace to determine loss-on-ignition at 900°C. During this procedure, traces of volatile elements (e.g. F, Cl, Br, Hg), water (moisture [H₂O] and structurally bound [H₂O²]) and CO₂ were lost. This prepared each sample for fusion of a 1 g aliquot with lithium metaborate (LiBO₂) for analysis in a Philips wavelength dispersive spectrometer (Model PW1404) in the analytical laboratories at the Geological Survey of Canada in Ottawa. The XRF work was completed under the direction of Richard Rousseau, and element concentrations were determined by the methods of Rousseau (1984a, 1984b). The XRF method provides total content of each element, regardless of chemical bonding within the minerals comprising the sample. The list of major elements (expressed as their oxides, arranged in alphabetical order) and trace elements, with their determination levels obtained by this method, is given in Table 1.

Table 2: Determination Limits for Elements Analyzed by INAA

Element		Units of Measure	Determination Limit
Arsenic	As	ppm	0.5
Gold	Au	ppb	2
Barium	Ba	ppm	10
Bromine	Br	ppm	1
Calcium	Ca	%	0.5
Cobalt	Co	ppm	1
Chromium	Cr	ppm	1
Cesium	Cs	ppm	0.5
Iron	Fe	%	0.05
Hafnium	Hf	ppm	0.5
Sodium	Na	ppm	10
Antimony	Sb	ppm	0.1
Scandium	Sc	ppm	0.1
Thorium	Th	ppm	0.1
Uranium	U	ppm	0.1
Zinc	Zn	ppm	20
Rare Earth Elements:			
Lanthanum	La	ppm	0.1
Cerium	Ce	ppm	3
Neodymium	Nd	ppm	5
Samarium	Sm	ppm	0.1
Europium	Eu	ppm	0.01
Terbium	Tb	ppm	0.5
Ytterbium	Yb	ppm	0.05
Lutetium	Lu	ppm	0.05

All values above the determination limit except for some analyses for Au, Ca, and Cs

Table 3: Elements Analyzed by ICP-ES: Units of measurement, determination limits and approximate percentage of elements released into solution during the aqua regia digestion (determined by comparison with Standard BCSS-1 and/or total concentrations obtained from XRF or INAA - see section on 'Analytical Precision and Accuracy')

Element		Units of Measure	Determination Limit	Approx. % of element leached by acid digest
Silver	Ag	ppm	0.1	100% (?)
Aluminum	Al	%	0.01	25 - 30%
Boron	B	ppm	2	<25%
Barium	Ba	ppm	1	10-20%
Beryllium	Be	ppm	0.2	most?
Calcium	Ca	%	0.01	50%
Cadmium	Cd	ppm	0.2	100% (?)
Cobalt	Co	ppm	1	90-100%
Chromium	Cr	ppm	1	40%
Copper	Cu	ppm	1	100%
Iron	Fe	%	0.01	80-90%
Mercury*	Hg	ppb	10	100% (?)
Potassium	K	%	0.01	20-25%
Lanthanum	La	ppm	1	80%
Lithium	Li	ppm	2	100% (?)
Magnesium	Mg	%	0.01	70-80%
Manganese	Mn	ppm	1	100%
Molybdenum	Mo	ppm	2	100% (?)
Sodium	Na	%	0.01	45-60%
Nickel	Ni	ppm	1	90-100%
Phosphorus	P	%	0.001	60-70%
Lead	Pb	ppm	2	80-100%
Strontium	Sr	ppm	1	20-25%
Titanium	Ti	%	0.02	30%
Vanadium	V	ppm	1	30%
Zinc	Zn	ppm	1	70-90%

All values above the determination limit except some analyses for Ag, B, Be and Mo.
 *Determined by cold-vapour AA.

Table 4: Replication of analytical data on two sub-samples of several samples: 4.1 Determinations by XRF; 4.2 Determinations by INAA; 4.3 Determinations by ICP-ES on an aqua regia digestion; 4.4 Determinations by miscellaneous chemical methods

4.1 XRF

Site	Al ₂ O ₃ %	Ba ppm	CaO %	Fe ₂ O ₃ %	K ₂ O %	MgO %	MnO %	Na ₂ O %	Nb ppm	P ₂ O ₅ %	Rb ppm	SiO ₂ %	Sr ppm	TiO ₂ %	Zr ppm
5	14.3	590	2.49	6.4	2.19	3.09	0.07	3.2	<10	0.23	80	58.4	290	0.79	150
5	14.4	580	2.48	6.4	2.22	3.08	0.07	3.2	13	0.23	75	58.7	270	0.78	150
23	14.0	530	2.32	6.5	2.08	3.03	0.07	3.7	10	0.26	74	56.6	260	0.76	130
23	13.9	560	2.33	6.5	2.10	3.03	0.07	3.9	13	0.25	71	55.9	260	0.76	130
44	13.9	550	2.63	5.7	1.95	2.60	0.07	3.2	<10	0.20	66	60.9	290	0.67	120
44	14.4	590	2.67	5.9	2.00	2.78	0.07	3.2	<10	0.20	68	61.0	270	0.69	120
72	10.2	490	2.23	3.6	1.34	1.94	0.06	2.6	<10	0.13	38	74.6	290	0.50	94
72	10.3	560	2.28	3.8	1.34	2.01	0.06	2.7	<10	0.13	42	73.7	300	0.53	110
95	12.6	450	3.78	4.6	1.45	2.00	0.06	3.6	10	0.16	52	65.5	390	0.59	190
95	12.8	480	3.77	4.6	1.44	2.01	0.05	3.4	<10	0.17	46	65.4	400	0.59	180
123	14.0	580	2.24	6.4	2.07	2.95	0.07	3.7	12	0.22	76	56.6	250	0.76	130
123	13.9	540	2.24	6.4	2.08	2.95	0.07	3.8	10	0.22	77	55.9	260	0.75	130
138	14.5	600	2.8	6.4	2.21	3.00	0.07	3.3	17	0.23	79	60.1	240	0.76	150
138	14.6	610	2.84	6.5	2.24	3.09	0.07	3.3	20	0.22	76	59.4	250	0.79	150
154	14.8	610	2.42	6.7	2.34	3.07	0.07	3.6	20	0.24	85	57.5	210	0.76	120
154	14.8	600	2.4	6.7	2.32	3.11	0.07	3.6	15	0.24	82	57.7	220	0.76	120
170	14.0	480	2.73	5.9	1.91	2.53	0.06	3.6	18	0.20	68	61.6	230	0.77	160
170	14.1	430	2.74	5.8	1.90	2.52	0.06	3.5	18	0.20	69	61.3	240	0.79	160

4.3 ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm
5	0.8	1.95	21	59	0.3	0.81	0.3	13	52	53	3.64	0.27	14
5	0.7	1.85	19	55	0.4	0.78	0.3	12	48	50	3.47	0.25	13
23	0.2	2.06	25	57	0.3	0.78	0.3	11	46	41	3.64	0.35	12
23	0.3	2.03	26	55	0.3	0.77	0.3	11	45	38	3.50	0.33	12
44	0.2	2.02	21	74	<0.2	0.86	0.2	11	47	44	3.63	0.34	13
44	0.2	1.83	17	52	0.2	0.90	0.2	11	43	40	3.23	0.27	11
72	0.2	1.07	6	58	0.3	0.61	<0.2	8	33	17	2.33	0.12	8
72	0.4	1.01	6	57	<0.2	0.58	<0.2	8	32	19	4.35	0.11	8
95	0.2	1.40	20	58	<0.2	1.23	0.3	7	34	17	3.81	0.23	9
95	0.2	1.53	21	64	<0.2	1.45	0.2	8	34	19	3.30	0.24	9
123	0.4	1.92	31	53	0.3	0.72	0.3	11	47	41	3.42	0.33	12
123	0.2	2.05	28	56	0.4	0.76	0.2	12	47	42	3.67	0.37	12
138	0.7	1.79	24	56	<0.2	0.74	<0.2	11	46	120	3.37	0.26	13
138	0.7	1.87	23	64	0.2	0.77	0.3	11	51	96	3.54	0.27	13
154	0.5	2.03	29	58	0.2	0.72	0.3	11	49	56	3.58	0.35	13
154	1.0	1.97	33	57	0.2	0.70	0.3	11	48	55	3.49	0.34	13
170	0.1	1.83	24	45	0.3	0.70	<0.2	8	39	27	3.11	0.26	10
170	0.3	1.88	27	49	0.2	0.72	<0.2	9	38	28	3.23	0.28	11

Site	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
5	26	1.37	403	2	1.00	45	0.062	14	59	0.14	51	91
5	25	1.33	389	<1	0.96	43	0.060	11	56	0.14	48	88
23	27	1.32	422	1	1.38	39	0.064	10	65	0.13	51	82
23	24	1.30	411	1	1.29	39	0.062	12	63	0.13	49	82
44	31	1.25	410	1	1.17	37	0.056	12	79	0.13	50	82
44	25	1.16	378	1	1.02	36	0.050	12	65	0.11	46	77
72	9	0.87	359	<1	0.38	35	0.033	3	42	0.10	36	41
72	8	0.79	565	2	0.33	45	0.031	4	39	0.10	33	38
95	21	0.76	398	1	0.62	30	0.040	4	75	0.13	42	48
95	17	0.79	353	1	0.62	28	0.042	6	85	0.13	43	49
123	29	1.24	402	<1	1.52	37	0.054	11	62	0.11	50	82
123	31	1.34	426	1	1.60	40	0.058	11	64	0.11	53	89
138	28	1.25	361	1	1.06	39	0.061	23	60	0.12	47	91
138	28	1.29	379	1	1.09	40	0.070	29	64	0.12	48	97
154	31	1.31	396	1	1.38	39	0.060	17	63	0.11	49	86
154	26	1.27	401	1	1.35	38	0.058	18	62	0.11	48	85
170	30	1.05	288	<1	1.03	30	0.051	9	53	0.13	44	74
170	30	1.07	300	1	1.09	30	0.053	9	56	0.14	45	73

Table 5: Analysis of National Research Council standard marine mud #BCSS-1: 5.1 Determinations by XRF; 5.2 Determinations by INAA; 5.3 Determinations by ICP-ES on an aqua regia digestion; 5.4 Determinations by miscellaneous chemical methods

5.1 XRF

	Al ₂ O ₃ %	Ba ppm	CaO %	Fe ₂ O ₃ %	K ₂ O %	MgO %	MnO %	Na ₂ O %	Nb ppm	P ₂ O ₅ %	Rb ppm	SiO ₂ %	Sr ppm	TiO ₂ %	Zr ppm
	11.8	310	0.73	4.8	2.18	2.41	0.03	2.4	14	0.17	92	65.1	110	0.71	250
	11.7	340	0.74	4.8	2.17	2.43	0.03	2.4	14	0.17	89	64.9	110	0.71	240
	11.8	320	0.74	4.8	2.16	2.40	0.03	2.5	15	0.17	91	65.2	110	0.70	230
	11.7	340	0.73	4.8	2.14	2.39	0.03	2.4	16	0.18	87	64.6	120	0.69	240
	11.7	340	0.72	4.8	2.14	2.39	0.03	2.4	14	0.17	92	65.0	110	0.71	240
	11.9	330	0.74	4.8	2.16	2.41	0.03	2.4	18	0.17	85	65.7	110	0.70	240
	12.0	280	0.79	4.7	2.24	2.37	0.03	2.4	24	0.16	90	66.5	88	0.73	260
	11.9	310	0.77	4.8	2.22	2.35	0.03	2.4	24	0.16	94	66.8	94	0.73	240
Mean	11.81	321.25	0.75	4.79	2.18	2.39	0.03	2.41	17.38	0.17	90.00	65.48	106.50	0.71	242.50
Standard Deviation	0.11	21.00	0.02	0.04	0.04	0.03	0.00	0.04	4.31	0.01	2.93	0.79	10.30	0.01	8.86
95% Confidence Limit	0.078	14.553	0.016	0.024	0.025	0.017		0.024	2.985	0.004	2.029	0.549	7.134	0.010	6.142
Values Certified by NRC	11.83		0.76	4.7	2.17	2.44		2.72		0.154		66.1	96	0.73	

5.3 ICP-ES

	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm
	0.1	1.62	27	31	0.6	0.43	0.3	10	46	17	2.82	0.21	20
	0.1	1.49	25	30	0.5	0.39	0.3	9	44	15	2.64	0.20	19
	0.2	1.55	27	32	0.4	0.41	0.3	10	48	16	2.80	0.22	21
	0.4	1.67	31	32	0.6	0.45	0.2	11	51	17	2.99	0.23	22
	0.3	1.98	36	75	0.6	0.71	0.3	10	56	22	3.74	0.43	20
	0.5	1.61	33	32	0.6	0.46	0.3	11	53	18	2.90	0.20	22
	0.6	1.60	34	31	0.5	0.42	0.3	10	50	16	2.87	0.22	22
	0.5	1.53	35	30	0.5	0.40	0.3	9	49	15	2.70	0.21	20
Mean	0.34	1.63	31.00	36.63	0.54	0.46	0.29	10.00	49.63	17.00	2.93	0.24	20.75
Standard Deviation	0.19	0.15	4.17	15.53	0.07	0.10	0.04	0.76	3.81	2.27	0.34	0.08	1.16
95% Confidence Limit	0.133	0.105	2.893	10.760	0.052	0.072	0.024	0.524	2.644	1.571	0.239	0.054	0.807
Values Certified by NRC					1.3		0.25	11.4	123	18.5			

	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	33	1.18	203	2	0.79	47	0.046	21	37	0.02	31	97
	30	1.07	190	1	0.74	43	0.042	17	35	0.02	28	88
	37	1.13	205	1	0.80	46	0.044	21	37	0.02	30	93
	41	1.24	211	3	0.87	50	0.049	17	39	0.02	32	102
	33	1.09	317	2	0.87	47	0.042	14	59	0.06	40	84
	35	1.21	212	2	0.88	49	0.047	19	40	0.02	32	102
	37	1.17	205	1	0.82	47	0.046	17	38	0.02	30	94
	35	1.08	198	1	0.78	43	0.042	17	36	0.02	29	88
Mean	35.13	1.15	217.63	1.63	0.82	46.50	0.04	17.88	40.13	0.03	31.50	93.50
Standard Deviation	3.31	0.06	40.76	0.74	0.05	2.51	0.00	2.36	7.79	0.01	3.70	6.63
95% Confidence Limit	2.296	0.044	28.247	0.516	0.035	1.737	0.002	1.633	5.399	0.010	2.566	4.597
Values Certified by NRC			229	1.9 ¹		55.3		22.7	96 ¹		93.4	119

¹ information value

MAP PRODUCTION AND DATA HANDLING

Maps were drawn using the Transverse Mercator projection, with a central meridian of 123° 10'. The coastline and drainage were digitized from Canadian Hydrographic Service Map L/C-3463, Strait of Georgia, Southern Portion, at a scale of 1:80,000. Digital bathymetry from the Canadian Hydrographic Service's Natural Resource Maps (NRM) 15792 and 15783 (1:250,000) was also integrated within the spatial database. The digital base for the index map (Fig. 1) is a GSC modified 1:750,000 National Atlas Information Service Map provided by Geomatics Canada.

Data for the study area were compiled using Microsoft Access relational database software. Separate tables for the various analytical and location data sets were created. These tables were linked through a primary site-id key. Data listings for all samples are presented in Appendix A.

Statistics were generated for each element using SPSS software (Statistical Package for the Social Sciences). Statistical summaries provided in Appendix C were generated using software developed in the Applied Geochemistry and Geophysics Subdivision of the Geological Survey of Canada. For computing purposes, analytical results less than detection were assigned a value of half the determination limit. For samples with duplicate analyses, the analysis from the first of each duplicate pair was plotted.

The element distribution and sample site maps were created using ArcInfo software. Site specific location and analytical point data were transferred from the relational database into ArcInfo point attribute tables. In order to partially automate the mapping process an ArcInfo macro was written, prompting users to enter all variables necessary to create the element distribution maps. The maps show percentile values of the data, and dots of increasing size that correspond to relative concentrations of elements according to an exponential function. Different functions were used (as shown beneath the percentile values on the right hand of each map) in order to provide an appropriate visual impact. For output, ArcInfo map compositions were first converted into graphics files and then converted to PostScript files. These were subsequently printed at 600 dots per inch on a laser printer.

marine muds) are quoted. In general, trace element concentrations are similar to, or less than those in marine muds from around the world.

In order to assist the reader in synthesizing the many maps presented in this report in Appendix A, several maps showing similar element distribution patterns have been photographically reduced and presented as figures 3 - 8. The full page maps are reproduced in Appendix A. Brief comments are provided alongside each of these figures in the following pages.

Nd ppm	18	---	33	North American shales
Sb ppm	0.7	0.59 ²	1 - 2	Marine muds
Sc ppm	14	---	19	North Pacific deep sea muds
Sm ppm	3.8	---	5.7	North American shales
Th ppm	5.7	---	4.8	Marine muds
U ppm	1.7	---	2.3	Marine muds
Yb ppm	1.81	---	3.1	North American shales
Zn ppm	120	119 ²	85	North Pacific deep sea muds
<i>Determinations by ICP-ES</i>				
Ag ppm	0.4	0.18 ³	0.1 - 0.3	Clay-rich sediments
B ppm	25*	---	230 - 2500	Saline clays
Be ppm	0.2	1.3 ²	2.5	Deep sea muds
Cd ppm	0.2	0.25 ²	0.24	Marine muds
Cu ppm	42	39 ³	300	North Pacific deep sea muds
Li ppm	27	74 ³	49 - 70	Pacific Ocean deep sea muds
Mo ppm		1.9 ²	4 - 18	Pacific Ocean deep sea muds
Ni ppm	39	44 ¹	39	Near-shore marine muds (world-wide)
Pb ppm	12	22 ³	51	North Pacific muds
V ppm	50	127 ¹	120	Deep sea sediments
<i>Determinations by Miscellaneous Chemical Methods</i>				
C _{org} %	1.4	2.1 ³	---	Highly variable
Hg ppb	95	92 ³	400	Shales
F ppm	579	---	200 - 400	Marine muds
S ppm	1724	1800 ³	1100	Marine muds (wide range in concentrations)

* Partial extraction

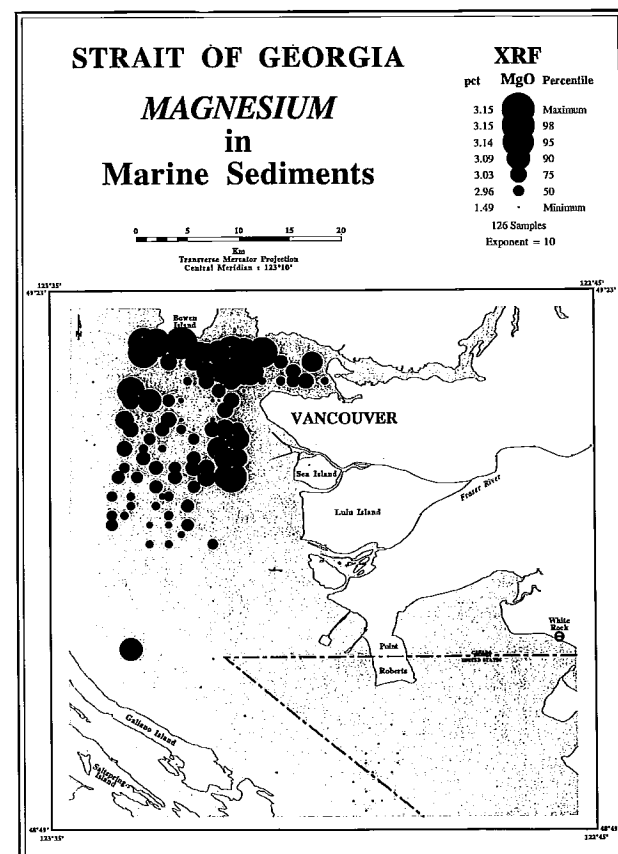
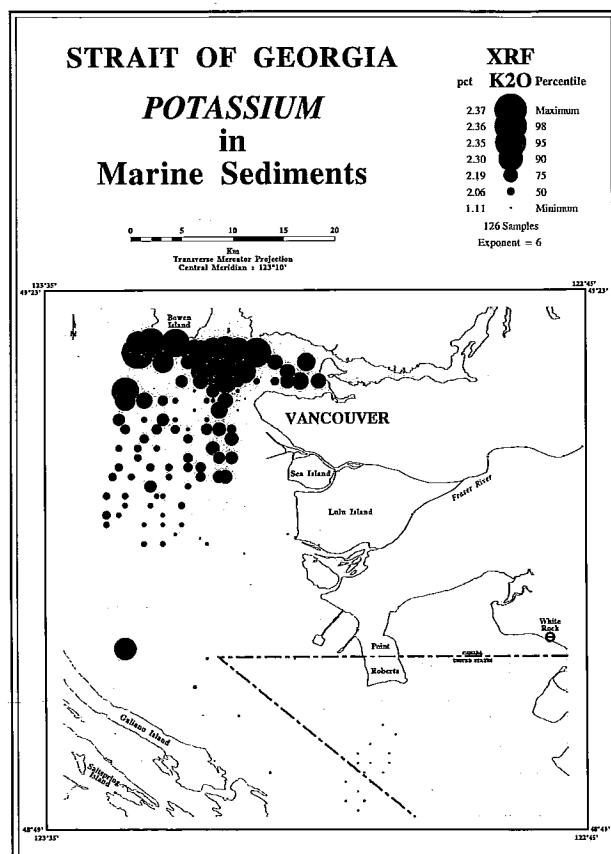
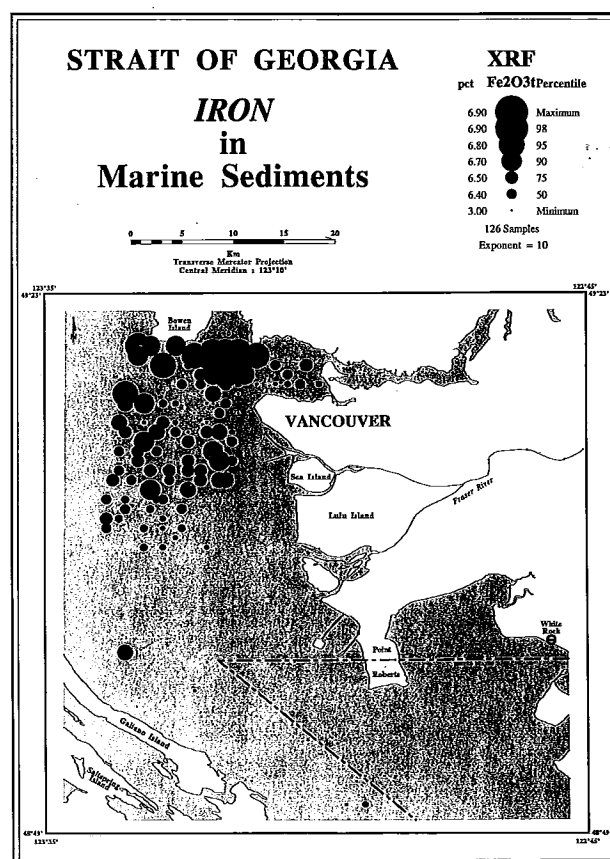
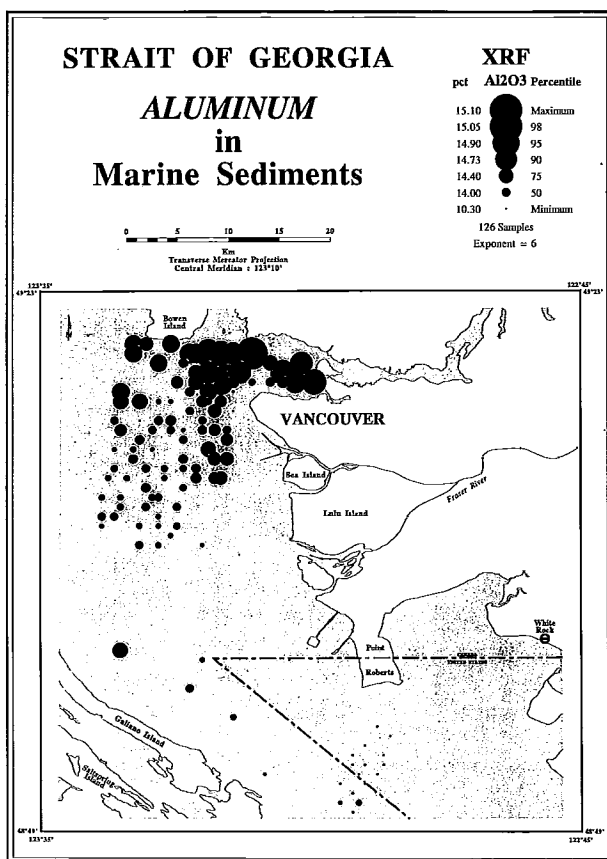
** Extracted from comprehensive summary of world literature published by Wedepohl (1969-1978)

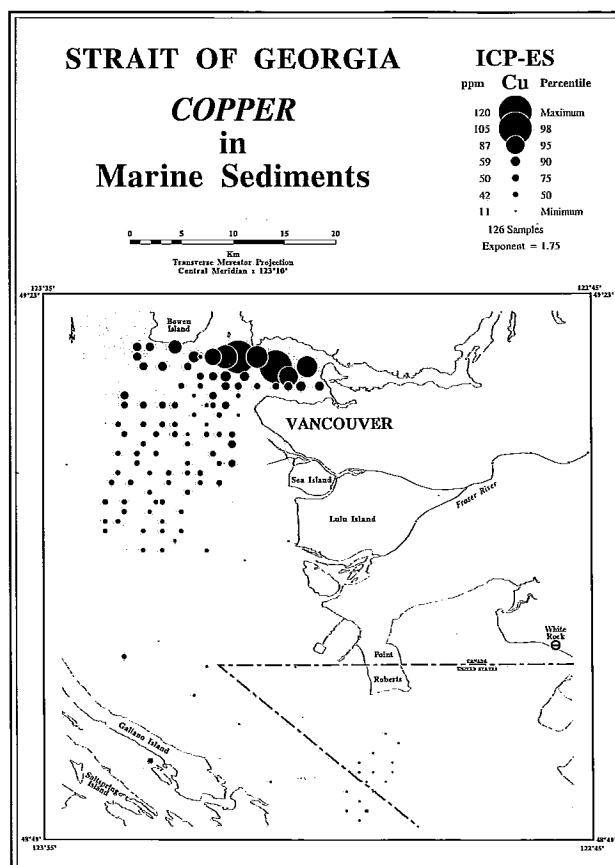
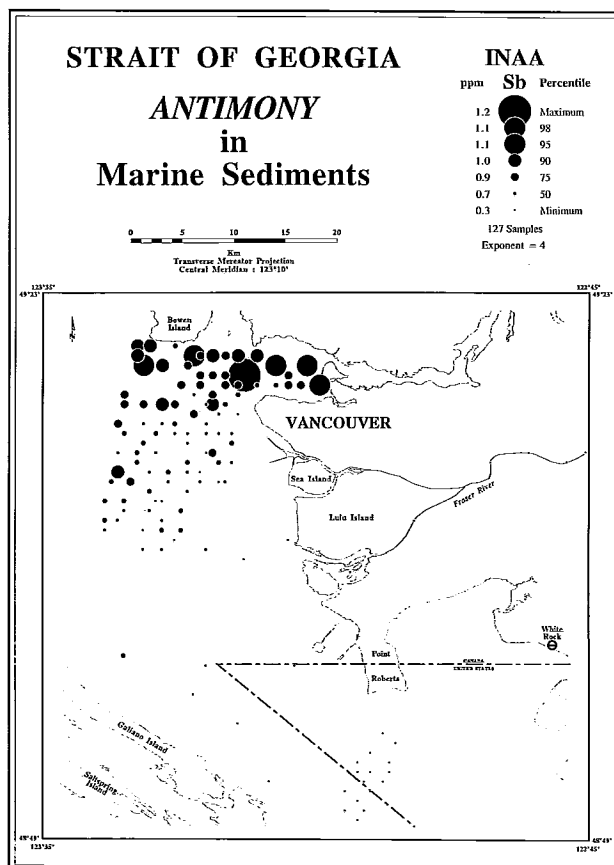
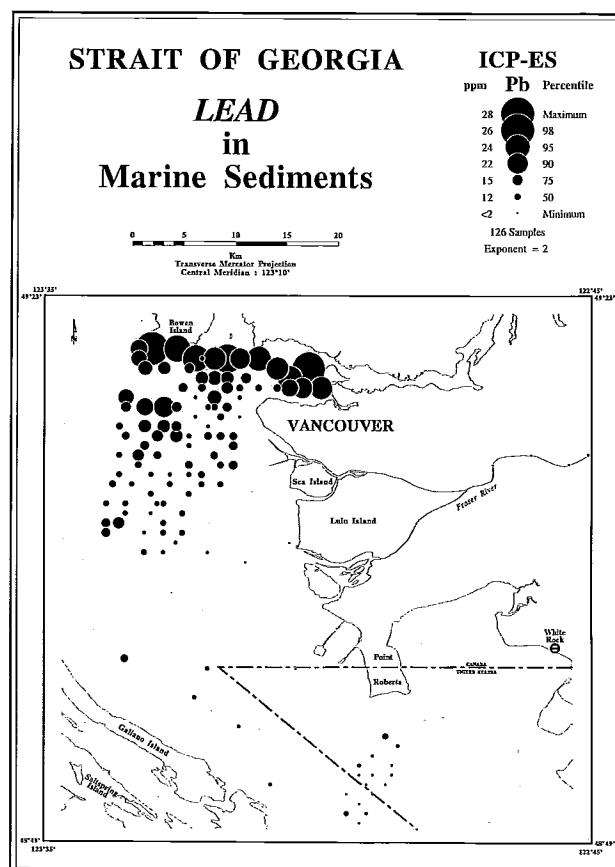
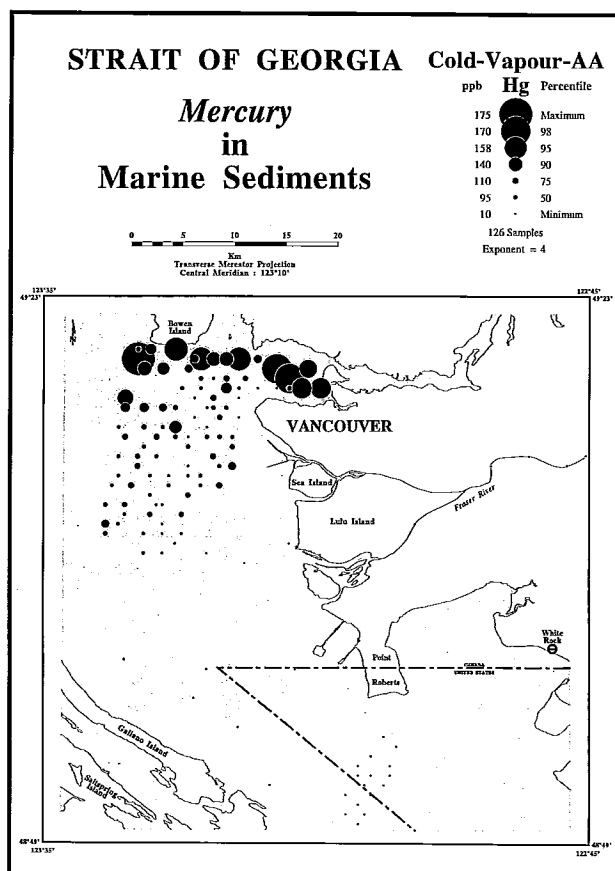
¹ NRC marine sediment reference material 'PACS-1' - mud from Esquimalt Harbour

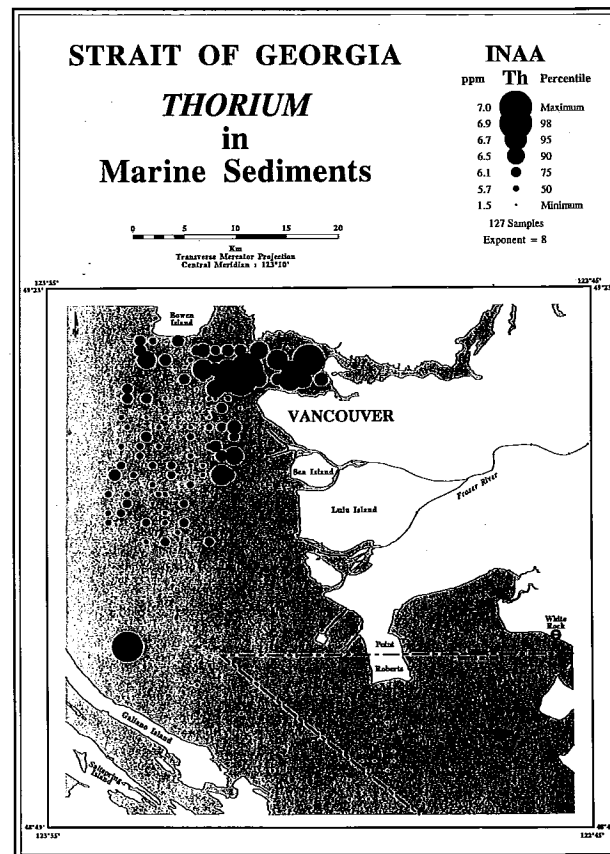
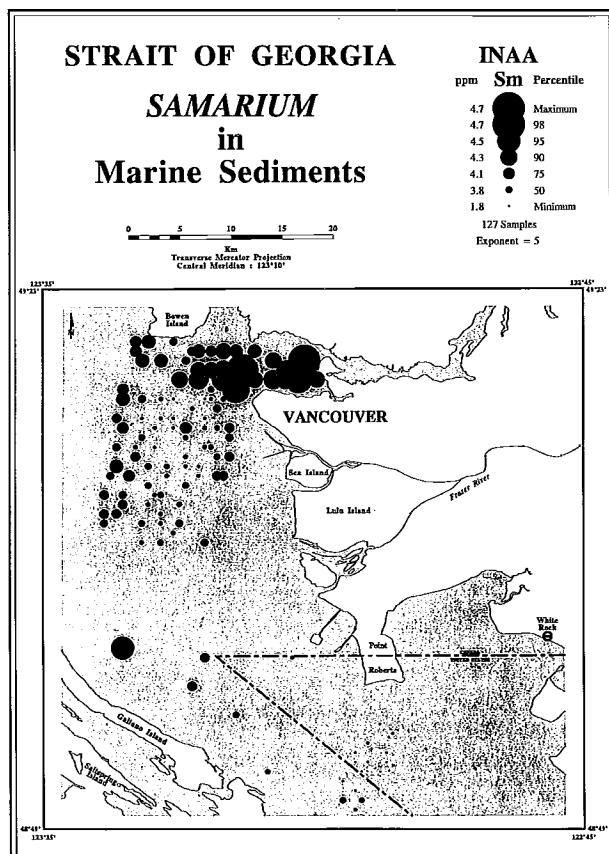
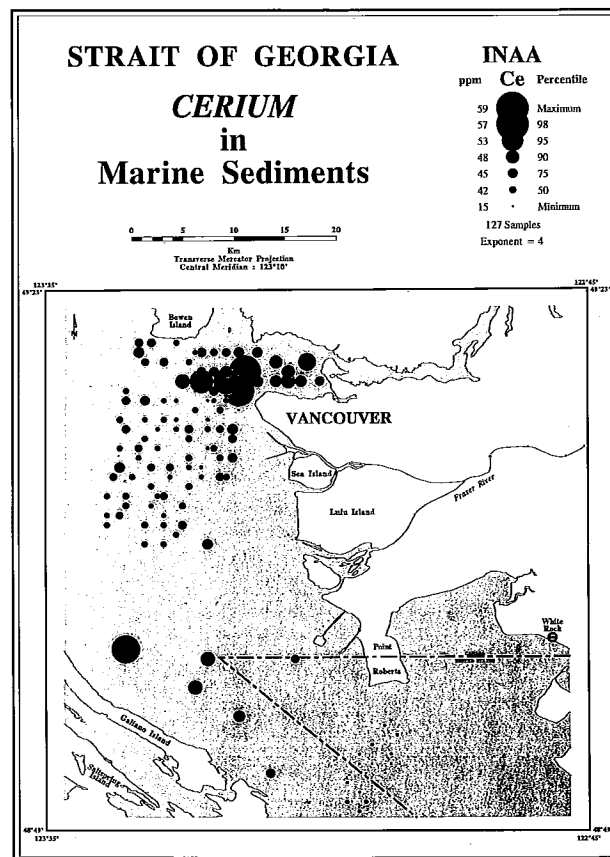
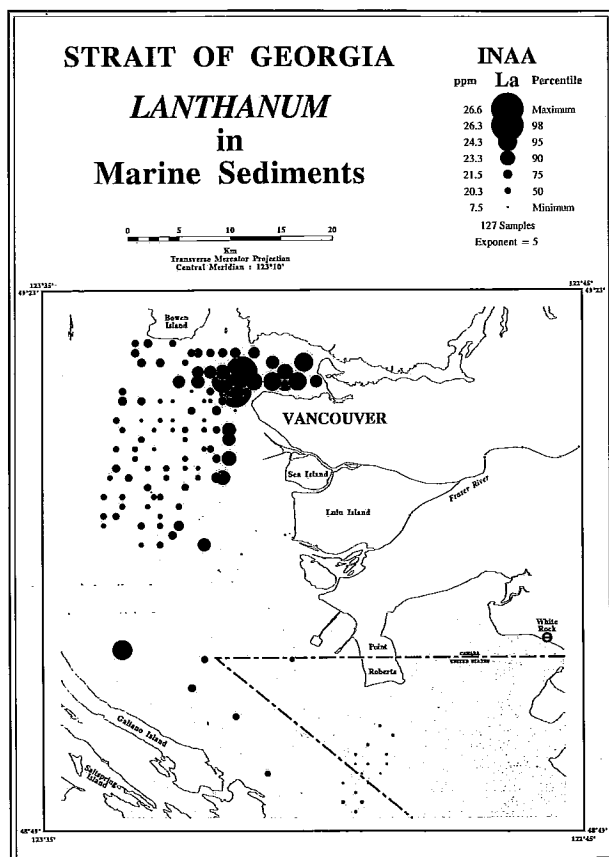
² NRC marine sediment reference material 'BCSS-1' - mud from Baie des Chaleurs (Gulf of St. Lawrence)

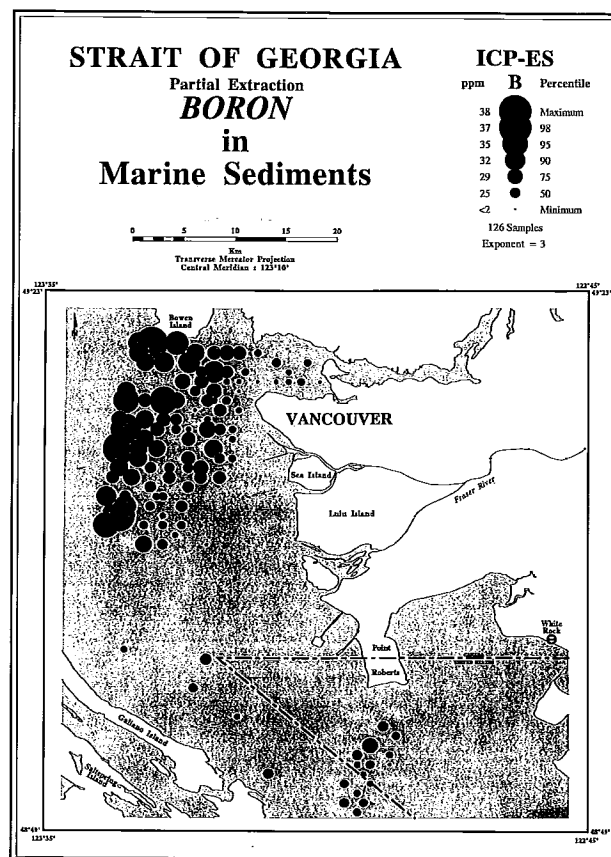
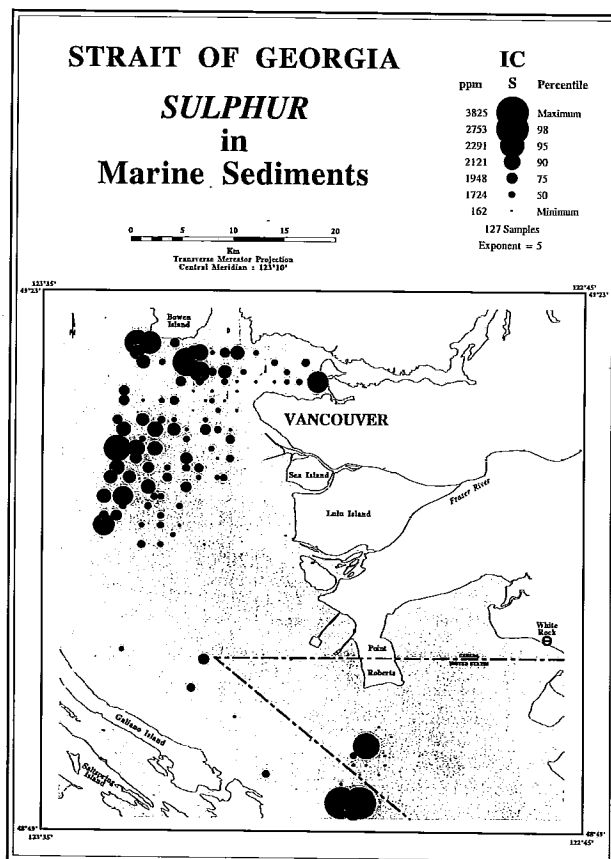
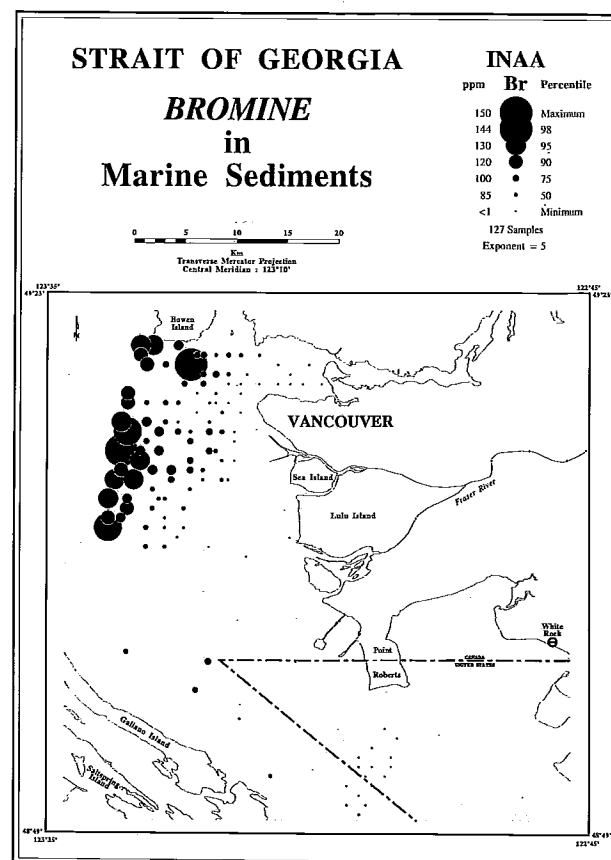
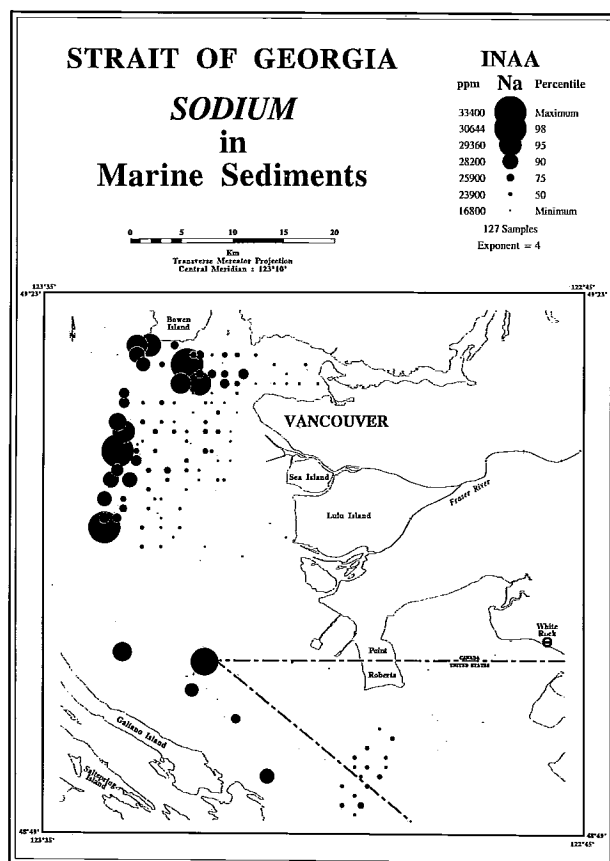
³ NRC marine sediment reference material 'MESS-2' - mud from the Beaufort Sea

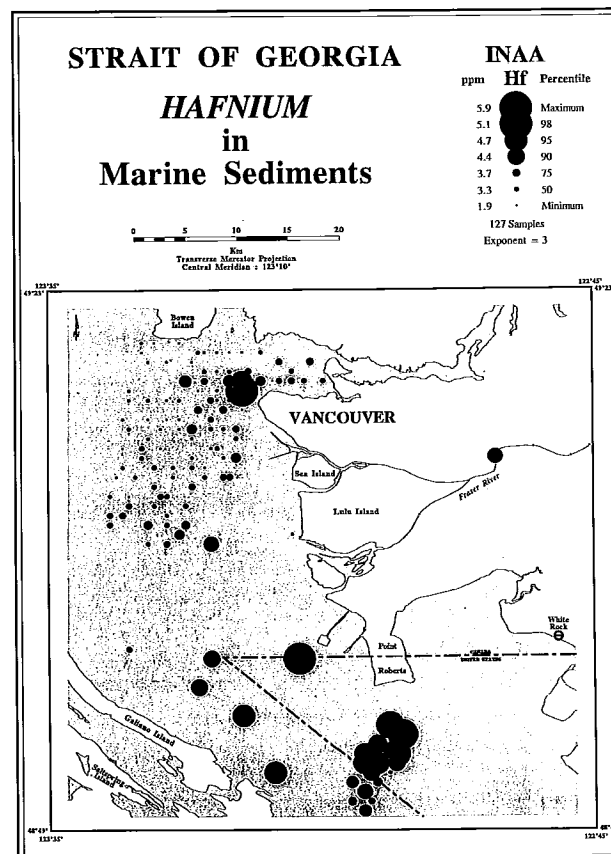
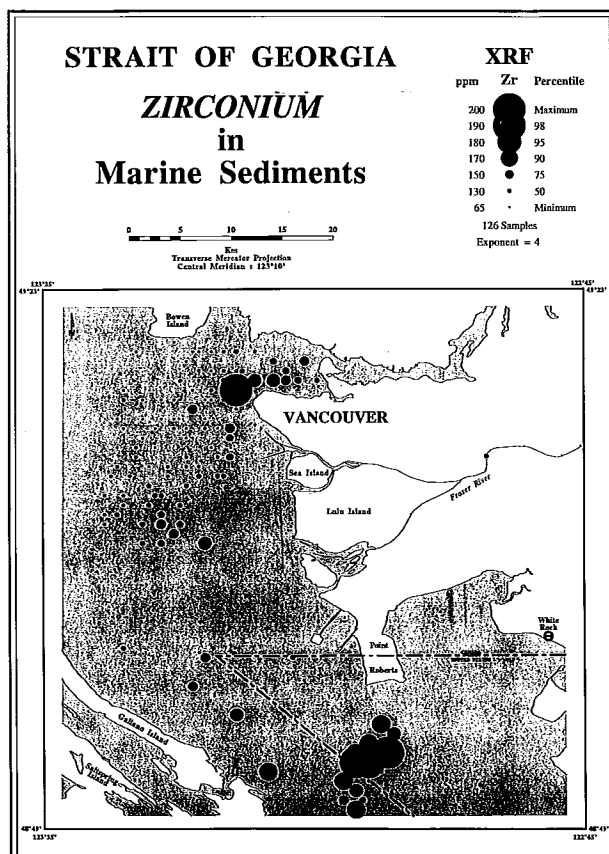
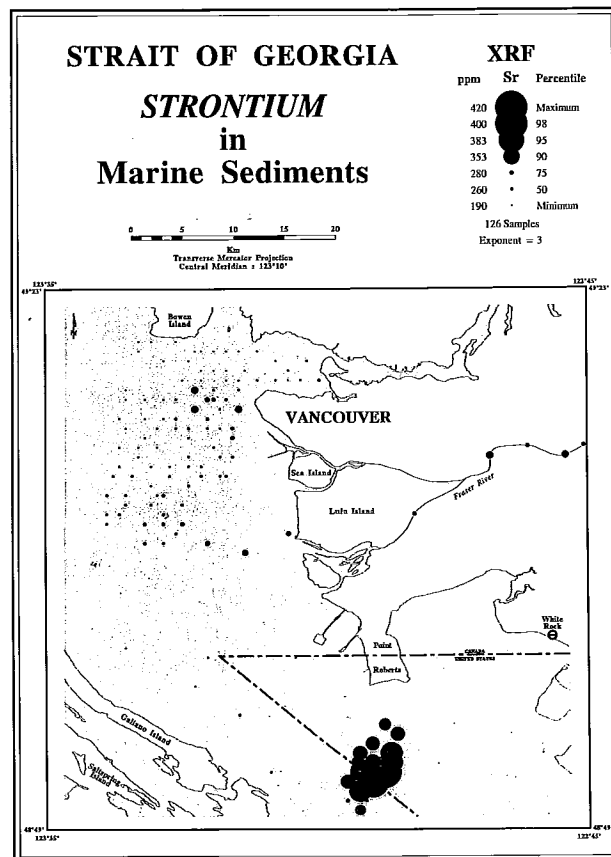
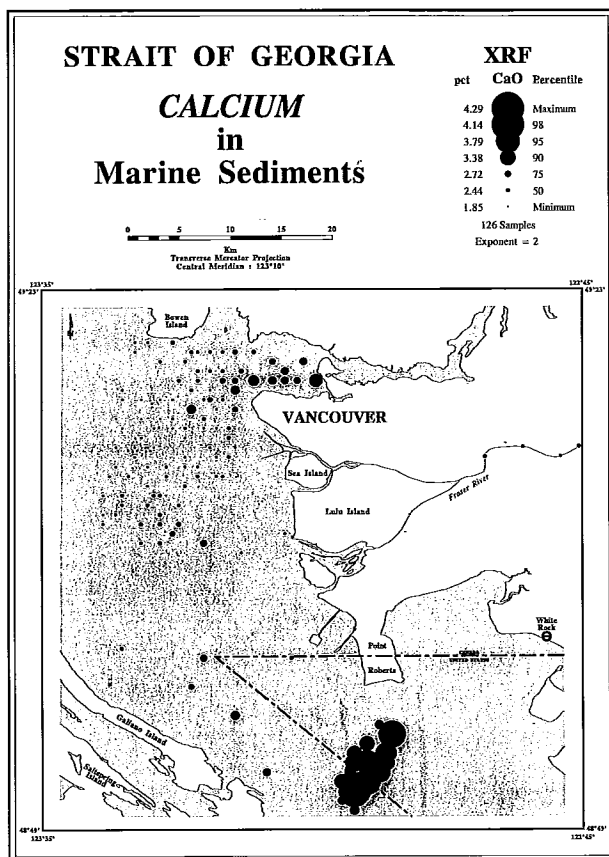
Table 6: Comparison of median concentrations in muds from the Strait of Georgia with muds from elsewhere in Canada (NRC Standard Reference Mud - column 3) and marine muds from around the world

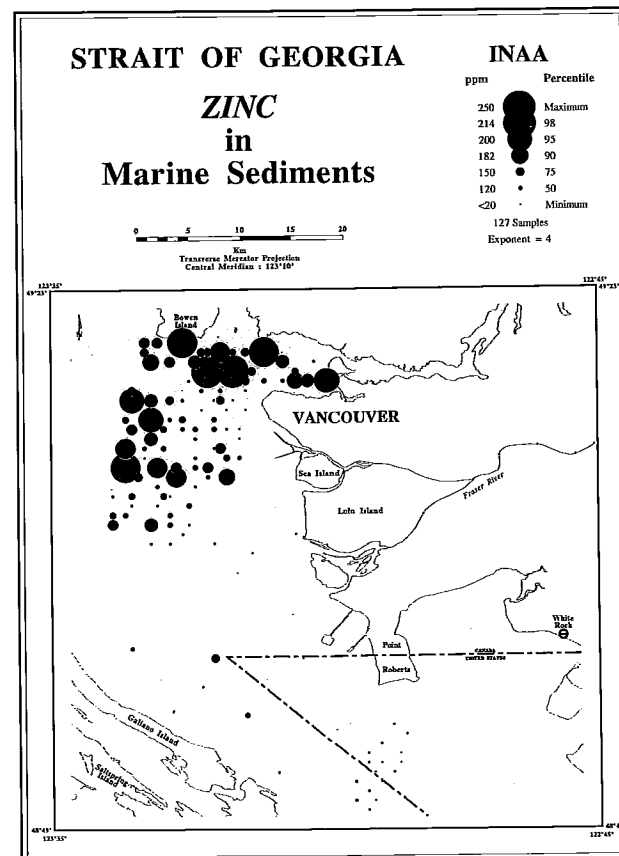
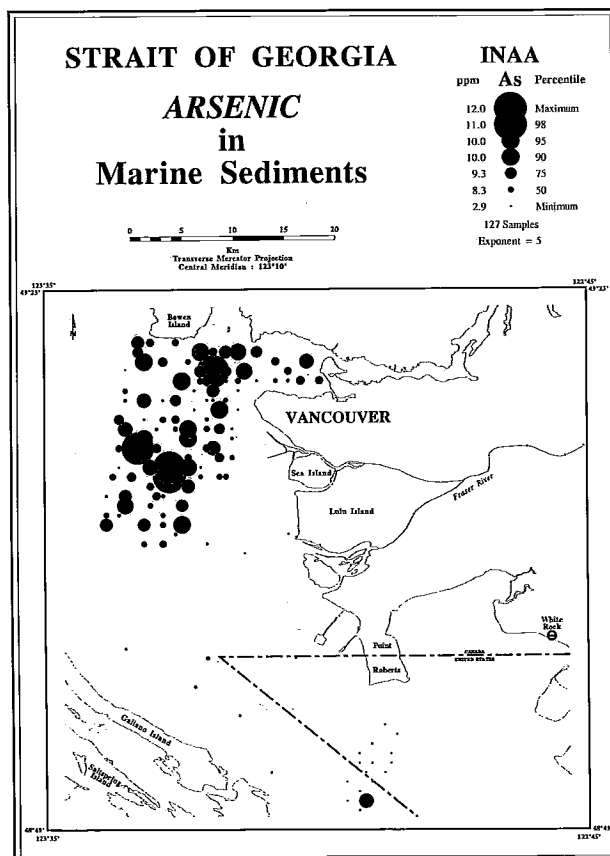
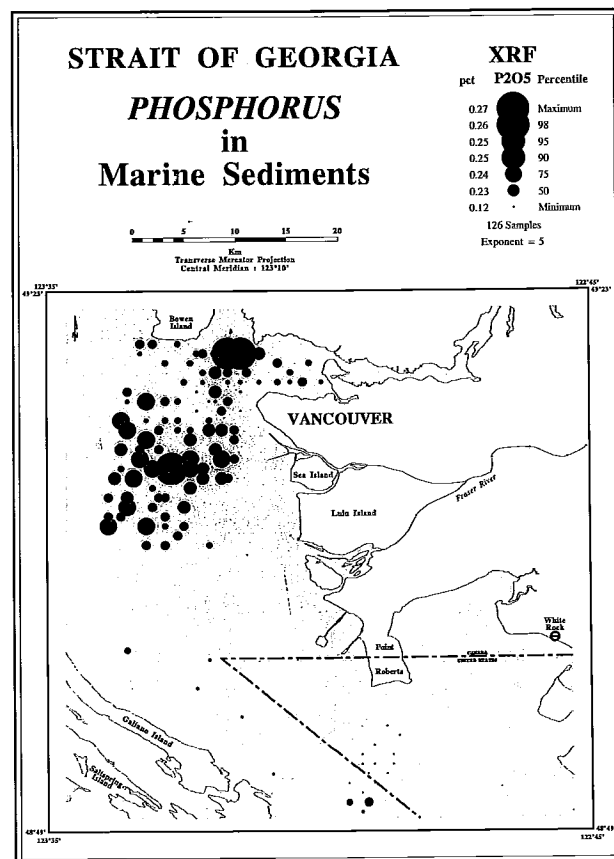
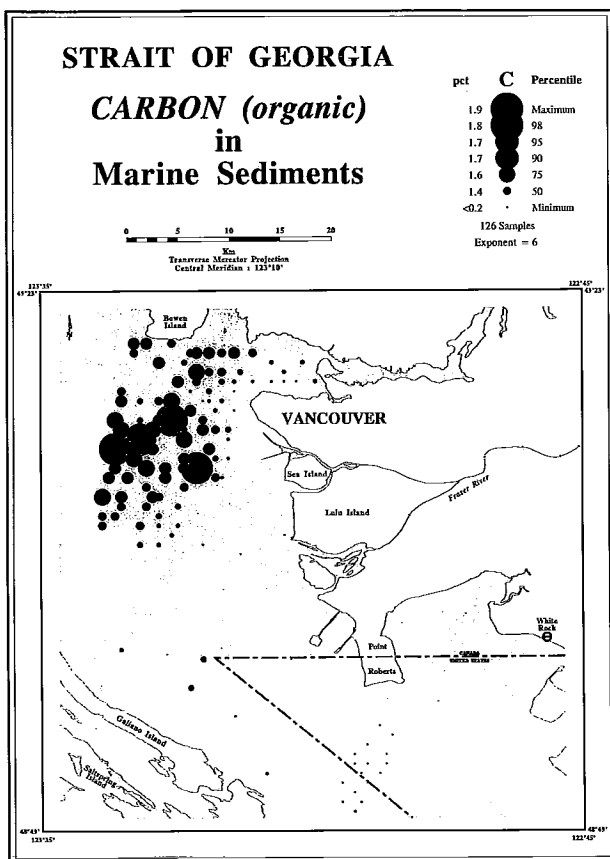












- Hall, G.E.M., MacLaurin, A.I., and Vaive, J.E., 1986. The analysis of geological materials for fluorine, chlorine and sulphur by pyrohydrolysis and ion chromatography. *J. Geochem. Explor.*, **26**, 177-186.
- Rousseau, R.M., 1984a. Fundamental algorithm between concentration and intensity in XRF analysis: 1 - Theory. *X-Ray Spectrometry*, **13**, No. 3., 115-120.
- Rousseau, R.M., 1984b. Fundamental algorithm between concentration and intensity in XRF analysis: 2 - Practical. *X-Ray Spectrometry*, **13**, No. 3., 121-125.
- Sawyer, B., 1995. Bathymetry of Georgia Basin (South). *Geol. Surv. Canada*, Open File Map #3116.
- Wedepohl, K.H., 1969 with additions in 1970, 1972, 1974, 1978. Handbook of Geochemistry (Vol.II, Sections 1 - 5). Springer-Verlag, New York.

GEOLOGICAL SURVEY OF CANADA

Open File 3052

GEOCHEMISTRY OF MARINE SEDIMENTS FROM THE STRAIT OF GEORGIA, BRITISH COLUMBIA

APPENDICES

C.E. Dunn, R.G. Balma, and W.A. Spirito

1996

APPENDIX A

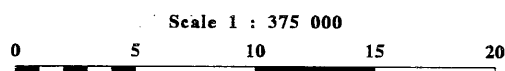
Element Distribution Maps

Reproduce this sheet as a transparency overlay

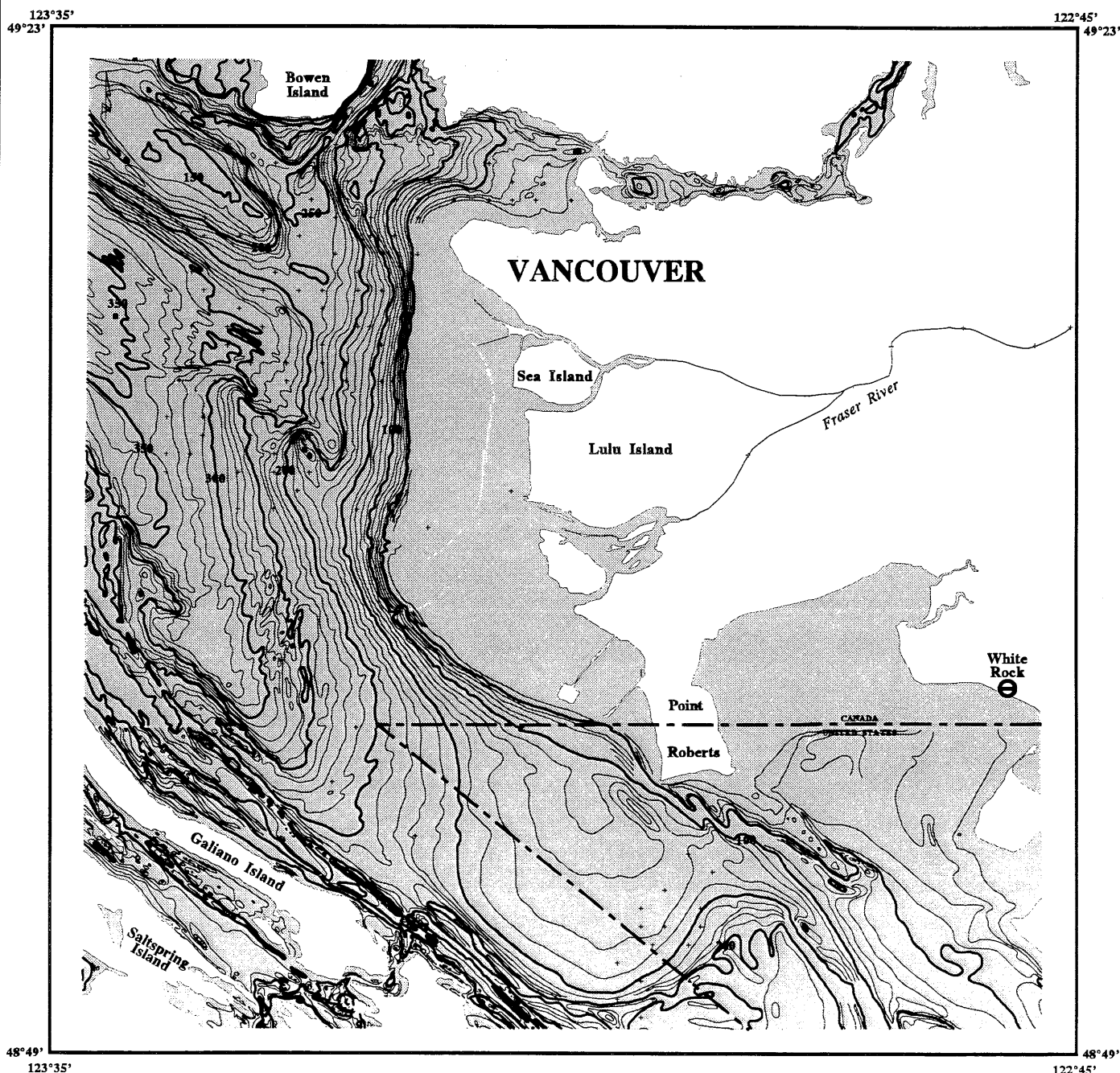
STRAIT OF GEORGIA

BATHYMETRY

Contour Interval: 10 metres
+ Sample Location



Km
Transverse Mercator Projection
Central Meridian : 123°10'

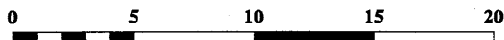


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STRAIT OF GEORGIA

SAMPLE LOCATION

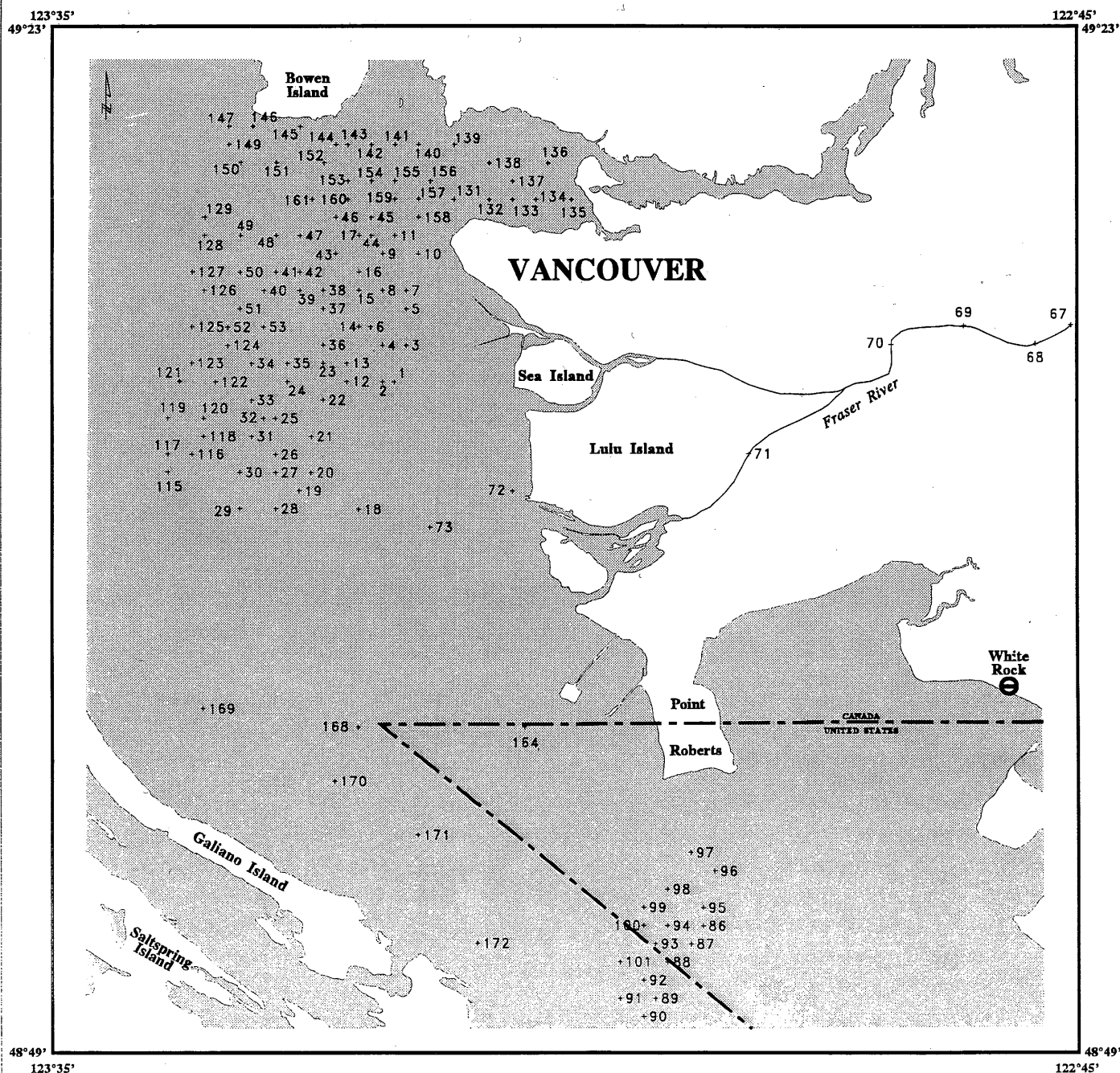
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Km

Transverse Mercator Projection

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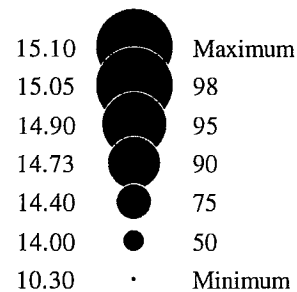


STRAIT OF GEORGIA

ALUMINUM in Marine Sediments

XRF

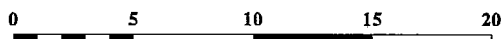
pct **Al₂O₃** Percentile



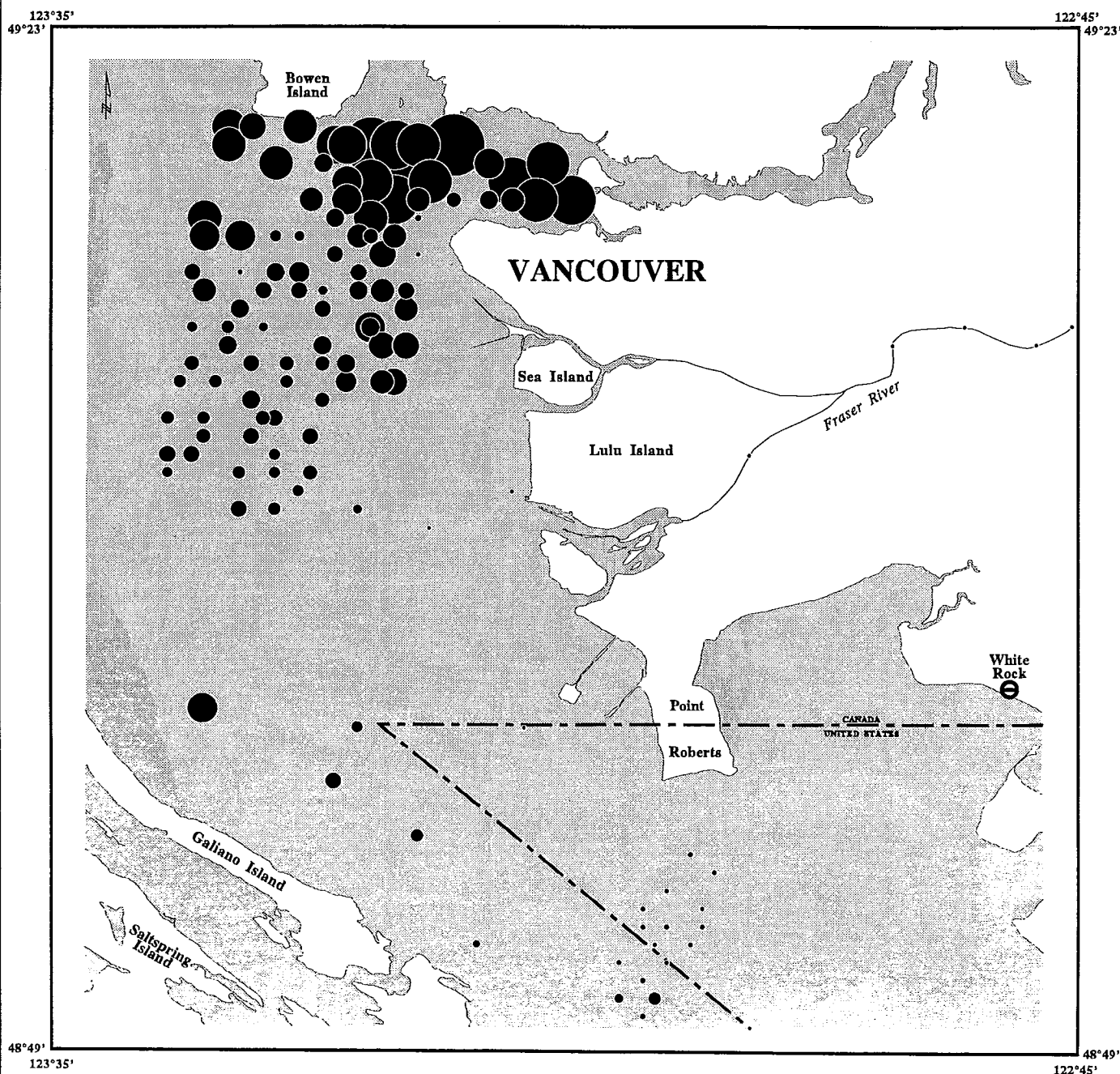
126 Samples

Exponent = 6

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'










STRAIT OF GEORGIA

CALCIUM in Marine Sediments

XRF

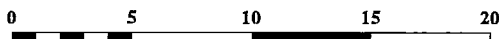
pct **CaO** Percentile

4.29		Maximum
4.14		98
3.79		95
3.38		90
2.72		75
2.44		50
1.85		Minimum

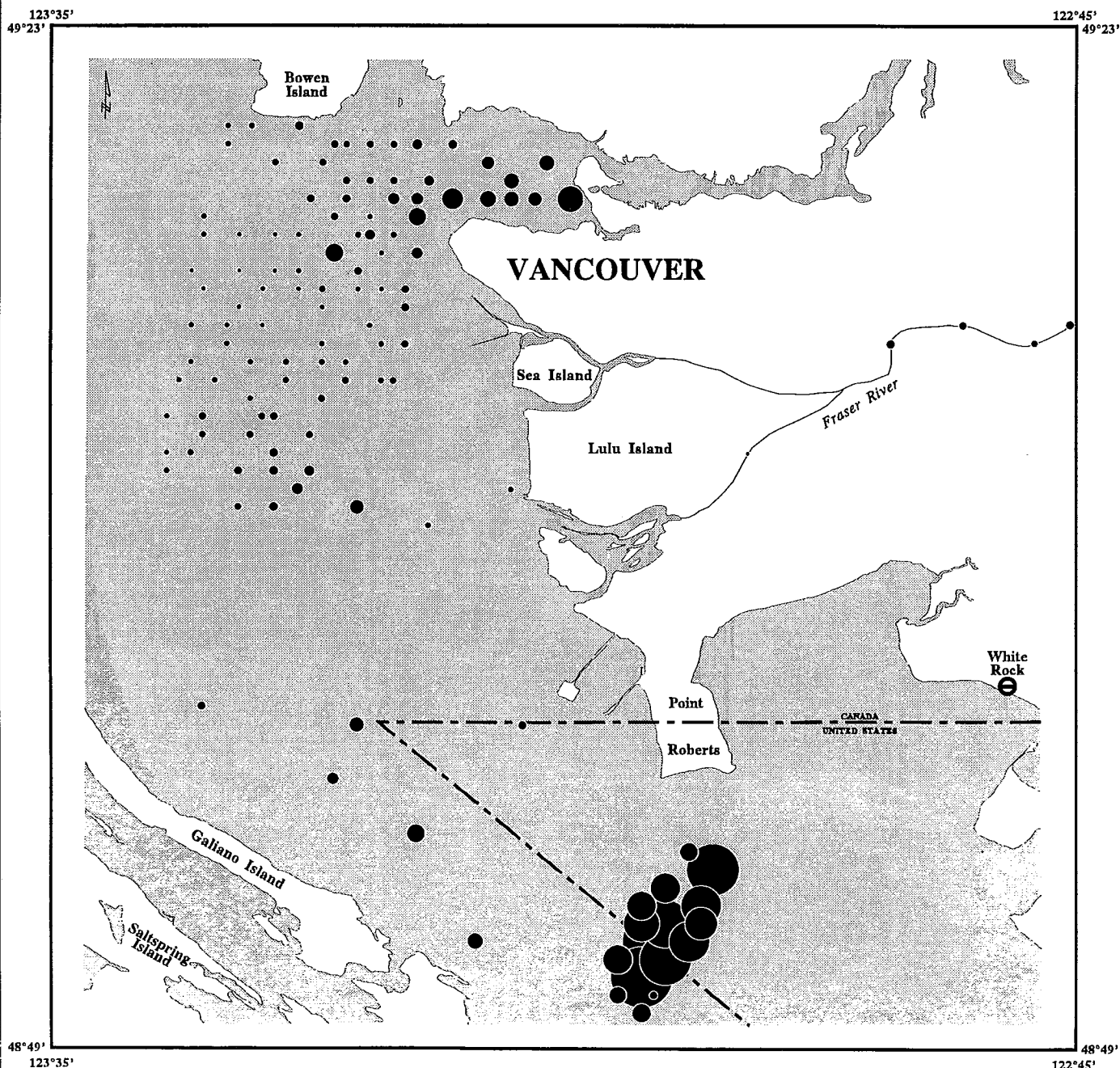
126 Samples

Exponent = 2

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

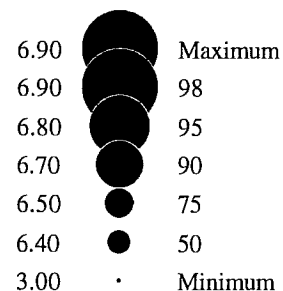


STRAIT OF GEORGIA

IRON in Marine Sediments

XRF

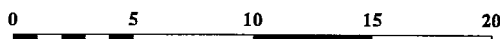
pct Fe₂O₃tPercentile



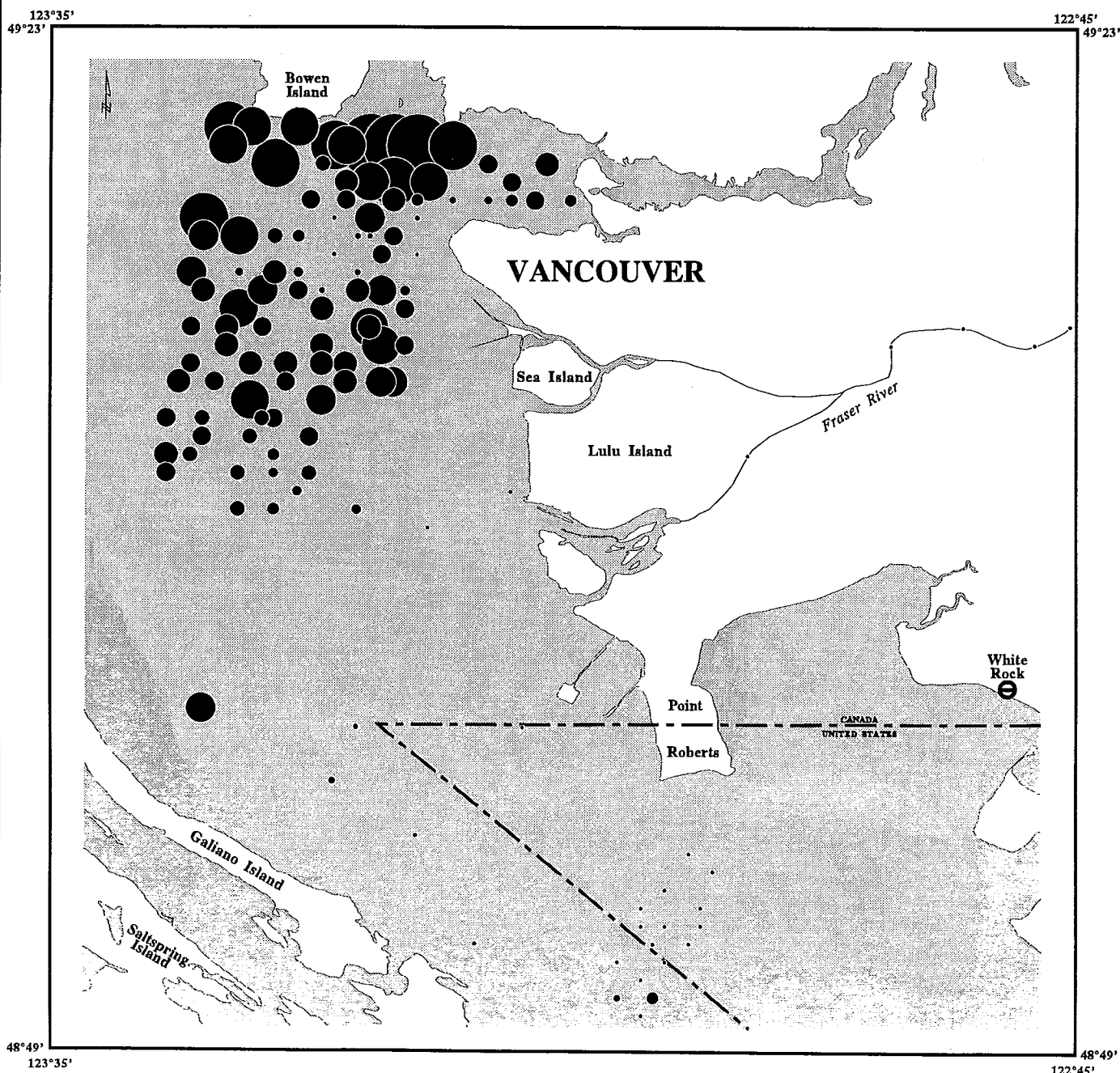
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Scale 1 : 375 000



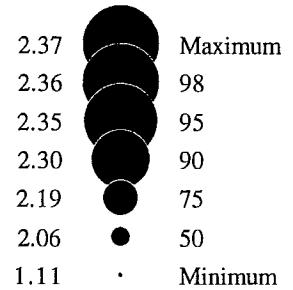
Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

POTASSIUM in Marine Sediments

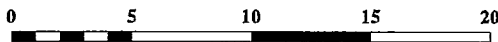
XRF
pct **K2O** Percentile



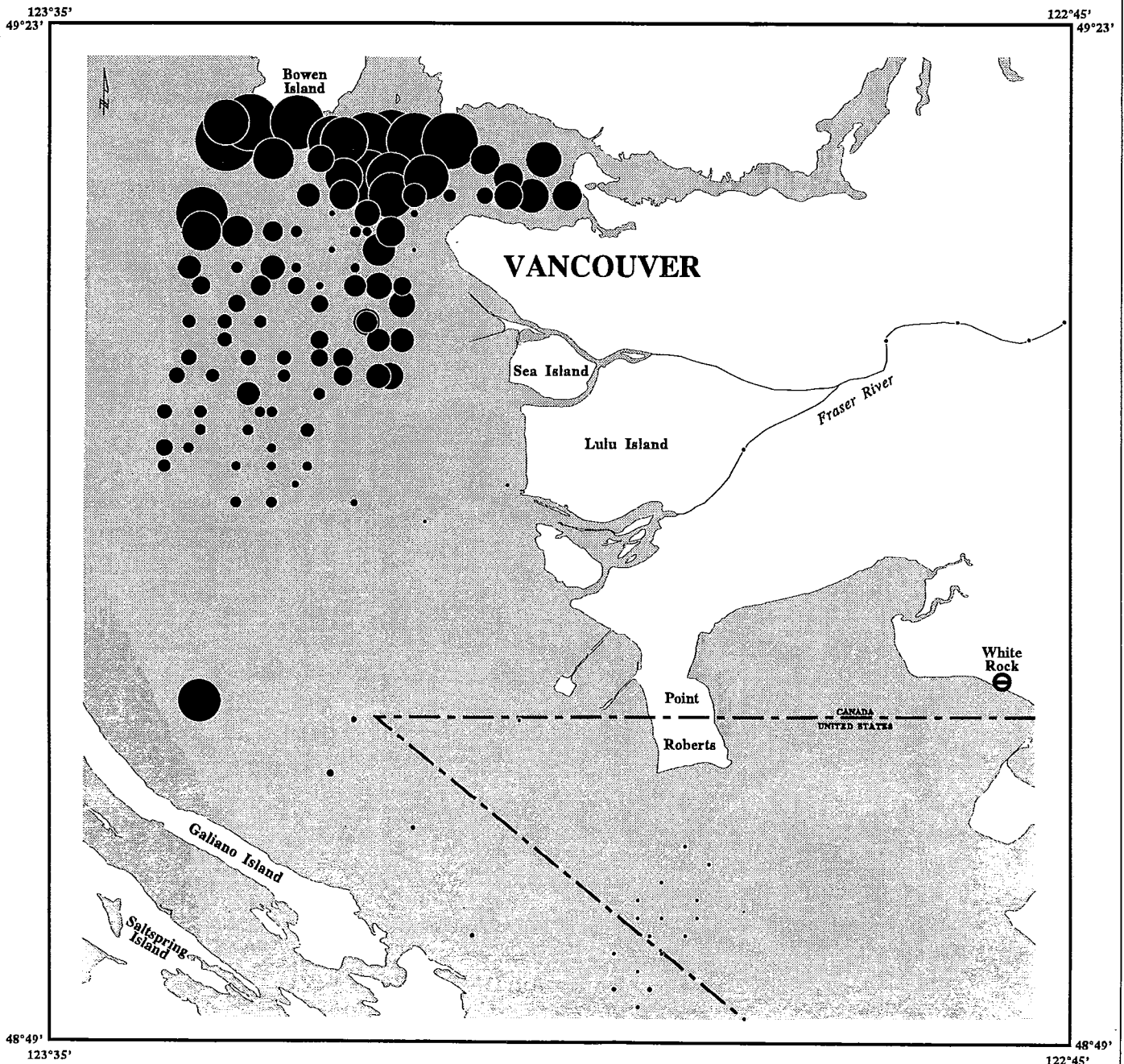
126 Samples

Exponent = 6

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

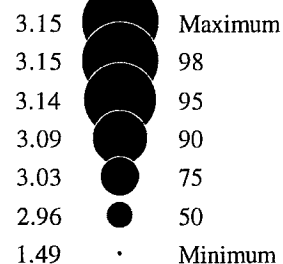


STRAIT OF GEORGIA

MAGNESIUM in Marine Sediments

XRF

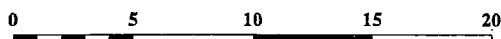
pct MgO Percentile



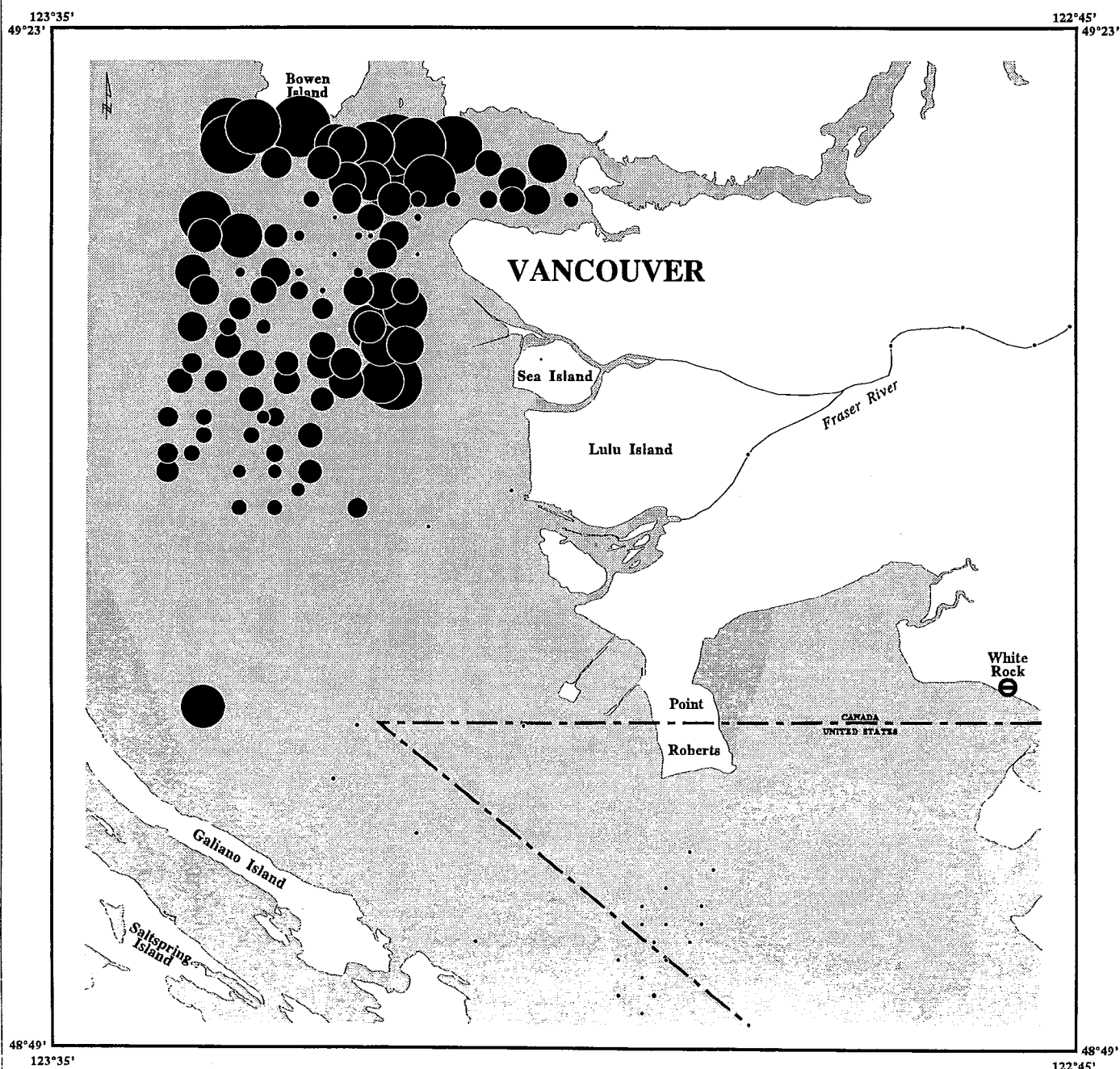
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Km
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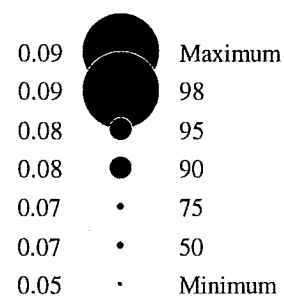


STRAIT OF GEORGIA

MANGANESE in Marine Sediments

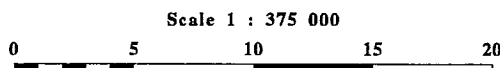
XRF

pct MnO Percentile

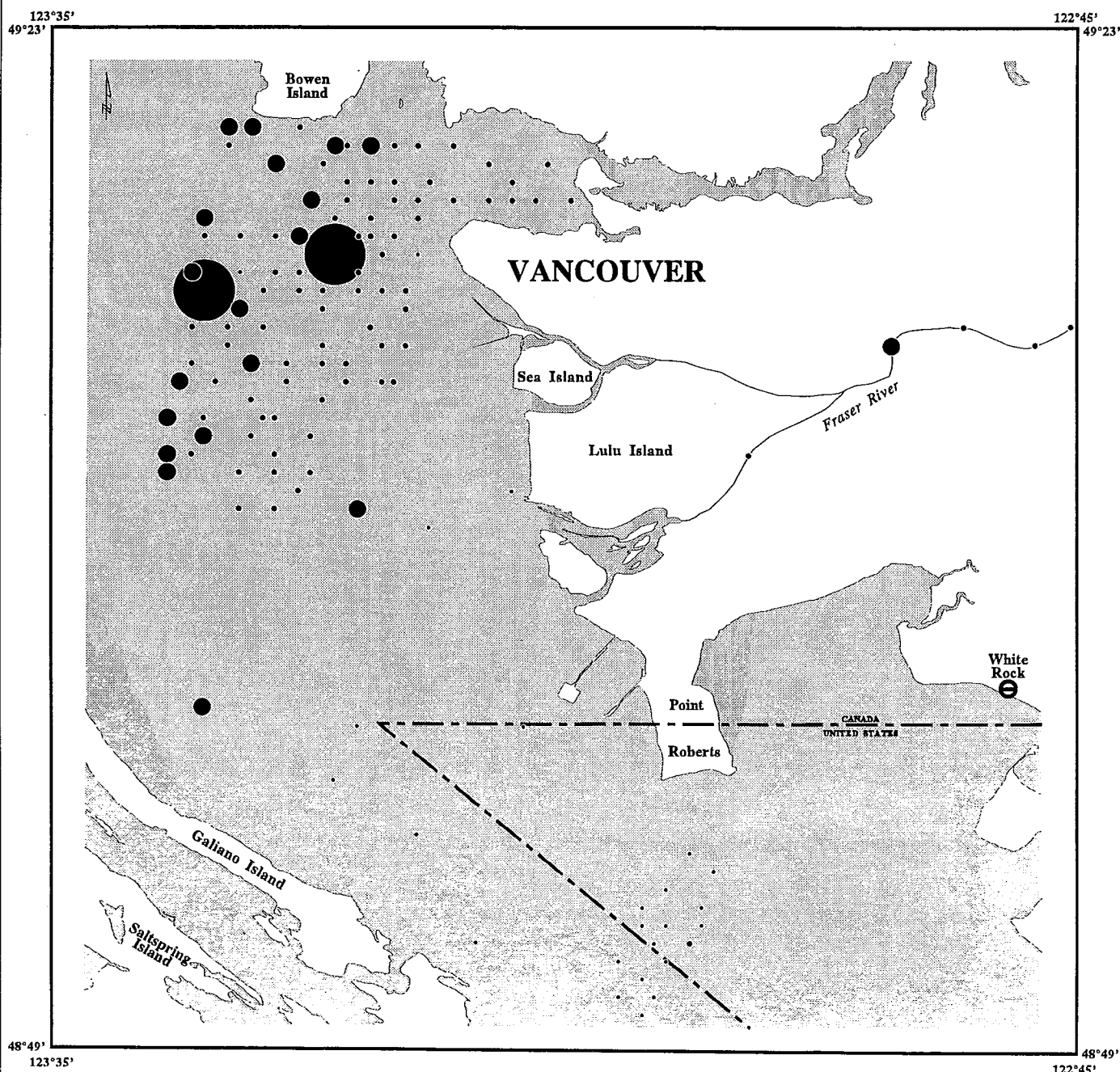


126 Samples

Exponent = 5



Transverse Mercator Projection
Central Meridian : 123°10'

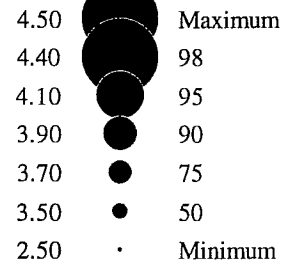


STRAIT OF GEORGIA

SODIUM in Marine Sediments

XRF

pct Na₂O Percentile



126 Samples

Exponent = 3

Scale 1 : 375 000

0 5 10 15 20

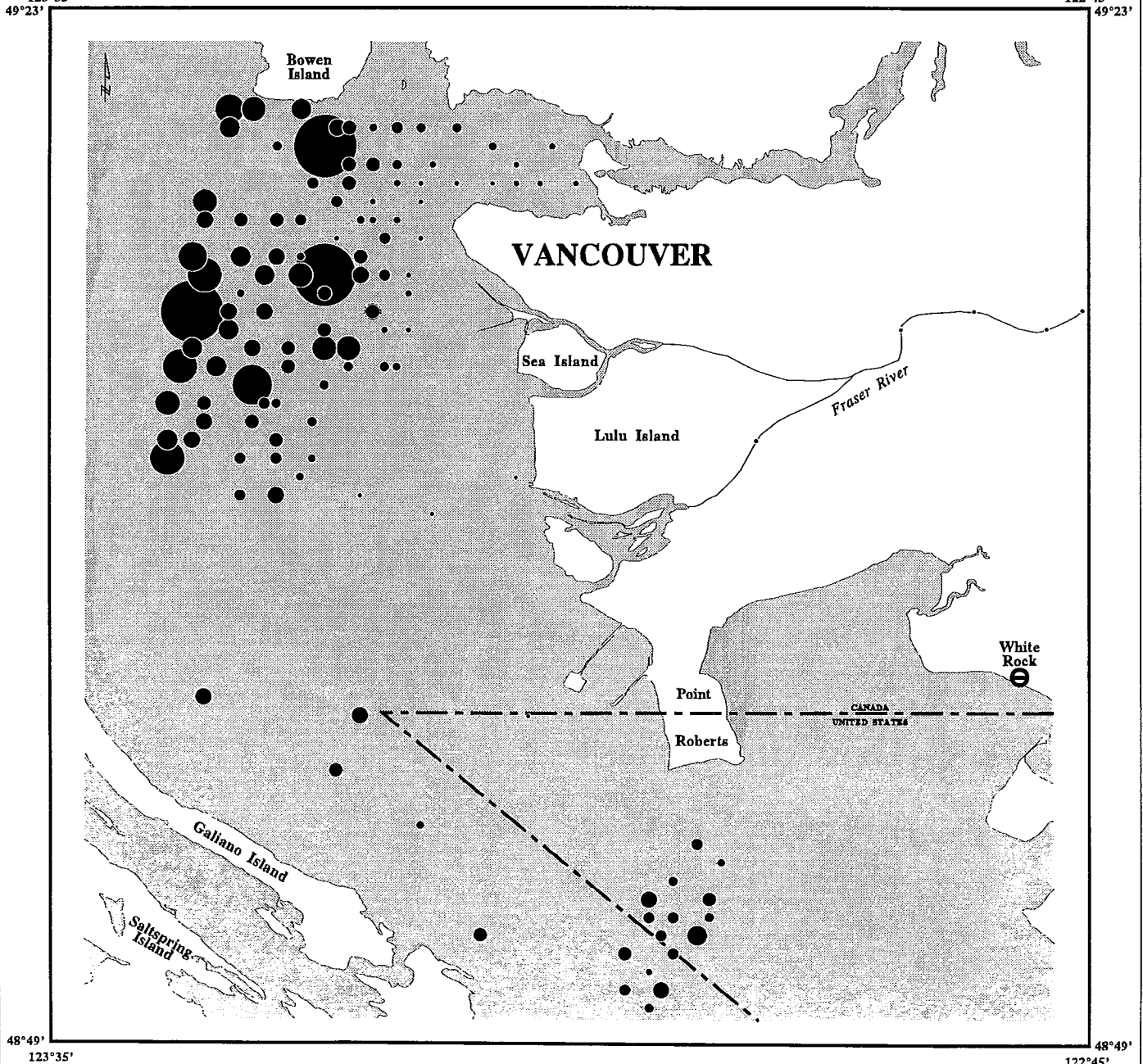
Km

Transverse Mercator Projection

Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'

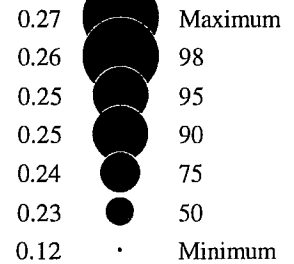


STRAIT OF GEORGIA

PHOSPHORUS in Marine Sediments

XRF

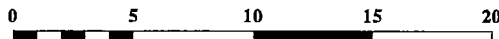
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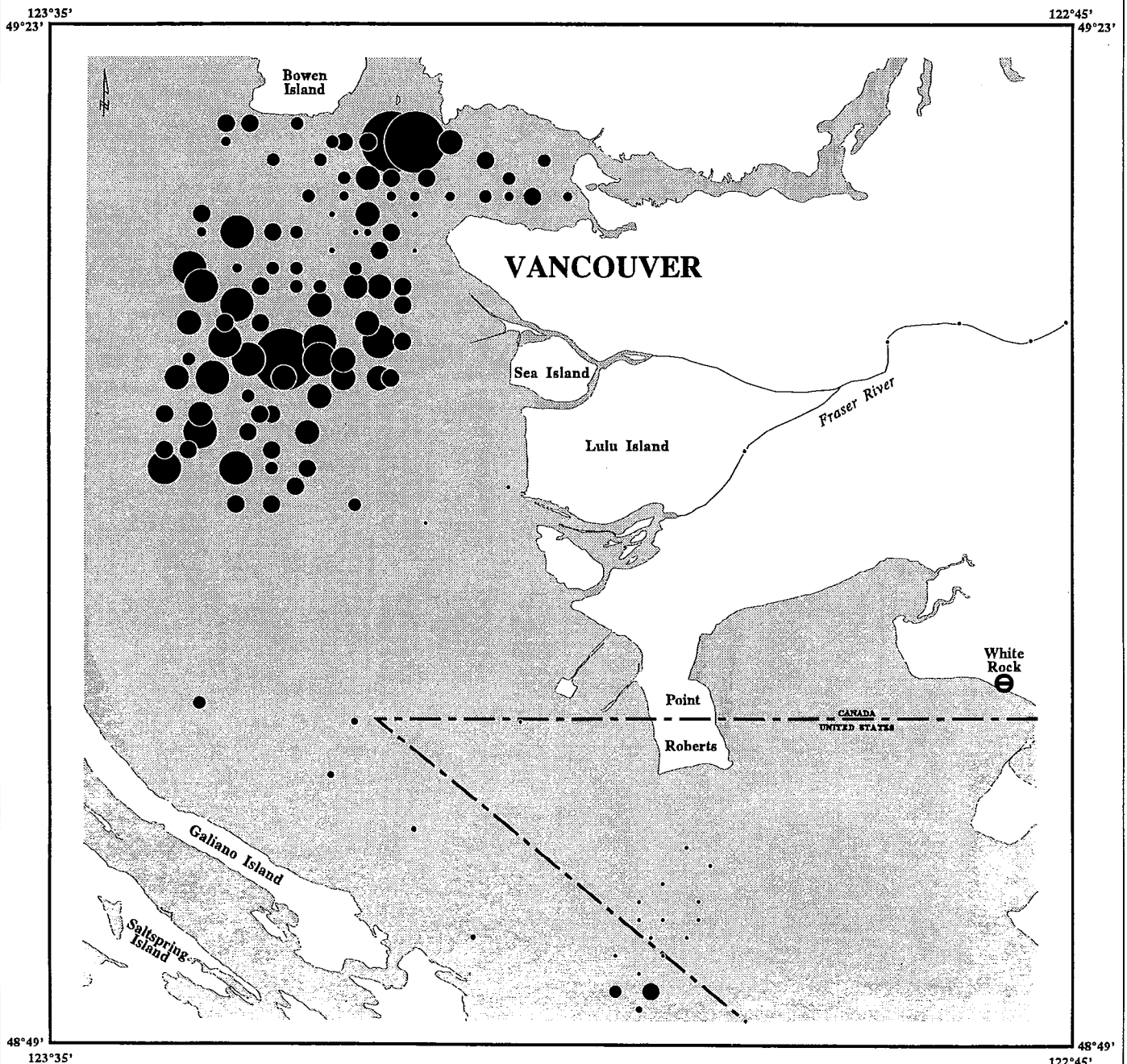
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Km
Transverse Mercator Projection
Central Meridian : 123°10'

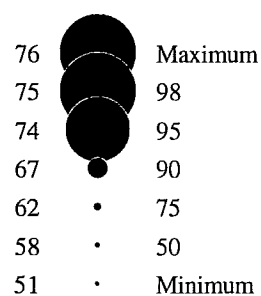


STRAIT OF GEORGIA

SILICA in Marine Sediments

XRF

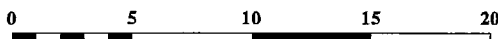
pct SiO₂ Percentile



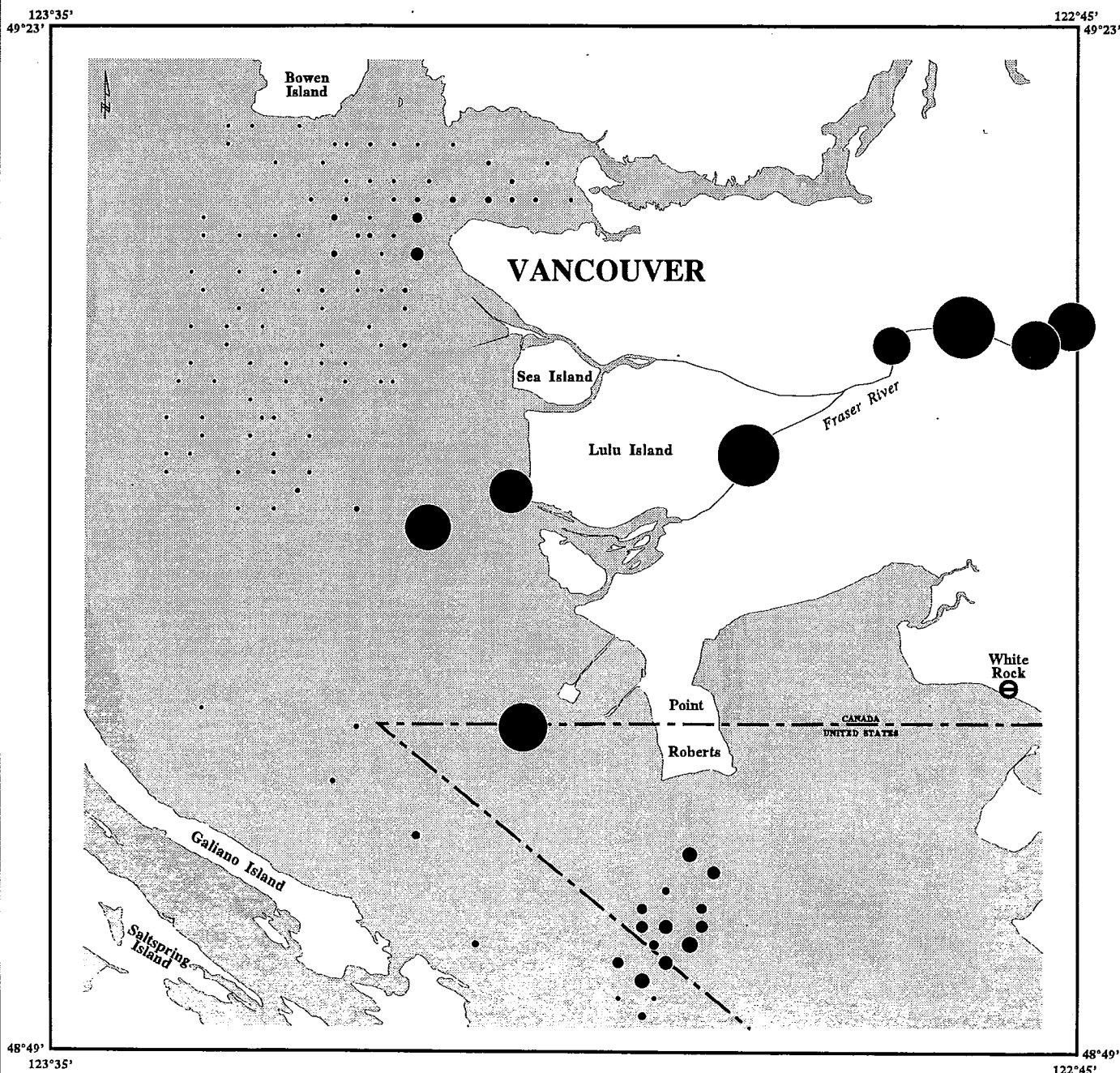
126 Samples

Exponent = 4

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

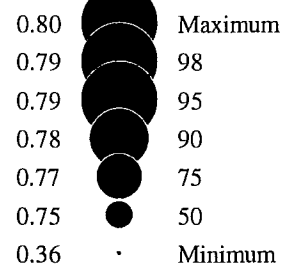


STRAIT OF GEORGIA

TITANIUM in Marine Sediments

XRF

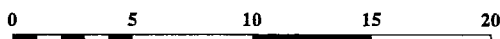
pct TiO₂ Percentile



126 Samples

Exponent = 12

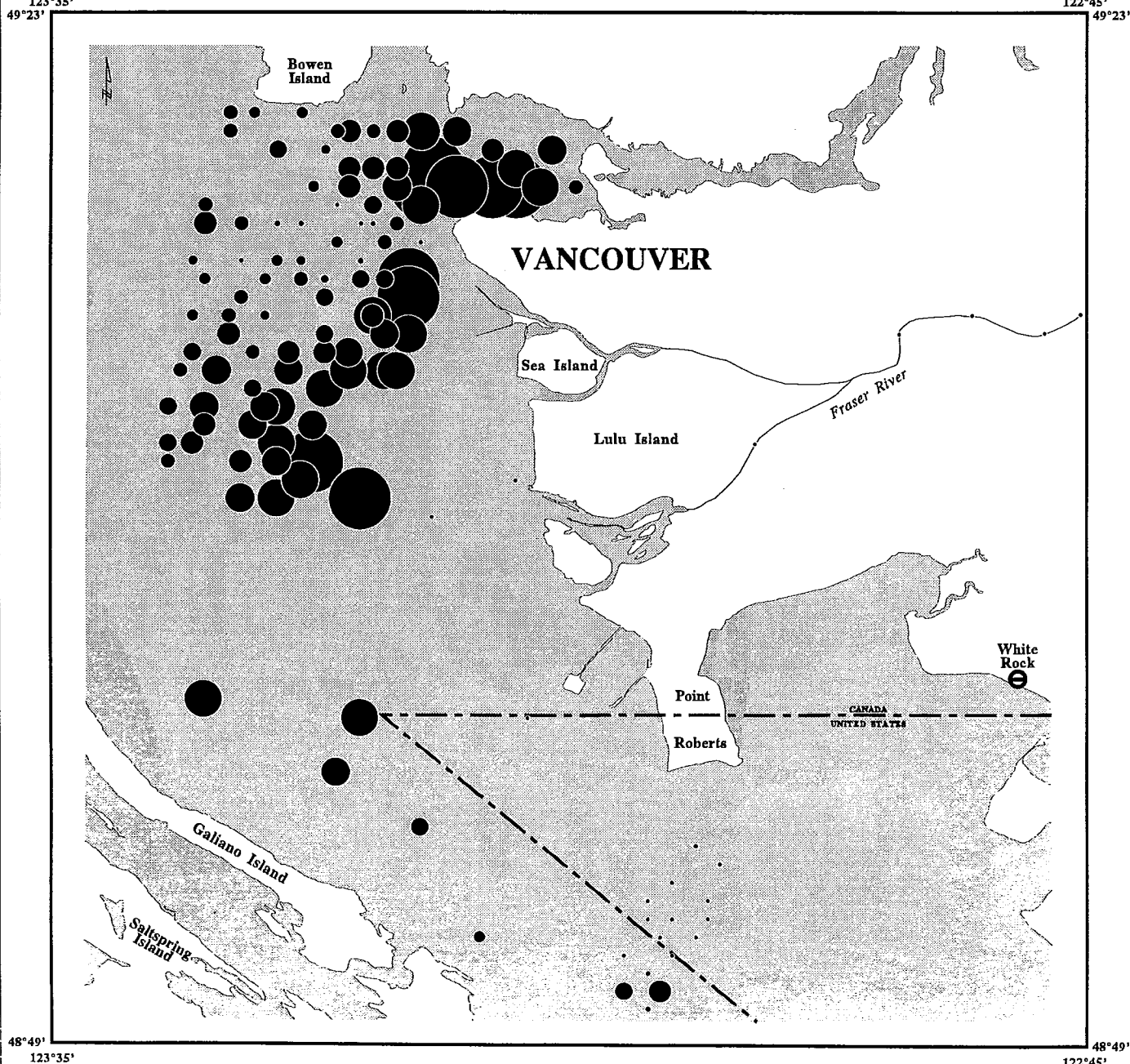
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Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'

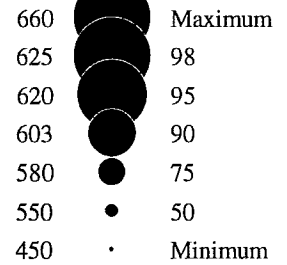


STRAIT OF GEORGIA

BARIUM in Marine Sediments

XRF

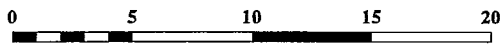
ppm Ba Percentile



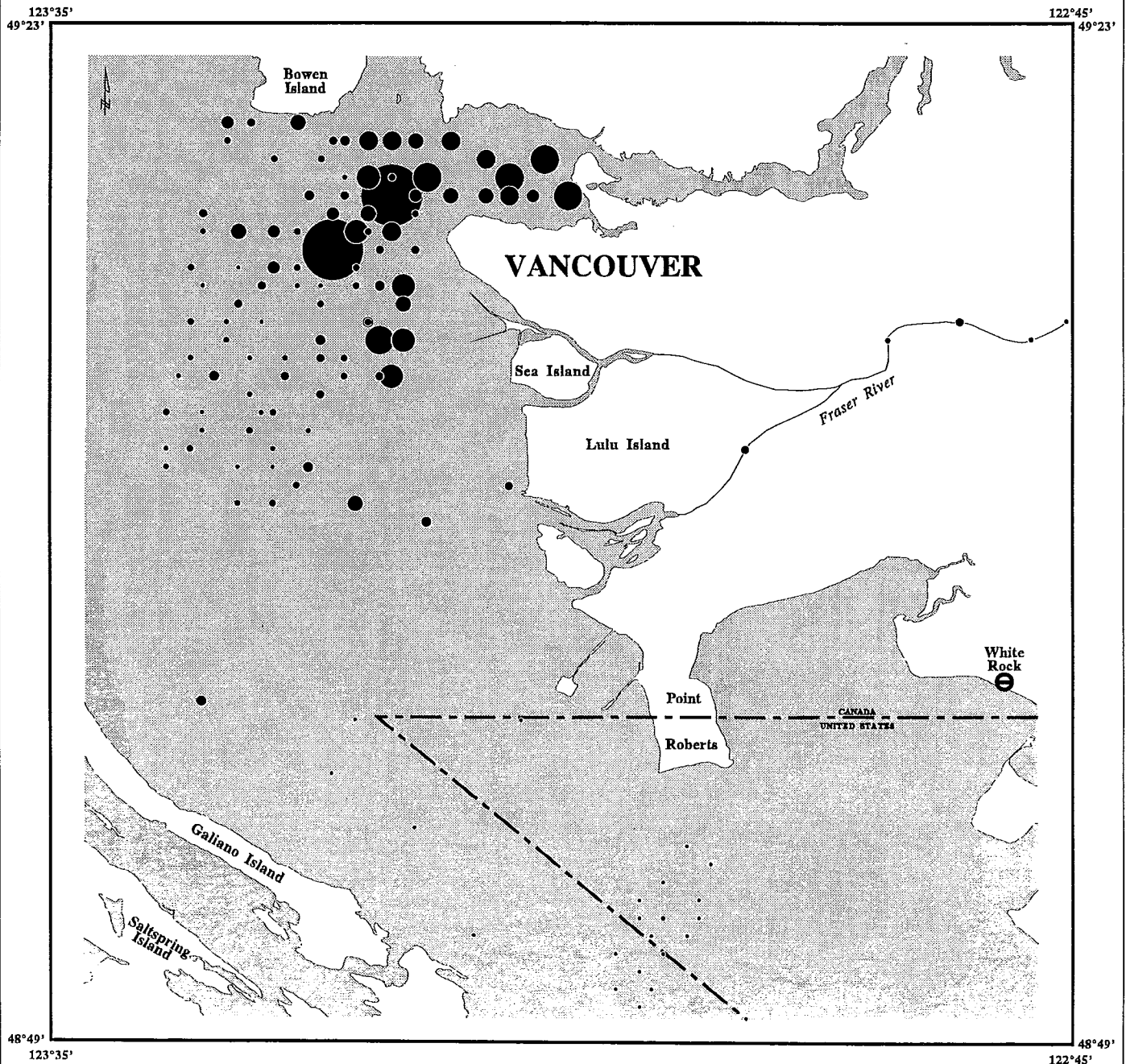
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Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

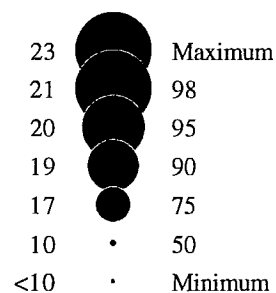


STRAIT OF GEORGIA

NIOBIUM in Marine Sediments

XRF

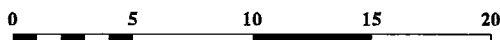
ppm Nb Percentile



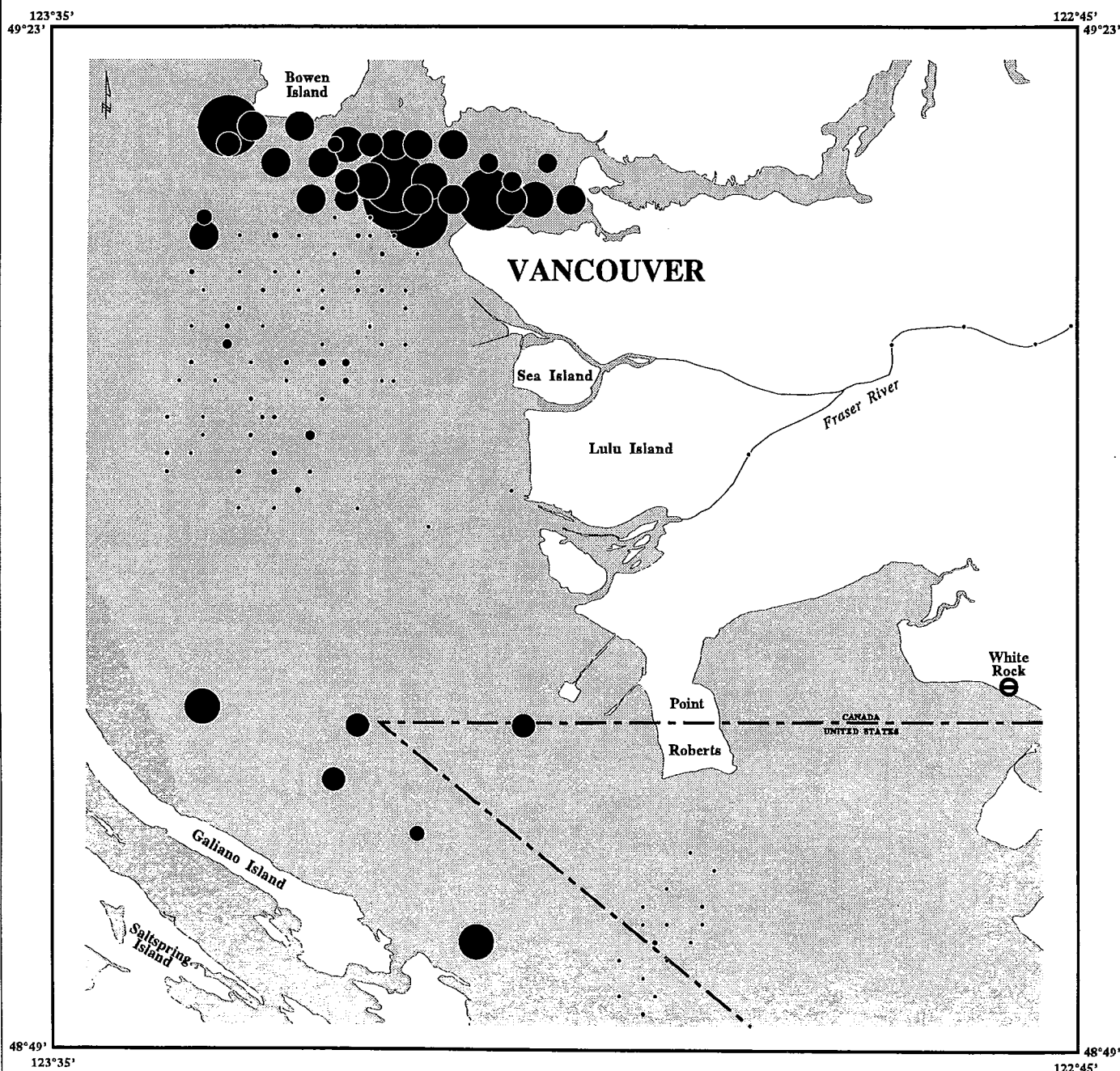
126 Samples

Exponent = 3

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

RUBIDIUM in Marine Sediments

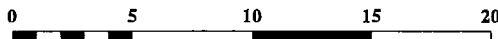
XRF

ppm	Rb	Percentile
96	●	Maximum
90	●	98
85	●	95
83	●	90
77	●	75
74	●	50
36	●	Minimum

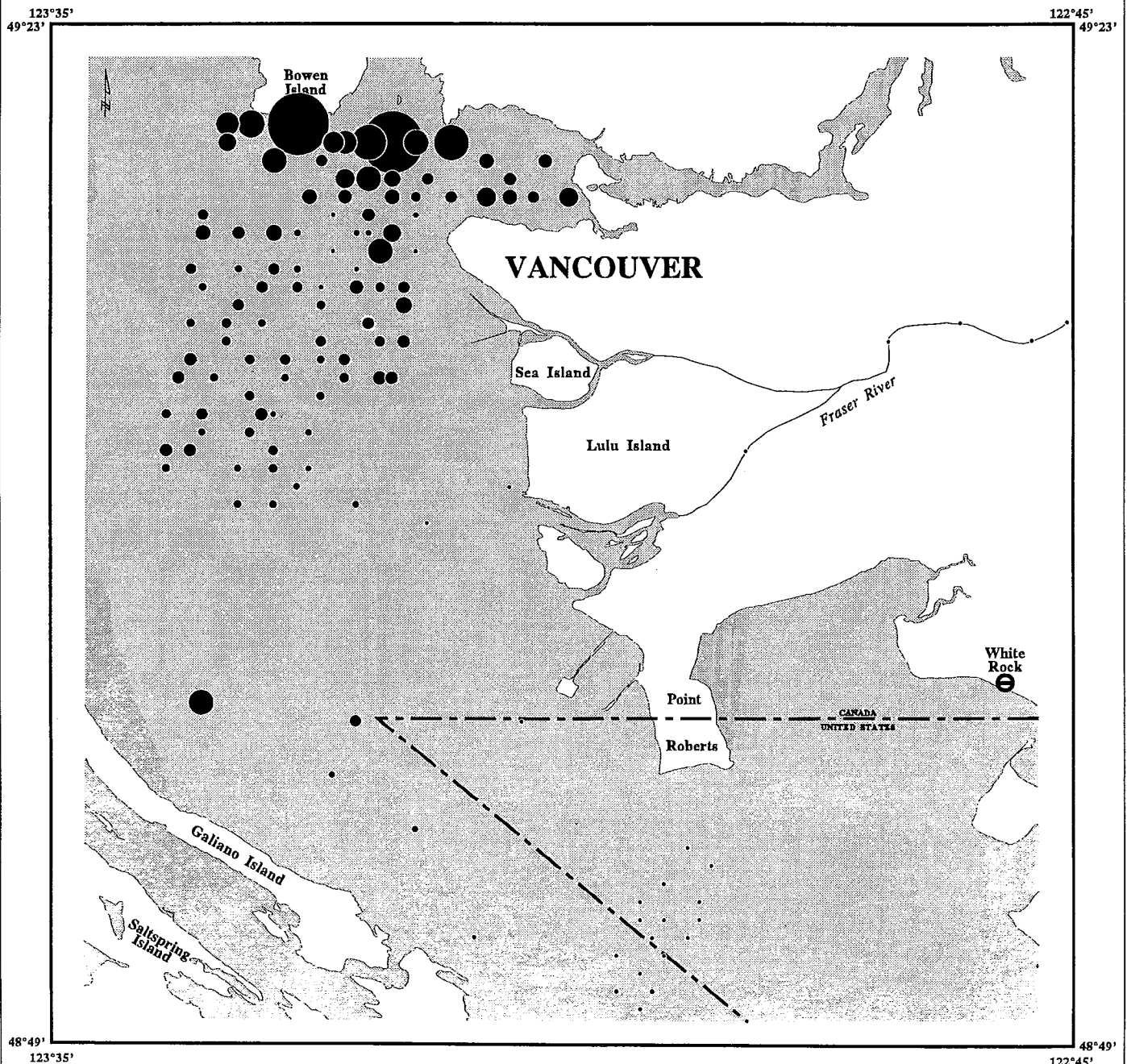
126 Samples

Exponent = 5

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

STRONTIUM in Marine Sediments

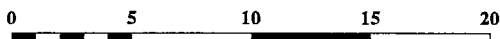
XRF

ppm	Sr	Percentile
420	●	Maximum
400	●	98
383	●	95
353	●	90
280	●	75
260	●	50
190	●	Minimum

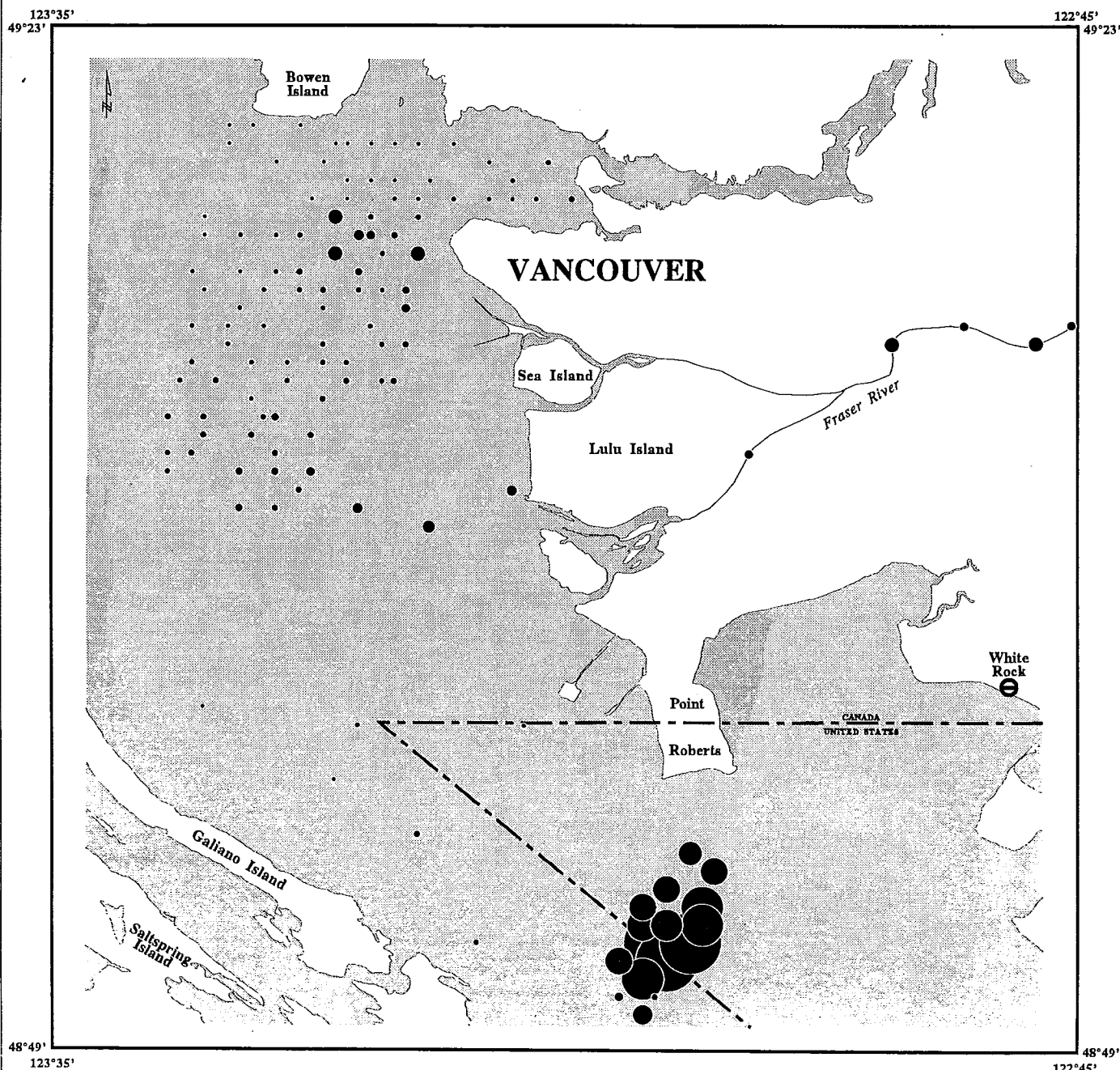
126 Samples

Exponent = 3

Scale 1 : 375 000










Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

ZIRCONIUM in Marine Sediments

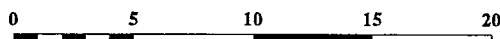
XRF

ppm	Zr	Percentile
200		Maximum
190		98
180		95
170		90
150		75
130		50
65		Minimum

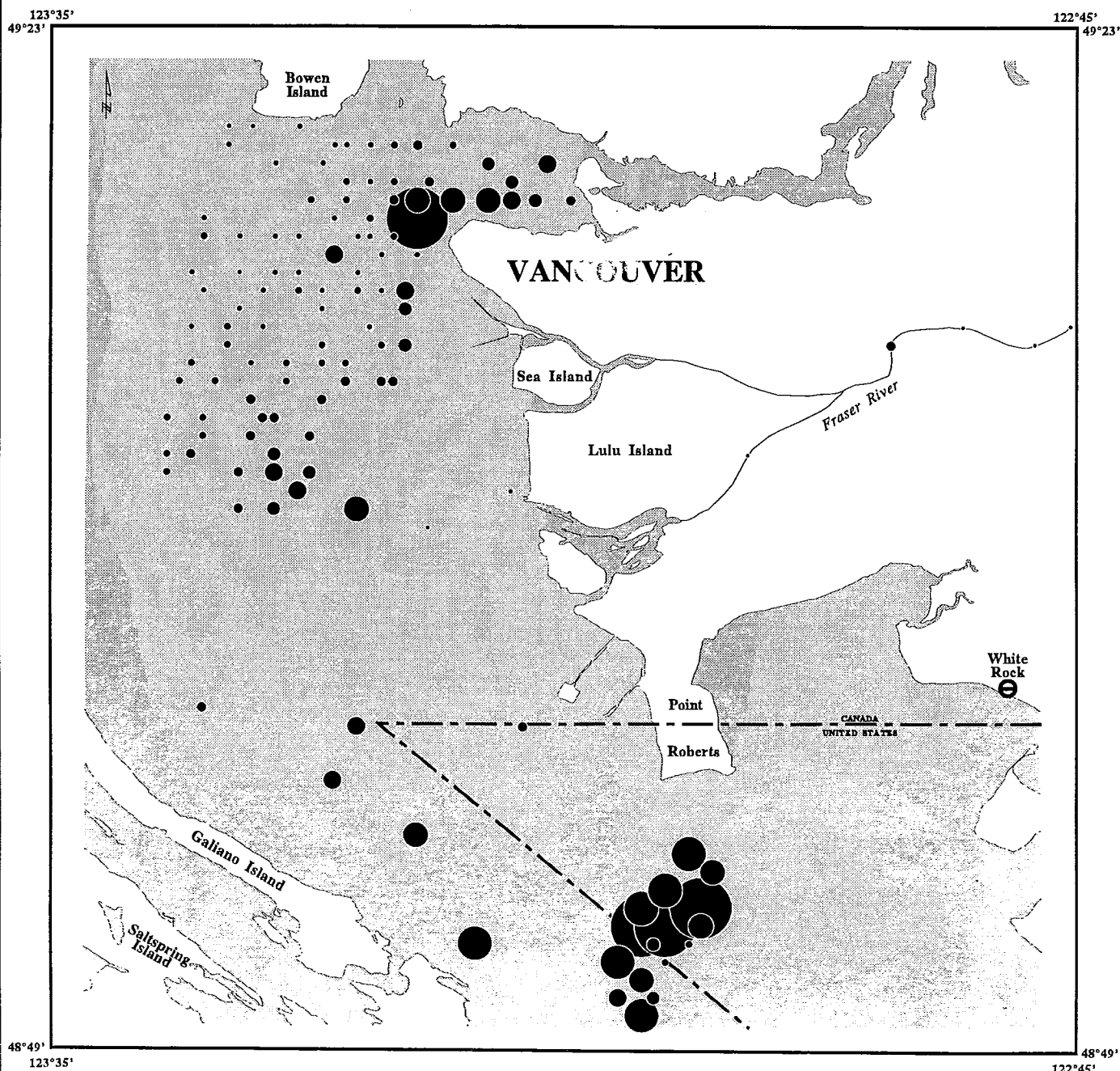
126 Samples

Exponent = 4

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

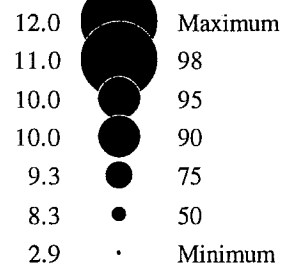


STRAIT OF GEORGIA

ARSENIC in Marine Sediments

INAA

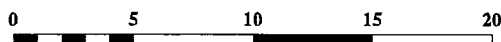
ppm AS Percentile



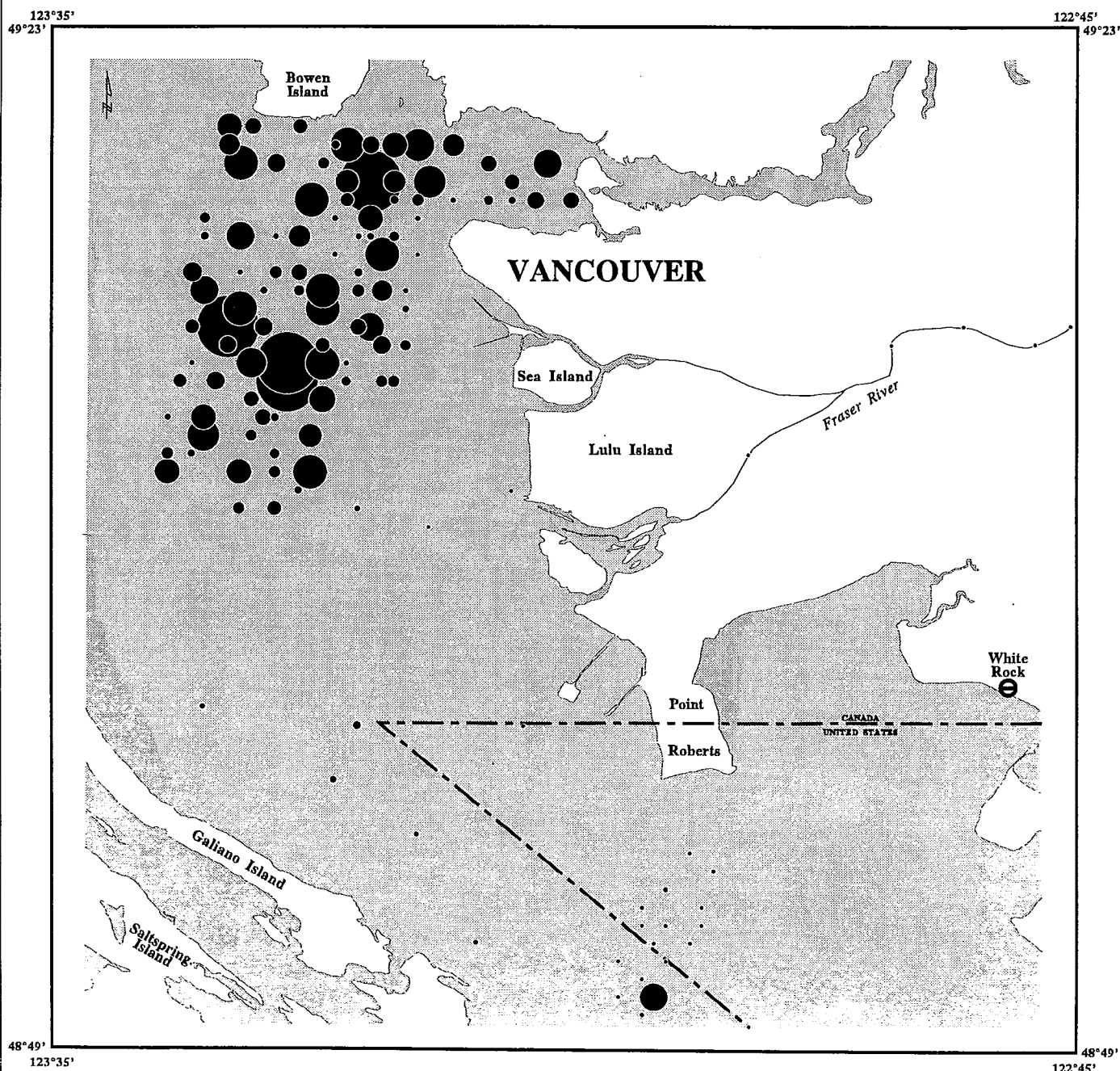
127 Samples

Exponent = 5

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

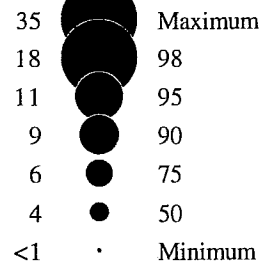


STRAIT OF GEORGIA

GOLD in Marine Sediments

INAA

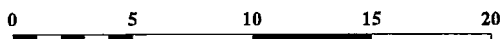
ppb **Au** Percentile



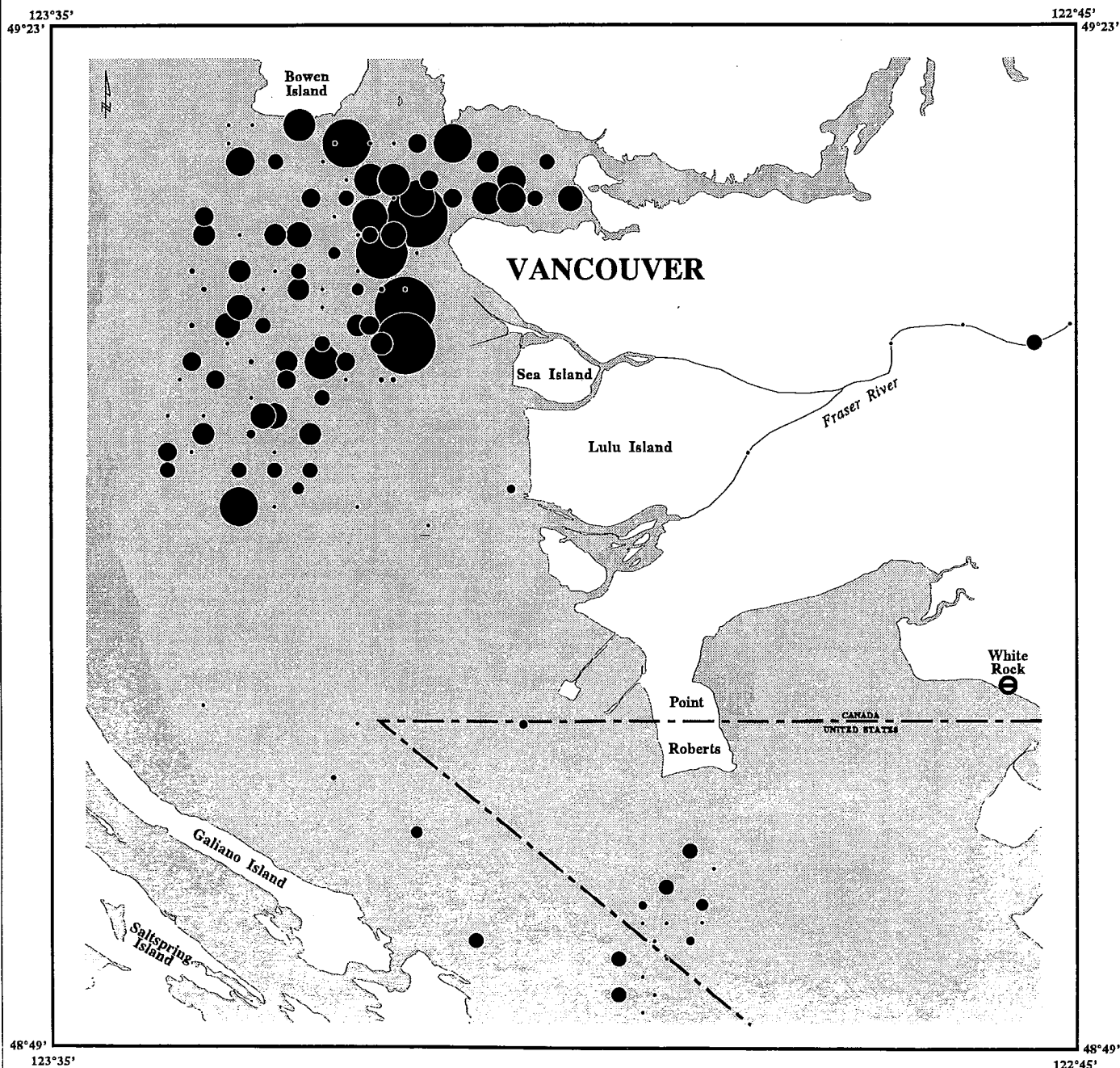
127 Samples

Exponent = 1

Scale 1 : 375 000

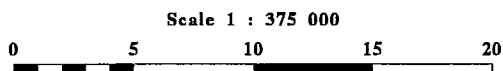
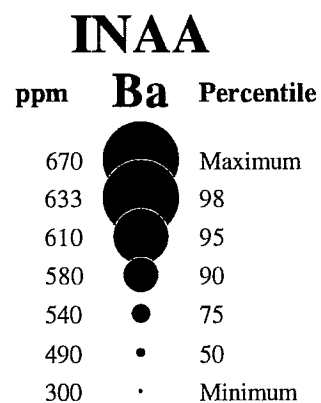


Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

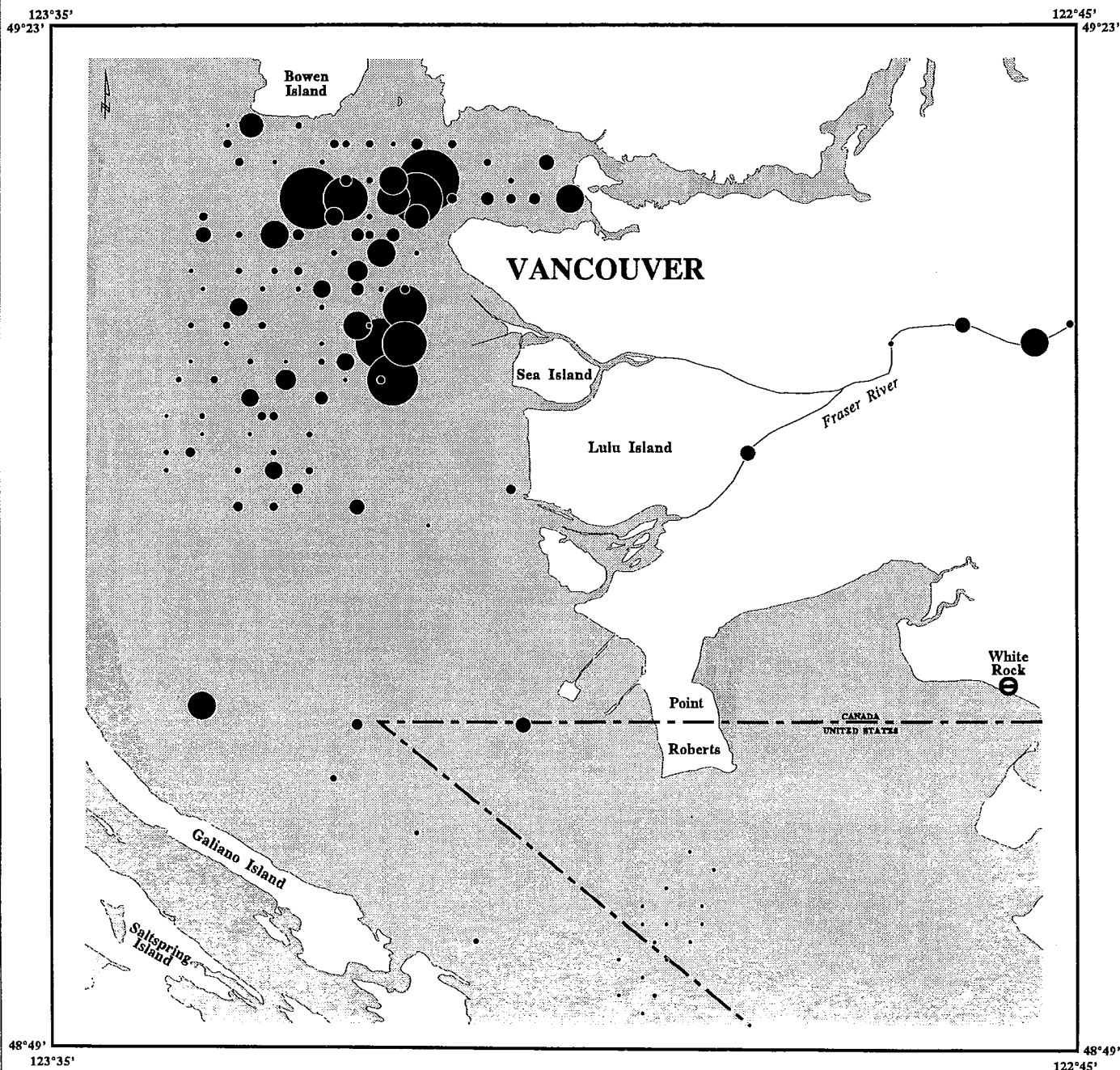
BARIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

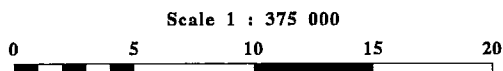
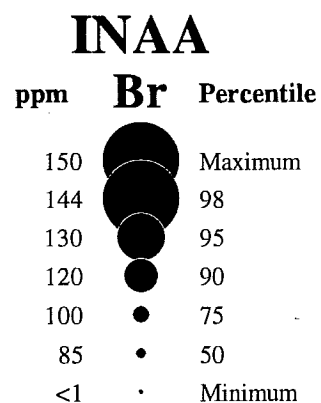
127 Samples

Exponent = 5



STRAIT OF GEORGIA

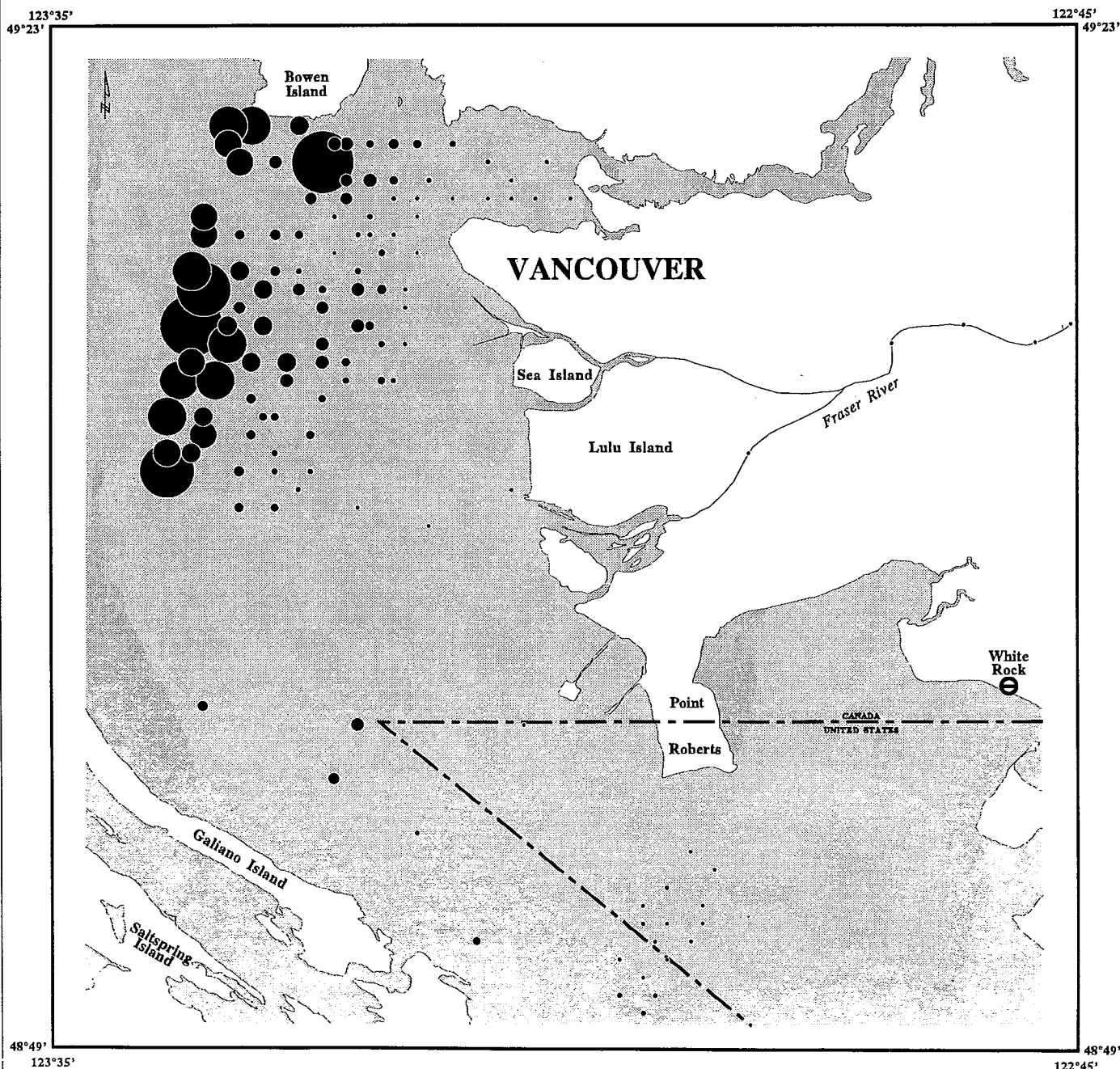
BROMINE in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples

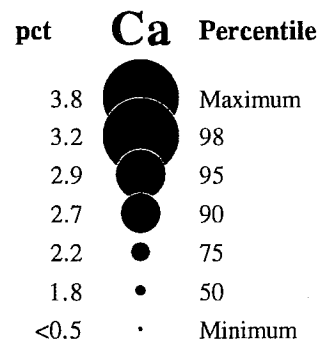
Exponent = 5



STRAIT OF GEORGIA

CALCIUM in Marine Sediments

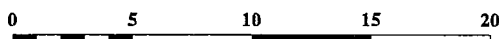
INAA



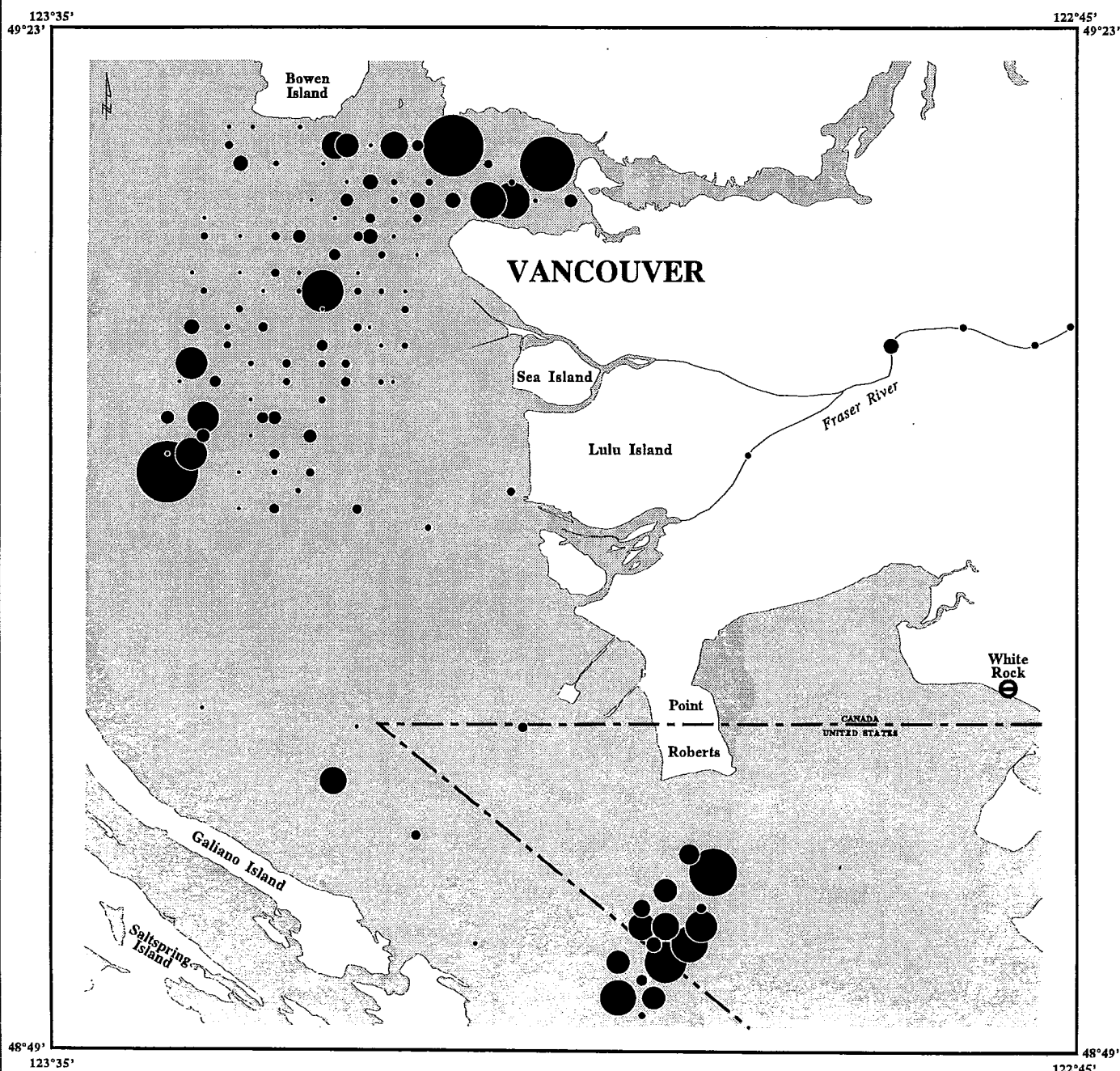
127 Samples

Exponent = 4

Scale 1 : 375 000

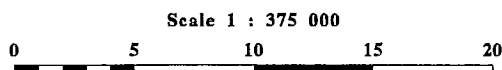
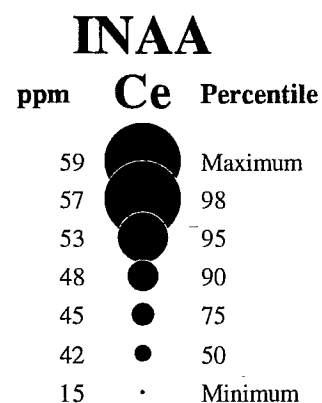


Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

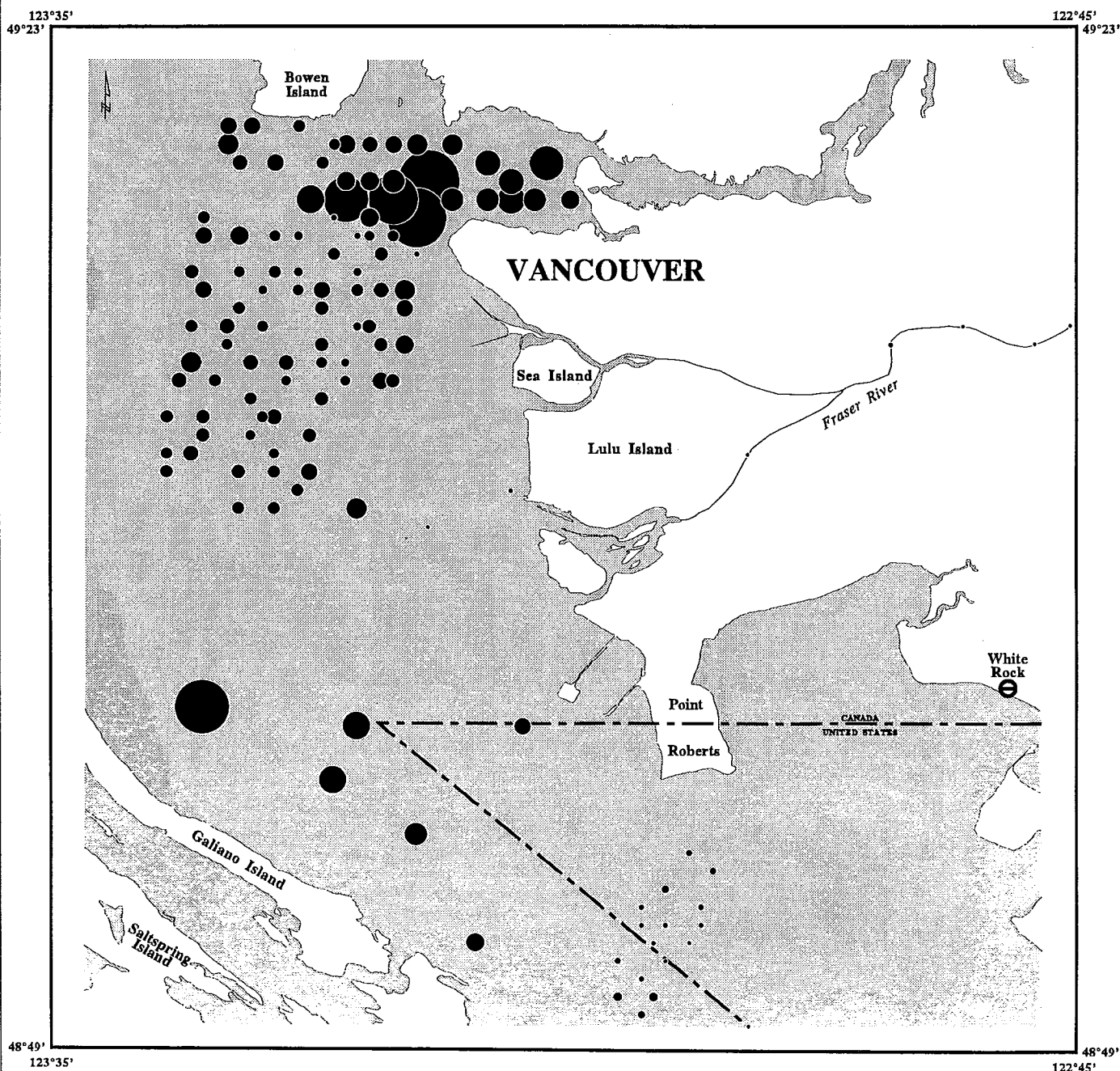
CERIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

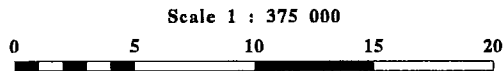
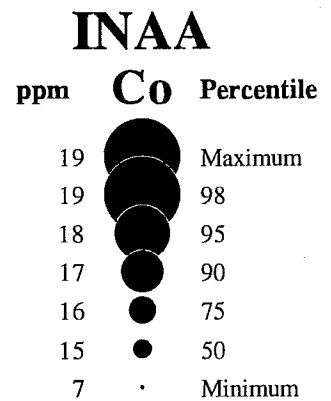
127 Samples

Exponent = 4



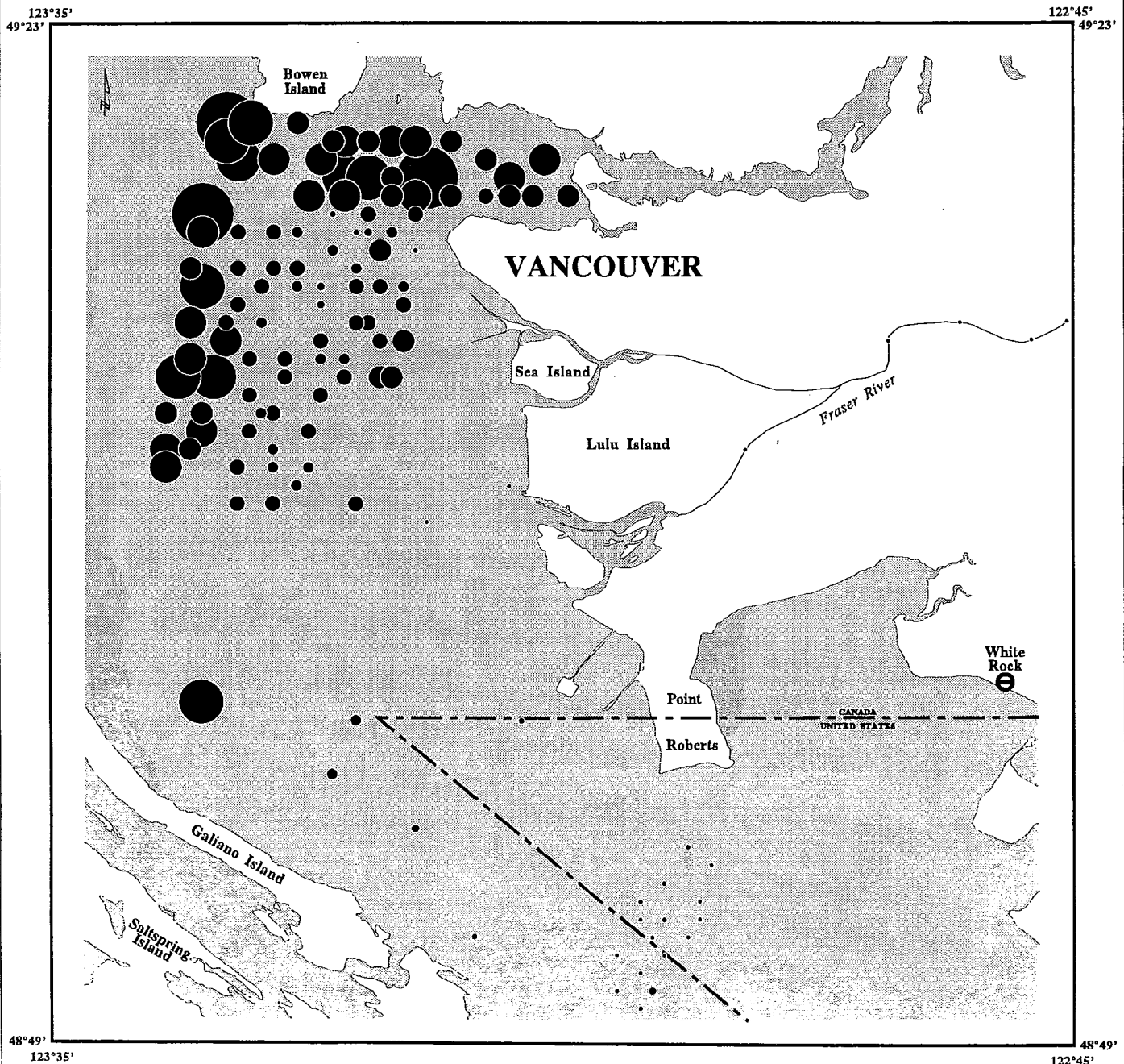
STRAIT OF GEORGIA

COBALT in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples
Exponent = 4

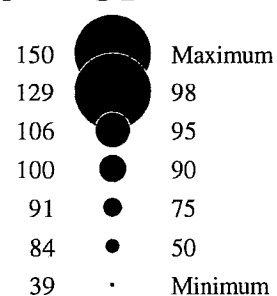


STRAIT OF GEORGIA

CHROMIUM in Marine Sediments

INAA

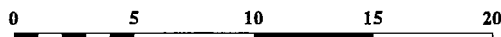
ppm Cr Percentile



127 Samples

Exponent = 3

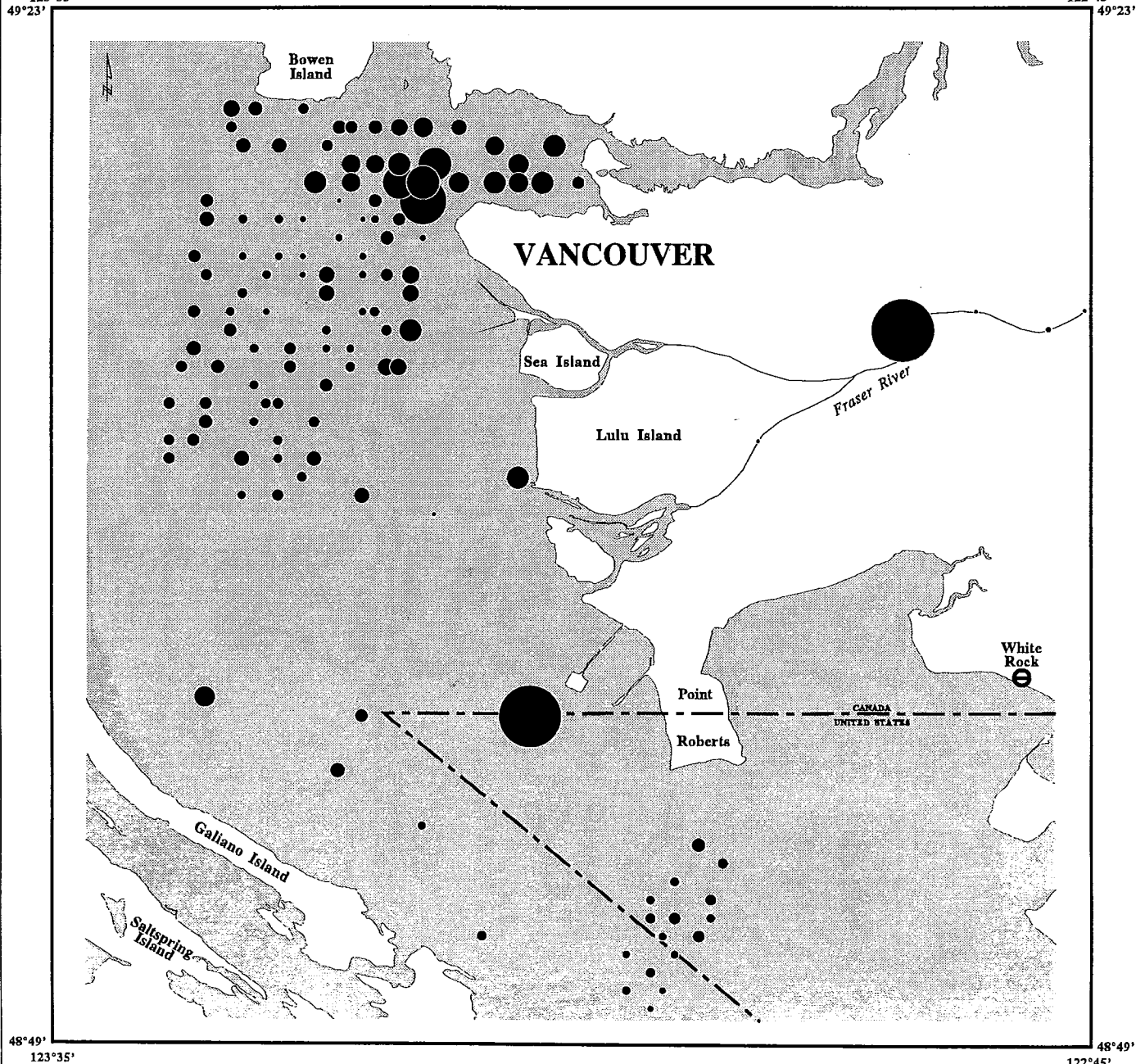
Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

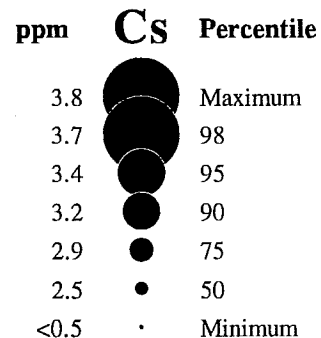
122°45'
49°23'



STRAIT OF GEORGIA

CESIUM in Marine Sediments

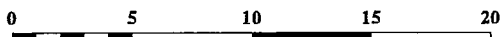
INAA



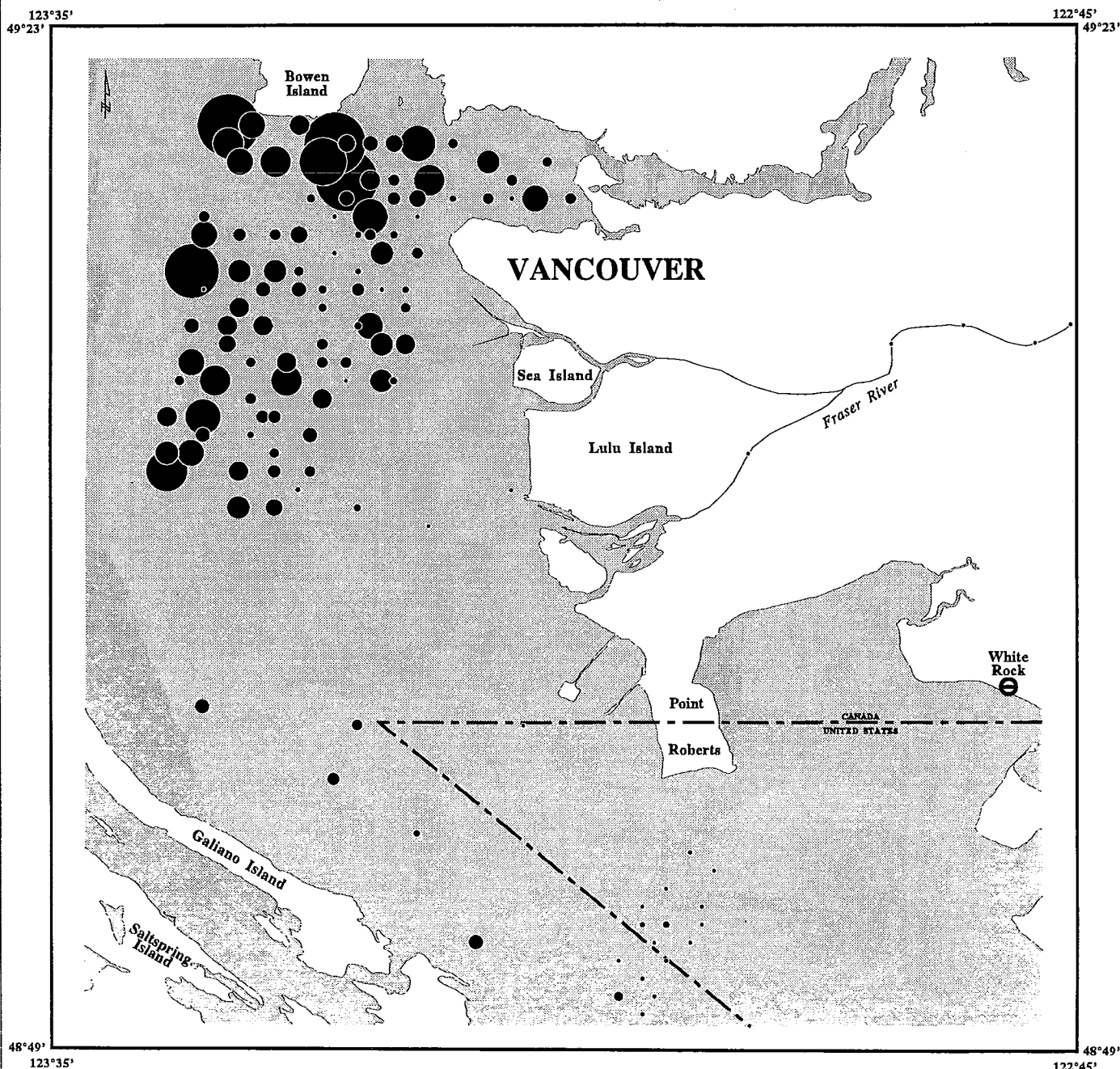
127 Samples

Exponent = 5

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

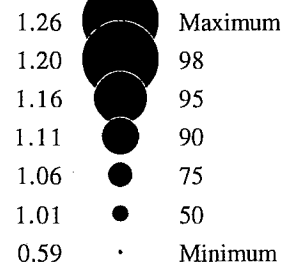


STRAIT OF GEORGIA

EUROPIUM in Marine Sediments

INAA

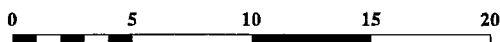
ppm **Eu** Percentile



127 Samples

Exponent = 5

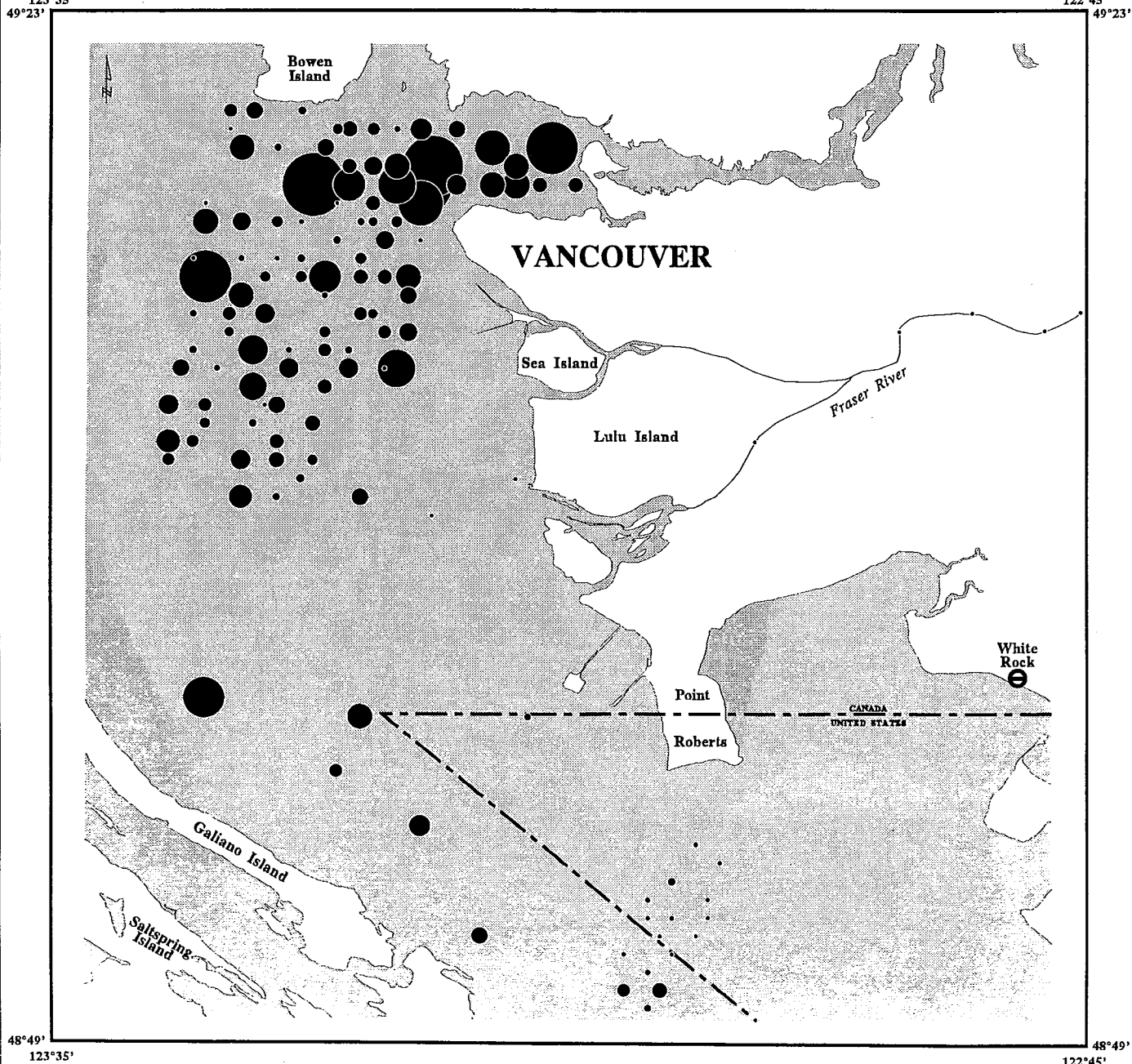
Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

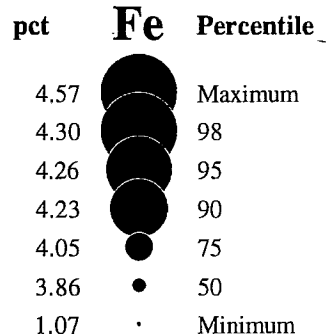
122°45'
49°23'



STRAIT OF GEORGIA

IRON in Marine Sediments

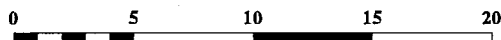
INAA



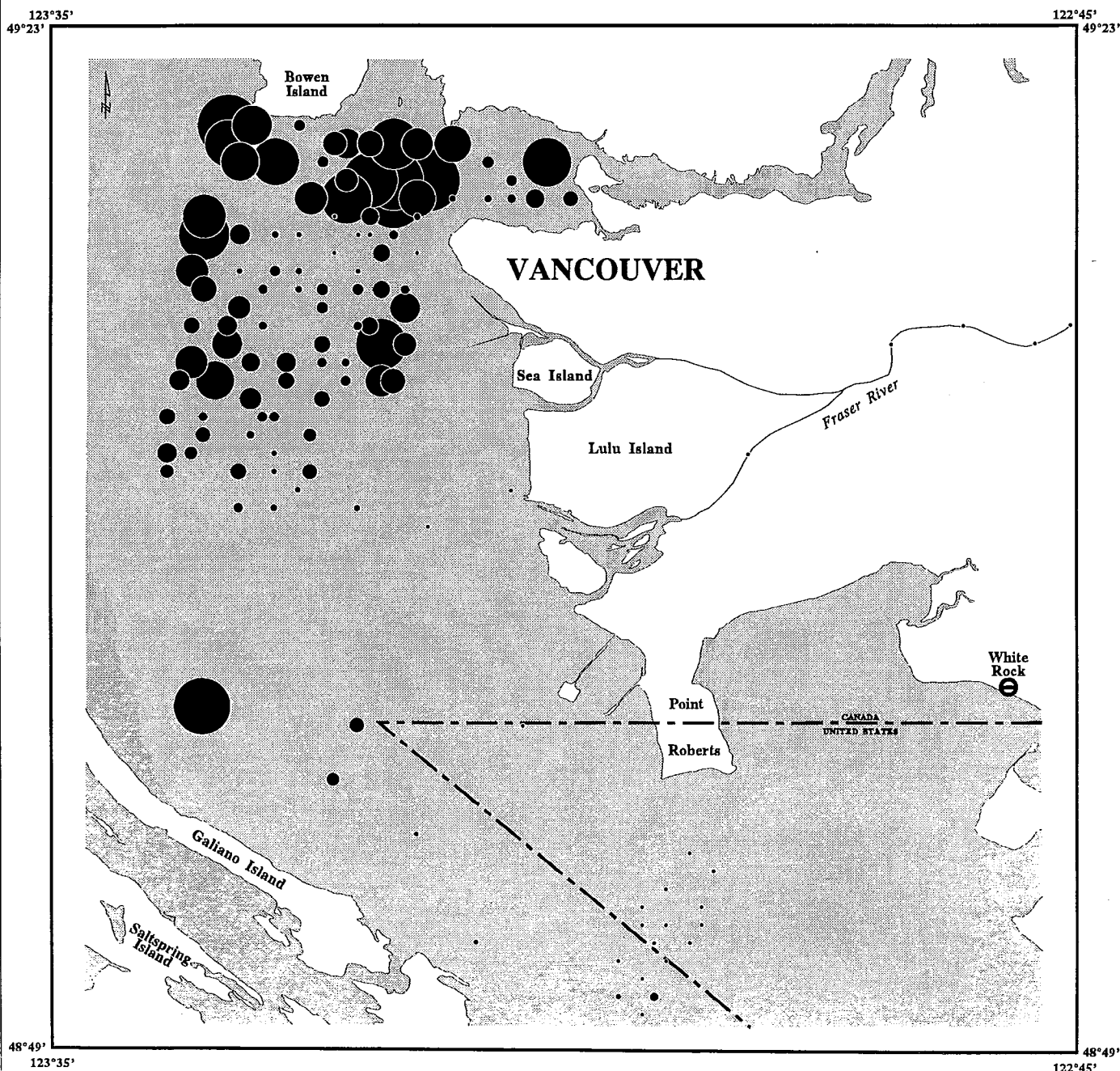
127 Samples

Exponent = 10

Scale 1 : 375 000

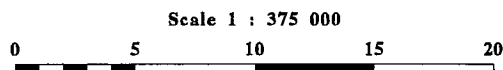
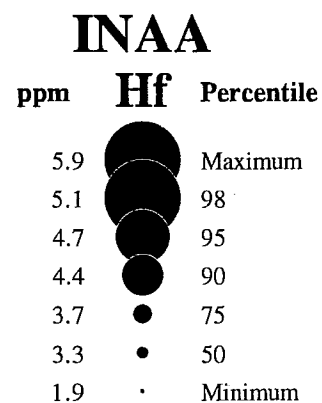


Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

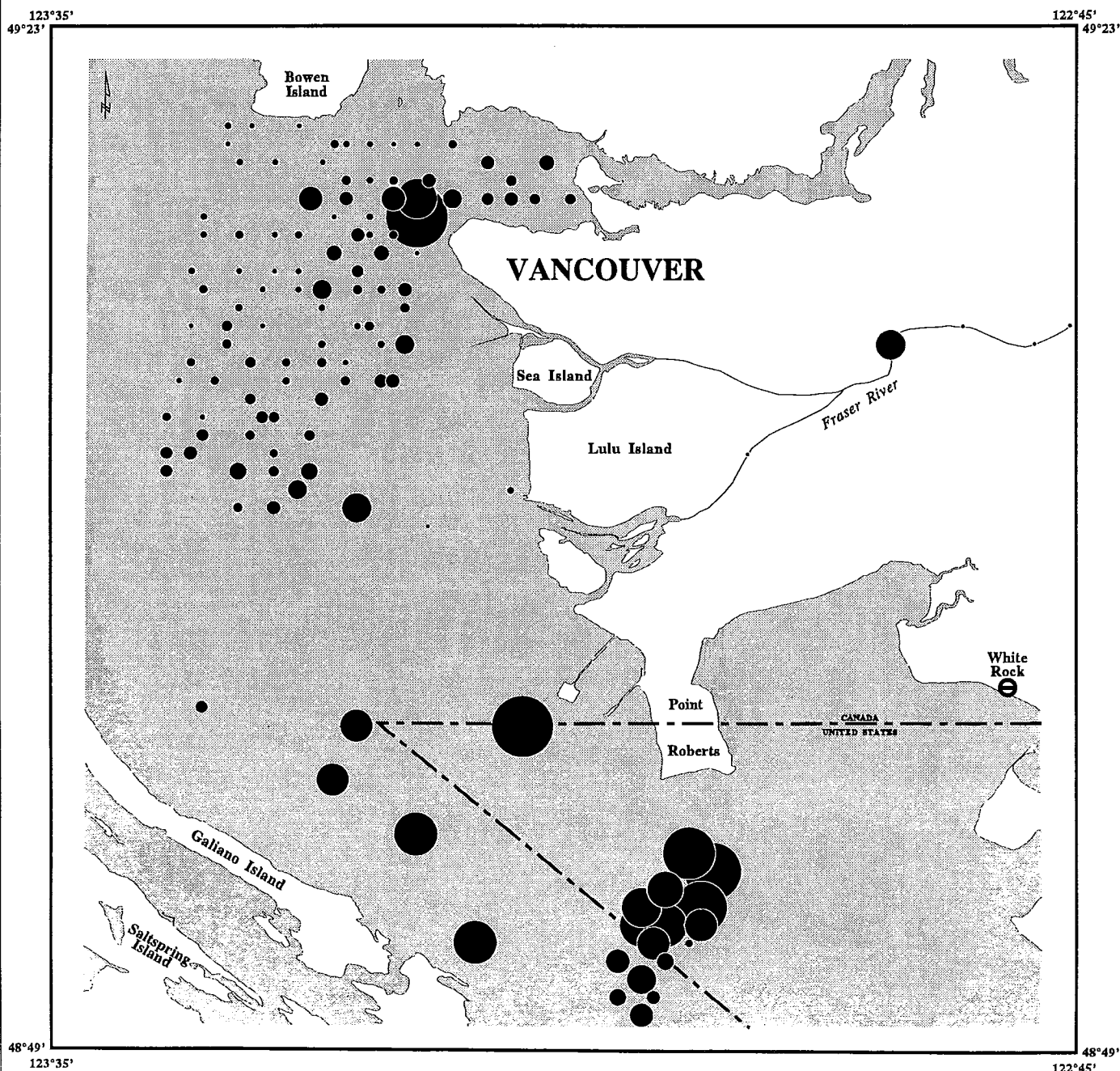
HAFNIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples

Exponent = 3

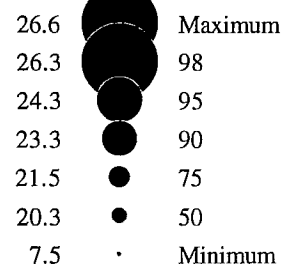


STRAIT OF GEORGIA

LANTHANUM in Marine Sediments

INAA

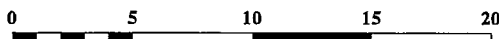
ppm La Percentile



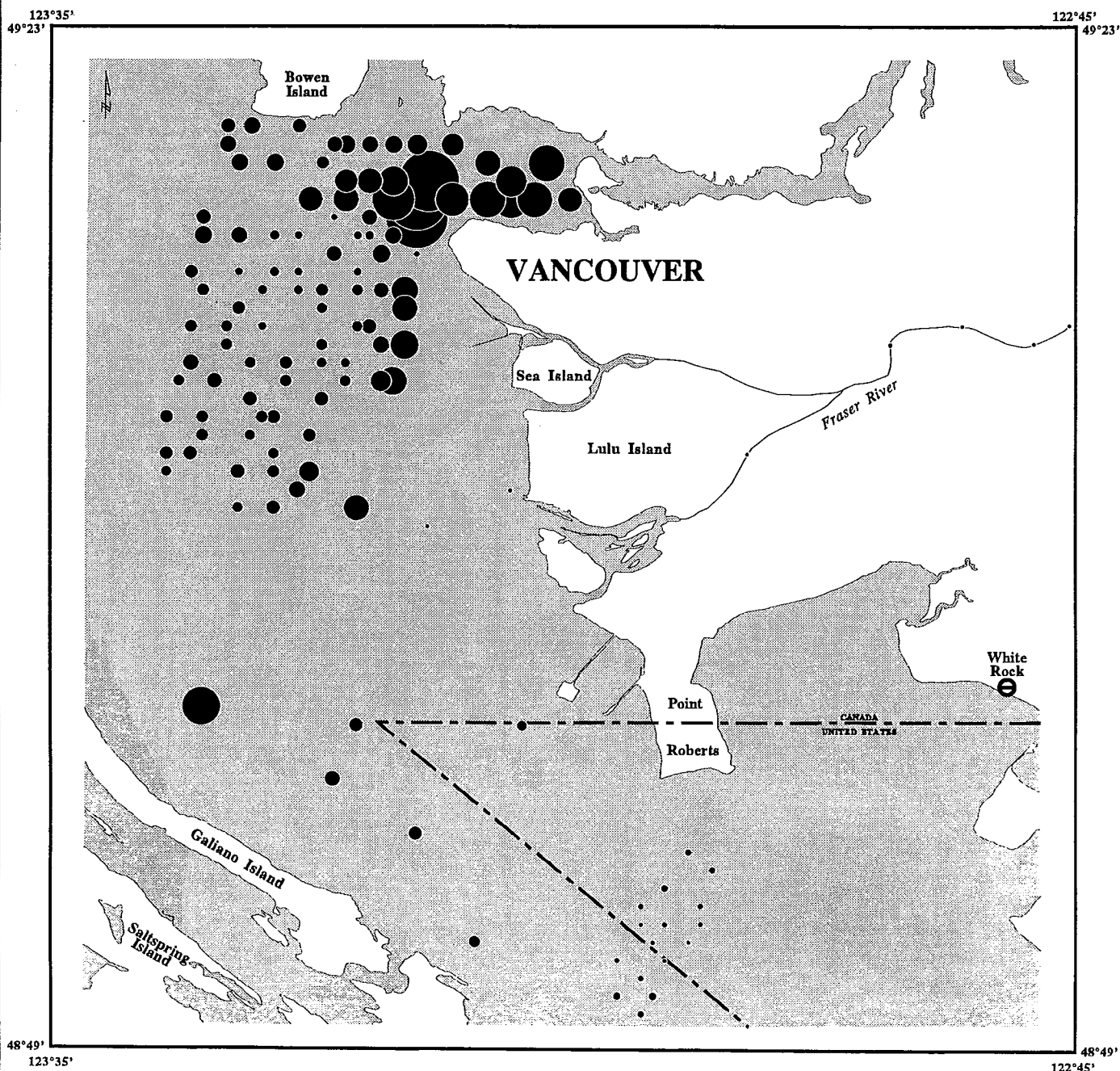
127 Samples

Exponent = 5

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

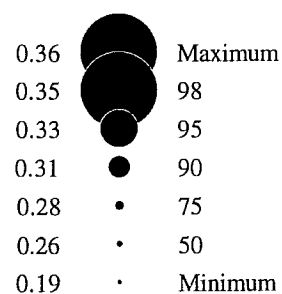


STRAIT OF GEORGIA

LUTETIUM in Marine Sediments

INAA

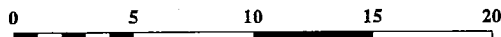
ppm **Lu** Percentile



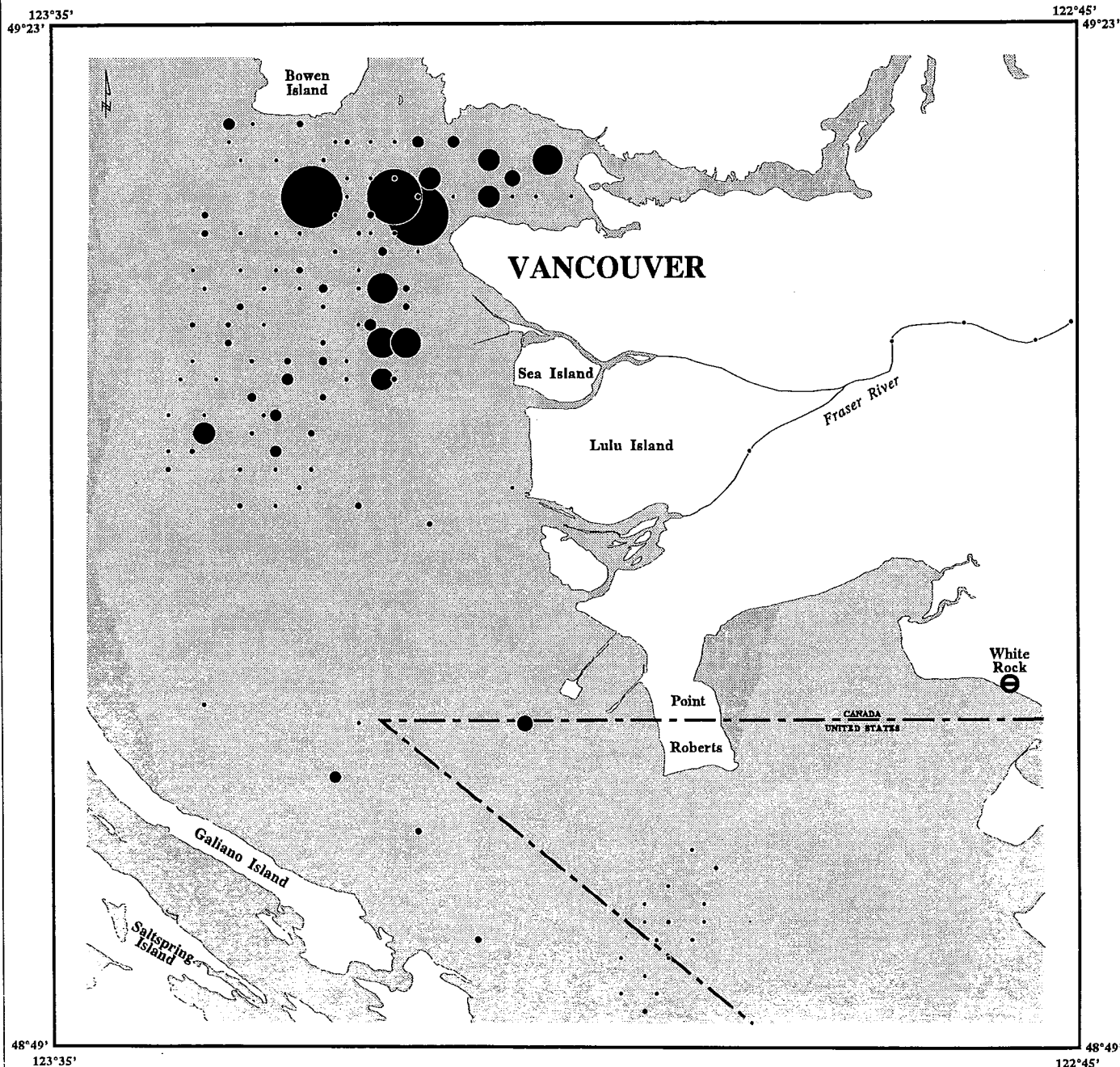
127 Samples

Exponent = 5

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

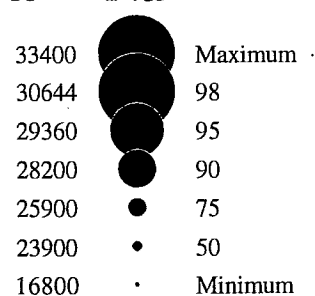


STRAIT OF GEORGIA

SODIUM in Marine Sediments

INAA

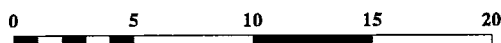
ppm Na Percentile



127 Samples

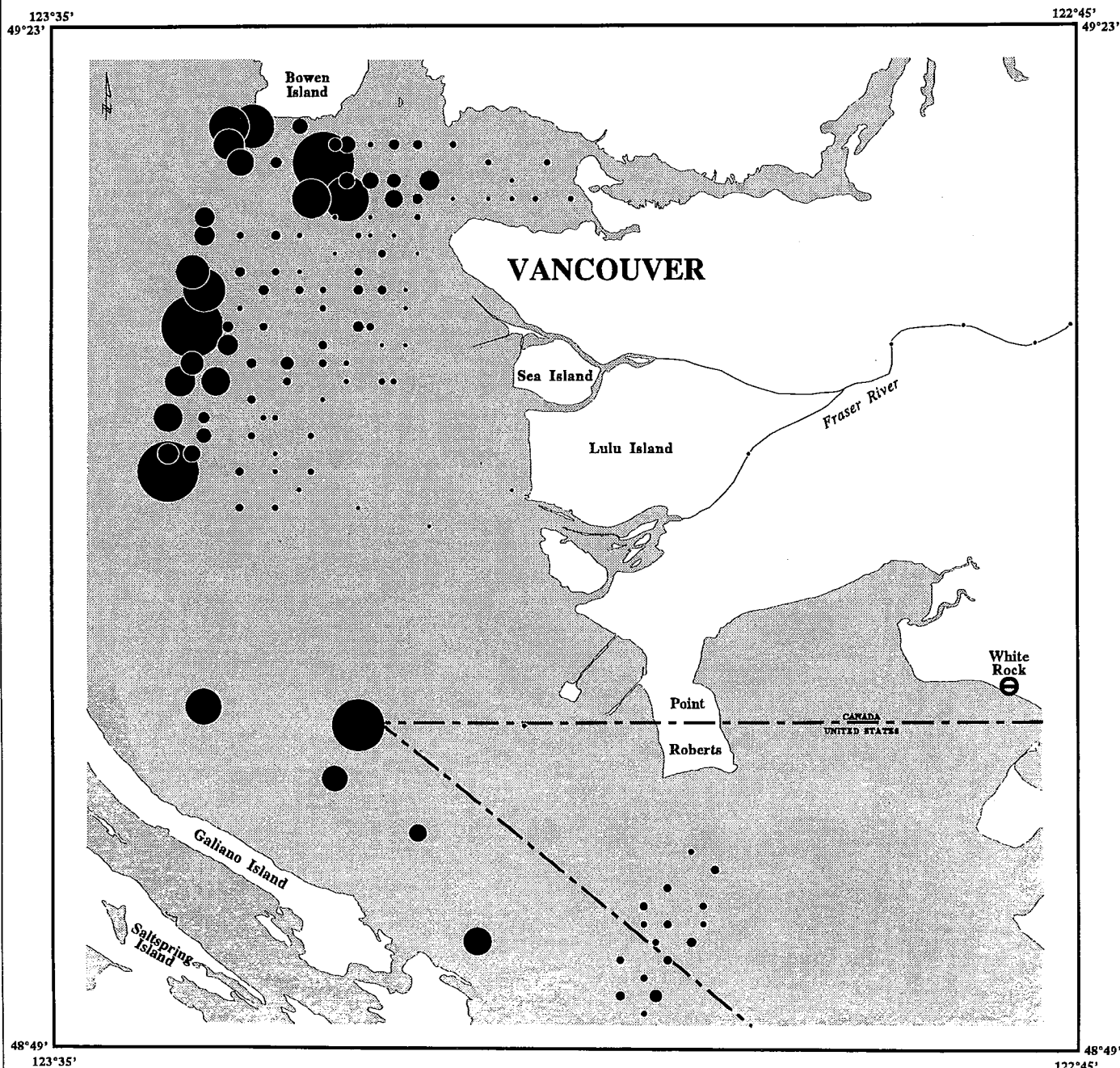
Exponent = 4

Scale 1 : 375 000



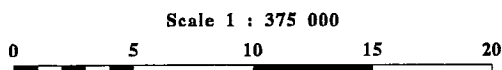
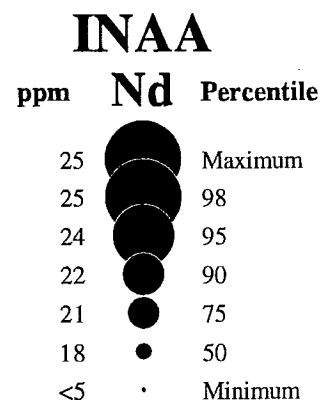
Km

Transverse Mercator Projection
Central Meridian : 123°10'



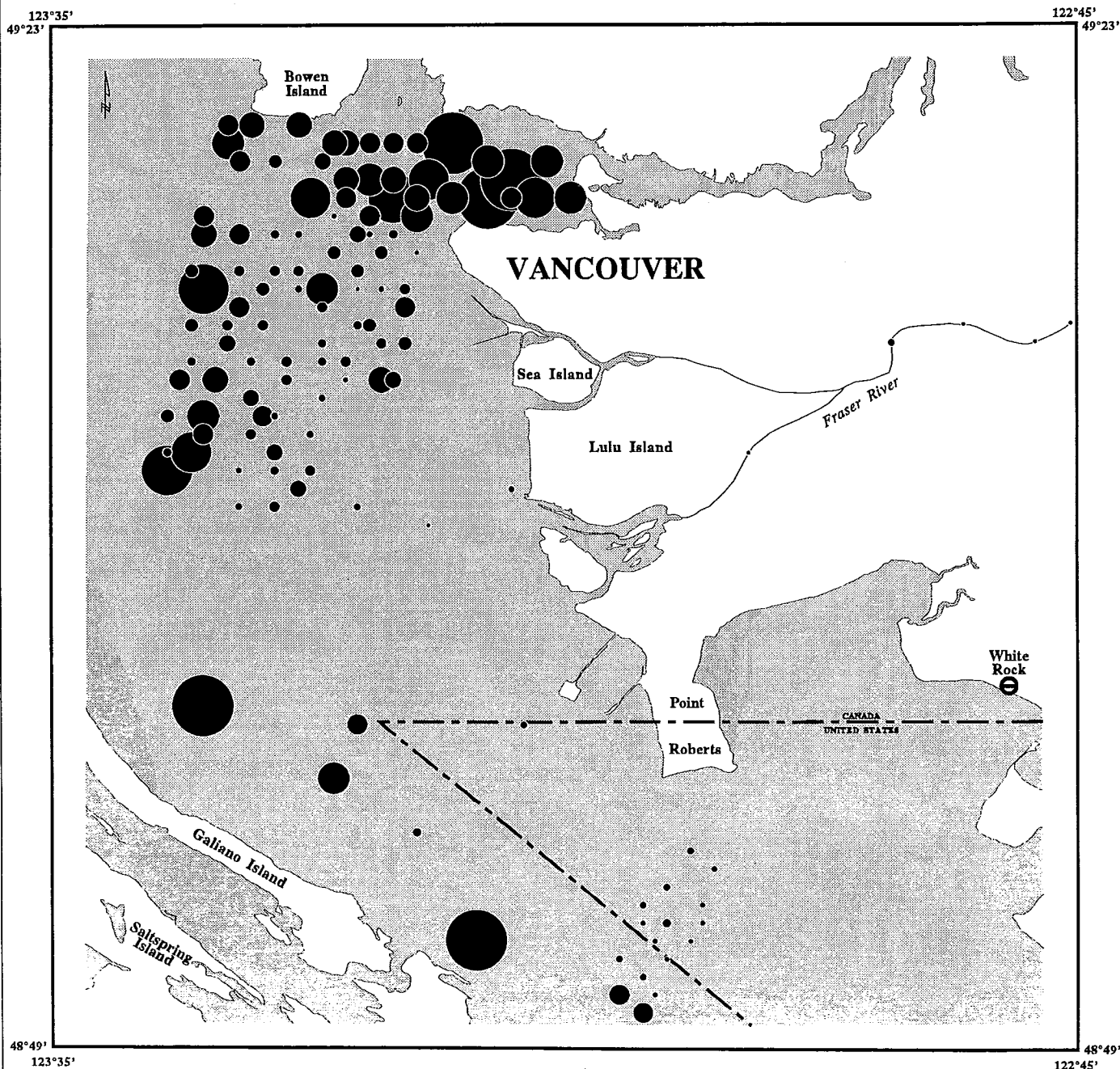
STRAIT OF GEORGIA

NEODYMIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples
Exponent = 5



STRAIT OF GEORGIA

ANTIMONY in Marine Sediments

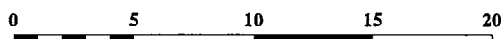
INAA

ppm	Sb	Percentile
1.2	●	Maximum
1.1	●	98
1.1	●	95
1.0	●	90
0.9	●	75
0.7	●	50
0.3	●	Minimum

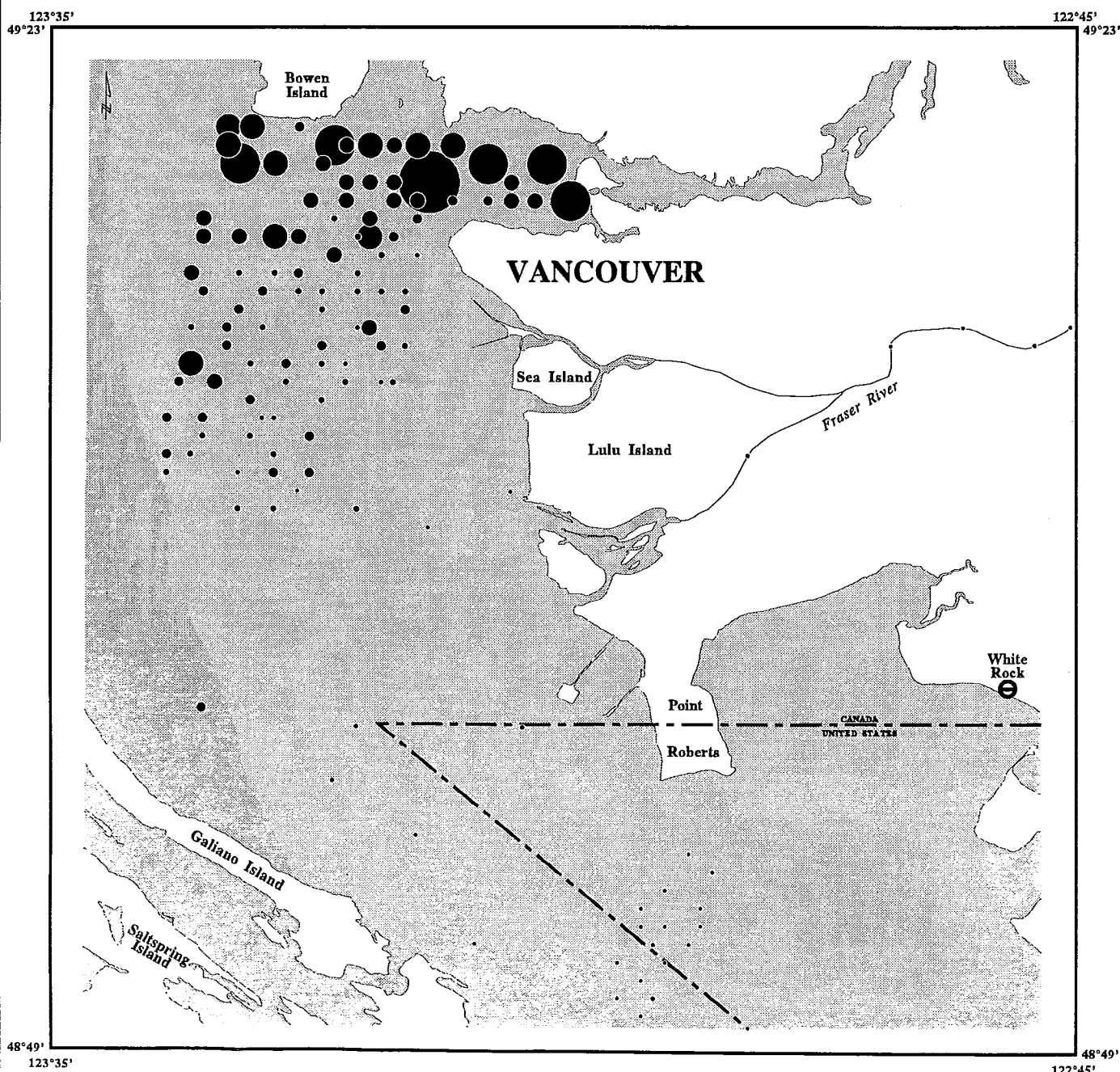
127 Samples

Exponent = 4

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

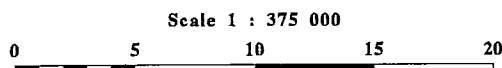
SCANDIUM in Marine Sediments

INAA

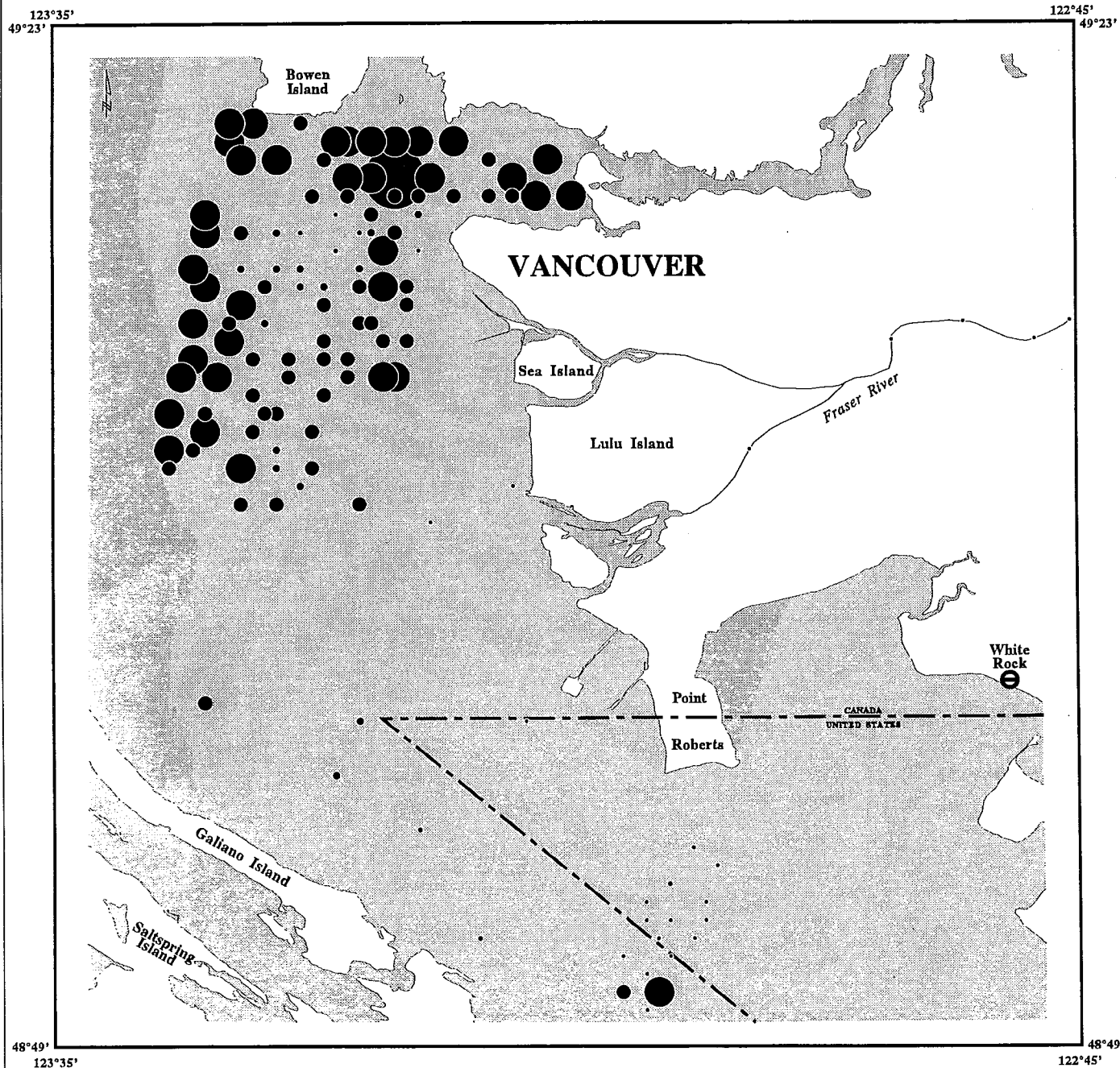
ppm	Sc	Percentile
16.0	●	Maximum
15.0	●	98
15.0	●	95
15.0	●	90
15.0	●	75
14.0	●	50
7.9	·	Minimum

127 Samples

Exponent = 6



Km
Transverse Mercator Projection
Central Meridian : 123°10'

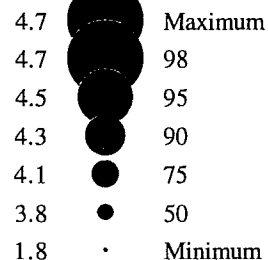


STRAIT OF GEORGIA

SAMARIUM in Marine Sediments

INAA

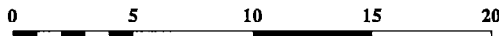
ppm Sm Percentile



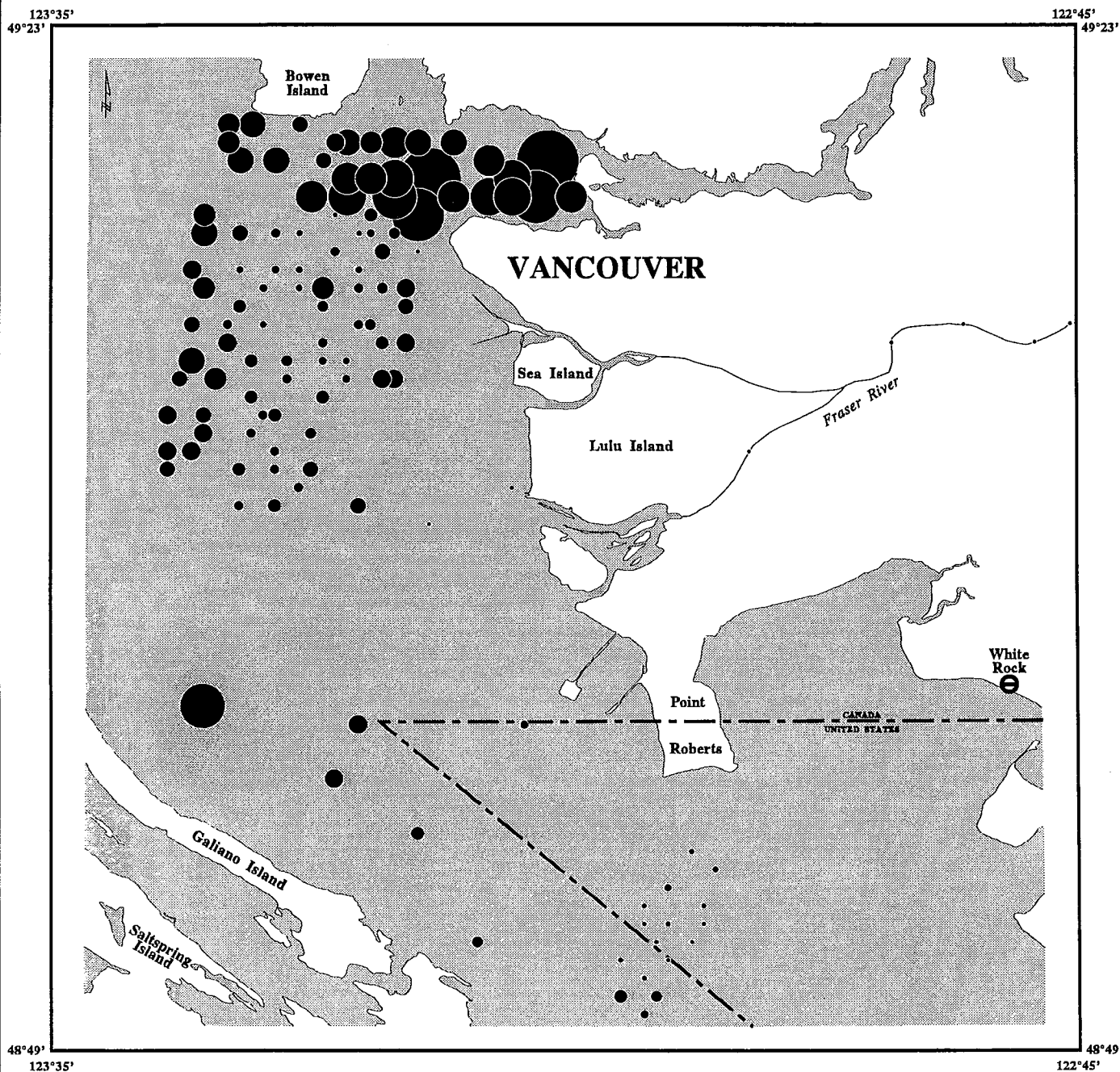
127 Samples

Exponent = 5

Scale 1 : 375 000

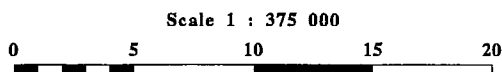
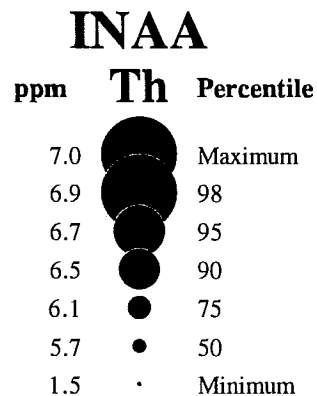


Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

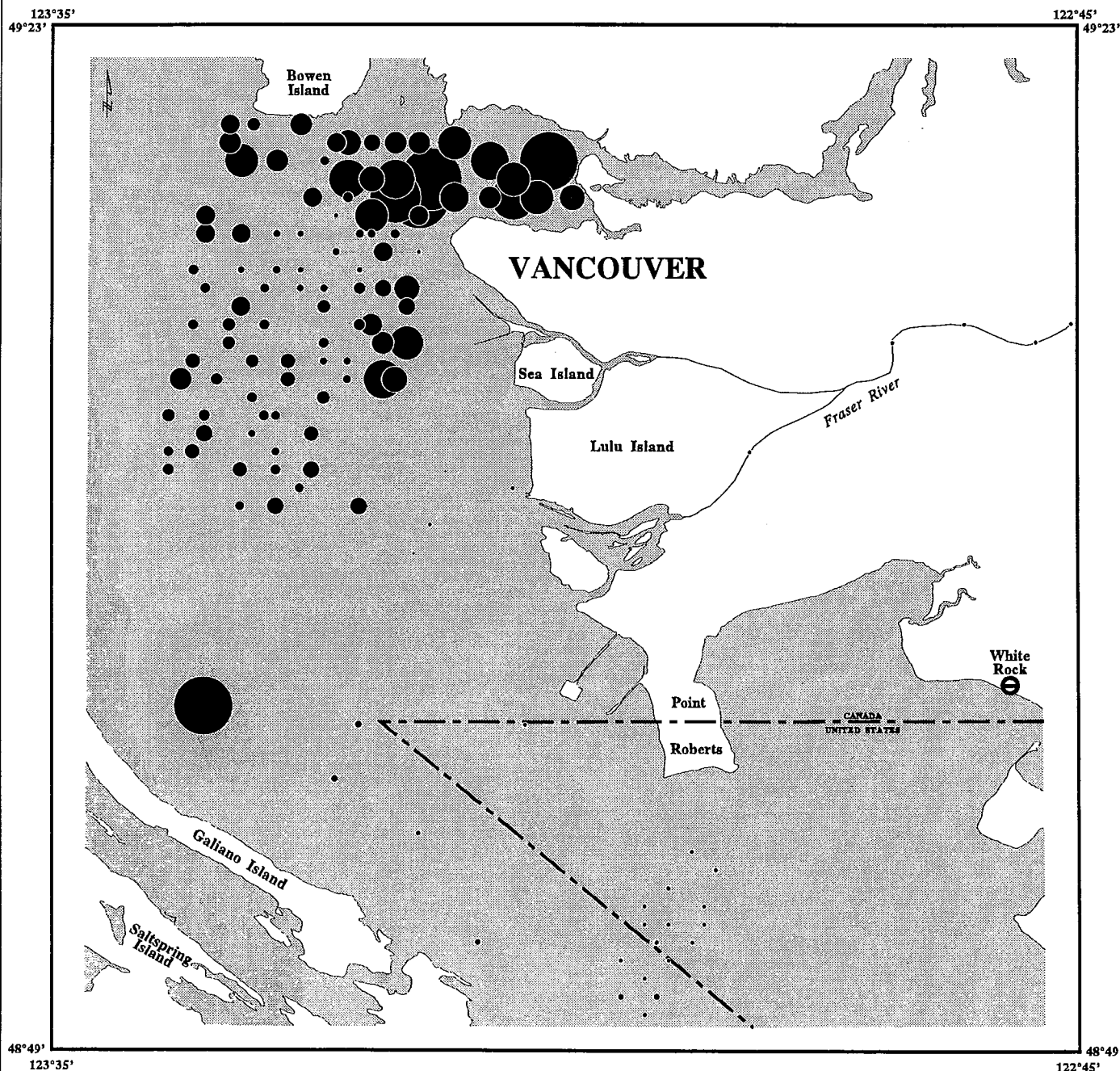
THORIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

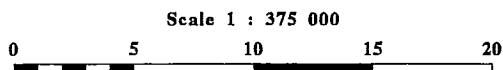
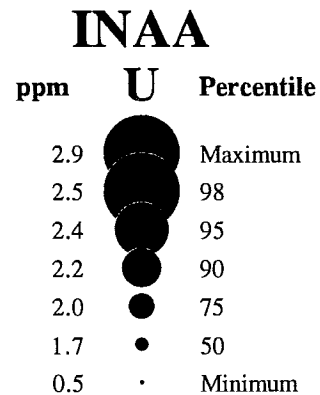
127 Samples

Exponent = 8



STRAIT OF GEORGIA

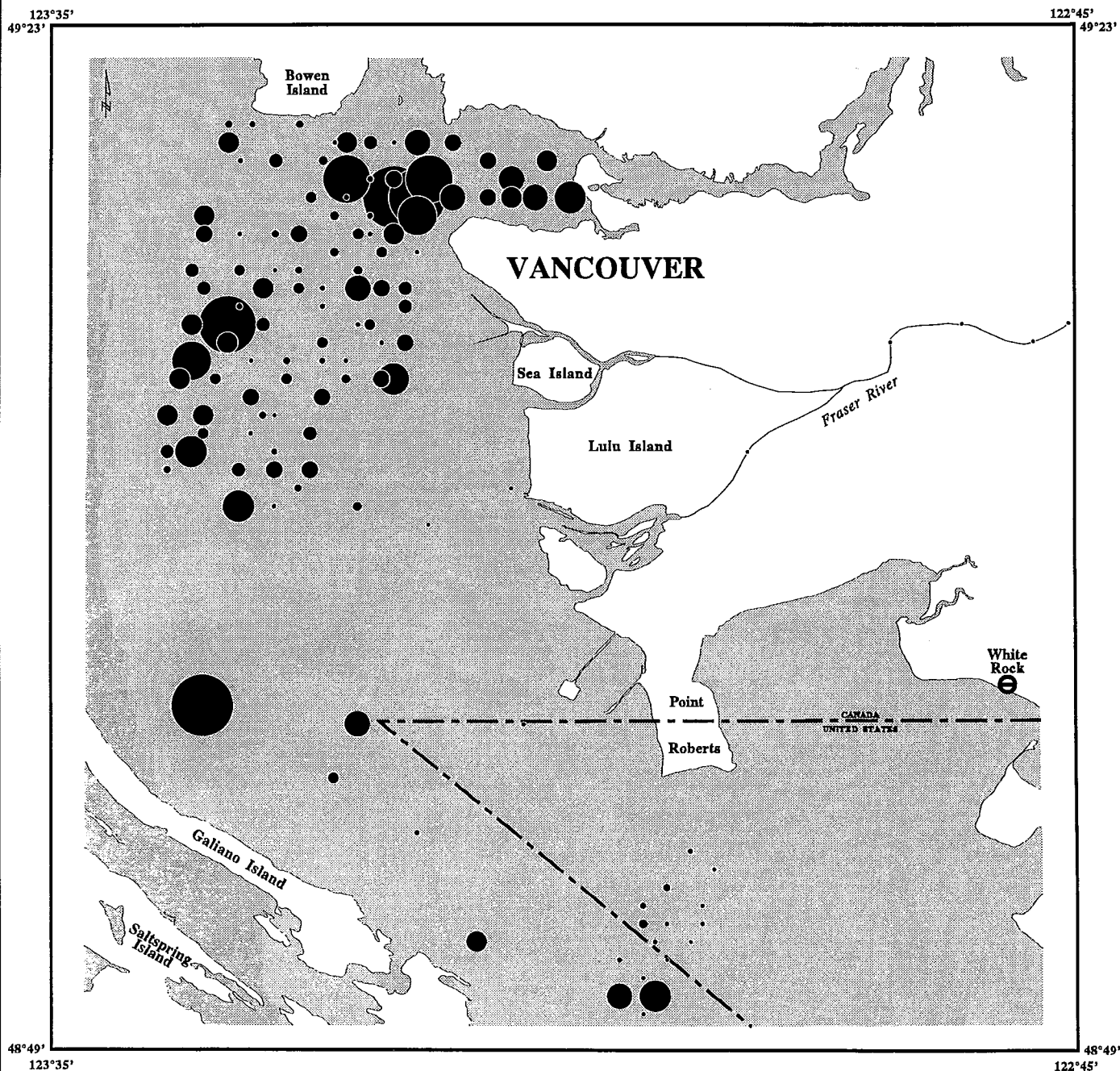
URANIUM in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples








Exponent = 4



STRAIT OF GEORGIA

YTTERBIUM in Marine Sediments

INAA

ppm	Yb	Percentile
2.20		Maximum
2.15		98
2.05		95
1.99		90
1.89		75
1.81		50
1.23		Minimum

127 Samples

Exponent = 4

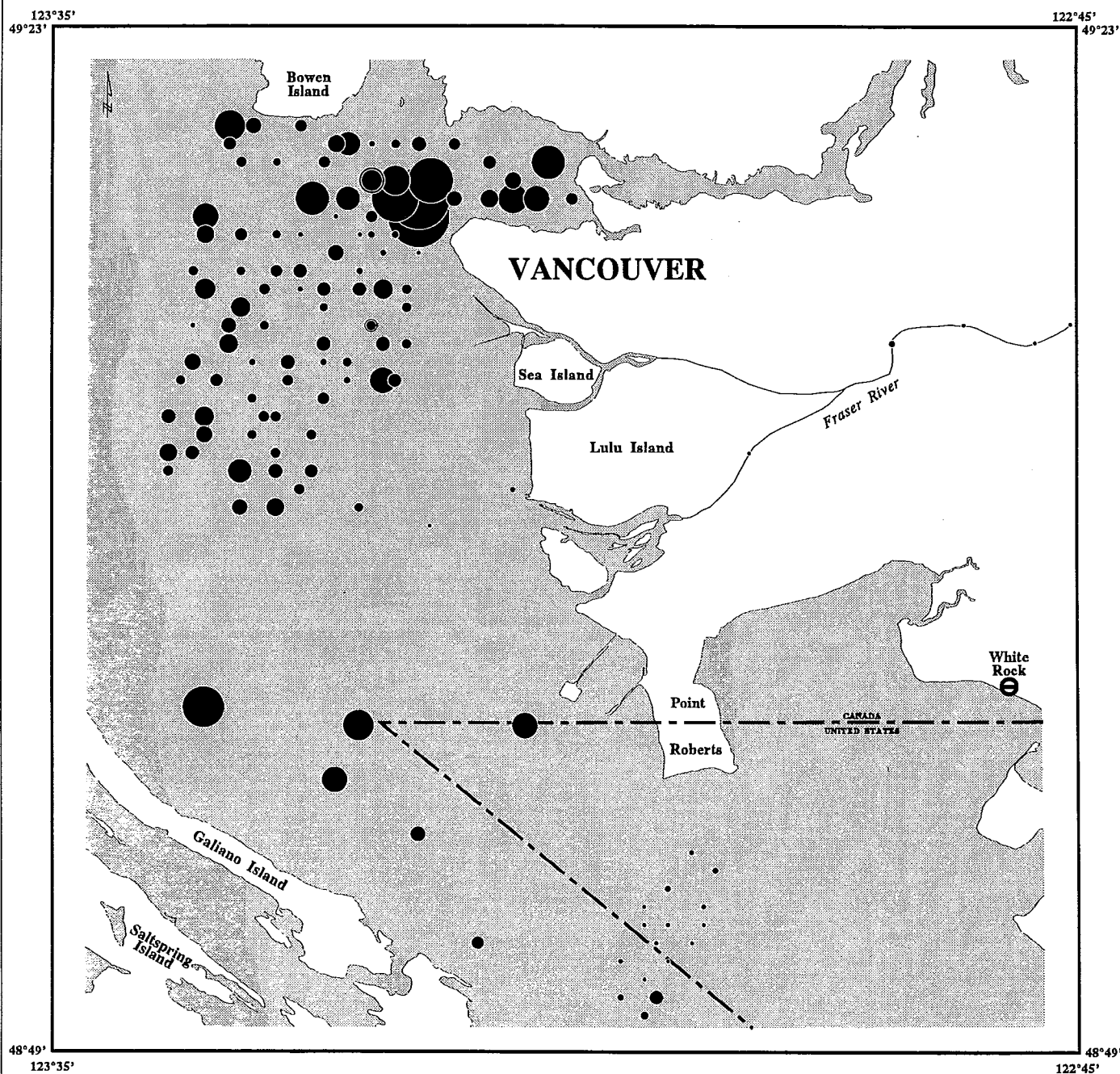
Scale 1 : 375 000

0 5 10 15 20

Km

Transverse Mercator Projection

Central Meridian : 123°10'

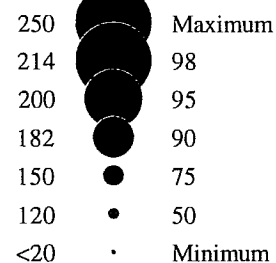


STRAIT OF GEORGIA

ZINC in Marine Sediments

INAA

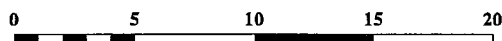
ppm Percentile



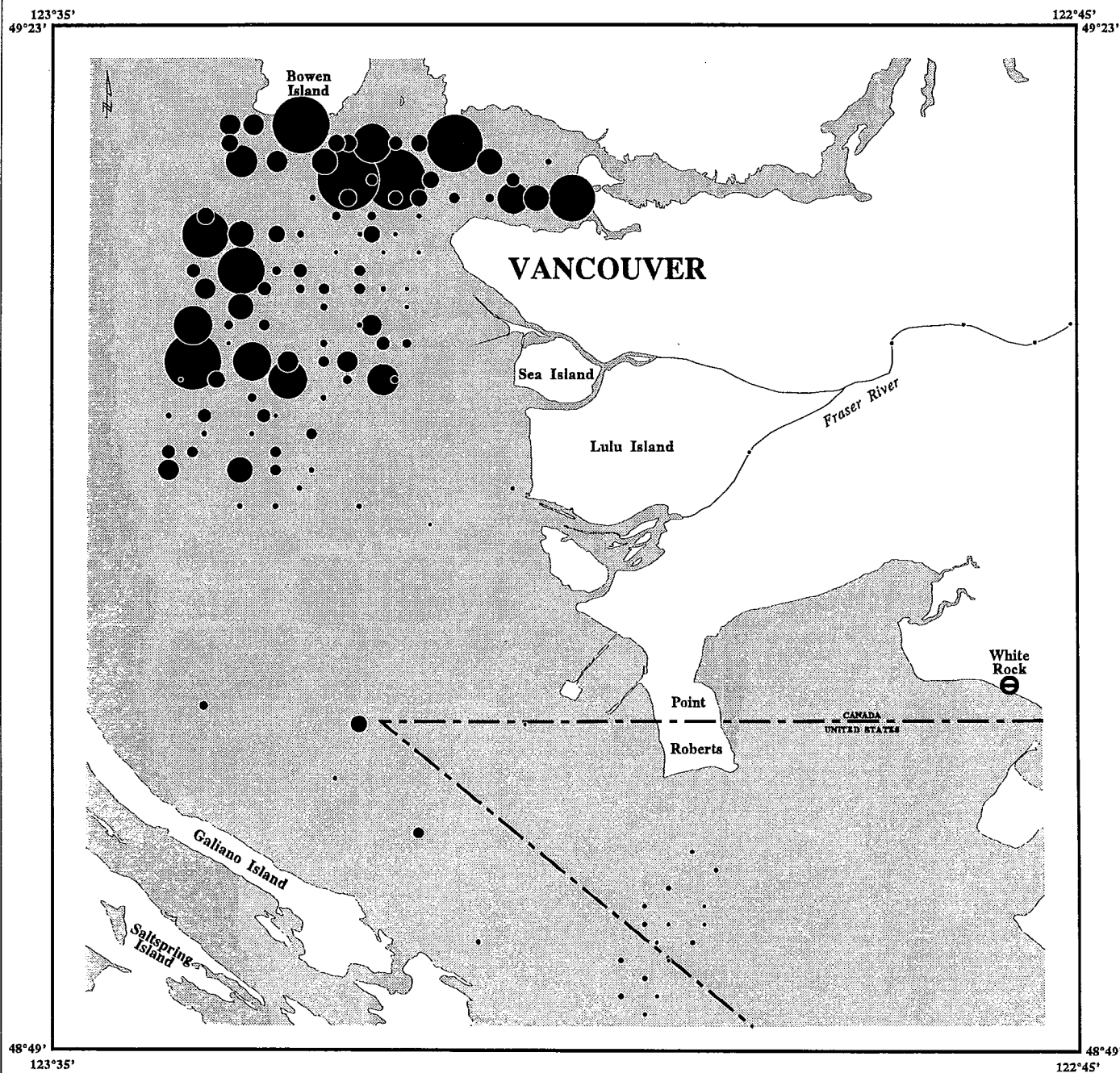
127 Samples

Exponent = 4

Scale 1 : 375 000



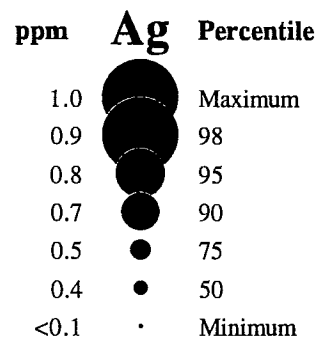
Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

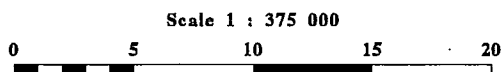
SILVER in Marine Sediments

ICP-ES

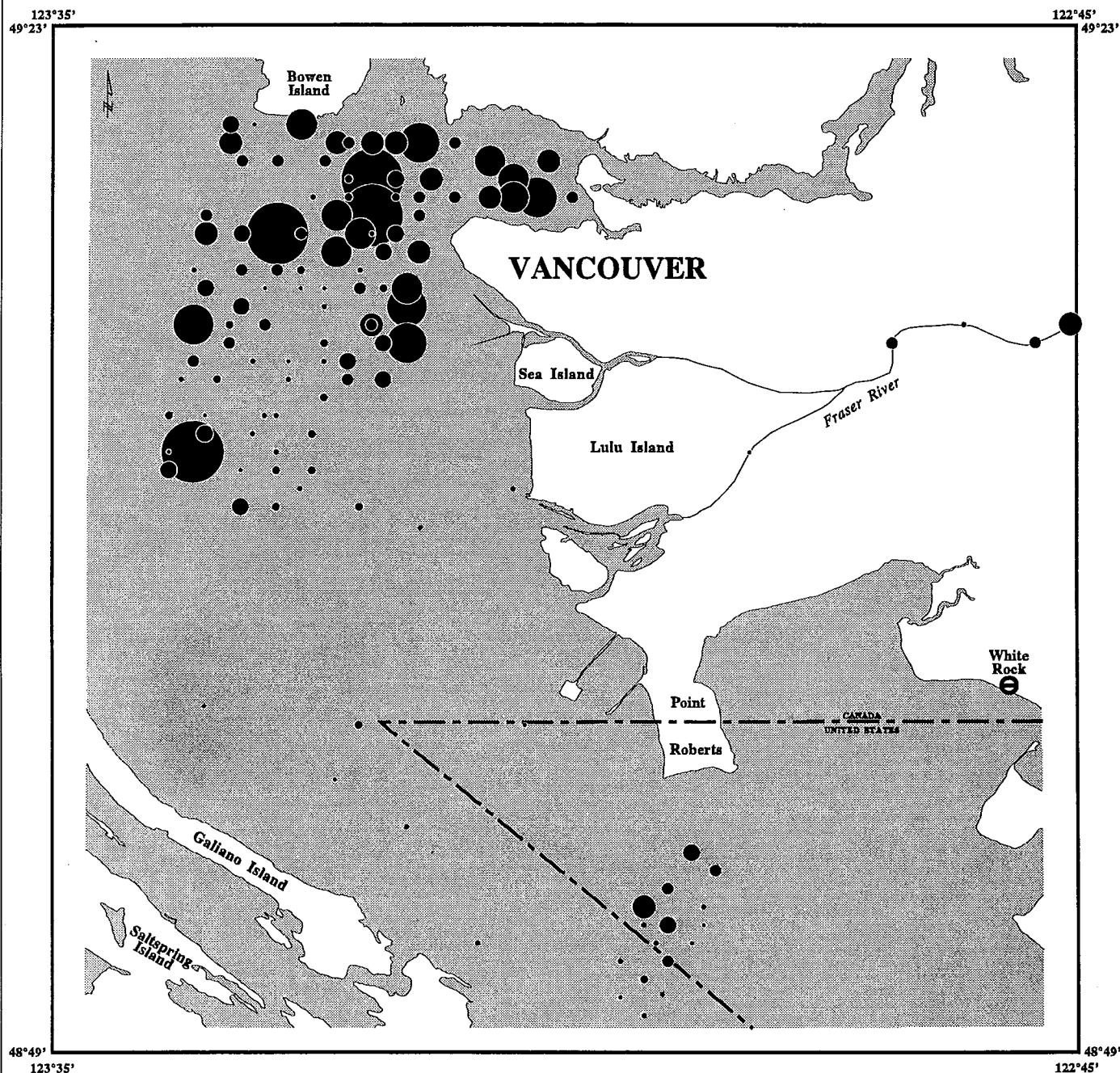


126 Samples

Exponent = 2



Km
Transverse Mercator Projection
Central Meridian : 123°10'










STRAIT OF GEORGIA

Partial Extraction
ALUMINUM

in
Marine Sediments

ICP-ES

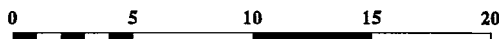
pct **Al** Percentile

2.68		Maximum
2.33		98
2.28		95
2.24		90
2.12		75
1.98		50
0.99		Minimum

126 Samples

Exponent = 3

Scale 1 : 375 000



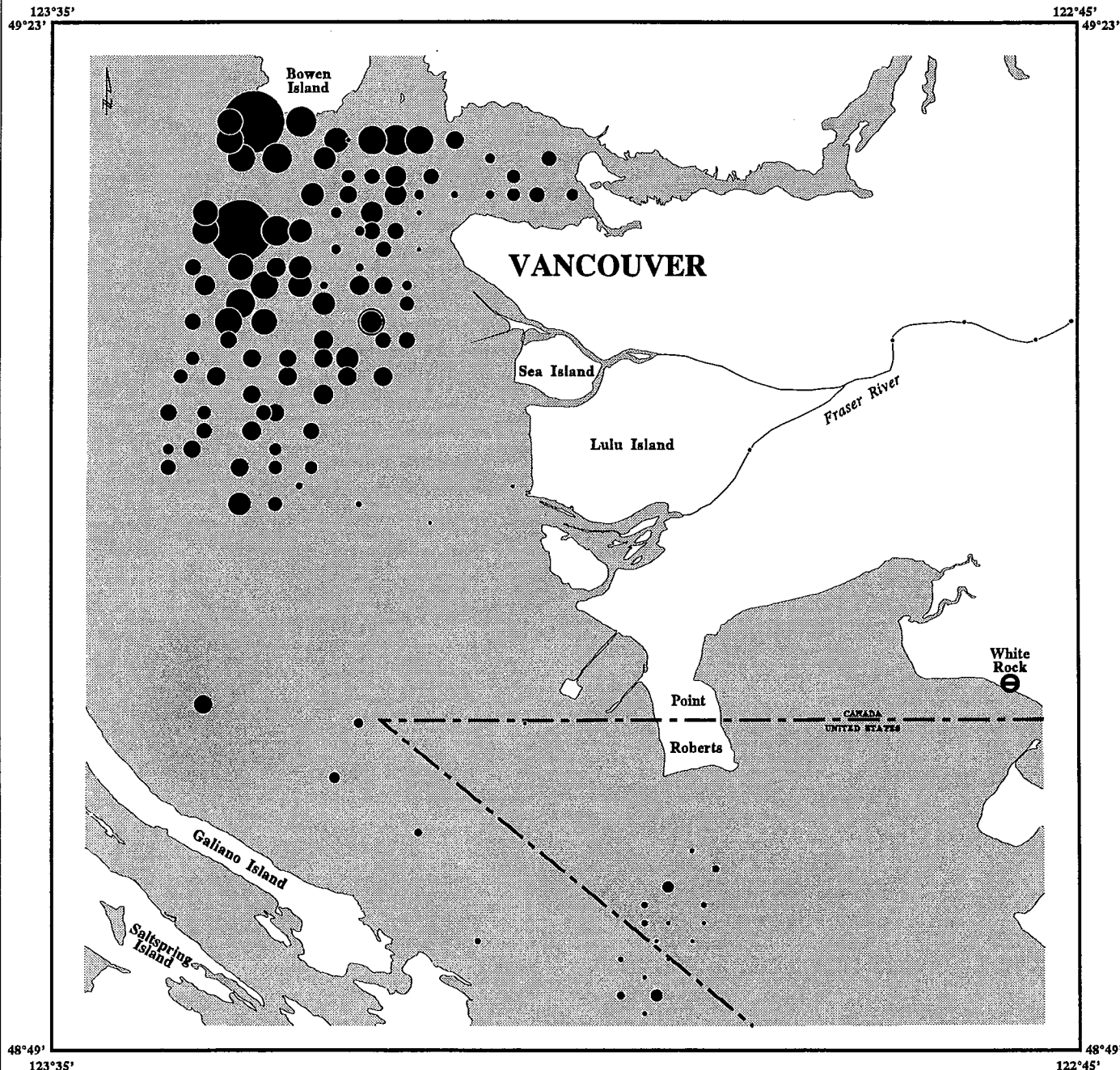
Km

Transverse Mercator Projection

Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



48°49'
123°35'

48°49'
122°45'

STRAIT OF GEORGIA

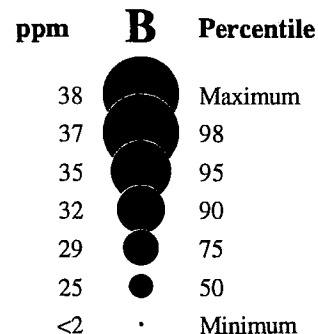
Partial Extraction

BORON

in

Marine Sediments

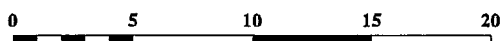
ICP-ES



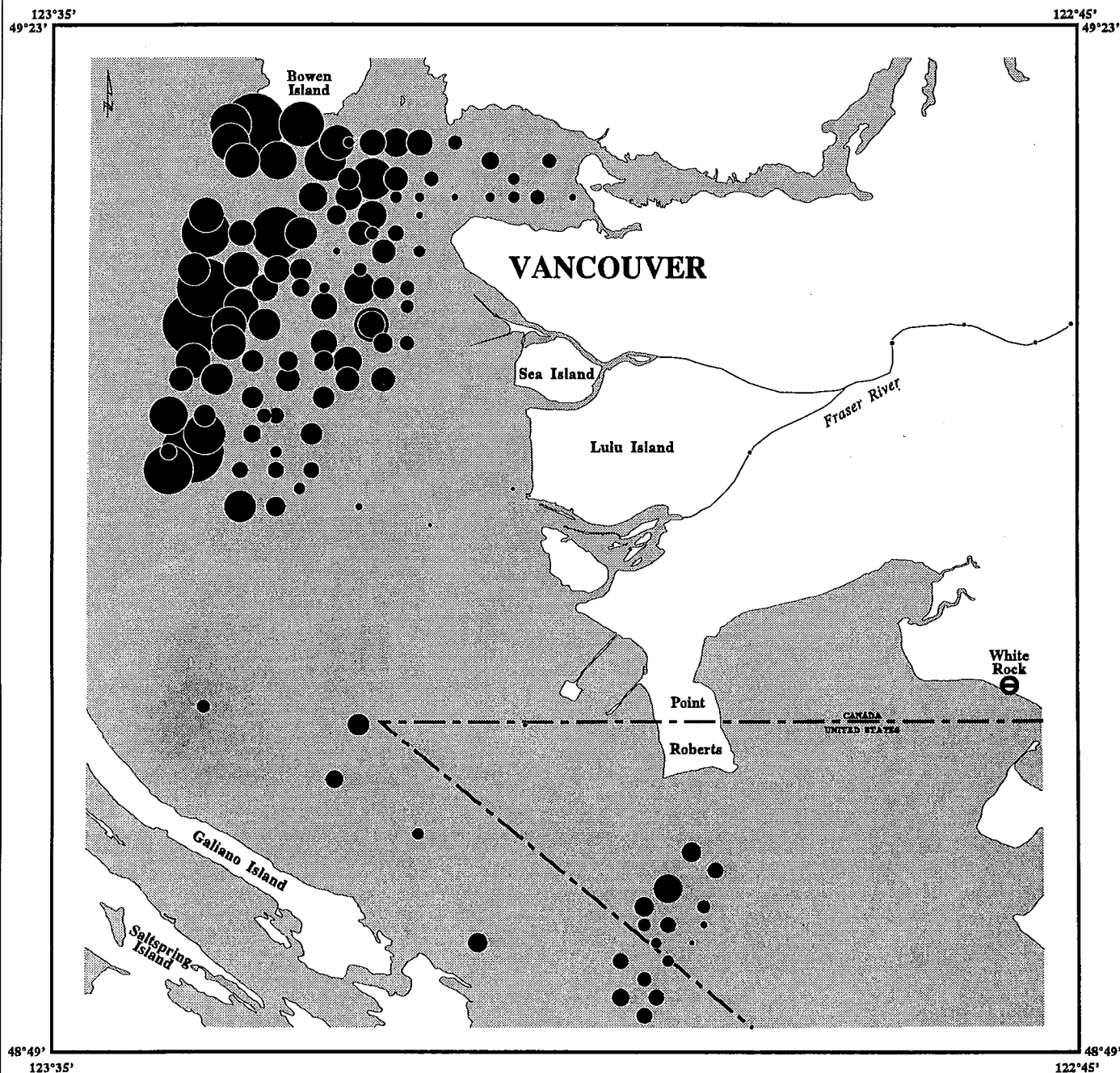
126 Samples

Exponent = 3

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

Partial Extraction








BARIUM

in

Marine Sediments

ICP-ES

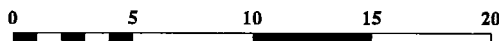
ppm **Ba** Percentile

129		Maximum
95		98
77		95
67		90
62		75
58		50
33		Minimum

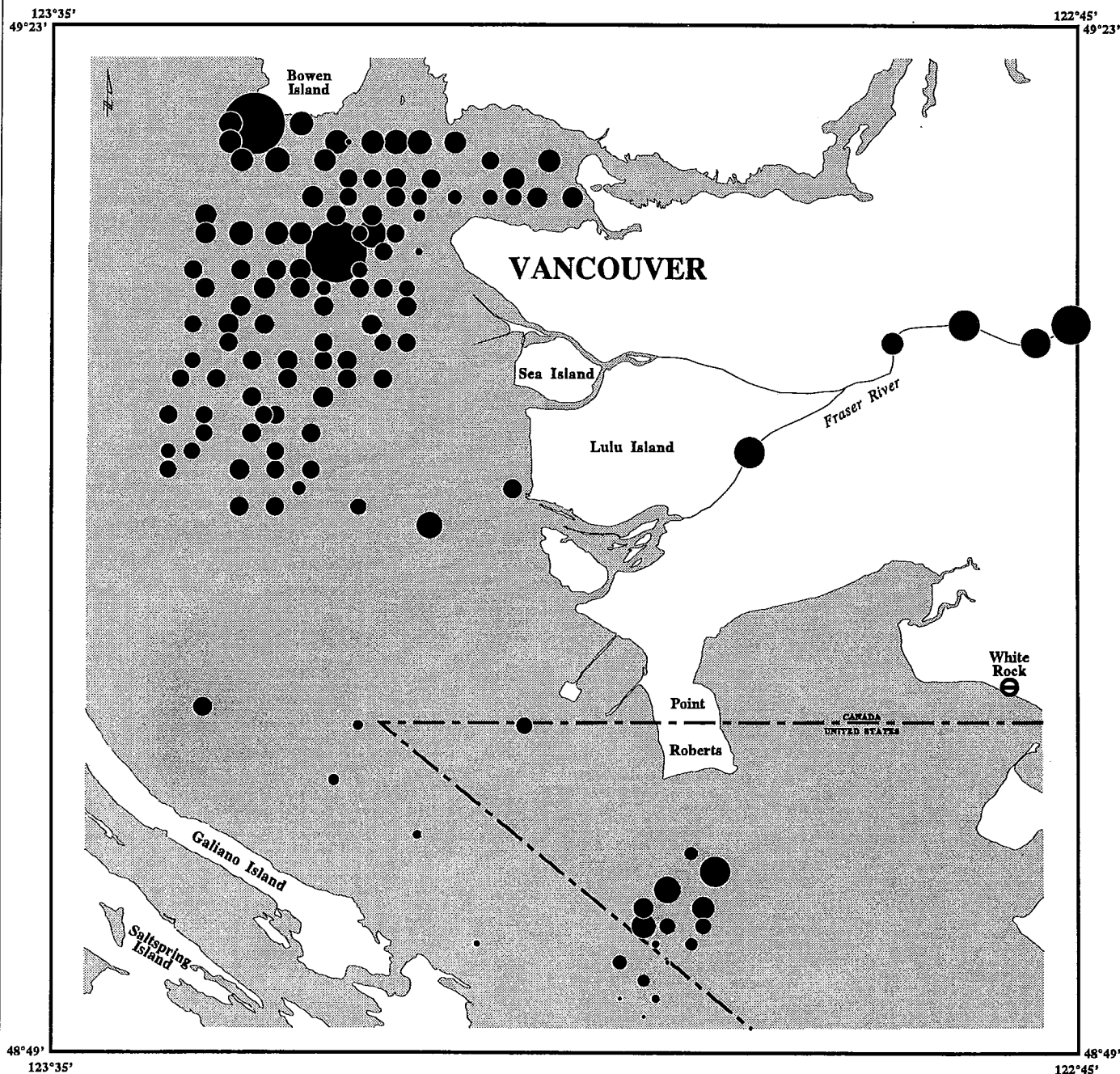
126 Samples

Exponent = 1

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

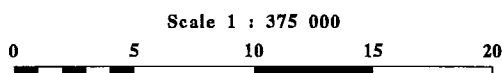
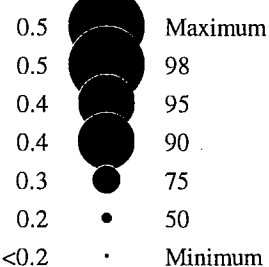


STRAIT OF GEORGIA

BERYLLIUM in Marine Sediments

ICP-ES

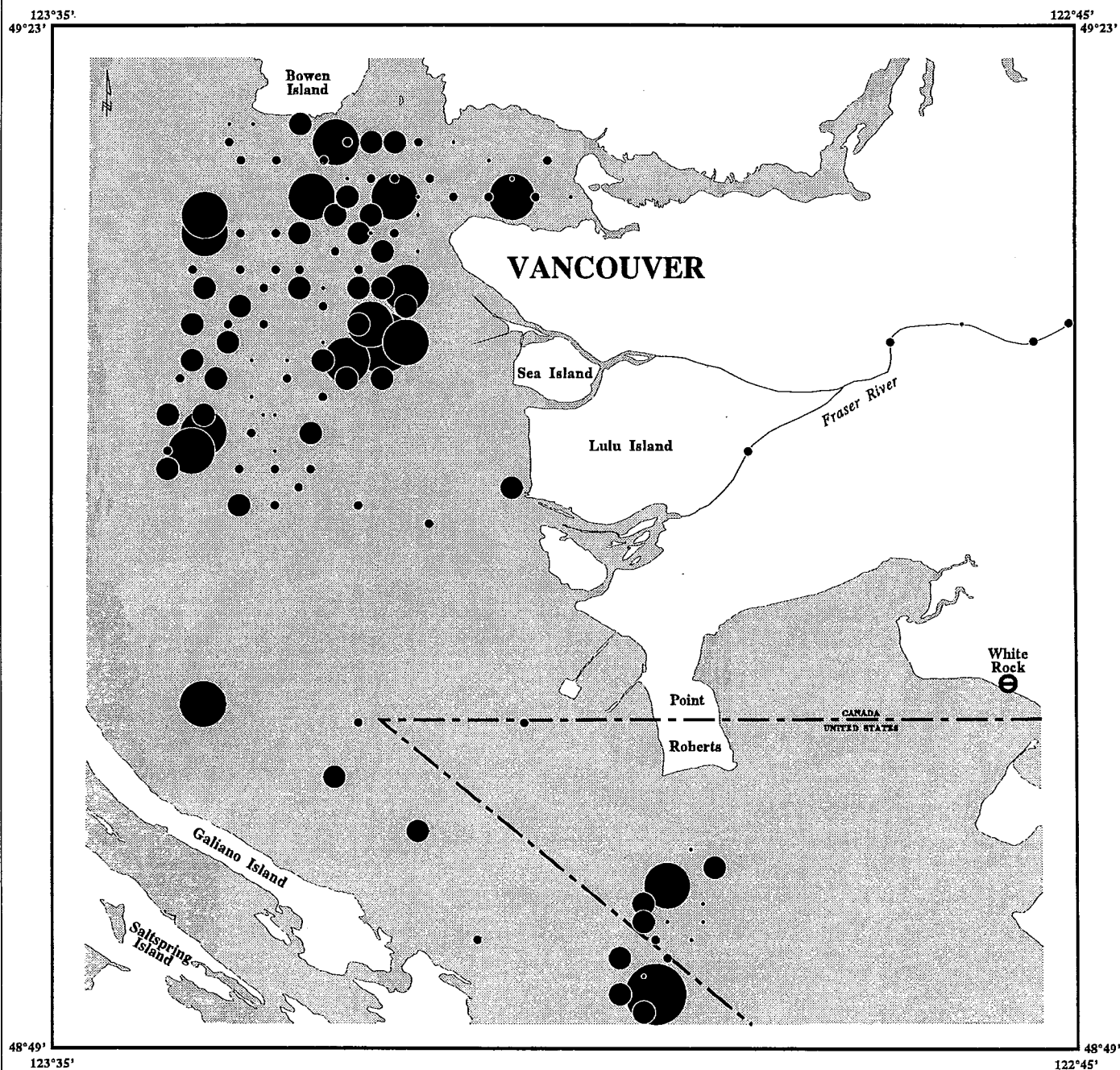
ppm Be Percentile



Transverse Mercator Projection
Central Meridian : 123°10'

126 Samples

Exponent = 2










STRAIT OF GEORGIA

Partial Extraction
CALCIUM

in
Marine Sediments

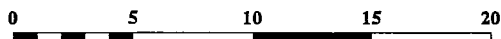
ICP-ES

pct	Ca	Percentile
1.59		Maximum
1.44		98
1.30		95
1.10		90
0.81		75
0.78		50
0.48		Minimum

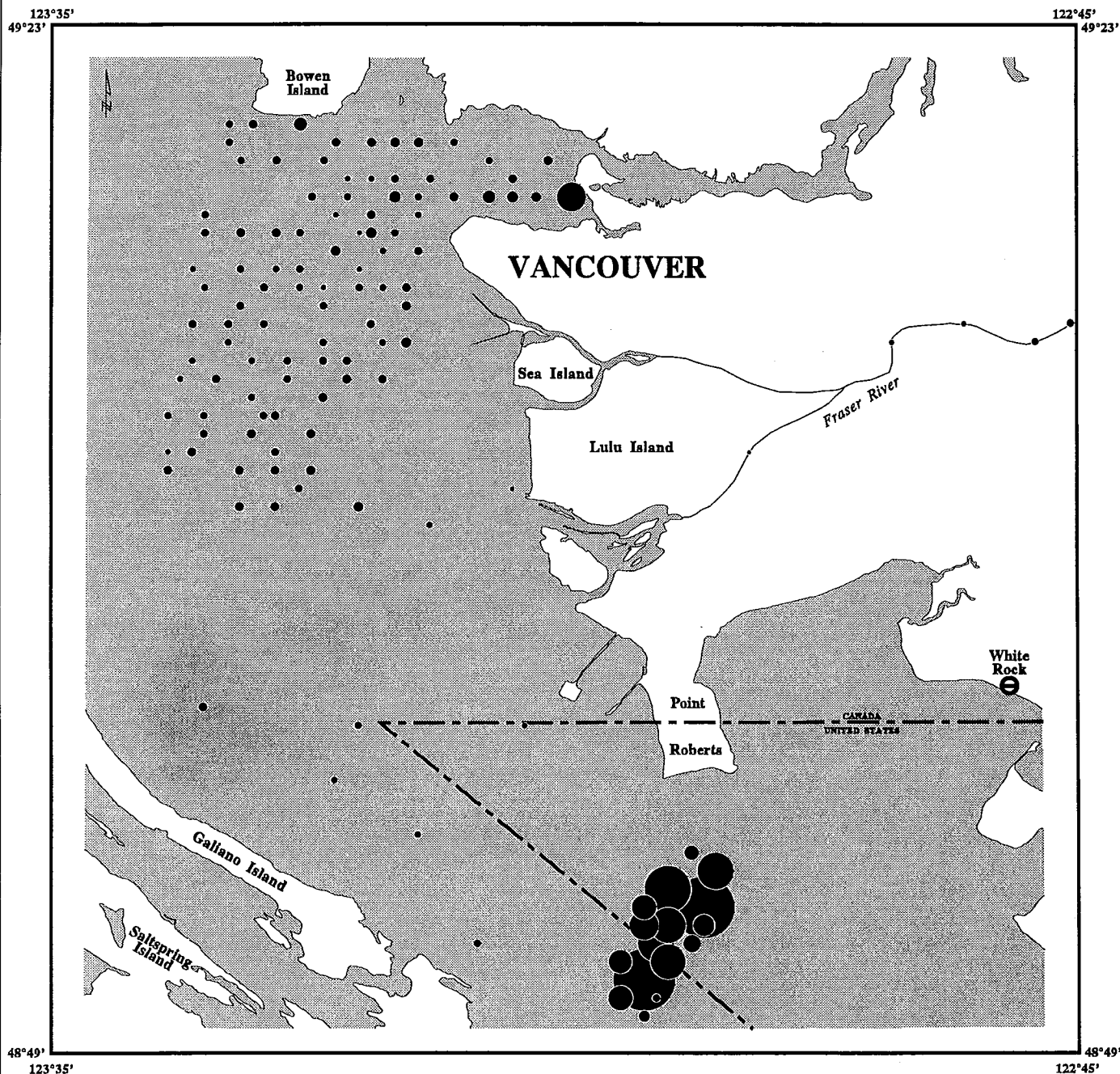
126 Samples

Exponent = 2

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

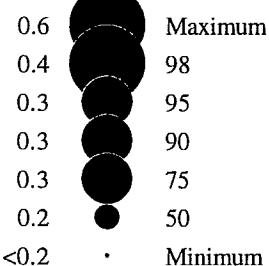


STRAIT OF GEORGIA

CADMIUM in Marine Sediments

ICP-ES

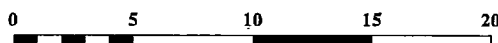
ppm **Cd** Percentile



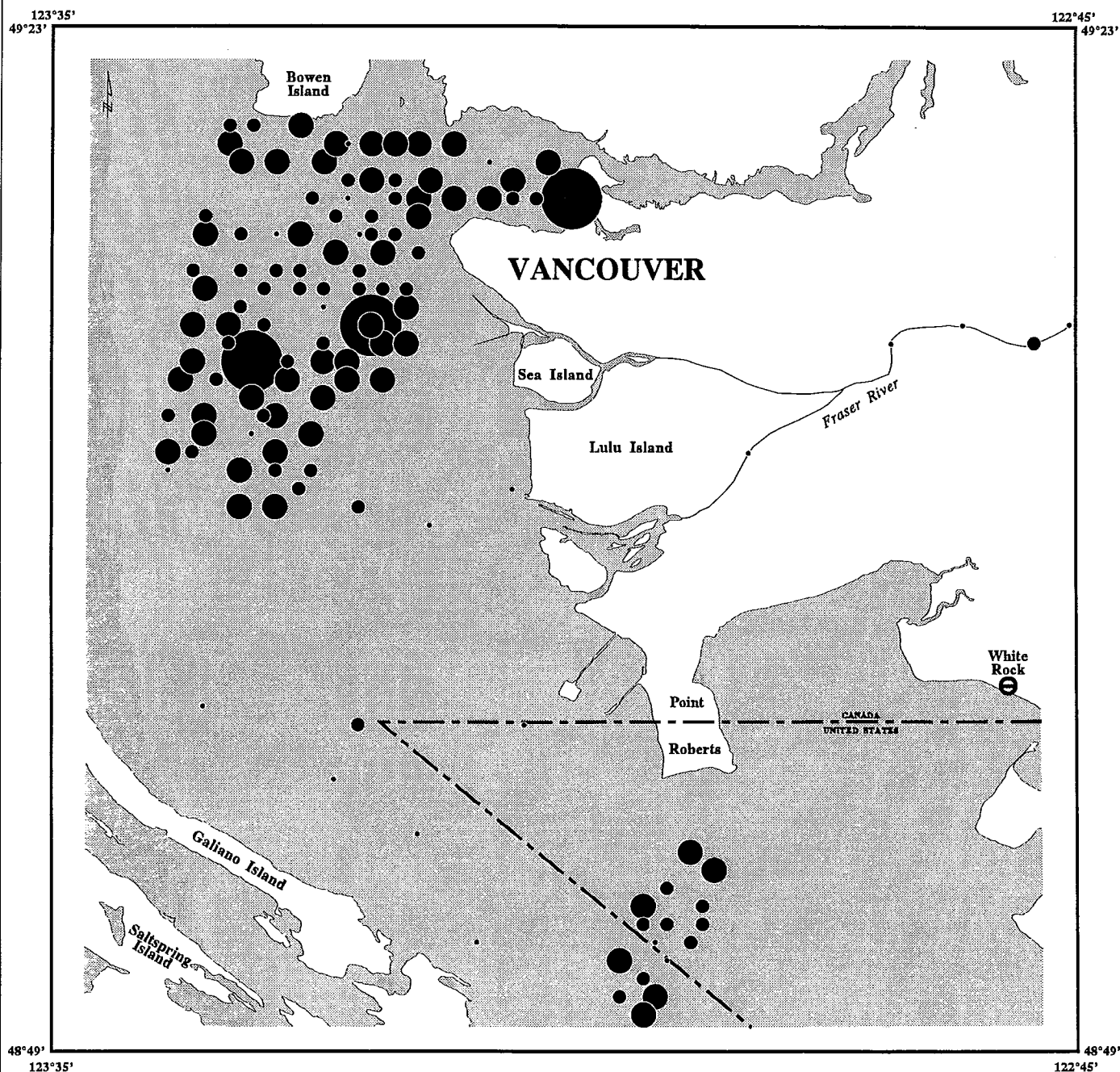
126 Samples

Exponent = 1

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

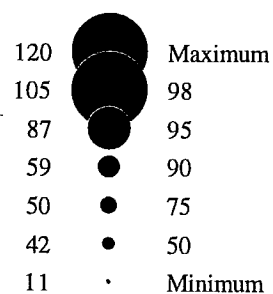


STRAIT OF GEORGIA

COPPER in Marine Sediments

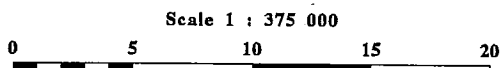
ICP-ES

ppm **Cu** Percentile

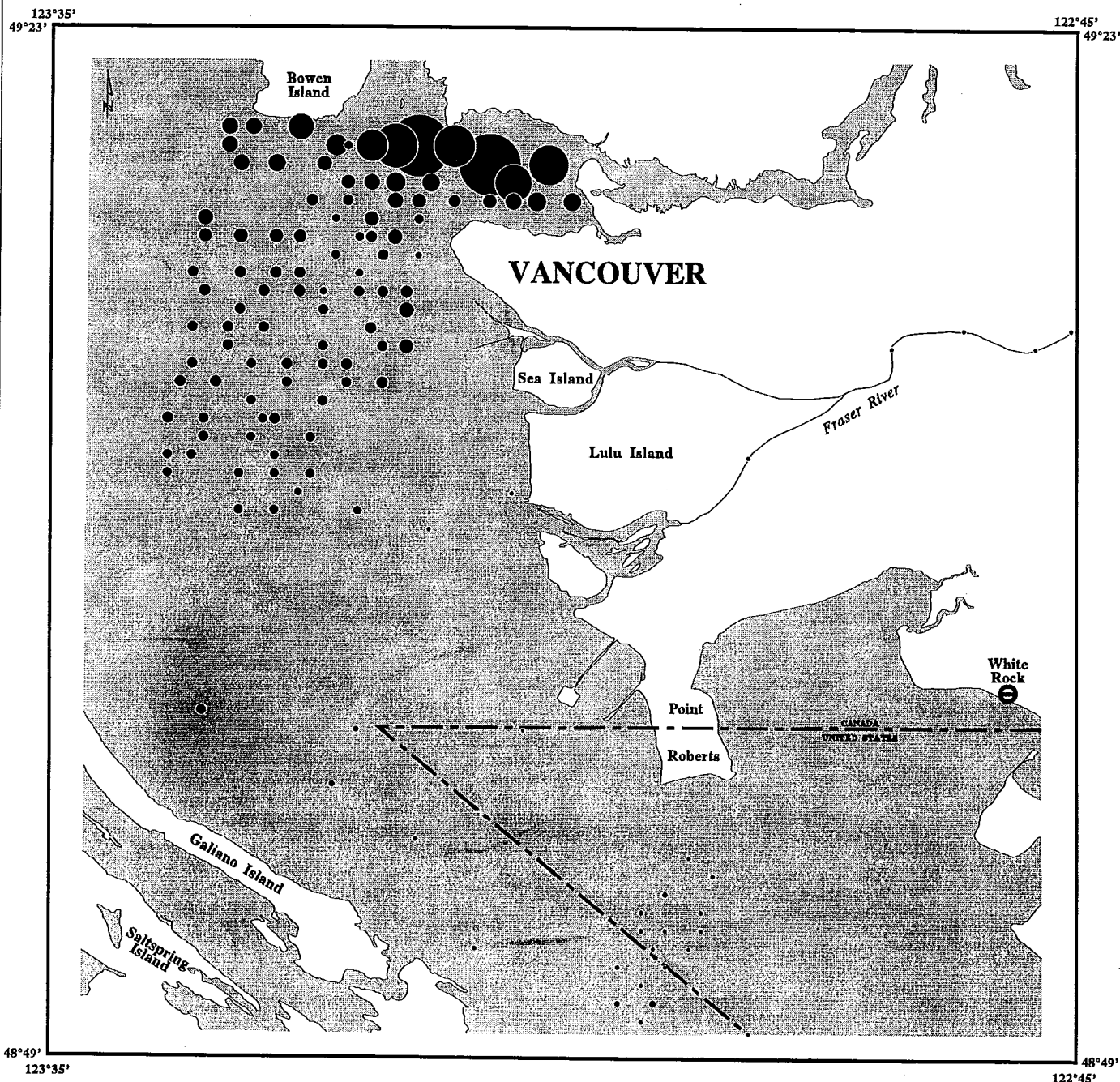


126 Samples

Exponent = 1.75



Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

Partial Extraction

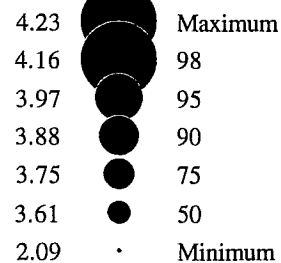
IRON

in

Marine Sediments

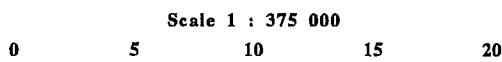
ICP-ES

pct **Fe** Percentile

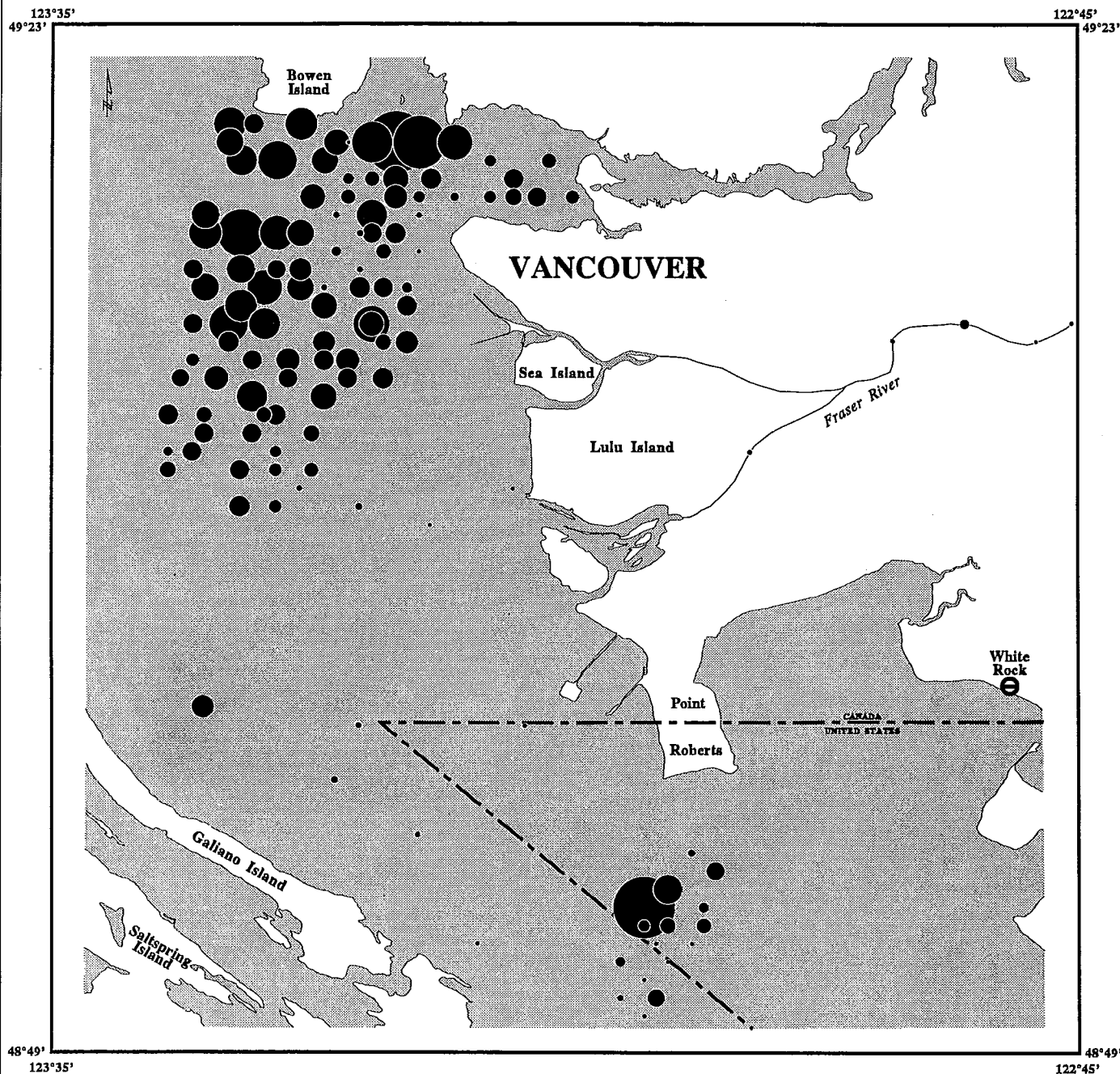


126 Samples

Exponent = 4










Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

Partial Extraction *POTASSIUM* in Marine Sediments

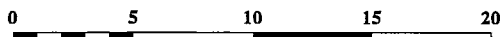
ICP-ES

pct	K	Percentile
0.52		Maximum
0.43		98
0.42		95
0.41		90
0.37		75
0.33		50
0.07		Minimum

126 Samples

Exponent = 3

Scale 1 : 375 000

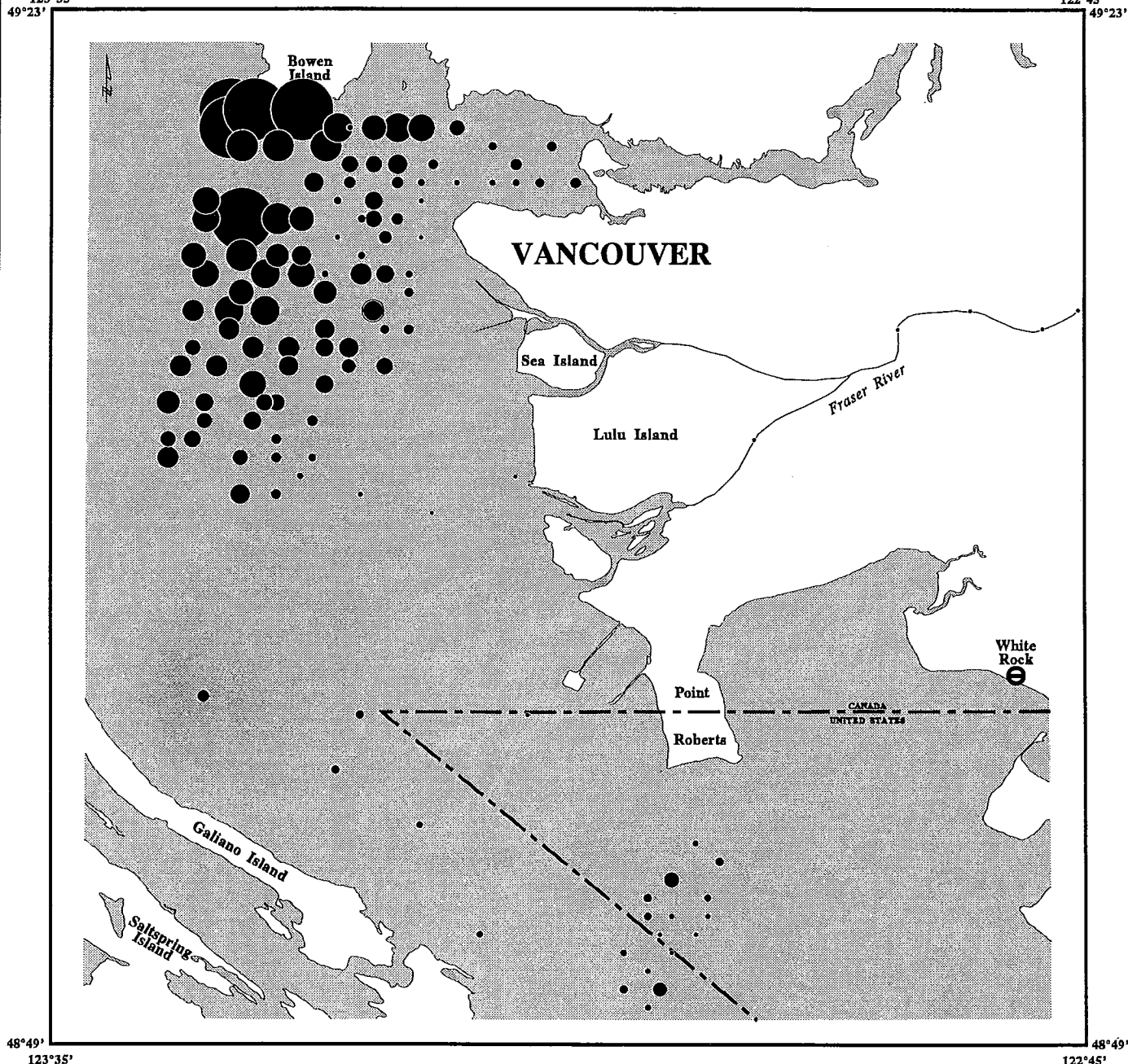


Km

Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'

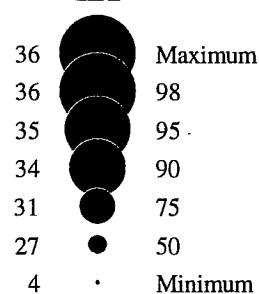


STRAIT OF GEORGIA

LITHIUM in Marine Sediments

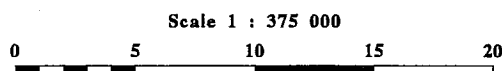
ICP-ES

ppm **Li** Percentile



126 Samples

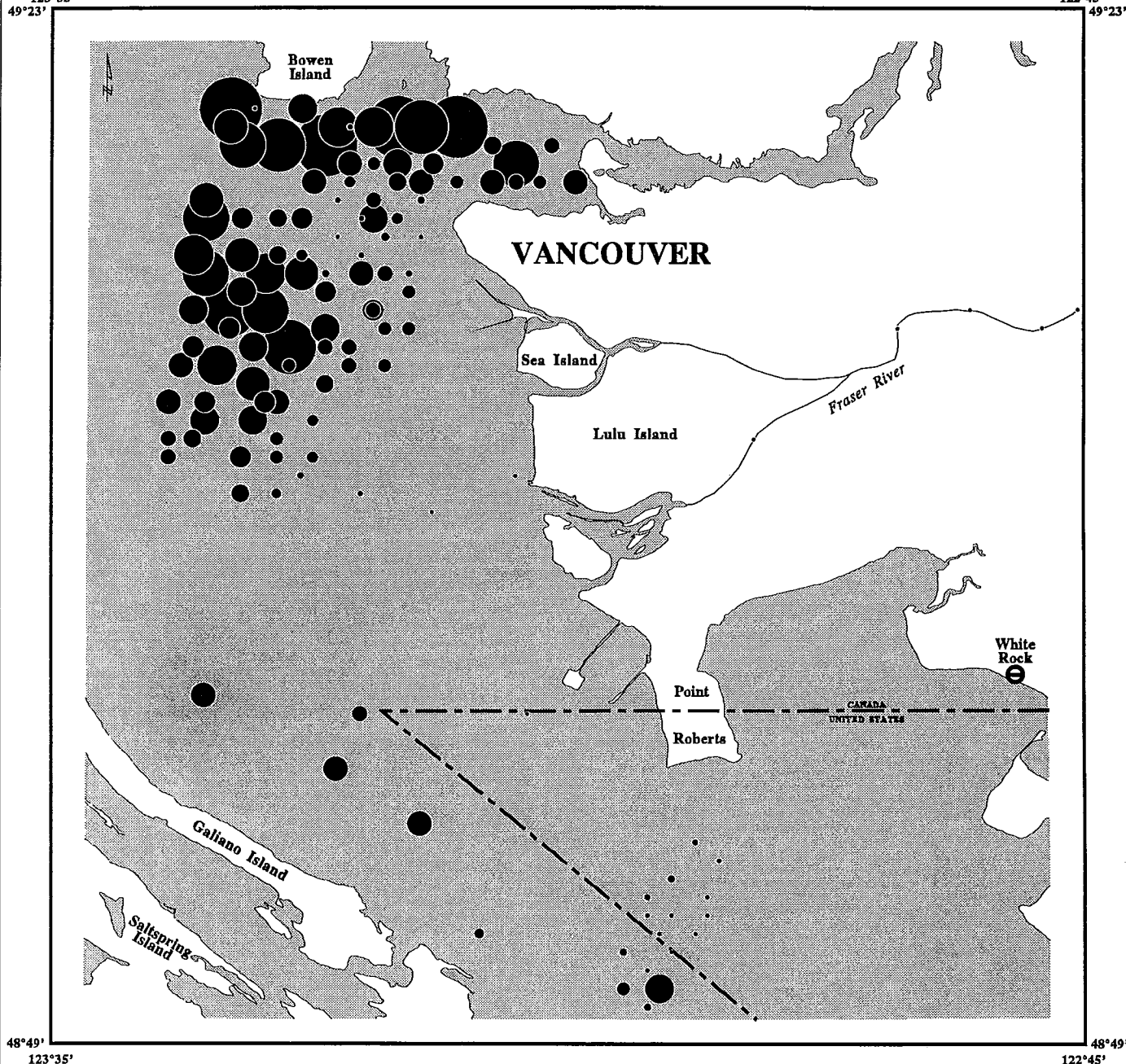
Exponent = 5



Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



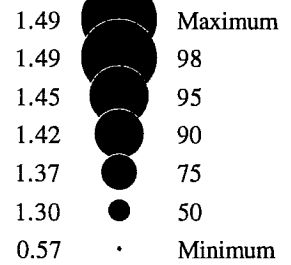
STRAIT OF GEORGIA

Partial Extraction
MAGNESIUM

in
Marine Sediments

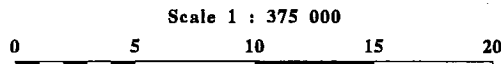
ICP-ES

pct **Mg** Percentile



126 Samples

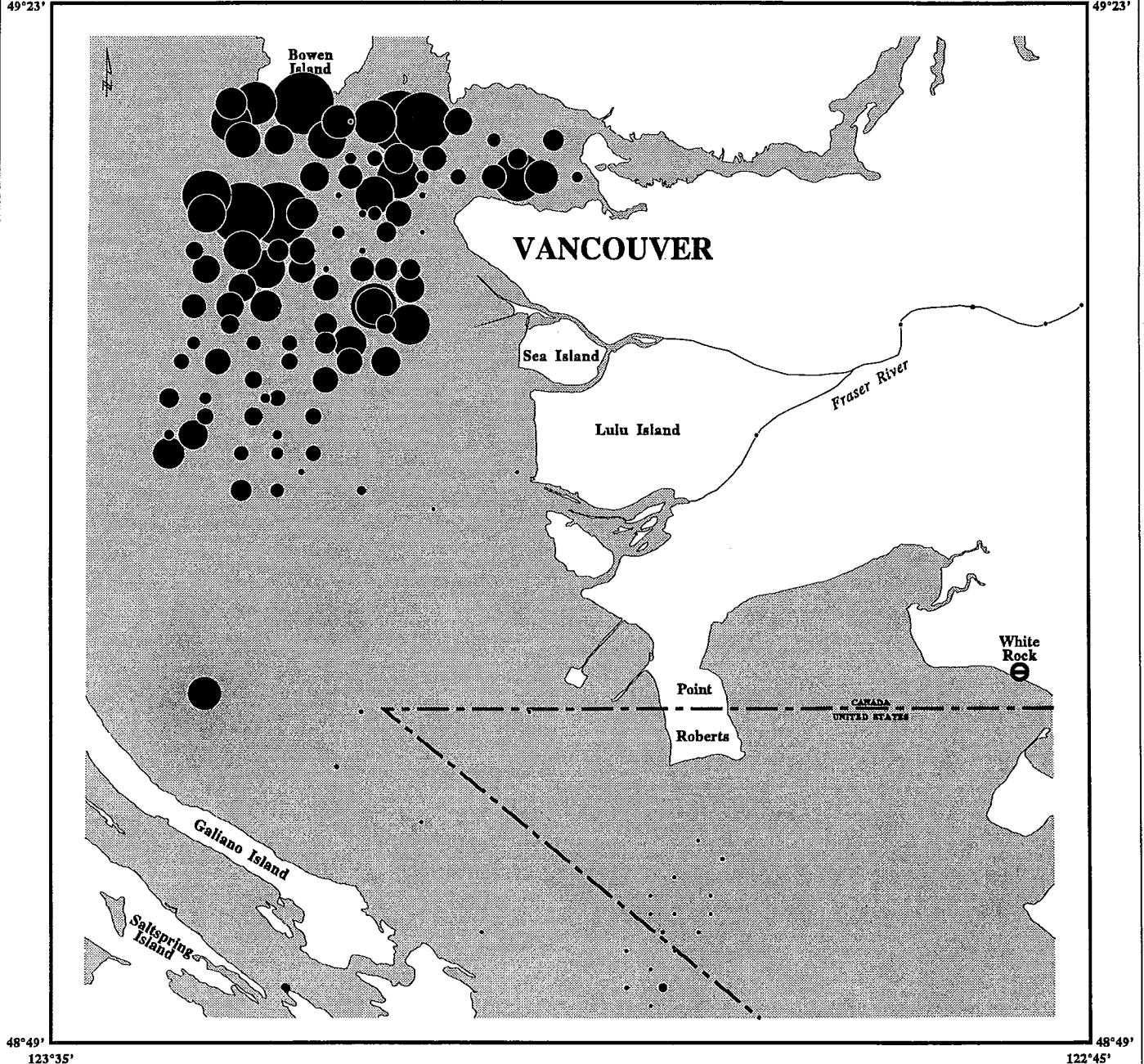
Exponent = 6



Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



48°49'
123°35'








48°49'
122°45'

STRAIT OF GEORGIA

MANGANESE in Marine Sediments

ICP-ES

ppm Mn Percentile

609		Maximum
544		98
513		95
482		90
440		75
405		50
252		Minimum

126 Samples

Exponent = 2

Scale 1 : 375 000

0 5 10 15 20

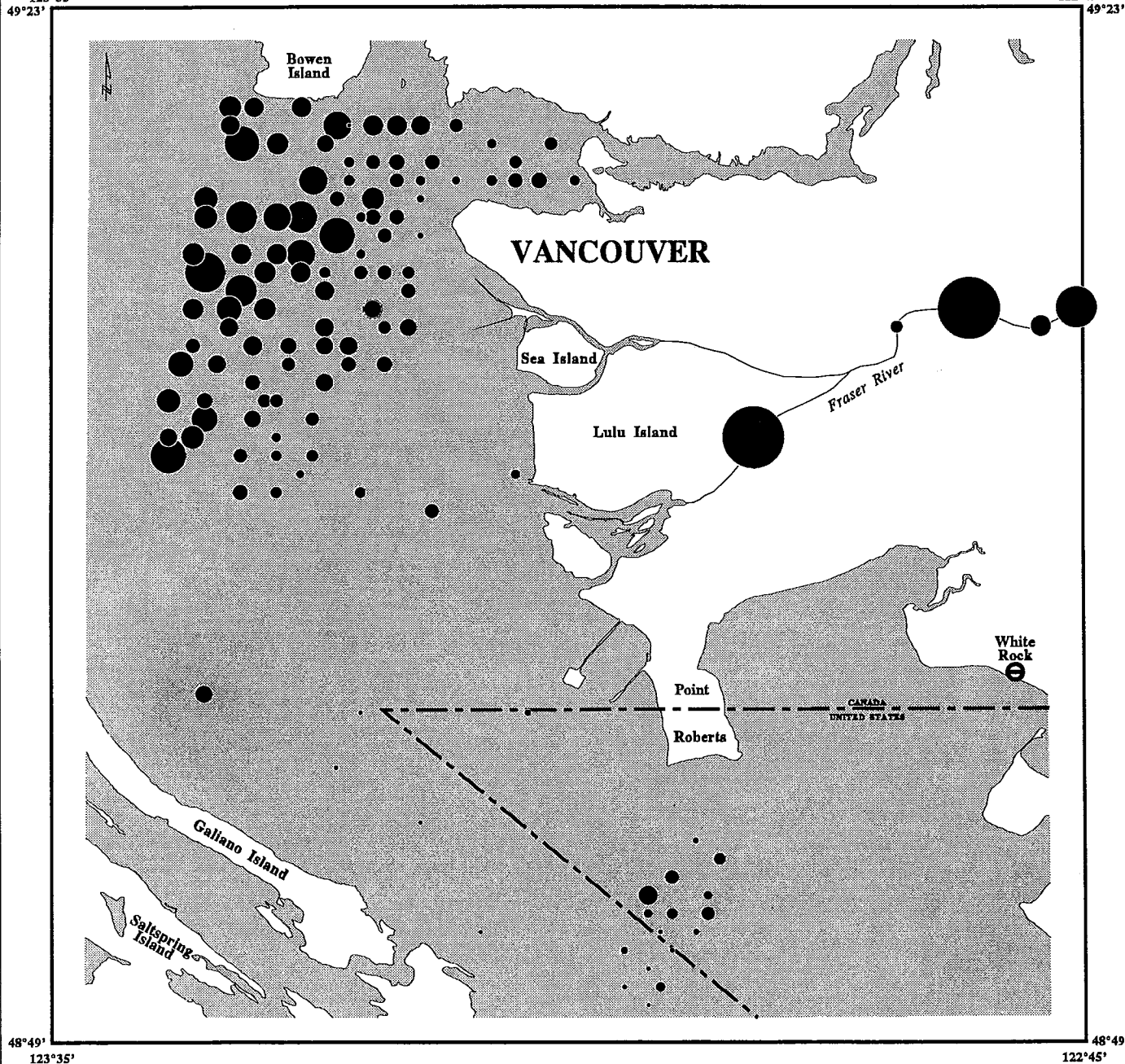
Km

Transverse Mercator Projection

Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



STRAIT OF GEORGIA

Partial Extraction

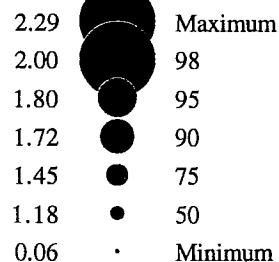
SODIUM

in

Marine Sediments

ICP-ES

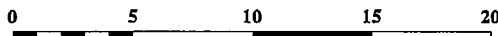
pct Na Percentile



126 Samples

Exponent = 3

Scale 1 : 375 000



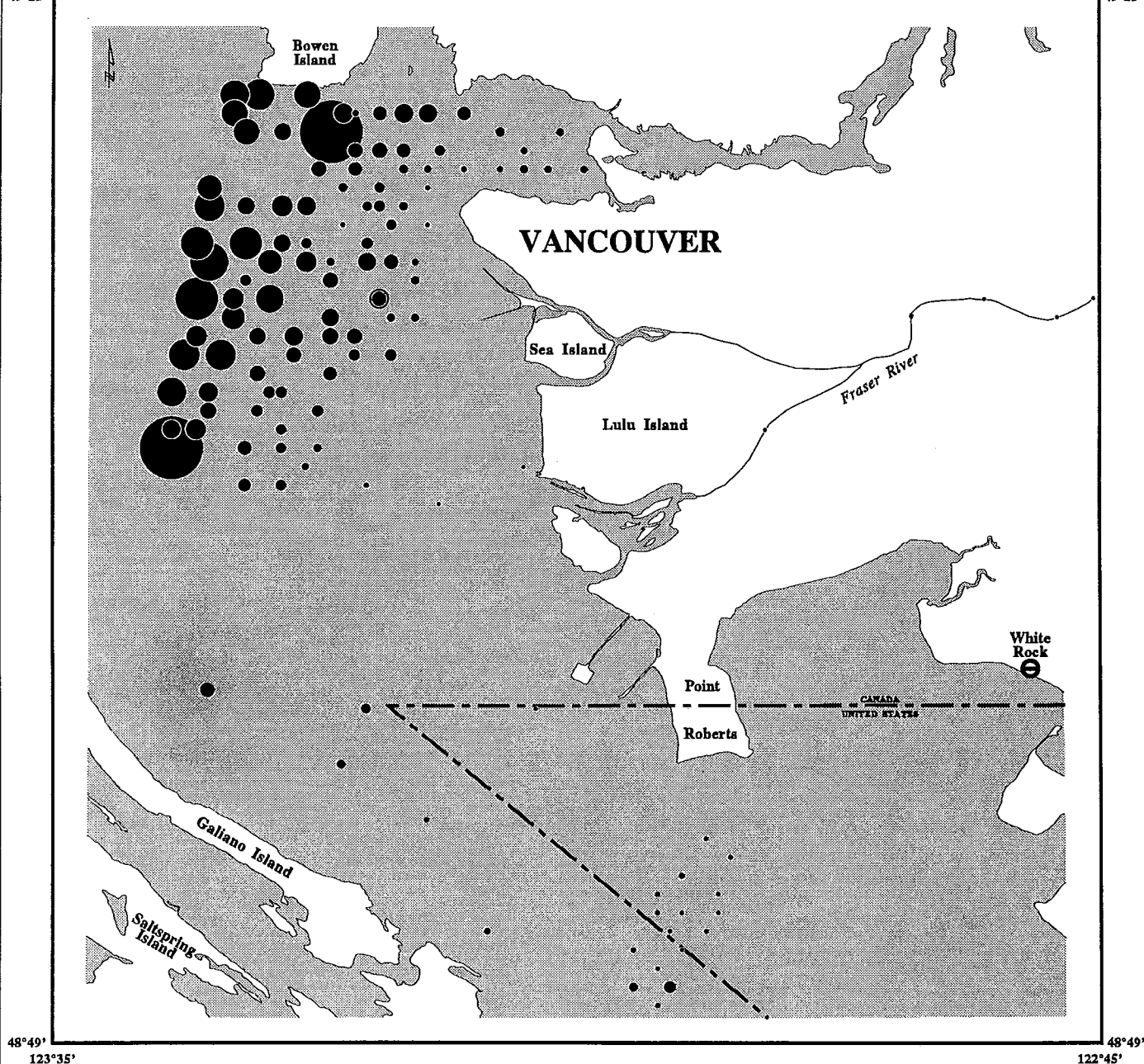
Km

Transverse Mercator Projection

Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'

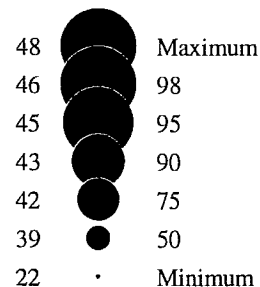


STRAIT OF GEORGIA

NICKEL in Marine Sediments

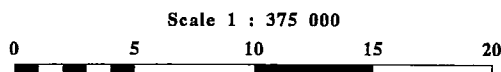
ICP-ES

ppm Ni Percentile



126 Samples

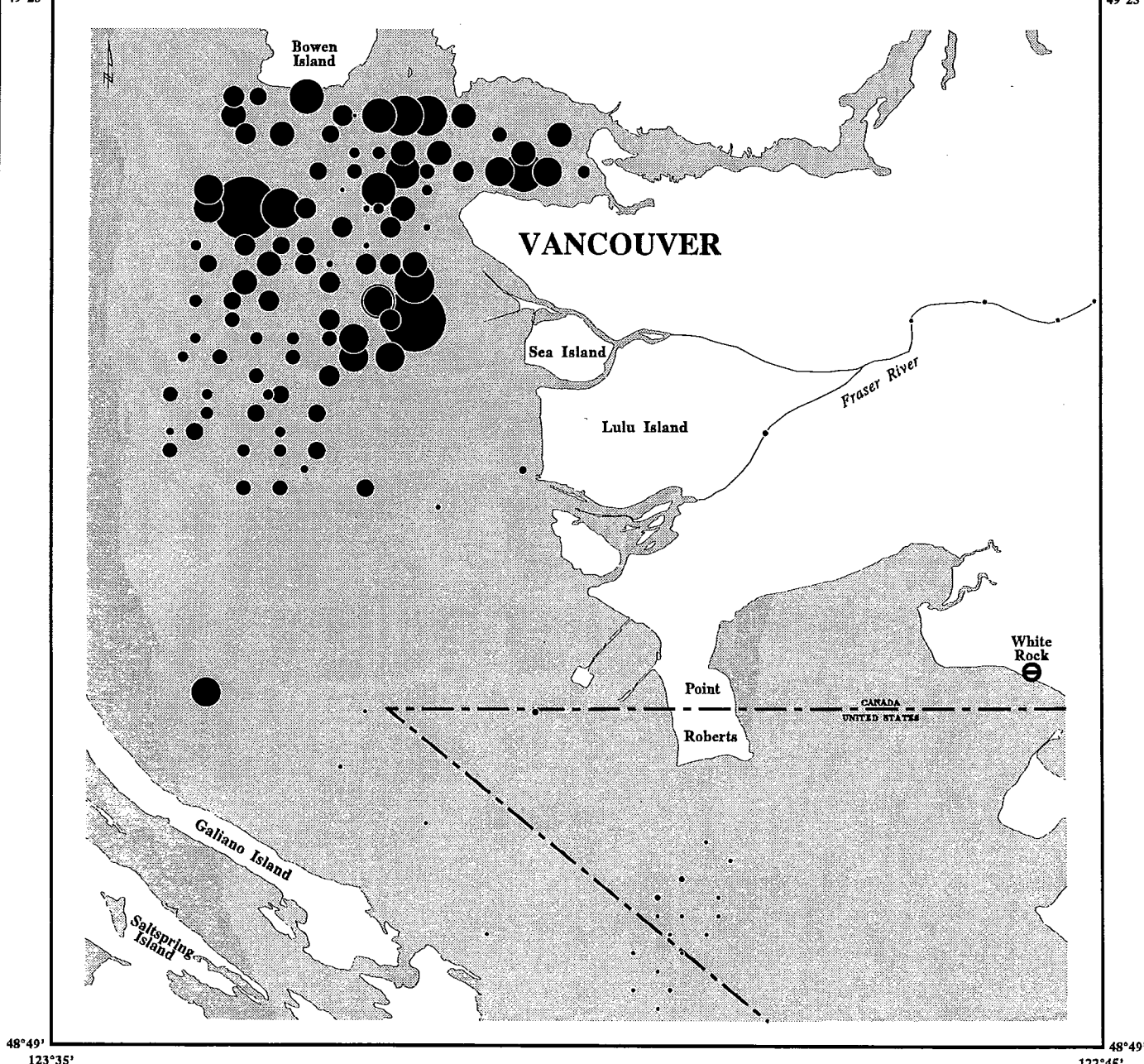
Exponent = 4



Km
Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'










48°49'
123°35'

48°49'
122°45'

STRAIT OF GEORGIA

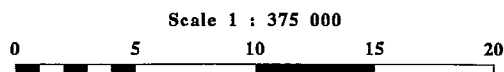
Partial Extraction *PHOSPHORUS* in Marine Sediments

ICP-ES

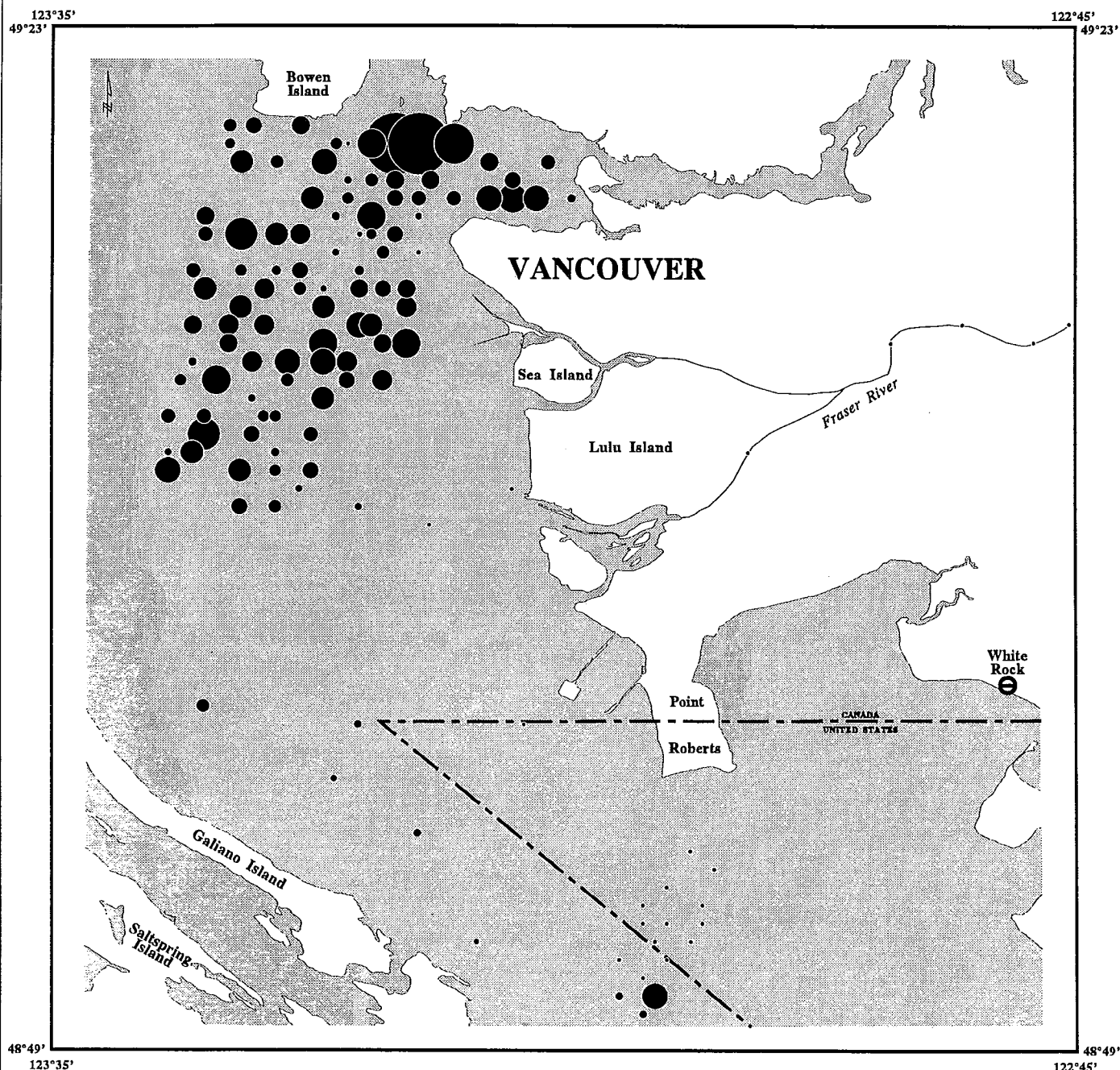
pct	P	Percentile
0.076		Maximum
0.072		98
0.065		95
0.064		90
0.062		75
0.059		50
0.027		Minimum

126 Samples

Exponent = 5



Km
Transverse Mercator Projection
Central Meridian : 123°10'

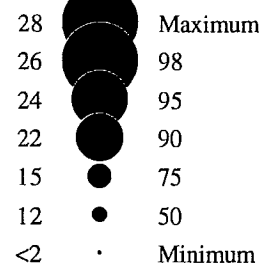


STRAIT OF GEORGIA

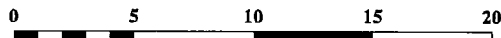
LEAD in Marine Sediments

ICP-ES

ppm Pb Percentile



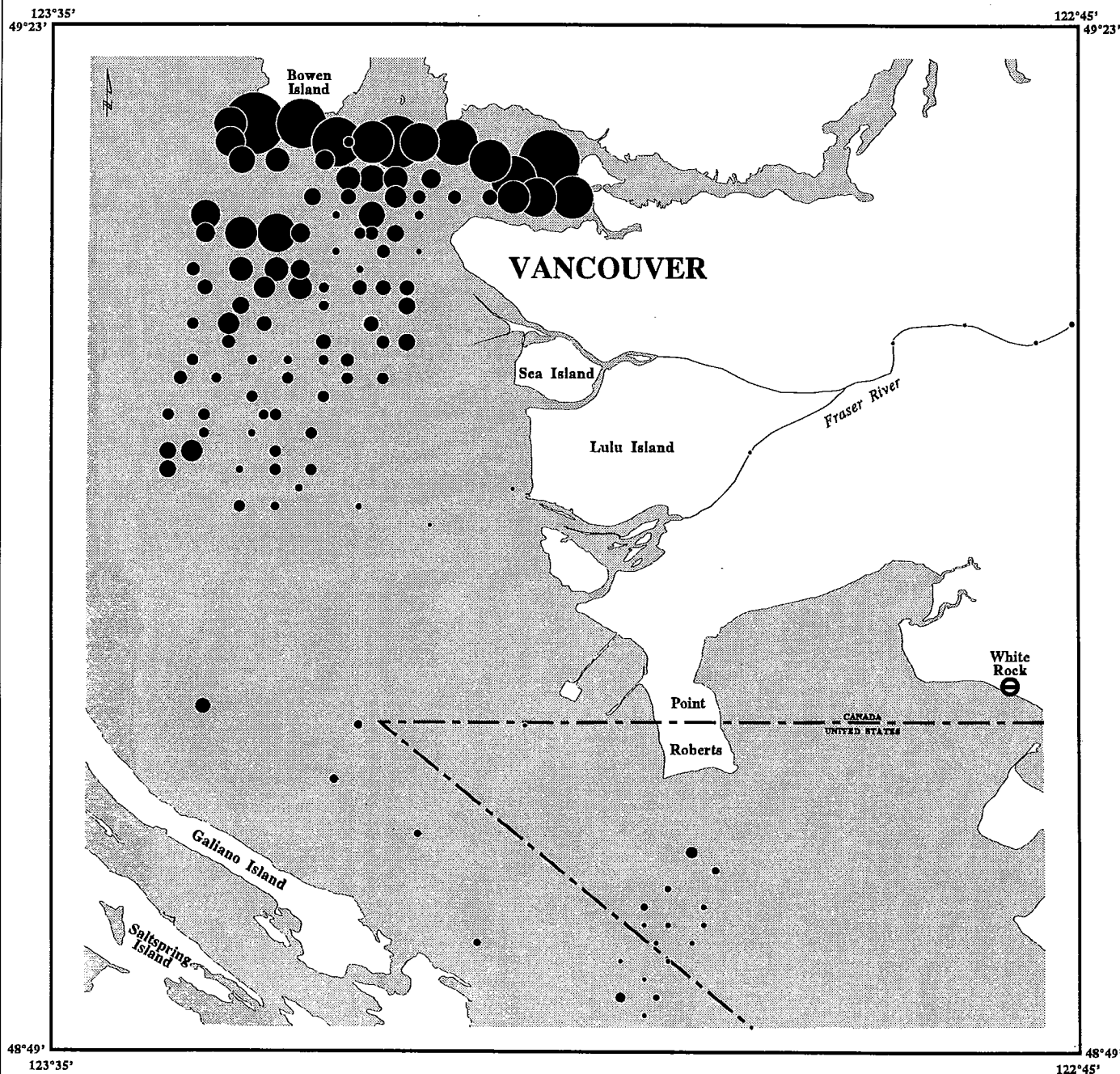
Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

126 Samples

Exponent = 2



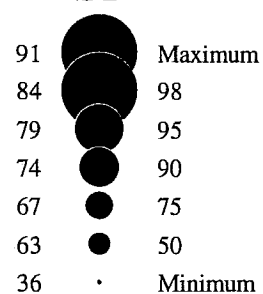
STRAIT OF GEORGIA

Partial Extraction
STRONTIUM

in
Marine Sediments

ICP-ES

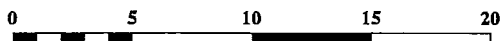
ppm **Sr** Percentile



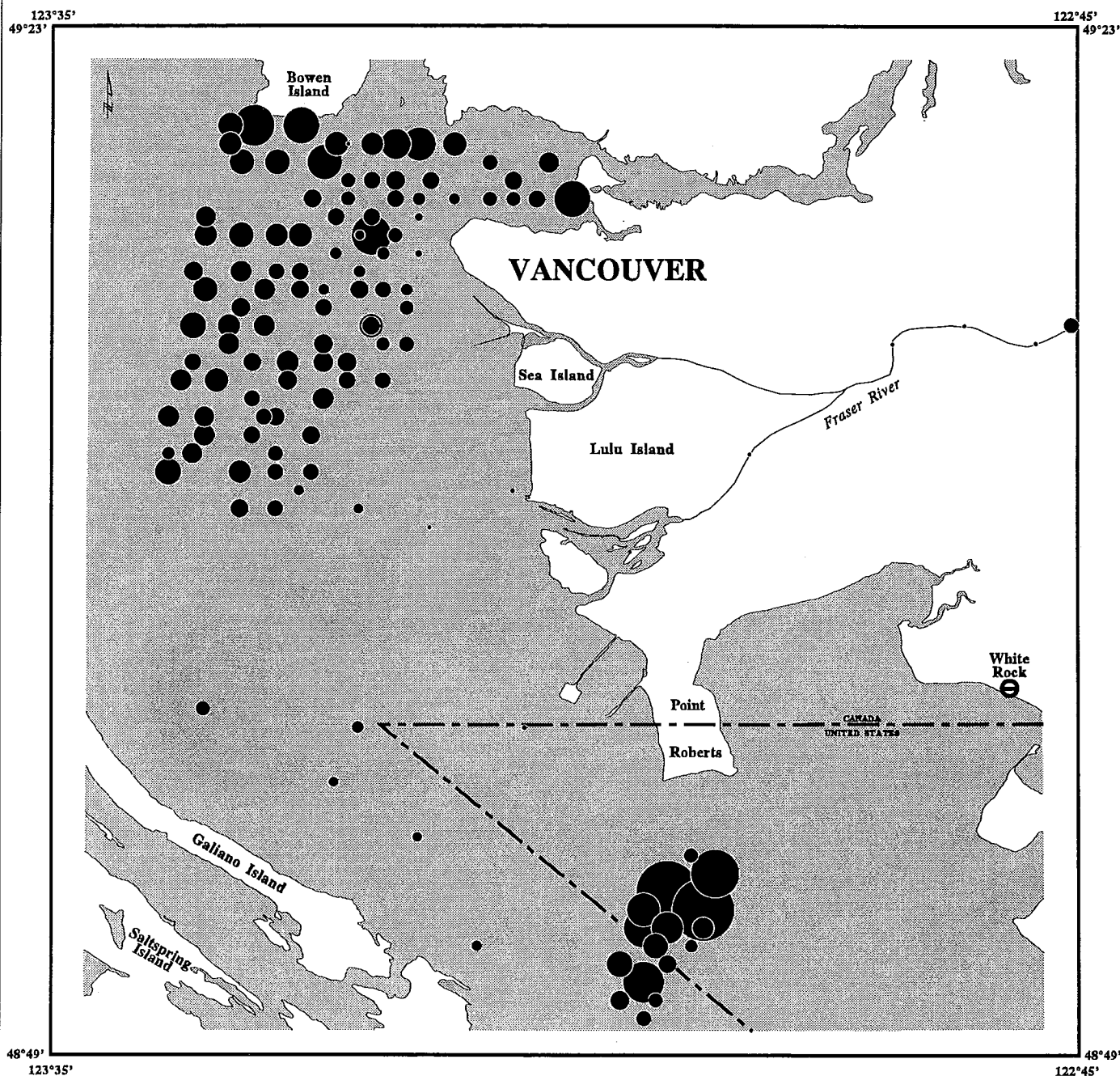
126 Samples

Exponent = 2

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'

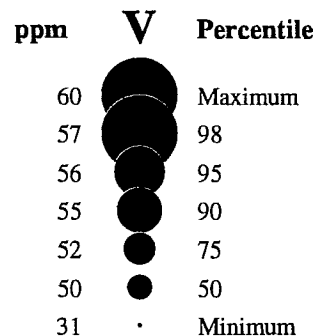


STRAIT OF GEORGIA

Partial Extraction *VANADIUM*

in Marine Sediments

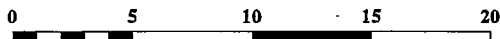
ICP-ES



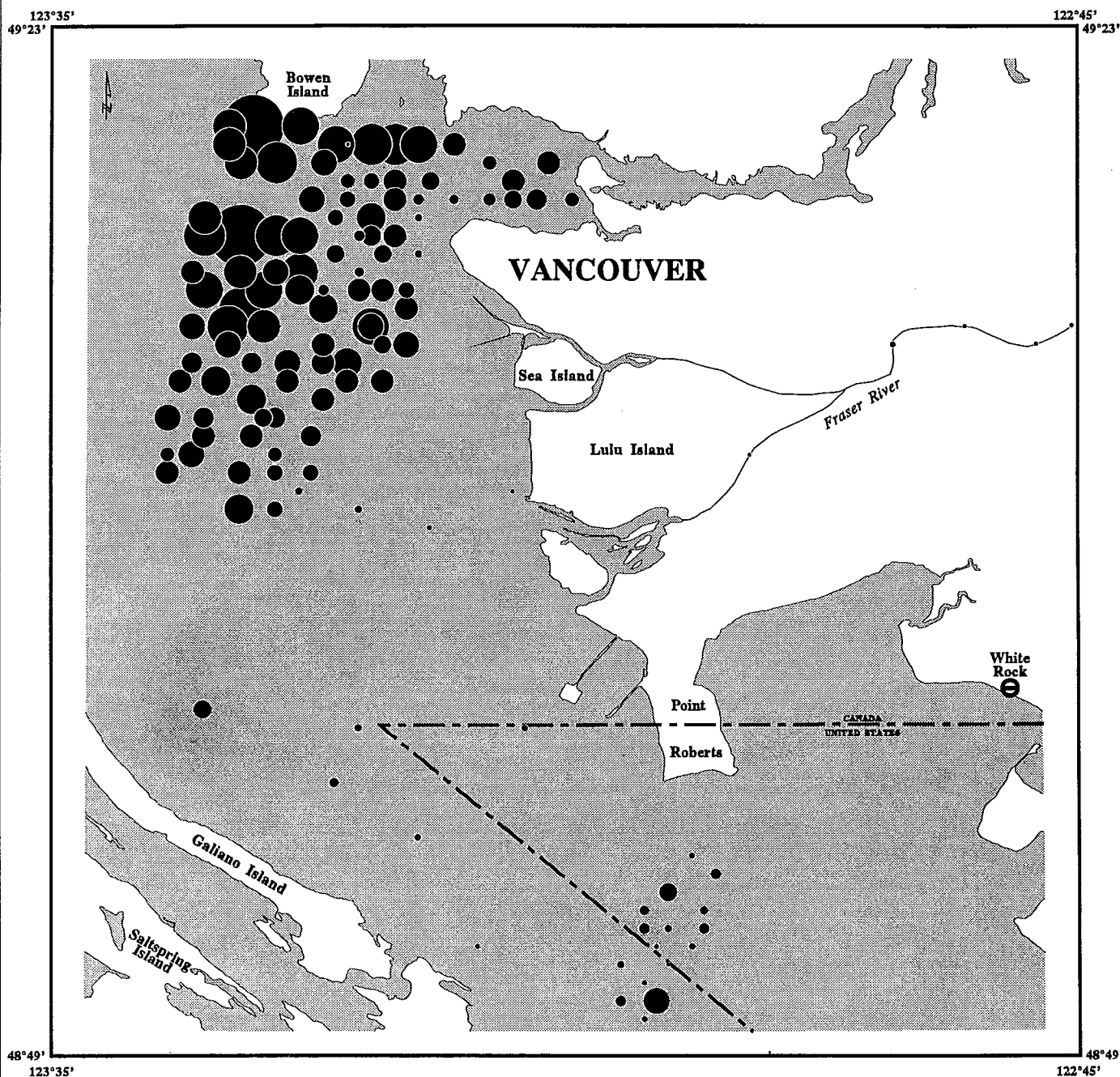
126 Samples

Exponent = 3

Scale 1 : 375 000



Km
Transverse Mercator Projection
Central Meridian : 123°10'



STRAIT OF GEORGIA

Partial Extraction

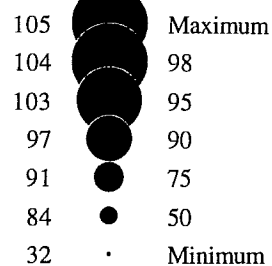
ZINC

in

Marine Sediments

ICP-ES

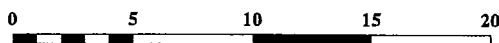
ppm **Zn** Percentile



126 Samples

Exponent = 5

Scale 1 : 375 000



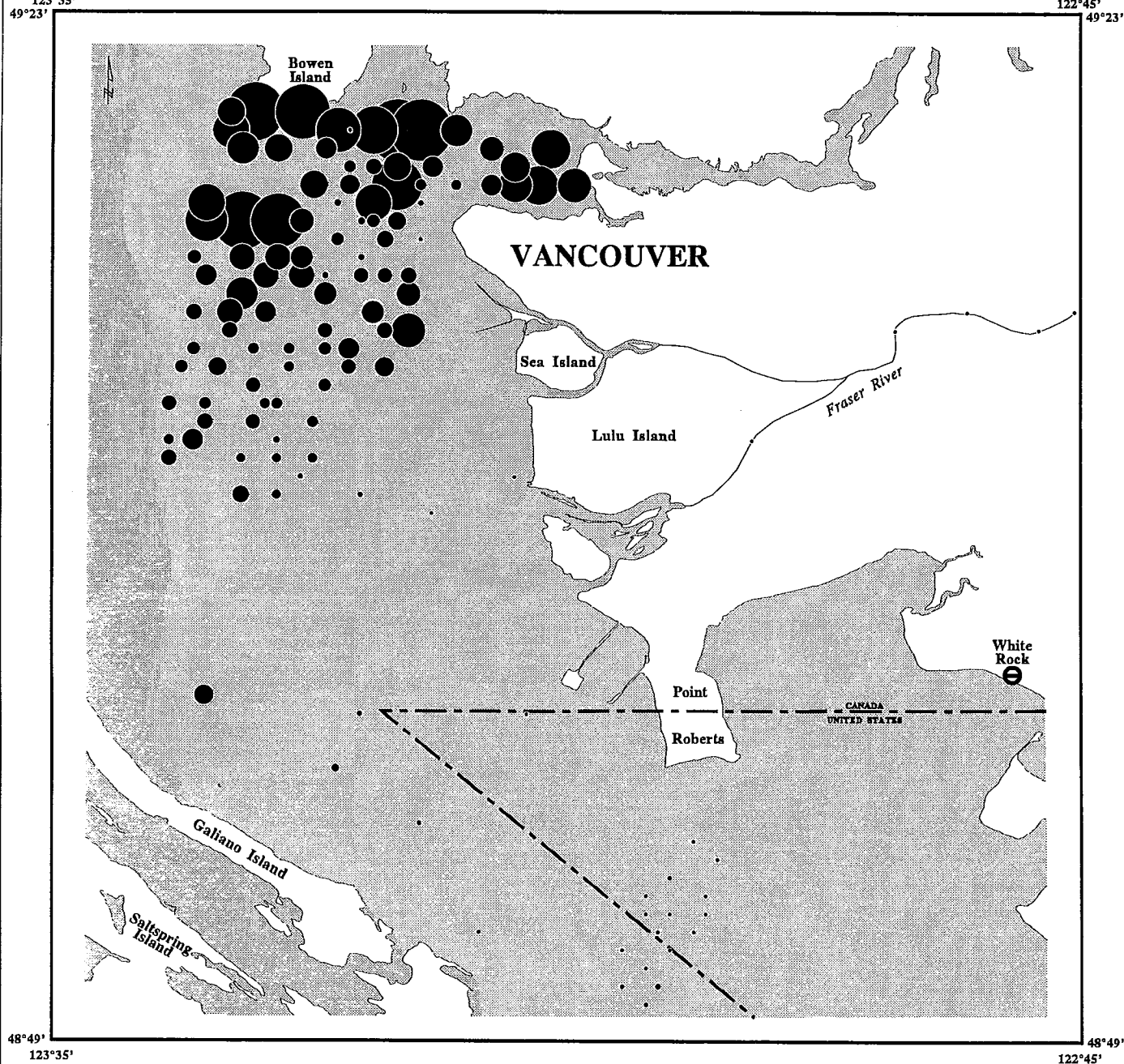
Km

Transverse Mercator Projection

Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



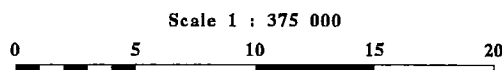
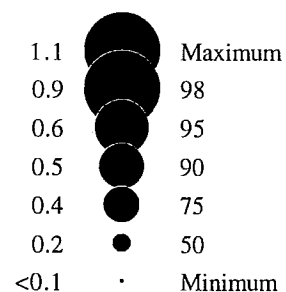
STRAIT OF GEORGIA

CARBON DIOXIDE

in

Marine Sediments

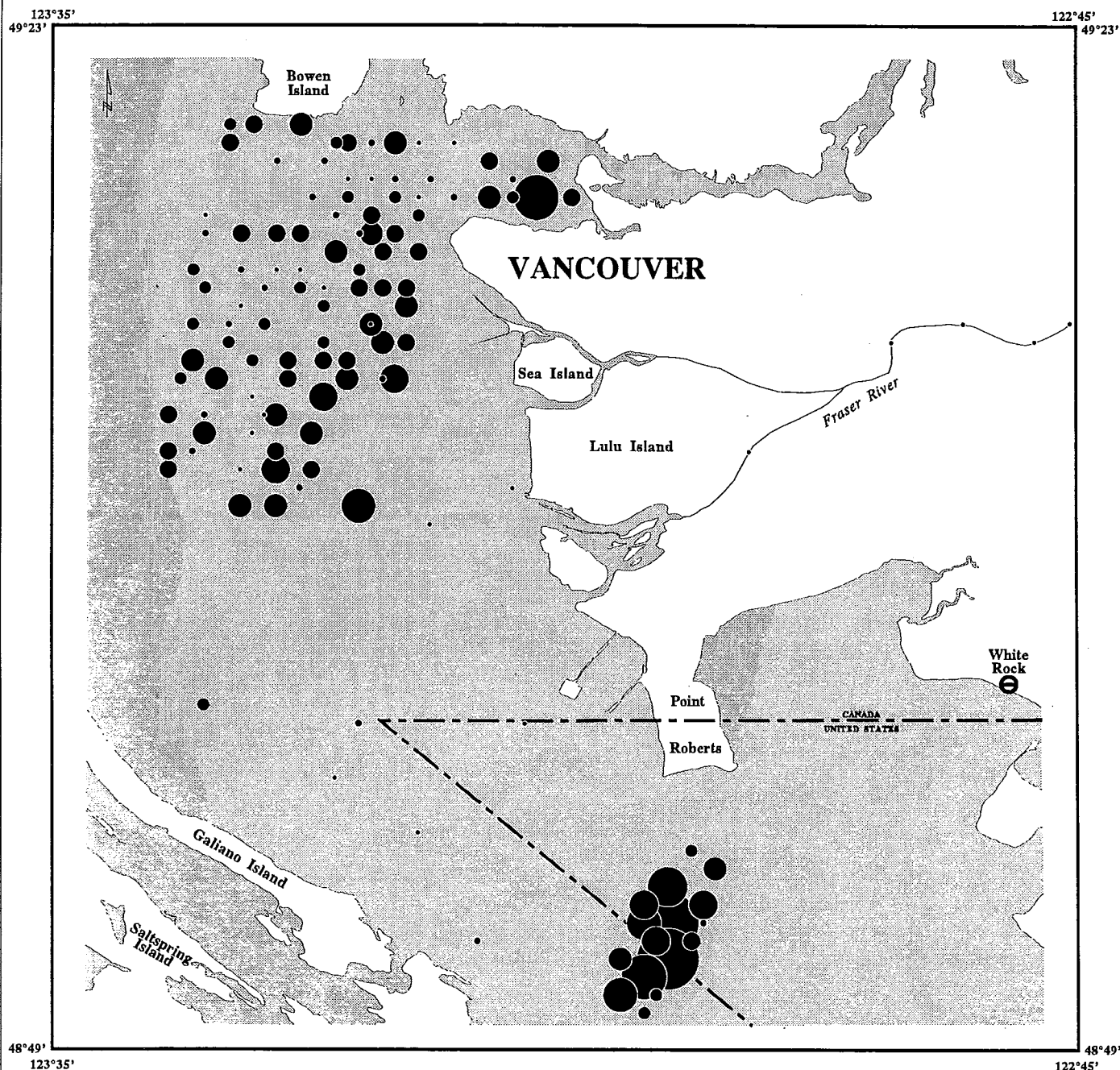
pct **CO₂** Percentile



Transverse Mercator Projection
Central Meridian : 123°10'

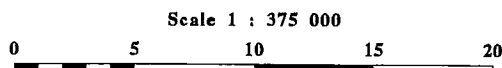
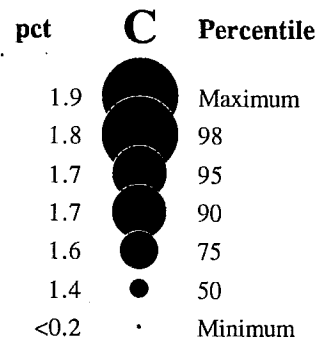
126 Samples

Exponent = 1



STRAIT OF GEORGIA

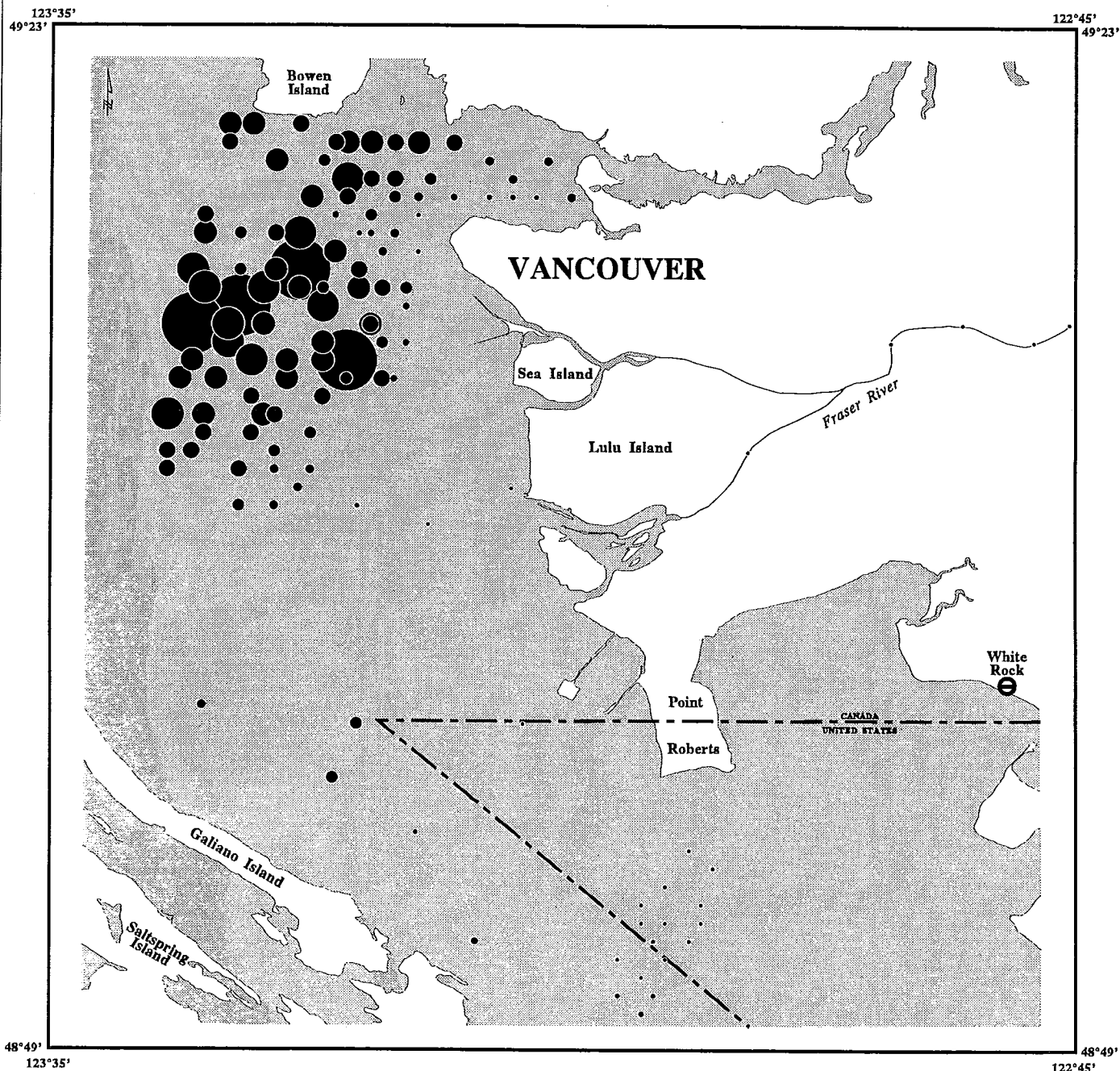
CARBON (organic) in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

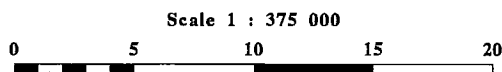
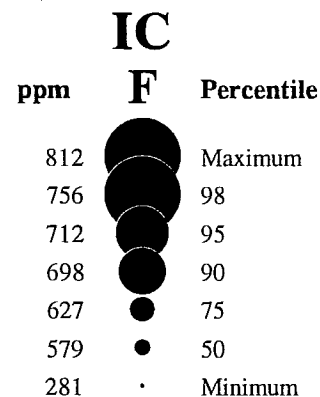
126 Samples

Exponent = 6



STRAIT OF GEORGIA

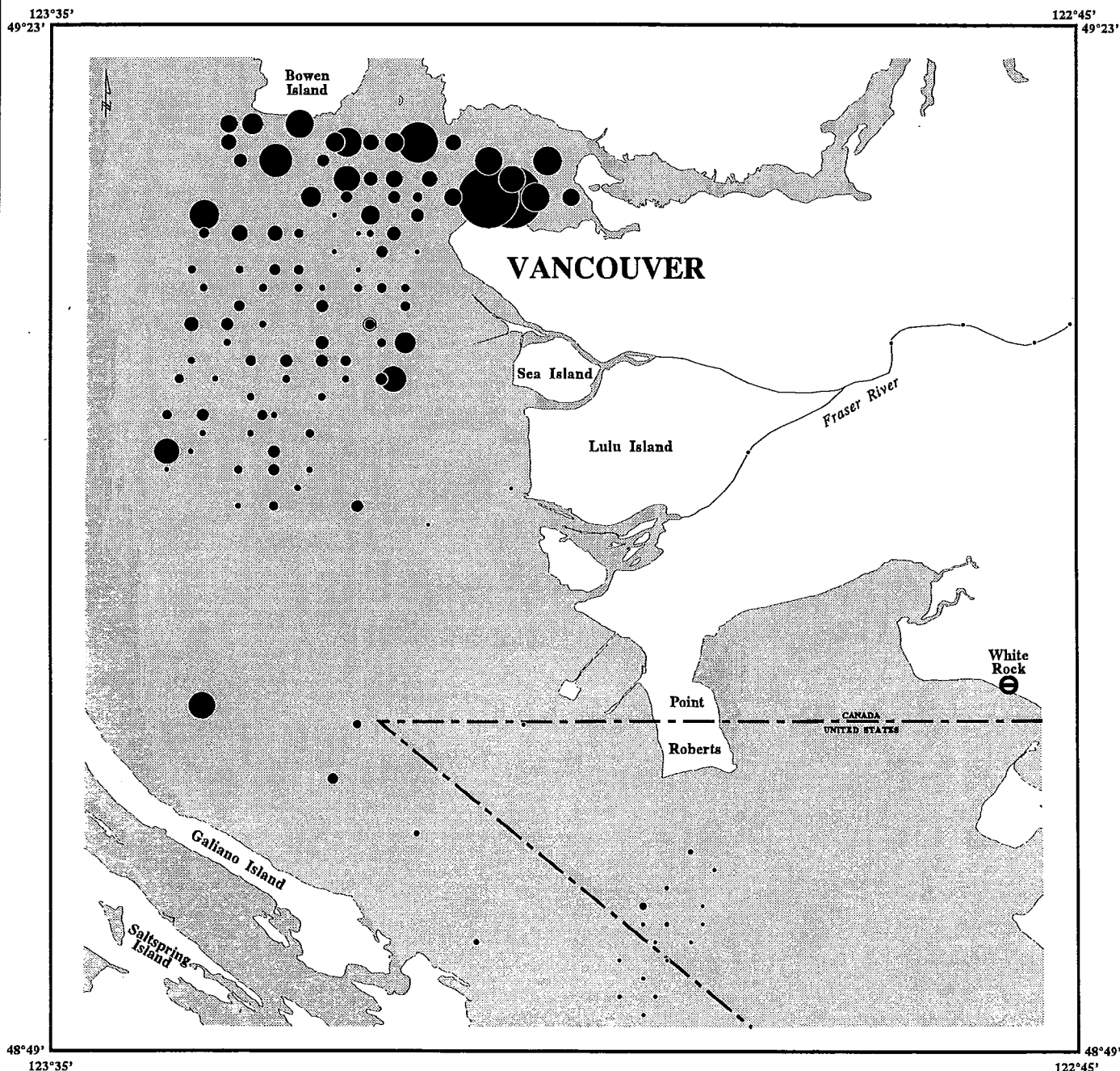
FLUORINE in Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples

Exponent = 4

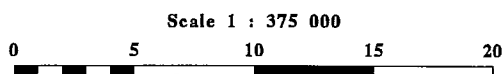
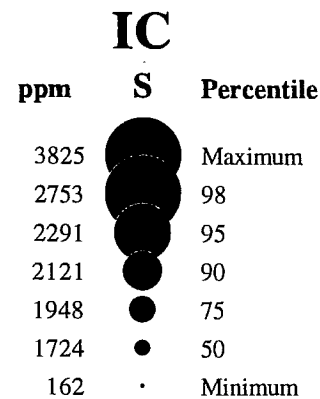


STRAIT OF GEORGIA

SULPHUR

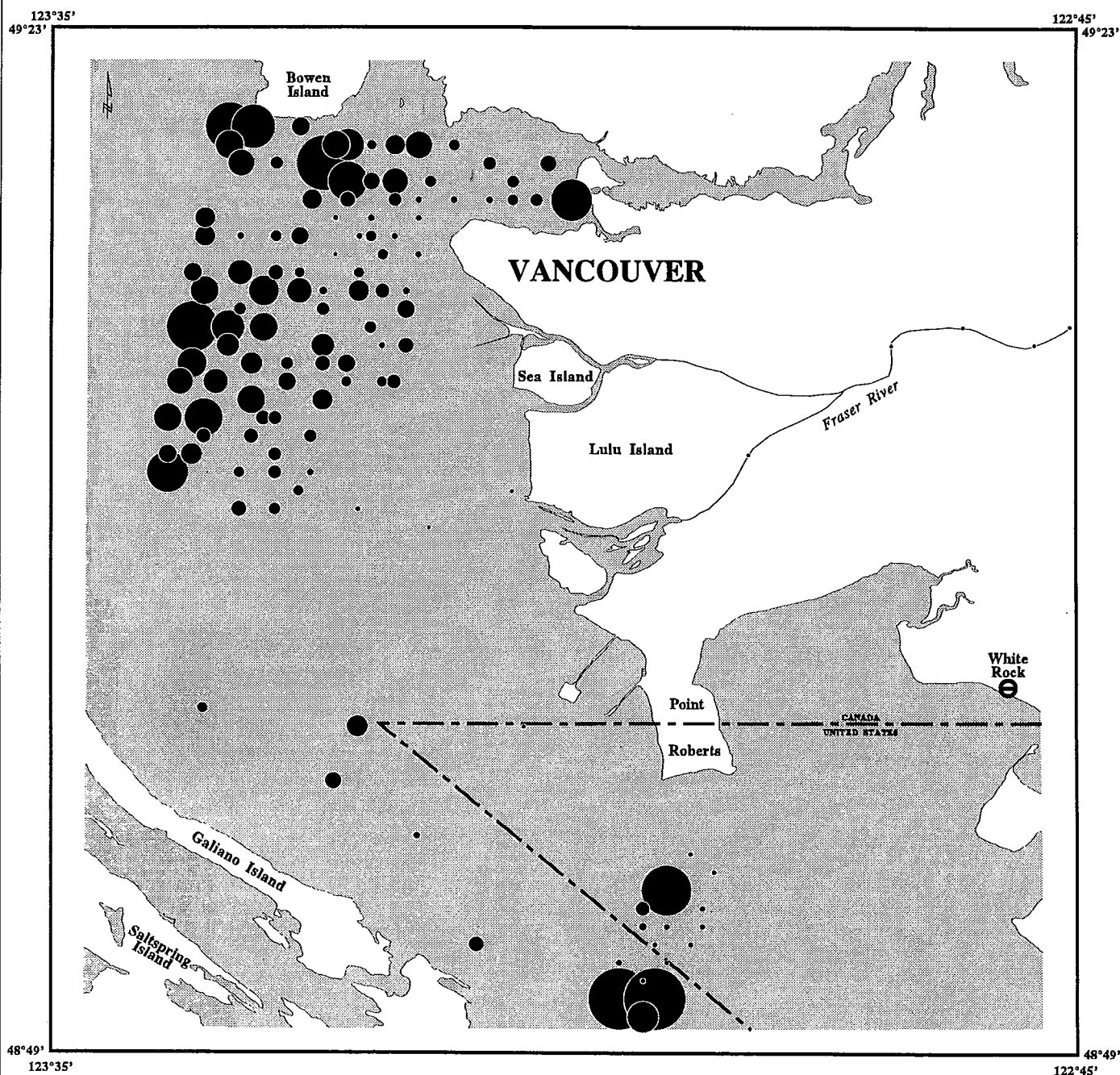
in

Marine Sediments



Km
Transverse Mercator Projection
Central Meridian : 123°10'

127 Samples
Exponent = 5



STRAIT OF GEORGIA Cold-Vapour-AA

Mercury in Marine Sediments

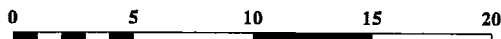
ppb Hg Percentile

175	●	Maximum
170	●	98
158	●	95
140	●	90
110	●	75
95	●	50
10	●	Minimum

126 Samples

Exponent = 4

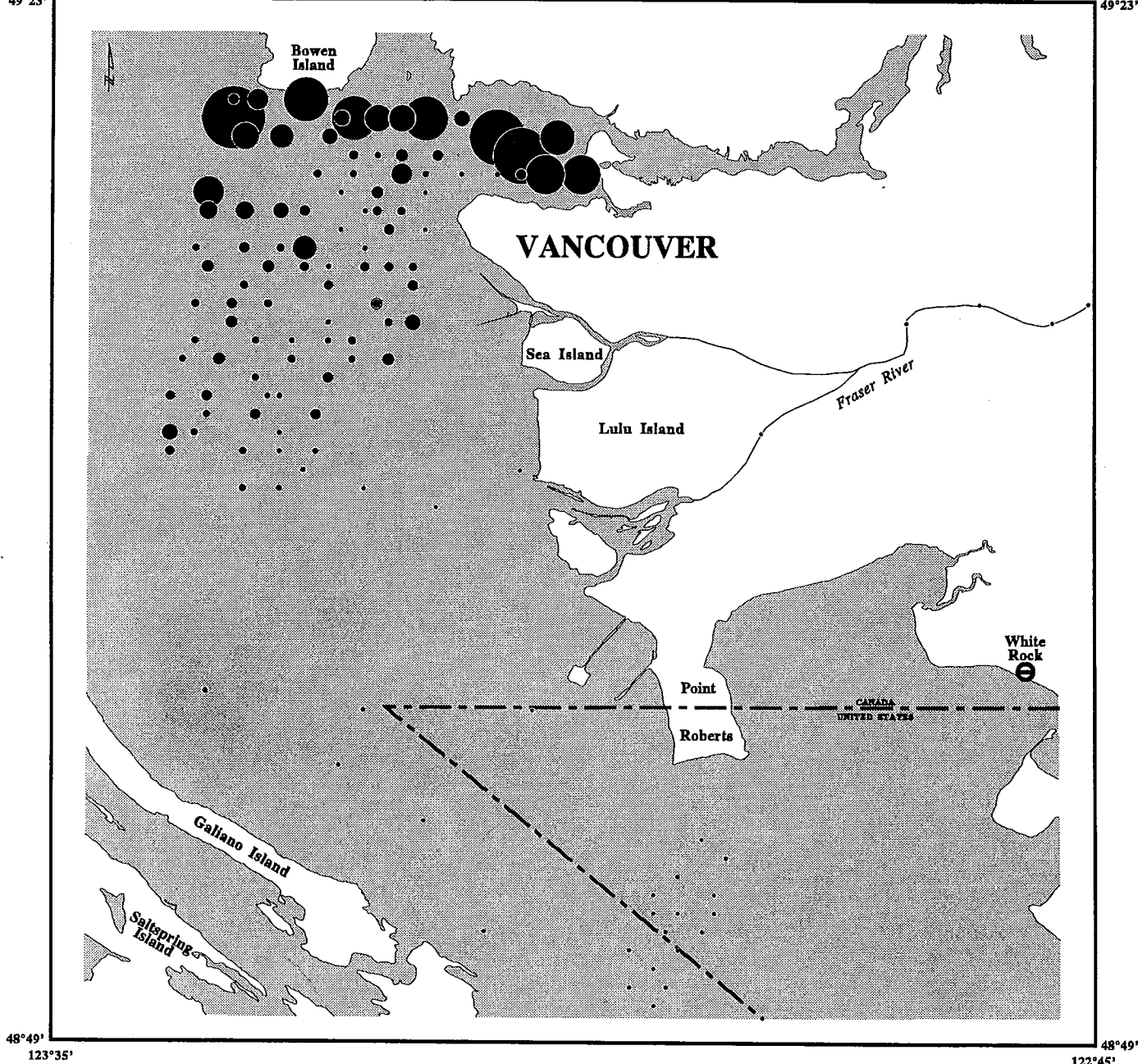
Scale 1 : 375 000



Transverse Mercator Projection
Central Meridian : 123°10'

123°35'
49°23'

122°45'
49°23'



Appendix B

Data Listings

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - XRF

Site	Longitude	Latitude	Sediment Type	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Zr ppm
				0.2	0.01	0.06	0.05	0.04	0.01	0.03	0.01	0.5	0.02	30	10	10	20	10
1	123.3073	49.1937	Mud	14.4	2.39	6.6	2.19	3.14	0.07	3.3	0.23	57.3	0.78	610	<10	77	270	140
2	123.3238	49.1948	Mud	14.3	2.36	6.6	2.17	3.09	0.07	3.4	0.24	57.1	0.78	560	<10	78	260	140
3	123.3020	49.2108	Mud	14.4	2.44	6.4	2.17	3.06	0.07	3.0	0.23	59.8	0.78	610	<10	77	270	150
4	123.3238	49.2077	Mud	14.4	2.30	6.7	2.16	3.08	0.07	3.2	0.25	57.2	0.77	620	<10	75	260	130
5	123.2978	49.2260	Mud	14.3	2.49	6.4	2.19	3.09	0.07	3.2	0.23	58.4	0.79	590	<10	80	290	150
6	123.3268	49.2245	Mud	14.5	2.26	6.7	2.19	3.09	0.07	3.6	0.24	56.5	0.78	570	11	78	260	120
7	123.2957	49.2442	Mud	14.0	2.47	6.1	2.11	3.00	0.07	3.0	0.23	60.7	0.79	610	<10	76	280	160
8	123.3222	49.2415	Mud	14.3	2.19	6.6	2.19	3.06	0.07	3.5	0.24	56.7	0.75	570	10	74	250	120
9	123.3172	49.2577	Mud	14.4	2.22	6.4	2.23	3.02	0.07	3.5	0.23	57.6	0.74	560	11	85	260	120
10	123.2945	49.2602	Sand	12.5	2.70	4.9	1.64	2.42	0.06	3.0	0.17	66.7	0.65	560	<10	57	320	120
11	123.3142	49.2728	Sand	14.3	2.34	6.4	2.21	3.02	0.07	3.2	0.23	58.3	0.74	600	<10	81	270	130
12	123.3538	49.1855	Mud	14.2	2.42	6.5	2.12	3.05	0.07	3.4	0.24	57.0	0.78	550	12	74	270	140
13	123.3500	49.2032	Mud	14.1	2.29	6.5	2.13	3.03	0.07	3.9	0.24	56.0	0.77	550	13	76	260	130
14	123.3340	49.2192	Mud	14.1	2.24	6.5	2.14	3.03	0.07	3.7	0.24	56.3	0.76	550	<10	76	250	130
15	123.3435	49.2372	Mud	14.1	2.22	6.5	2.15	3.02	0.07	3.7	0.24	56.3	0.75	550	10	78	260	130
16	123.3408	49.2548	Mud	14.0	2.49	5.8	1.97	2.80	0.07	3.6	0.22	61.1	0.69	550	11	63	280	120
17	123.3362	49.2710	Sand/Mud	14.3	2.35	5.8	2.01	2.74	0.07	3.3	0.19	60.1	0.66	610	11	67	300	120
18	123.3407	49.1220	Mud	13.5	2.86	6.1	1.90	2.95	0.08	2.9	0.22	61.7	0.79	590	<10	69	300	170
19	123.3872	49.1252	Mud	13.7	2.71	6.1	1.90	2.88	0.07	3.3	0.23	61.1	0.78	550	12	69	270	160
20	123.3820	49.1425	Mud	13.9	2.66	6.3	1.97	2.98	0.07	3.3	0.23	59.0	0.79	570	10	67	290	150
21	123.3753	49.1617	Mud	14.0	2.42	6.4	2.05	2.99	0.07	3.4	0.24	57.4	0.77	530	14	69	270	140
22	123.3672	49.1770	Mud	13.9	2.43	6.6	2.02	2.98	0.07	3.4	0.24	56.9	0.78	560	10	72	270	140
23	123.3732	49.1957	Mud	13.9	2.33	6.5	2.10	3.03	0.07	3.9	0.25	55.9	0.76	560	13	71	260	130
24	123.4010	49.1898	Mud	13.8	2.35	6.4	2.03	3.00	0.07	3.6	0.24	56.7	0.77	560	<10	71	260	130
25	123.4057	49.1695	Mud	14.0	2.49	6.4	1.99	2.94	0.07	3.4	0.23	58.0	0.78	550	10	66	280	140
26	123.4113	49.1527	Mud	13.7	2.55	6.2	1.96	2.93	0.07	3.6	0.23	58.1	0.78	530	11	74	270	150
27	123.4130	49.1363	Mud	13.7	2.56	6.1	1.95	2.88	0.07	3.5	0.22	58.7	0.77	510	12	73	280	160
28	123.4133	49.1200	Mud	13.8	2.55	6.2	2.00	2.90	0.07	3.7	0.23	58.7	0.78	550	<10	71	270	150
29	123.4440	49.1198	Mud	14.0	2.42	6.3	2.00	2.90	0.07	3.5	0.23	57.8	0.77	540	<10	71	280	140
30	123.4365	49.1388	Mud	13.8	2.51	6.3	1.96	2.87	0.07	3.5	0.25	57.6	0.76	520	11	70	280	140

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - INAA

Site	As ppm 0.5	Au ppb 2	Ba ppm 10	Br ppm 1	Ca % 0.5	Ce ppm 3	Co ppm 1	Cr ppm 1	Cs ppm 0.5	Eu ppm 0.01	Fe % 0.05	Hf ppm 0.5	La ppm 0.1	Lu ppm 0.05	Na ppm 10	Nd ppm 5	Sb ppm 0.1	Sc ppm 0.1	Sm ppm 0.1	Ta ppm 0.5	Tb ppm 0.5	Th ppm 0.1	U ppm 0.1	Yb ppm 0.05	Zn ppm 20
1	8.3	<2	620	69	<0.5	42	16	93	2.2	1.14	4.07	3.6	23.3	0.27	22900	19	0.7	15.0	4.0	<0.5	<0.5	6.3	2.2	1.84	110
2	8.3	<2	490	84	1.5	44	16	94	3.0	0.78	4.13	3.6	22.1	0.32	23300	21	0.6	15.0	4.0	0.9	0.6	6.6	1.9	1.99	180
3	8.1	18	610	52	1.6	45	16	100	2.9	1.05	4.05	3.9	23.3	0.33	20600	18	0.7	14.0	4.0	<0.5	<0.5	6.5	1.9	1.77	120
4	9.0	6	620	78	1.2	42	15	83	3.0	1.01	4.25	3.1	21.3	0.33	21200	17	0.8	14.0	3.8	0.5	<0.5	6.2	1.2	1.86	140
5	7.3	18	610	55	1.7	44	15	93	2.4	1.04	4.12	3.3	22.9	0.28	21300	20	0.8	14.0	3.9	0.9	<0.5	6.0	1.8	1.77	73
6	9.7	5	450	88	<0.5	42	15	80	3.1	0.97	3.98	3.3	20.8	0.30	23700	18	0.9	14.0	3.7	0.8	<0.5	6.2	1.7	1.84	160
7	6.6	<1	500	48	<0.5	46	14	94	2.1	1.09	3.78	3.6	23.1	0.28	20600	17	0.7	14.0	4.0	<0.5	0.6	6.3	1.8	1.77	64
8	9.2	<2	470	91	1.5	43	15	86	1.7	1.02	3.98	3.2	20.9	0.33	24400	14	0.7	15.0	3.7	<0.5	<0.5	6.0	1.9	1.93	97
9	10.0	15	580	80	1.7	42	16	88	3.0	1.05	3.98	3.7	21.6	0.29	23900	18	0.7	15.0	3.9	<0.5	<0.5	6.1	1.7	1.65	68
10	5.6	<1	450	27	<0.5	31	11	69	2.5	0.79	2.76	2.6	16.5	0.20	19300	11	0.6	11.0	2.7	1.3	<0.5	4.0	1.1	1.45	70
11	8.0	7	530	58	1.2	40	14	86	2.2	0.99	3.79	3.2	21.3	0.25	21200	16	0.8	14.0	3.7	<0.5	<0.5	5.5	2.0	1.69	77
12	7.9	<1	430	78	1.9	39	15	81	0.7	1.06	3.83	3.3	19.8	0.26	22300	13	0.7	14.0	3.5	<0.5	<0.5	5.4	1.6	1.68	120
13	6.7	5	550	87	1.8	37	14	76	2.5	0.93	3.75	2.8	19.0	0.24	22500	17	0.6	14.0	3.4	<0.5	<0.5	5.3	1.2	1.76	160
14	8.8	6	580	100	1.8	37	15	75	2.2	1.01	3.78	3.0	19.6	0.23	24900	16	0.6	14.0	3.6	<0.5	<0.5	5.7	1.2	1.77	96
15	8.4	3	530	100	1.7	41	15	75	2.6	1.02	3.86	3.3	19.8	0.25	24600	<5	0.7	14.0	3.6	<0.5	<0.5	5.7	2.1	1.85	130
16	7.7	<1	560	78	<0.5	37	14	73	2.0	0.99	3.54	3.5	18.4	0.23	23900	18	0.7	13.0	3.4	<0.5	<0.5	4.9	1.6	1.67	130
17	7.0	<1	530	70	1.9	34	12	66	2.1	0.93	3.35	3.6	18.5	0.26	22900	19	0.7	12.0	3.2	1.5	<0.5	5.4	1.7	1.52	89
18	7.0	<1	540	42	1.9	46	15	91	2.2	1.04	3.65	4.3	22.9	0.28	20500	15	0.7	14.0	3.9	<0.5	0.7	6.0	1.6	1.75	93
19	7.5	3	520	69	1.5	41	14	81	1.8	0.95	3.61	3.9	21.3	0.26	21900	19	0.4	13.0	3.6	<0.5	<0.5	5.5	1.5	1.79	96
20	10.0	4	490	70	1.8	44	14	90	2.5	0.98	3.94	3.8	22.0	0.26	23200	17	0.8	14.0	3.9	<0.5	<0.5	6.0	1.9	1.84	93
21	9.4	6	470	87	2.1	42	15	83	2.7	1.03	3.90	3.4	20.4	0.28	23000	15	0.8	14.0	3.7	<0.5	<0.5	5.9	1.8	1.78	130
22	9.6	4	530	83	1.7	42	15	87	2.9	1.02	3.96	3.6	20.7	0.28	21800	15	0.7	14.0	3.8	<0.5	<0.5	5.8	1.9	1.82	100
23	10.0	10	480	100	1.7	40	14	76	2.5	1.01	3.81	3.3	19.4	0.29	23900	16	0.7	14.0	3.5	<0.5	0.7	5.3	1.4	1.68	130
24	11.0	5	560	100	1.7	39	15	86	3.2	1.06	3.96	3.1	20.0	0.30	23900	17	0.7	14.0	3.6	<0.5	0.8	5.9	1.7	1.80	190
25	7.7	7	500	85	2.1	43	15	83	2.6	1.04	3.82	3.4	20.5	0.30	22800	15	0.6	14.0	3.8	<0.5	0.7	5.5	1.0	1.79	69
26	8.0	<1	470	76	1.9	39	14	80	2.4	1.02	3.58	3.2	19.7	0.30	21700	19	0.7	13.0	3.6	0.9	0.6	5.4	1.4	1.78	130
27	8.3	4	550	76	1.5	41	14	79	2.6	1.03	3.58	3.4	20.2	0.25	22100	16	0.8	13.0	3.6	<0.5	0.7	5.6	1.9	1.86	130
28	8.6	<1	500	85	1.9	41	15	84	2.8	0.93	3.70	3.6	20.6	0.25	23200	17	0.7	14.0	3.8	<0.5	0.6	6.0	1.2	1.91	100
29	8.3	11	510	90	<0.5	41	15	77	3.0	1.08	3.81	3.3	19.5	0.27	23900	15	0.7	14.0	3.6	<0.5	<0.5	5.5	2.2	1.88	96
30	9.5	4	480	93	<0.5	42	15	91	2.9	1.06	3.96	3.8	20.8	0.26	24100	14	0.6	15.0	3.8	<0.5	<0.5	5.9	1.8	1.97	170

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	0.1	0.01	2	1	0.2	0.01	0.2	1	0.01	0.01	2	0.01	2	1	0.01	1	0.001	2	1	0.02	1	1
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	0.5	2.07	27	58.0	0.3	0.79	0.3	45	3.66	0.34	26	1.37	411	<1	1.20	43	0.062	11	61	0.14	51	88
3	0.8	2.00	22	57.0	0.4	0.84	0.3	51	3.70	0.28	26	1.42	420	2	0.97	48	0.065	14	60	0.14	52	96
4	0.5	1.98	25	55.0	0.5	0.74	0.3	42	3.52	0.27	26	1.30	391	<1	1.00	41	0.061	12	58	0.13	49	85
5	0.8	1.95	21	59.0	0.3	0.81	0.3	53	3.64	0.27	26	1.37	403	2	1.00	45	0.062	14	59	0.14	51	91
6	0.4	2.13	28	59.0	0.4	0.78	0.3	45	3.74	0.36	27	1.40	423	1	1.32	44	0.063	13	63	0.14	52	90
7	0.7	1.78	22	53.0	0.4	0.79	0.2	46	3.32	0.24	21	1.31	386	1	0.87	42	0.061	13	56	0.14	48	85
8	0.3	2.04	26	58.0	0.3	0.74	0.2	43	3.63	0.35	27	1.33	402	<1	1.32	41	0.060	13	61	0.14	51	84
9	0.5	1.98	27	56.0	0.3	0.72	0.3	43	3.50	0.31	23	1.31	402	1	1.14	41	0.058	12	57	0.12	49	86
10	0.6	1.32	20	39.0	<0.2	0.78	0.2	30	2.63	0.16	16	1.00	323	<1	0.60	34	0.045	6	48	0.11	42	58
11	0.5	2.00	23	57.0	0.2	0.75	0.2	52	3.65	0.30	25	1.35	405	1	1.02	42	0.060	14	59	0.13	51	87
12	0.4	2.06	27	58.0	0.3	0.81	0.3	41	3.63	0.32	27	1.35	404	1	1.16	43	0.060	11	62	0.14	51	84
13	0.5	2.15	29	59.0	0.4	0.79	0.3	44	3.72	0.36	27	1.39	426	<1	1.34	43	0.062	12	64	0.14	53	89
14	0.6	2.24	31	62.0	0.3	0.81	0.4	46	3.94	0.38	29	1.44	440	1	1.51	43	0.064	14	68	0.14	55	91
15	0.4	2.08	30	58.0	0.3	0.76	0.2	42	3.66	0.37	30	1.34	397	<1	1.44	41	0.061	13	63	0.14	51	84
16	0.2	1.70	21	52.0	0.2	0.66	0.2	34	3.00	0.24	20	1.11	357	<1	1.17	33	0.055	8	56	0.10	44	71
17	0.7	1.78	27	52.0	0.3	0.63	<0.2	37	3.04	0.25	19	1.14	365	1	1.07	34	0.048	11	53	0.10	45	73
18	0.3	1.55	15	53.0	0.2	0.83	0.2	36	3.10	0.19	19	1.18	374	<1	0.68	40	0.052	7	53	0.11	42	67
19	0.2	1.62	20	49.0	0.2	0.76	0.2	33	2.99	0.22	21	1.11	346	1	0.89	35	0.052	8	54	0.11	42	68
20	0.3	1.89	23	56.0	0.2	0.82	0.2	39	3.47	0.25	25	1.27	383	1	0.99	40	0.060	11	61	0.13	48	78
21	0.3	2.00	26	58.0	0.3	0.81	0.3	40	3.53	0.29	25	1.28	395	<1	1.18	40	0.059	11	63	0.13	50	80
22	0.3	2.09	26	61.0	0.2	0.81	0.3	42	3.77	0.35	28	1.35	424	<1	1.27	41	0.063	11	66	0.14	51	82
23	0.2	2.06	25	57.0	0.3	0.78	0.3	41	3.64	0.35	27	1.32	422	1	1.38	39	0.064	10	65	0.13	51	82
24	0.2	2.06	27	58.0	0.2	0.77	0.3	41	3.61	0.36	26	1.28	396	<1	1.34	39	0.058	11	64	0.13	51	79
25	0.2	2.03	23	57.0	<0.2	0.79	0.3	43	3.64	0.34	30	1.28	393	1	1.18	40	0.057	11	63	0.12	50	80
26	0.2	1.88	20	56.0	<0.2	0.77	0.3	37	3.36	0.28	26	1.19	360	1	1.12	37	0.054	11	60	0.11	47	72
27	0.3	1.92	23	56.0	0.2	0.80	0.2	38	3.42	0.28	26	1.23	371	1	1.12	38	0.057	11	61	0.12	48	77
28	0.3	1.94	25	57.0	0.2	0.80	0.3	38	3.41	0.28	24	1.25	379	1	1.14	39	0.058	9	61	0.13	48	77
29	0.5	2.15	30	58.0	0.3	0.81	0.3	39	3.65	0.36	28	1.32	408	<1	1.24	39	0.060	11	63	0.14	53	86
30	0.1	2.05	23	60.0	0.2	0.80	0.3	39	3.62	0.33	29	1.26	397	1	1.29	38	0.063	8	67	0.14	51	77

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - Miscellaneous

	CO2	C org	Cl	F	Hg	S	LOI
	%	%	ppm	ppm	ppb	ppm	%
Site	0.1	0.4	100	50	10	50	
1	0.5	1.2	>10000	698	-	1748	8.6
2	0.1	1.5	>10000	606	110	1616	9.3
3	0.3	1.2	>10000	673	120	1786	7.7
4	0.4	1.4	>10000	573	95	1349	9.3
5	0.4	1.2	>10000	581	105	1859	7.7
6	<0.1	1.6	>10000	585	95	1679	9.8
7	0.3	1.4	>10000	561	95	1416	7.2
8	0.3	1.5	>10000	585	100	1762	10.5
9	0.3	1.3	>10000	603	105	1623	9.4
10	0.3	1.0	7990	475	60	1331	5.0
11	0.3	1.3	>10000	622	95	1329	8.4
12	0.4	1.4	>10000	541	90	1609	9.2
13	0.3	1.8	>10000	591	95	1853	10.1
14	0.4	1.5	>10000	624	110	1708	10.2
15	0.3	1.6	>10000	557	100	1926	10.0
16	0.2	1.5	>10000	491	75	1604	8.7
17	0.1	1.1	>10000	476	75	1326	7.8
18	0.6	1.0	>10000	602	60	1134	6.4
19	0.1	1.3	>10000	529	75	1609	7.8
20	0.3	1.3	>10000	529	80	1378	8.1
21	0.4	1.4	>10000	566	105	1703	9.4
22	0.5	1.5	>10000	553	105	1922	9.6
23	0.3	1.6	>10000	609	85	1784	10.6
24	0.3	1.6	>10000	556	95	1860	9.9
25	0.4	1.5	>10000	526	80	1724	9.0
26	0.3	1.4	>10000	609	70	1724	8.6
27	0.5	1.3	>10000	600	70	1726	8.5
28	0.4	1.3	>10000	576	80	1670	8.6
29	0.4	1.4	>10000	510	90	1789	9.0
30	<0.1	1.5	>10000	562	90	1630	9.0

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - XRF

Site	Longitude	Latitude	Sediment Type	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Zr ppm
				0.2	0.01	0.06	0.05	0.04	0.01	0.03	0.01	0.5	0.02	30	10	10	20	10
31	123.4303	49.1575	Mud	14.0	2.44	6.3	2.00	2.91	0.07	3.6	0.23	57.9	0.77	550	10	74	270	140
32	123.4177	49.1690	Mud	13.9	2.42	6.3	1.99	2.87	0.07	3.5	0.23	57.7	0.77	530	10	77	260	140
33	123.4292	49.1845	Mud	14.1	2.28	6.7	2.16	2.99	0.07	4.2	0.22	56.8	0.75	540	10	74	250	140
34	123.4280	49.1997	Mud	14.0	2.26	6.5	2.08	3.00	0.08	3.7	0.25	56.5	0.74	530	<10	74	250	120
35	123.4010	49.2043	Mud	13.9	2.33	6.5	2.06	2.98	0.07	3.6	0.26	56.6	0.76	540	11	75	250	130
36	123.3728	49.2107	Mud	14.1	2.27	6.5	2.11	3.00	0.07	3.6	0.25	56.5	0.75	570	<10	75	260	130
37	123.3700	49.2272	Mud	14.0	2.17	6.5	2.10	2.96	0.07	3.6	0.24	56.3	0.75	550	10	73	250	120
38	123.3670	49.2433	Mud	13.5	2.37	5.8	1.91	2.68	0.07	4.4	0.22	60.1	0.71	520	<10	62	270	120
39	123.3917	49.2392	Sand/Mud	14.0	2.14	6.4	2.10	2.93	0.07	3.9	0.22	55.9	0.74	530	<10	75	260	130
40	123.4213	49.2380	Mud	14.0	2.16	6.6	2.13	3.00	0.07	3.8	0.23	55.7	0.73	560	10	76	250	120
41	123.4130	49.2497	Mud	14.1	2.14	6.5	2.17	3.02	0.07	3.7	0.22	56.0	0.73	580	<10	76	250	120
42	123.3882	49.2528	Sand/Mud	14.2	2.25	6.1	1.98	2.77	0.07	3.3	0.22	58.6	0.72	550	<10	70	270	120
43	123.3617	49.2583	Sand/Mud	14.0	3.05	5.5	1.87	2.57	0.09	3.0	0.19	62.5	0.73	660	<10	58	320	160
44	123.3340	49.2685	Sand/Mud	13.9	2.63	5.7	1.95	2.60	0.07	3.2	0.20	60.9	0.67	550	<10	66	290	120
45	123.3325	49.2845	Mud	14.6	2.24	6.6	2.18	3.00	0.07	3.1	0.24	57.2	0.75	590	<10	77	260	130
46	123.3563	49.2750	Sand/Mud	14.1	2.46	5.4	1.83	2.47	0.07	3.5	0.19	62.6	0.62	580	<10	61	320	120
47	123.3850	49.2703	Sand/Mud	13.6	2.20	6.2	2.01	2.82	0.08	3.5	0.22	55.8	0.68	550	<10	69	260	120
48	123.4093	49.2695	Mud	13.7	2.12	6.3	2.13	2.98	0.07	3.6	0.23	54.4	0.69	580	12	80	250	120
49	123.4400	49.2733	Mud	14.5	2.12	6.7	2.22	3.09	0.07	3.6	0.25	56.3	0.74	590	<10	77	250	120
50	123.4427	49.2493	Mud	12.8	1.94	6.0	2.01	2.80	0.06	3.8	0.21	51.0	0.66	500	<10	70	230	110
51	123.4442	49.2345	Mud	14.1	2.14	6.7	2.10	2.97	0.08	3.3	0.25	56.6	0.74	560	10	76	250	120
52	123.4485	49.2165	Mud	13.8	2.15	6.5	2.06	2.92	0.07	3.7	0.23	55.5	0.74	530	11	74	240	130
53	123.4212	49.2173	Mud	13.5	2.09	6.4	2.03	2.89	0.07	3.7	0.23	54.3	0.72	510	<10	71	240	120
67	122.7435	49.2153	Sand	11.2	2.51	3.4	1.11	1.56	0.07	2.7	0.12	74.3	0.40	520	<10	37	290	69
68	122.7685	49.2125	Sand	10.7	2.36	3.3	1.18	1.70	0.07	2.5	0.12	74.3	0.42	530	<10	41	320	69
69	122.8338	49.2197	Sand	11.2	2.45	3.4	1.13	1.58	0.07	2.6	0.12	75.9	0.41	560	<10	36	290	68
70	122.8935	49.2115	Sand	10.8	2.53	4.3	1.20	1.83	0.08	2.6	0.12	72.7	0.56	540	<10	39	320	140
71	123.0097	49.1530	Sand	10.6	1.85	3.0	1.28	1.49	0.07	2.9	0.12	75.6	0.36	560	<10	48	290	65
72	123.2117	49.1273	Sand	10.3	2.28	3.8	1.34	2.01	0.06	2.7	0.13	73.7	0.53	560	<10	42	300	110
73	123.2840	49.1117	Sand	10.8	2.29	3.4	1.19	1.67	0.06	2.8	0.12	74.0	0.42	570	<10	40	310	74

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - INAA

Site	As ppm 0.5	Au ppb 2	Ba ppm 10	Br ppm 1	Ca % 0.5	Ce ppm 3	Co ppm 1	Cr ppm 1	Cs ppm 0.5	Bu ppm 0.01	Fe % 0.05	Hf ppm 0.5	La ppm 0.1	Lu ppm 0.05	Na ppm 10	Nd ppm 5	Sb ppm 0.1	Sc ppm 0.1	Sm ppm 0.1	Ta ppm 0.5	Tb ppm 0.5	Th ppm 0.1	U ppm 0.1	Yb ppm 0.05	Zn ppm 20
31	8.2	2	420	90	0.7	39	15	78	2.1	0.94	3.75	3.3	19.5	0.26	23500	17	0.7	14.0	3.6	1.1	<0.5	5.3	1.2	1.76	90
32	8.8	7	500	85	2.0	40	14	81	2.6	0.78	3.82	3.5	20.0	0.25	22700	20	0.6	14.0	3.6	<0.5	0.5	5.6	1.5	1.80	140
33	8.7	<1	550	91	0.9	41	15	79	2.5	1.10	4.04	3.4	20.7	0.29	24100	19	0.8	14.0	3.8	<0.5	1.0	5.6	1.9	1.76	120
34	9.8	<2	470	110	1.5	43	15	79	2.4	1.11	4.00	3.4	19.8	0.26	24600	16	0.7	14.0	3.8	<0.5	0.6	5.8	1.1	1.67	190
35	12.0	6	390	110	1.8	43	15	85	2.9	0.90	4.01	3.2	20.3	0.28	25500	17	0.8	14.0	3.7	1.1	<0.5	5.9	1.5	1.86	160
36	8.6	4	440	100	2.0	42	15	79	2.5	0.99	3.97	3.1	19.9	0.27	24200	16	0.8	14.0	3.6	1.2	<0.5	5.6	1.7	1.86	110
37	10.0	<1	460	98	1.0	42	13	92	2.3	0.90	3.87	3.0	19.5	0.26	23300	17	0.7	14.0	3.7	<0.5	<0.5	5.8	1.3	1.74	110
38	10.0	<1	550	84	2.9	44	13	92	2.3	1.12	3.87	3.9	20.2	0.29	23300	22	0.7	13.0	4.1	<0.5	<0.5	5.3	1.3	1.85	130
39	8.1	6	460	98	1.4	40	14	69	2.7	0.99	3.69	2.9	18.9	0.24	24000	15	0.7	13.0	3.4	<0.5	<0.5	5.2	1.7	1.60	120
40	7.4	<1	460	110	1.0	38	15	78	2.7	0.98	3.81	2.9	19.1	0.26	24700	18	0.8	14.0	3.5	<0.5	<0.5	5.5	2.0	1.80	140
41	8.4	<1	480	92	1.8	41	15	75	3.0	0.86	3.84	2.7	19.2	0.25	23600	17	0.7	13.0	3.5	<0.5	<0.5	5.4	1.1	1.82	120
42	8.8	4	500	73	1.2	38	15	69	2.4	0.94	3.67	2.9	18.4	0.28	21600	17	0.8	13.0	3.4	<0.5	<0.5	5.0	1.5	1.85	140
43	6.8	3	470	25	2.0	41	14	74	1.7	0.94	3.22	3.7	20.9	0.26	18600	18	0.9	12.0	3.6	<0.5	0.6	5.3	1.6	1.88	71
44	7.3	4	500	65	2.2	39	13	75	2.5	0.96	3.46	3.0	18.8	0.24	21400	14	1.0	13.0	3.5	<0.5	<0.5	5.4	1.2	1.68	150
45	9.5	10	470	73	1.9	45	15	87	3.3	1.02	3.98	3.0	21.0	0.28	20700	20	0.9	14.0	3.8	<0.5	0.6	6.5	1.4	1.81	120
46	7.0	<1	550	63	1.2	33	12	59	1.6	0.68	3.19	2.7	17.2	0.25	21800	13	0.7	11.0	3.0	<0.5	<0.5	4.4	1.6	1.55	120
47	9.3	7	520	87	2.1	38	14	69	2.8	0.85	3.55	3.1	18.3	0.25	22200	15	0.9	12.0	3.3	<0.5	<0.5	5.1	1.9	1.58	110
48	7.0	6	580	94	1.8	40	15	78	2.5	0.99	3.69	2.9	19.2	0.24	24400	16	1.0	13.0	3.6	<0.5	<0.5	5.3	1.5	1.74	150
49	9.7	<1	480	91	0.9	45	15	79	2.6	1.05	4.02	3.2	21.2	0.25	23500	20	0.9	14.0	3.9	1.1	0.8	6.1	1.2	1.83	170
50	6.8	6	480	110	0.7	40	15	75	3.0	0.90	3.61	2.9	18.2	0.24	24600	17	0.7	13.0	3.4	<0.5	0.5	5.2	1.7	1.75	200
51	10.0	7	550	97	1.7	41	15	81	2.9	1.09	4.05	3.1	20.4	0.28	22400	20	0.8	15.0	3.8	<0.5	<0.5	6.1	1.4	1.93	170
52	11.0	7	490	110	1.6	43	15	78	2.9	1.01	4.01	3.4	19.8	0.27	24900	17	0.8	14.0	3.6	<0.5	<0.5	5.8	2.5	1.87	120
53	9.0	4	490	110	1.9	40	14	72	2.9	1.06	3.76	2.7	18.5	0.23	23900	17	0.7	13.0	3.4	<0.5	0.8	5.6	1.8	1.76	130
67	4.2	<1	490	<1	1.7	17	8	44	0.9	0.59	2.20	2.0	8.7	0.25	18100	8	0.4	9.5	1.9	<0.5	<0.5	1.8	0.8	1.28	35
68	2.9	4	580	<1	1.7	19	9	66	0.9	0.67	2.21	1.9	9.2	0.22	18000	10	0.6	9.2	2.0	<0.5	<0.5	2.0	0.5	1.31	65
69	3.1	<1	540	<1	1.7	15	7	39	0.6	0.61	2.02	2.0	7.5	0.20	18100	9	0.5	8.8	1.8	<0.5	<0.5	1.5	0.7	1.43	52
70	3.5	<1	460	<1	2.2	30	10	140	0.9	0.75	3.07	4.3	15.5	0.24	16800	15	0.5	10.0	2.7	<0.5	<0.5	2.6	0.8	1.67	56
71	4.3	<1	540	7	1.6	17	7	47	0.9	0.64	1.97	1.9	8.3	0.23	18600	10	0.6	7.9	1.8	<0.5	<0.5	1.8	0.6	1.24	40
72	3.7	2	510	17	1.8	29	10	100	1.0	0.76	2.56	3.0	14.8	0.22	17100	14	0.5	9.4	2.6	<0.5	<0.5	3.1	0.9	1.60	80
73	3.6	<1	410	10	1.6	18	9	52	0.8	0.64	2.18	1.9	8.7	0.27	19700	9	0.5	9.1	2.0	<0.5	<0.5	1.9	0.5	1.23	50

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	0.1	0.01	2	1	0.2	0.01	0.2	1	0.01	0.01	2	0.01	2	1	0.01	1	0.001	2	1	0.02	1	1
31	0.2	2.07	24	58.0	0.2	0.81	<0.2	38	3.61	0.35	31	1.30	420	2	1.19	40	0.060	8	62	0.15	51	84
32	0.2	1.97	22	56.0	<0.2	0.76	0.2	39	3.50	0.34	29	1.20	396	1	1.21	37	0.057	10	61	0.14	49	79
33	<0.1	2.04	26	58.0	<0.2	0.75	0.3	40	3.85	0.40	32	1.29	408	1	1.36	39	0.053	11	61	0.14	53	84
34	0.2	2.05	26	58.0	<0.2	0.73	0.6	40	3.62	0.37	31	1.26	434	<1	1.39	38	0.062	10	63	0.14	50	80
35	0.1	2.03	25	60.0	<0.2	0.77	0.2	43	3.72	0.37	35	1.27	415	1	1.46	38	0.064	9	67	0.14	52	80
36	0.3	2.08	28	57.0	<0.2	0.76	0.2	40	3.69	0.36	31	1.33	431	1	1.42	41	0.065	13	64	0.14	51	84
37	0.2	2.15	28	59.0	0.2	0.76	<0.2	41	3.77	0.38	29	1.35	434	<1	1.35	41	0.063	10	62	0.14	53	90
38	0.1	1.67	19	50.0	<0.2	0.66	0.2	33	3.02	0.23	22	1.10	377	<1	0.98	34	0.051	10	55	0.11	45	71
39	0.1	2.17	24	59.0	0.3	0.75	0.2	45	3.78	0.40	32	1.36	440	1	1.52	41	0.058	17	63	0.14	53	92
40	0.1	2.25	28	62.0	0.2	0.78	0.2	45	3.92	0.41	33	1.41	448	<1	1.61	42	0.062	16	66	0.14	55	92
41	0.4	2.08	28	59.0	0.2	0.73	0.2	45	3.60	0.38	28	1.32	442	1	1.41	40	0.055	17	61	0.13	52	92
42	0.3	2.15	26	62.0	0.2	0.76	0.2	44	3.69	0.36	25	1.35	484	1	1.13	40	0.060	15	62	0.13	55	90
43	0.7	1.77	15	99.0	0.2	0.84	0.3	38	3.28	0.20	16	1.24	514	1	0.68	41	0.052	8	56	0.13	49	82
44	0.2	2.02	21	74.0	<0.2	0.86	0.2	44	3.63	0.34	31	1.25	410	1	1.17	37	0.056	12	79	0.13	50	82
45	0.9	2.14	29	60.0	0.3	0.80	0.2	52	3.85	0.35	27	1.41	453	<1	1.11	44	0.065	18	62	0.12	53	97
46	0.7	1.82	25	59.0	0.3	0.67	0.2	35	3.05	0.25	20	1.09	405	<1	1.05	31	0.054	8	62	0.11	48	72
47	0.4	2.16	30	64.0	0.3	0.77	0.3	48	3.78	0.39	29	1.38	498	<1	1.46	41	0.062	15	68	0.13	55	91
48	0.9	2.28	36	65.0	0.2	0.81	<0.2	50	3.91	0.42	28	1.49	480	<1	1.53	45	0.063	22	67	0.13	56	103
49	0.5	2.38	28	67.0	0.2	0.81	0.2	51	4.08	0.43	29	1.49	496	<1	1.41	46	0.066	20	69	0.14	58	104
50	0.4	2.21	31	59.0	0.2	0.76	0.2	45	3.81	0.42	32	1.41	440	<1	1.81	41	0.057	17	66	0.13	54	92
51	0.5	2.27	31	60.0	0.3	0.78	0.2	43	3.87	0.39	31	1.36	498	<1	1.16	42	0.063	14	64	0.13	56	95
52	0.3	2.24	31	61.0	0.2	0.78	0.3	44	3.97	0.41	35	1.36	469	<1	1.53	40	0.062	16	67	0.13	56	92
53	0.4	2.21	30	59.0	0.2	0.77	0.2	43	3.86	0.41	34	1.38	450	1	1.71	41	0.062	13	66	0.13	54	89
67	0.6	1.22	8	92.0	0.2	0.76	<0.2	17	2.74	0.09	8	0.59	538	<1	0.08	29	0.028	6	60	0.12	36	33
68	0.4	1.20	6	76.0	0.2	0.74	0.2	18	2.15	0.09	9	0.72	443	1	0.07	30	0.030	4	41	0.12	37	36
69	0.2	1.13	2	78.0	<0.2	0.65	<0.2	17	3.27	0.09	8	0.57	609	1	0.07	30	0.027	<2	36	0.11	36	32
70	0.4	1.06	9	63.0	0.2	0.65	<0.2	14	2.09	0.07	8	0.70	384	<1	0.06	29	0.029	3	36	0.11	40	36
71	0.1	1.04	<2	78.0	0.2	0.53	<0.2	17	2.91	0.11	9	0.63	552	1	0.27	33	0.027	2	39	0.10	31	33
72	0.2	1.07	6	58.0	0.3	0.61	<0.2	17	2.33	0.12	9	0.87	359	<1	0.38	35	0.033	3	42	0.10	36	41
73	<0.1	1.13	4	70.0	0.2	0.70	<0.2	16	2.42	0.10	9	0.75	400	<1	0.24	32	0.032	3	38	0.12	38	37

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - Miscellaneous

	CO2	C org	Cl	F	Hg	S	LOI
	%	%	ppm	ppm	ppb	ppm	%
Site	0.1	0.4	100	50	10	50	
31	<0.1	1.5	>10000	534	105	1762	9.1
32	<0.1	1.6	>10000	587	80	1758	9.5
33	<0.1	1.5	>10000	553	90	2060	9.5
34	0.2	1.7	>10000	594	90	1948	10.3
35	0.3	1.6	>10000	611	80	1689	10.4
36	0.2	1.6	>10000	617	75	1973	10.4
37	0.2	1.7	>10000	608	100	1709	10.2
38	<0.1	1.4	>10000	526	75	1472	9.1
39	0.2	1.6	>10000	557	100	2008	10.5
40	0.1	1.7	>10000	561	110	2092	10.7
41	<0.1	1.6	>10000	598	95	1778	10.3
42	<0.1	1.9	>10000	581	135	1601	9.7
43	0.4	1.6	8940	495	70	718	6.2
44	0.4	1.2	>10000	538	100	1629	8.1
45	0.3	1.4	>10000	661	110	1370	9.1
46	0.1	1.2	>10000	478	75	1216	7.7
47	0.3	1.7	>10000	573	105	1852	11.9
48	0.3	1.5	>10000	633	120	1644	12.5
49	0.3	1.4	>10000	641	125	1399	10.0
50	0.1	1.4	>10000	555	105	2004	17.9
51	<0.1	1.8	>10000	593	95	1685	10.2
52	0.1	1.7	>10000	608	105	2135	11.0
53	0.2	1.6	>10000	539	95	2062	12.8
67	<0.1	<0.2	247	307	50	171	1.7
68	<0.1	<0.2	222	316	25	168	1.6
69	<0.1	<0.2	192	354	20	162	1.6
70	<0.1	<0.2	433	363	25	291	1.6
71	<0.1	<0.2	3254	323	10	296	2.0
72	<0.1	<0.2	4967	329	20	352	2.3
73	<0.1	<0.2	2887	324	25	301	2.2

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - XRF

Site	Longitude	Latitude	Sediment Type	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Zr ppm
				0.2	0.01	0.06	0.05	0.04	0.01	0.03	0.01	0.5	0.02	30	10	10	20	10
86	123.0503	48.8918	Sand/Mud	12.8	3.56	4.6	1.35	1.99	0.06	3.4	0.15	66.4	0.60	470	<10	39	390	170
87	123.0600	48.8805	Sand/Mud	12.7	3.79	4.2	1.26	1.94	0.07	3.8	0.14	67.9	0.53	470	<10	36	400	130
88	123.0797	48.8668	Sand/Mud	12.6	4.07	4.1	1.36	1.84	0.05	3.5	0.14	67.2	0.48	490	<10	43	420	130
89	123.0873	48.8527	Mud	13.8	2.47	6.2	1.79	2.61	0.06	3.7	0.23	60.8	0.76	450	<10	62	270	150
90	123.1002	48.8378	Mud	13.0	3.08	5.1	1.66	2.10	0.05	3.4	0.20	64.1	0.68	460	10	58	340	180
91	123.1157	48.8500	Mud	13.5	3.00	5.9	1.76	2.50	0.06	3.5	0.22	60.1	0.75	460	<10	59	290	160
92	123.1023	48.8608	Sand/Mud	13.0	4.20	4.4	1.36	2.03	0.05	3.2	0.14	67.6	0.67	500	<10	43	390	170
93	123.0888	48.8788	Sand/Mud	12.5	4.29	4.4	1.40	1.91	0.06	3.5	0.15	65.1	0.55	460	11	45	400	150
94	123.0783	48.8945	Sand/Mud	12.9	3.99	4.7	1.51	2.08	0.06	3.5	0.15	67.2	0.62	520	<10	44	370	200
95	123.0505	48.9048	Sand	12.6	3.78	4.6	1.45	2.00	0.06	3.6	0.16	65.5	0.59	450	10	52	390	190
96	123.0447	48.9188	Sand/Mud	12.7	4.08	4.9	1.42	1.97	0.06	3.3	0.16	66.8	0.63	480	<10	43	360	170
97	123.0633	48.9307	Sand/Mud	12.9	3.05	4.8	1.50	2.08	0.05	3.5	0.16	67.5	0.65	490	<10	49	350	180
98	123.0827	48.9138	Sand/Mud	12.7	3.48	5.0	1.52	2.13	0.05	3.4	0.16	63.8	0.64	450	<10	53	360	180
99	123.0965	48.9047	Sand/Mud	12.8	3.45	4.8	1.51	2.07	0.05	3.7	0.15	65.5	0.63	460	<10	51	360	180
100	123.1043	48.8878	Sand/Mud	12.8	3.66	4.7	1.45	2.03	0.06	3.5	0.15	66.3	0.61	450	<10	46	370	190
101	123.1217	48.8722	Sand/Mud	12.8	3.46	4.8	1.51	2.05	0.05	3.6	0.15	65.9	0.62	480	<10	49	360	180
115	123.5038	49.1367	Mud	13.6	2.31	6.4	2.03	2.97	0.08	4.1	0.25	55.7	0.74	540	<10	72	260	130
116	123.4837	49.1477	Mud	14.0	2.36	6.3	1.99	2.91	0.07	3.7	0.23	57.2	0.76	550	<10	77	270	140
117	123.4988	49.1508	Mud	14.0	2.22	6.5	2.09	2.95	0.08	3.8	0.23	56.4	0.75	530	10	77	260	130
118	123.4678	49.1597	Mud	13.9	2.38	6.4	2.00	2.91	0.08	3.7	0.25	57.0	0.76	530	<10	70	270	130
119	123.4977	49.1695	Mud	13.8	2.25	6.4	2.06	2.95	0.08	3.9	0.23	56.1	0.75	550	<10	73	270	130
120	123.4665	49.1740	Mud	13.8	2.46	6.3	2.03	2.91	0.07	3.6	0.24	56.6	0.77	510	<10	76	270	130
121	123.4920	49.1855	Mud	13.8	2.24	6.5	2.08	2.99	0.08	4.1	0.24	55.2	0.74	530	<10	77	260	130
122	123.4590	49.1918	Mud	13.8	2.28	6.4	2.04	2.97	0.07	3.8	0.25	56.4	0.77	570	<10	72	270	130
123	123.4832	49.2000	Mud	13.9	2.24	6.4	2.08	2.95	0.07	3.8	0.22	55.9	0.75	540	10	77	260	130
124	123.4545	49.2063	Mud	14.1	2.27	6.5	2.06	3.00	0.07	3.8	0.25	56.7	0.76	540	14	73	250	130
125	123.4800	49.2163	Mud	13.6	2.26	6.4	2.04	3.02	0.07	4.4	0.24	55.0	0.73	550	<10	72	250	120
126	123.4732	49.2362	Mud	14.3	2.11	6.5	2.11	3.02	0.09	4.1	0.25	56.5	0.73	520	<10	71	240	120
127	123.4775	49.2505	Mud	14.0	2.08	6.6	2.16	3.05	0.08	4.0	0.25	55.8	0.72	550	11	75	240	120
128	123.4707	49.2655	Mud	14.5	2.27	6.6	2.27	3.04	0.07	3.7	0.21	57.7	0.76	540	19	79	190	130

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - INAA

Site	As ppm 0.5	Au ppb 2	Ba ppm 10	Br ppm 1	Ca % 0.5	Ce ppm 3	Co ppm 1	Cr ppm 1	Cs ppm 0.5	Eu ppm 0.01	Fe % 0.05	Hf ppm 0.5	La ppm 0.1	Lu ppm 0.05	Na ppm 10	Nd ppm 5	Sb ppm 0.1	Sc ppm 0.1	Sm ppm 0.1	Ta ppm 0.5	Tb ppm 0.5	Th ppm 0.1	U ppm 0.1	Yb ppm 0.05	Zn ppm 20
86	5.0	<1	360	32	2.7	31	10	78	<0.5	0.80	2.80	4.4	15.9	0.23	23100	13	0.4	11.0	2.9	<0.5	0.5	3.4	1.2	1.43	57
87	5.3	2	360	32	2.8	24	9	85	1.2	0.73	2.57	3.1	11.7	0.25	24600	12	0.4	10.0	2.4	<0.5	0.6	2.4	0.8	1.32	87
88	5.0	<1	350	31	2.9	26	9	76	1.6	0.77	2.73	3.8	13.8	0.23	24300	13	0.4	9.7	2.7	<0.5	<0.5	3.5	0.7	1.38	43
89	9.7	<1	440	63	2.5	38	13	72	1.6	1.03	3.78	3.6	18.3	0.23	25500	13	0.6	15.0	3.7	<0.5	<0.5	5.1	2.2	1.85	60
90	6.2	<1	380	69	1.7	36	11	70	1.7	0.93	3.16	4.1	17.6	0.27	22900	20	0.4	11.0	3.5	<0.5	<0.5	4.4	1.0	1.73	76
91	5.5	4	390	68	2.8	38	11	78	2.4	1.01	3.57	3.8	18.2	0.23	24500	20	0.4	14.0	3.8	<0.5	0.6	5.0	2.1	1.67	100
92	5.5	<1	410	40	2.0	32	10	81	1.7	0.89	2.88	4.3	16.6	0.24	23700	15	0.3	11.0	3.1	<0.5	<0.5	4.0	1.1	1.45	96
93	4.9	<1	370	37	2.2	29	10	76	0.9	0.80	2.74	4.4	14.7	0.24	23500	13	0.5	9.8	2.8	<0.5	<0.5	3.6	1.2	1.50	50
94	5.4	<1	340	39	2.6	31	11	85	2.1	0.85	2.82	4.7	16.3	0.26	24100	16	0.3	11.0	3.1	<0.5	<0.5	3.9	1.2	1.53	52
95	5.3	3	300	39	1.9	33	10	83	1.6	0.83	2.90	4.9	16.5	0.24	23700	13	0.3	11.0	3.1	<0.5	0.6	3.9	1.1	1.58	50
96	5.8	<1	410	37	3.0	35	10	82	1.2	0.84	2.97	5.0	17.3	0.26	24200	14	0.4	11.0	3.3	<0.5	0.6	4.1	0.9	1.65	85
97	5.3	4	390	37	2.4	34	11	88	1.4	0.85	2.91	4.9	17.4	0.24	23000	15	0.4	11.0	3.2	<0.5	<0.5	4.0	1.3	1.58	74
98	6.6	4	390	59	2.5	36	11	79	1.4	0.94	3.18	4.5	17.6	0.24	24100	15	0.5	12.0	3.4	<0.5	<0.5	4.3	1.5	1.66	90
99	6.0	2	400	43	2.3	32	11	78	1.3	0.87	2.92	4.6	16.5	0.24	24100	15	0.5	11.0	3.1	<0.5	0.5	4.0	1.4	1.47	85
100	5.2	<1	360	50	2.6	30	10	82	1.9	0.84	2.96	4.7	14.9	0.23	23300	13	0.3	11.0	2.9	1.8	0.6	3.5	1.6	1.51	93
101	5.4	4	410	50	2.5	34	10	75	1.1	0.85	2.92	4.1	16.1	0.23	23900	15	0.5	11.0	3.1	<0.5	<0.5	4.0	1.2	1.57	98
115	9.5	4	450	140	3.3	41	17	84	3.4	1.00	3.91	3.5	19.4	0.27	30600	24	0.7	14.0	3.9	<0.5	<0.5	5.7	1.5	1.79	160
116	7.5	<1	510	110	2.7	43	16	86	3.1	1.00	3.90	3.6	20.6	0.27	26300	23	0.7	14.0	4.0	<0.5	<0.5	5.9	2.2	1.85	130
117	8.3	5	460	120	1.0	40	17	83	3.0	1.08	4.01	3.5	20.4	0.25	26900	16	0.8	15.0	4.0	<0.5	<0.5	5.6	1.8	1.91	140
118	9.9	6	390	120	2.1	42	17	88	2.7	0.98	3.94	3.5	20.1	0.32	25900	20	0.7	15.0	4.0	<0.5	<0.5	6.0	1.7	1.89	100
119	7.1	<1	350	130	2.1	41	16	84	2.9	1.06	3.96	3.2	20.3	0.24	28000	18	0.8	15.0	4.0	<0.5	0.7	5.8	2.0	1.86	98
120	9.5	<1	470	110	2.7	42	16	85	3.3	1.01	3.78	2.8	20.1	0.22	25100	22	0.8	14.0	3.9	<0.5	0.8	5.7	2.0	1.93	140
121	8.5	<1	470	130	1.0	43	18	84	2.4	1.04	4.02	2.8	19.8	0.25	28200	20	0.8	15.0	3.9	<0.5	<0.5	6.2	2.0	1.76	50
122	9.0	5	490	130	2.0	41	18	88	3.2	0.90	4.18	3.2	20.9	0.21	28000	21	0.9	15.0	4.1	<0.5	<0.5	5.7	1.7	1.83	150
123	6.6	5	420	120	2.7	46	17	90	3.1	0.94	4.14	3.2	21.1	0.20	27300	16	1.0	15.0	4.2	<0.5	<0.5	5.9	2.3	1.89	210
124	8.9	<1	450	130	1.7	40	17	87	2.8	0.97	4.12	3.3	19.9	0.28	26900	19	0.8	15.0	4.0	<0.5	<0.5	5.8	2.0	1.92	70
125	8.6	<2	470	150	2.2	41	17	86	2.7	0.92	3.96	2.6	20.1	0.27	30700	18	0.7	15.0	3.9	<0.5	<0.5	5.6	2.0	1.59	190
126	9.7	<2	430	140	1.6	44	18	84	1.2	1.18	4.08	3.2	20.1	0.25	29300	24	0.8	15.0	4.1	<0.5	0.7	5.6	1.8	1.94	160
127	9.1	<2	440	130	1.1	42	16	86	3.6	0.81	4.14	3.0	20.4	0.24	28500	18	0.9	15.0	4.0	<0.5	0.6	5.6	1.8	1.77	140
128	7.6	6	540	120	1.7	44	17	90	3.1	1.09	4.25	3.0	21.5	0.28	26900	21	0.9	15.0	4.2	<0.5	<0.5	6.1	1.9	1.91	200

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	0.1	0.01	2	1	0.2	0.01	0.2	1	0.01	0.01	2	0.01	2	1	0.01	1	0.001	2	1	0.02	1	1
86	0.1	1.35	15	53.0	<0.2	1.09	0.2	18	3.49	0.20	17	0.77	394	2	0.57	29	0.039	6	66	0.15	45	46
87	0.1	1.14	12	47.0	<0.2	1.01	0.2	11	2.40	0.15	11	0.70	319	<1	0.58	22	0.034	5	57	0.13	41	36
88	0.4	0.99	20	34.0	0.2	1.29	<0.2	12	2.55	0.15	11	0.63	293	<1	0.45	23	0.033	5	63	0.10	31	34
89	<0.1	1.87	23	40.0	0.5	0.76	0.3	30	3.57	0.32	31	1.18	363	<1	1.20	30	0.064	7	59	0.14	52	69
90	0.2	1.44	23	33.0	0.3	0.87	0.3	19	2.74	0.22	22	0.84	264	<1	0.70	23	0.053	5	60	0.11	40	62
91	0.1	1.69	24	33.0	0.3	1.14	0.2	25	3.03	0.26	26	1.02	298	<1	1.02	28	0.053	10	64	0.11	45	62
92	0.3	1.36	22	47.0	<0.2	1.59	0.2	17	2.68	0.20	16	0.75	287	1	0.58	25	0.039	4	80	0.11	39	45
93	0.2	1.14	19	39.0	0.2	1.31	<0.2	13	2.52	0.16	14	0.69	281	<1	0.48	23	0.037	5	69	0.11	38	41
94	0.5	1.36	23	53.0	<0.2	1.30	0.2	17	3.52	0.20	17	0.76	374	<1	0.62	29	0.038	6	74	0.13	42	47
95	0.2	1.53	21	64.0	<0.2	1.45	0.2	19	3.30	0.24	17	0.79	353	1	0.62	28	0.042	6	85	0.13	43	49
96	0.4	1.64	23	77.0	0.3	1.31	0.3	19	3.59	0.26	17	0.79	382	1	0.63	29	0.038	8	84	0.14	45	51
97	0.5	1.42	25	48.0	<0.2	0.94	0.3	16	3.11	0.21	20	0.81	319	2	0.60	27	0.039	11	59	0.12	40	54
98	0.4	1.85	29	71.0	0.4	1.43	0.2	24	3.82	0.33	22	0.91	396	2	0.79	33	0.041	7	91	0.14	49	61
99	0.6	1.60	25	60.0	0.3	1.14	0.3	22	4.23	0.26	20	0.82	434	1	0.71	33	0.038	8	75	0.13	44	52
100	0.2	1.59	21	67.0	0.3	1.21	0.2	21	3.38	0.25	17	0.77	353	1	0.68	28	0.035	5	79	0.13	45	50
101	0.2	1.52	23	50.0	0.3	1.12	0.3	20	3.30	0.23	22	0.82	335	1	0.74	29	0.039	4	70	0.13	42	54
115	0.5	1.97	35	55.0	0.3	0.80	<0.2	39	3.53	0.37	27	1.38	514	<1	2.02	39	0.064	14	70	0.11	51	85
116	0.9	2.03	38	54.0	0.4	0.80	0.2	40	3.61	0.34	28	1.37	455	1	1.51	40	0.063	16	65	0.12	52	89
117	0.1	1.82	23	51.0	0.2	0.67	0.3	39	3.25	0.33	27	1.20	424	1	1.45	35	0.052	14	57	0.10	47	79
118	0.5	1.98	33	55.0	0.4	0.77	0.3	42	3.62	0.33	31	1.28	471	<1	1.38	38	0.066	10	66	0.12	51	85
119	0.3	2.01	32	57.0	0.3	0.75	0.2	44	3.64	0.38	30	1.31	460	<1	1.73	39	0.059	11	66	0.11	52	84
120	0.1	1.92	26	55.0	0.3	0.75	0.3	42	3.51	0.35	29	1.23	411	1	1.48	37	0.059	11	65	0.11	50	81
121	0.2	1.94	27	55.0	0.2	0.70	0.3	43	3.58	0.37	30	1.27	468	<1	1.77	37	0.057	12	66	0.11	51	82
122	0.3	2.06	30	57.0	0.3	0.79	0.2	44	3.73	0.37	33	1.35	426	<1	1.76	39	0.065	10	68	0.12	53	87
123	0.4	1.92	31	53.0	0.3	0.72	0.3	41	3.42	0.33	29	1.24	402	<1	1.52	37	0.054	11	62	0.11	50	82
124	0.4	2.01	31	57.0	0.3	0.74	0.2	43	3.65	0.37	29	1.30	431	<1	1.60	39	0.061	12	66	0.11	52	85
125	0.8	2.00	38	55.0	0.3	0.78	0.3	42	3.62	0.37	31	1.34	443	<1	1.99	38	0.061	11	70	0.11	52	85
126	0.5	2.10	37	59.0	0.3	0.74	0.3	45	3.80	0.40	34	1.36	533	<1	1.92	40	0.063	13	69	0.11	55	89
127	0.2	2.00	30	57.0	0.2	0.69	0.2	43	3.62	0.39	33	1.29	450	<1	1.81	37	0.059	12	64	0.10	51	83
128	0.6	2.22	35	61.0	0.4	0.77	0.3	49	3.88	0.40	34	1.41	456	1	1.76	43	0.059	15	67	0.12	56	99

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - Miscellaneous

	CO2	C org	Cl	F	Hg	S	LOI
	%	%	ppm	ppm	ppb	ppm	%
Site	0.1	0.4	100	50	10	50	
86	0.1	0.5	5846	346	55	1222	3.6
87	0.3	<0.4	7682	281	35	1187	3.2
88	0.9	0.4	6106	398	30	1025	3.8
89	0.2	1.0	>10000	444	45	3825	7.1
90	0.2	1.1	>10000	436	50	2111	5.8
91	0.6	1.0	>10000	460	40	3237	7.3
92	0.8	0.6	6176	443	40	1102	4.4
93	0.5	0.6	5828	300	25	1141	4.5
94	1.1	0.4	6920	481	30	1273	4.2
95	0.5	0.5	6418	358	30	1256	4.2
96	0.4	0.5	5812	453	40	1044	4.3
97	0.2	0.5	6218	497	45	1092	4.1
98	0.7	0.8	7488	466	60	2328	5.7
99	0.5	0.5	>10000	548	45	1744	4.6
100	0.6	0.6	7170	448	30	1451	4.6
101	0.4	0.6	8502	408	50	1327	4.9
115	0.3	1.5	>10000	473	100	2234	10.8
116	0.1	1.5	>10000	504	90	1938	9.7
117	0.3	1.5	>10000	695	120	1860	10.2
118	0.4	1.5	>10000	523	90	1761	9.8
119	0.3	1.7	>10000	579	100	2058	10.2
120	0.1	1.6	>10000	606	105	2201	9.7
121	0.2	1.6	>10000	574	90	2029	10.8
122	0.4	1.6	>10000	519	110	2001	10.0
123	0.4	1.6	>10000	542	90	2081	10.0
124	0.2	1.7	>10000	543	110	1965	9.9
125	0.2	1.8	>10000	627	95	2336	11.3
126	0.2	1.7	>10000	554	110	2058	10.9
127	0.2	1.7	>10000	560	90	1869	10.8
128	0.1	1.6	-	584	125	1917	10.3

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - XRF

Site	Longitude	Latitude	Sediment Type	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Zr ppm
				0.2	0.01	0.06	0.05	0.04	0.01	0.03	0.01	0.5	0.02	30	10	10	20	10
129	123.4652	49.2835	Mud	14.6	2.28	6.8	2.33	3.12	0.08	3.9	0.23	57.3	0.74	560	16	75	210	120
131	123.2562	49.2922	Mud	13.9	3.17	5.9	2.03	2.89	0.07	3.0	0.21	62.2	0.79	590	19	76	250	170
132	123.2348	49.2910	Mud	14.1	2.97	6.0	2.09	2.93	0.07	2.9	0.22	62.7	0.79	590	23	82	240	170
133	123.2097	49.2883	Mud	14.3	2.91	6.2	2.20	2.99	0.07	3.1	0.21	61.1	0.80	600	19	79	240	160
134	123.1857	49.2873	Mud	14.8	2.84	6.4	2.24	3.02	0.07	3.1	0.23	60.3	0.78	580	20	76	250	150
135	123.1648	49.2873	Mud	14.9	3.35	6.2	2.21	2.89	0.07	3.1	0.21	59.4	0.74	620	19	82	270	140
136	123.1797	49.3112	Mud	14.8	2.92	6.5	2.25	3.07	0.07	3.2	0.22	59.0	0.77	620	17	78	260	160
137	123.2080	49.3030	Mud	14.9	2.92	6.4	2.21	3.01	0.07	3.1	0.22	60.7	0.78	620	17	77	250	150
138	123.2337	49.3135	Mud	14.5	2.80	6.4	2.21	3.00	0.07	3.3	0.23	60.1	0.76	600	17	79	240	150
139	123.2592	49.3153	Mud	15.1	2.56	6.8	2.35	3.14	0.07	3.4	0.24	58.0	0.77	600	19	89	230	130
140	123.2853	49.3177	Mud	14.8	2.64	6.9	2.35	3.13	0.07	3.4	0.26	56.6	0.78	590	19	85	230	140
141	123.3090	49.3193	Mud	14.9	2.42	6.9	2.37	3.15	0.07	3.5	0.27	56.7	0.76	600	19	96	220	130
142	123.3283	49.3202	Mud	15.0	2.41	6.9	2.35	3.10	0.08	3.3	0.23	57.6	0.74	600	18	89	220	120
143	123.3478	49.3218	Mud	14.7	2.38	6.7	2.31	3.06	0.07	3.6	0.23	57.1	0.76	570	20	84	220	120
144	123.3638	49.3242	Mud	14.7	2.48	6.8	2.32	3.08	0.08	3.7	0.22	57.2	0.74	560	16	83	210	120
145	123.3938	49.3265	Mud	14.6	2.55	6.7	2.34	3.15	0.07	3.8	0.22	56.4	0.73	590	19	91	220	120
146	123.4332	49.3297	Mud	14.4	2.33	6.7	2.35	3.13	0.08	3.9	0.23	55.7	0.73	560	19	86	210	110
147	123.4548	49.3297	Mud	14.6	2.25	6.8	2.30	3.14	0.08	4.0	0.23	56.1	0.74	580	21	84	200	110
149	123.4540	49.3163	Mud	14.6	2.28	6.7	2.36	3.14	0.07	3.8	0.21	56.7	0.74	550	18	81	200	120
150	123.4352	49.3110	Mud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
151	123.4110	49.3080	Mud	14.6	2.39	6.8	2.28	3.03	0.08	3.4	0.22	57.8	0.75	550	19	85	220	120
152	123.3677	49.3072	Mud	14.1	2.43	6.3	2.19	3.04	0.07	4.5	0.22	56.5	0.72	550	19	76	220	120
153	123.3462	49.3030	Mud	14.5	2.46	6.5	2.26	3.06	0.07	3.6	0.22	58.0	0.76	530	18	82	220	130
154	123.3295	49.3048	Mud	14.8	2.42	6.7	2.34	3.07	0.07	3.6	0.24	57.5	0.76	610	20	85	210	120
155	123.3058	49.3007	Mud	15.1	2.46	6.8	2.32	3.15	0.07	3.4	0.23	58.0	0.76	550	21	80	210	130
156	123.2830	49.2990	Mud	14.8	2.64	6.7	2.30	3.12	0.07	3.2	0.23	59.0	0.79	620	20	76	230	140
157	123.2912	49.2902	Mud	14.3	2.75	6.2	2.16	2.90	0.07	3.0	0.21	60.7	0.79	580	19	74	240	170
158	123.2920	49.2757	Mud	13.1	3.03	5.6	1.90	2.73	0.07	2.9	0.19	65.3	0.78	550	21	65	260	190
159	123.3110	49.2903	Mud	14.9	2.72	6.5	2.30	3.04	0.07	3.2	0.21	59.2	0.77	630	21	79	240	140
160	123.3543	49.2927	Mud	14.5	2.50	6.4	2.21	3.02	0.07	3.6	0.21	58.3	0.76	560	18	78	220	130

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - INAA

Site	As ppm 0.5	Au ppb 2	Ba ppm 10	Br ppm 1	Ca % 0.5	Ce ppm 3	Co ppm 1	Cr ppm 1	Cs ppm 0.5	Eu ppm 0.01	Fe % 0.05	Hf ppm 0.5	La ppm 0.1	Lu ppm 0.05	Na ppm 10	Nd ppm 5	Sb ppm 0.1	Sc ppm 0.1	Sm ppm 0.1	Ta ppm 0.5	Tb ppm 0.5	Th ppm 0.1	U ppm 0.1	Yb ppm 0.05	Zn ppm 20
129	8.1	5	500	120	<0.5	41	19	87	2.5	0.78	4.21	3.0	20.8	0.28	26800	20	0.9	15.0	4.1	<0.5	<0.5	6.1	2.0	1.99	150
131	6.8	5	510	43	2.2	47	16	98	2.1	1.06	3.67	3.9	23.9	0.23	20900	22	0.8	14.0	4.3	0.7	0.6	6.4	2.1	1.87	130
132	7.9	9	530	43	2.8	47	15	100	2.5	1.09	3.72	3.5	24.2	0.32	20800	25	0.8	14.0	4.4	<0.5	<0.5	6.2	1.9	1.91	120
133	7.4	8	510	54	2.8	49	16	97	1.7	1.10	3.78	3.6	24.3	0.22	22100	20	0.9	14.0	4.4	1.2	0.6	6.7	2.0	2.02	180
134	8.9	4	520	54	1.2	47	16	100	3.1	1.02	4.00	3.4	24.1	0.21	22700	23	0.9	15.0	4.6	<0.5	0.6	6.5	2.1	1.99	170
135	8.8	7	580	52	2.1	45	16	86	2.5	1.02	3.94	3.4	22.7	0.21	22700	22	1.1	15.0	4.3	<0.5	<0.5	6.3	2.2	1.82	200
136	9.7	4	540	60	3.1	51	17	100	2.4	1.18	4.24	3.7	24.2	0.33	23200	22	1.1	15.0	4.7	<0.5	0.7	6.9	2.0	2.05	100
137	8.7	8	470	51	1.6	48	17	98	2.5	1.09	3.85	3.4	23.6	0.31	21500	25	0.9	15.0	4.4	<0.5	0.8	6.5	2.1	1.89	140
138	8.8	6	490	64	1.8	48	16	96	3.0	1.13	3.87	3.6	22.9	0.32	22900	22	1.1	14.0	4.3	<0.5	<0.5	6.6	1.9	1.84	170
139	9.3	11	500	78	3.8	46	16	91	2.4	1.04	4.17	3.2	22.4	0.30	23400	25	1.0	15.0	4.2	<0.5	0.7	6.5	1.9	1.81	210
140	9.9	5	520	87	2.0	46	17	97	3.3	1.07	4.13	2.8	22.0	0.30	24500	20	1.0	15.0	4.2	<0.5	0.6	6.2	2.1	1.86	150
141	9.5	<1	450	92	2.6	44	17	93	2.8	0.90	4.25	2.6	21.5	0.24	24800	20	0.9	15.0	4.3	<0.5	<0.5	6.2	1.1	1.75	140
142	8.9	<1	490	83	0.9	43	16	88	2.7	1.00	4.08	2.9	21.2	0.24	22600	20	1.0	15.0	4.1	<0.5	<0.5	6.0	1.8	1.63	190
143	10.0	14	490	100	2.5	45	17	86	2.8	1.03	4.12	3.0	21.6	0.27	26300	21	0.9	15.0	4.2	<0.5	<0.5	6.3	2.0	1.97	150
144	7.8	<1	500	100	2.6	40	16	88	3.7	0.98	4.06	3.2	21.0	0.25	25500	21	1.1	15.0	4.0	<0.5	<0.5	6.1	1.2	1.90	150
145	8.6	9	480	110	1.3	41	16	82	2.9	0.94	3.86	2.6	20.6	0.28	26000	21	0.8	14.0	3.9	<0.5	<0.5	6.2	1.5	1.82	210
146	8.8	<1	570	130	1.3	44	18	89	3.1	1.04	4.19	2.7	21.3	0.22	29400	21	1.0	15.0	4.2	<0.5	<0.5	5.8	1.4	1.88	160
147	9.5	<1	390	130	1.2	44	19	93	3.8	1.01	4.31	3.0	20.7	0.30	29100	20	1.0	15.0	4.1	<0.5	<0.5	6.1	1.5	2.03	160
149	9.2	<1	500	120	1.8	46	18	83	3.2	0.76	4.23	2.7	21.2	0.24	28200	22	1.0	15.0	4.1	<0.5	<0.5	6.2	2.0	1.83	150
150	10.0	8	500	120	2.2	43	18	90	3.1	1.09	4.18	3.0	21.4	0.22	27800	20	1.1	15.0	4.2	<0.5	0.9	6.5	1.3	1.79	180
151	9.0	4	440	99	1.5	44	17	90	3.2	0.93	4.23	2.9	21.5	0.21	25000	18	1.0	15.0	4.2	<0.5	<0.5	6.2	1.8	1.72	160
152	8.2	<1	460	150	1.1	41	17	84	3.5	1.04	3.86	2.8	20.2	0.26	33400	19	0.9	14.0	3.9	<0.5	<0.5	5.5	1.6	1.81	170
153	9.4	<1	520	97	1.0	45	18	96	3.7	1.02	4.05	3.3	22.5	0.23	26100	21	0.9	15.0	4.3	<0.5	<0.5	6.6	2.4	1.99	220
154	11.0	9	480	100	2.2	45	18	95	2.9	1.05	4.27	3.0	22.8	0.23	26200	22	0.9	15.0	4.3	<0.5	<0.5	6.3	1.4	2.02	130
155	9.3	9	580	87	1.6	47	16	100	2.5	1.09	4.29	3.2	23.4	0.25	25700	21	0.9	16.0	4.4	1.4	<0.5	6.6	1.9	2.02	250
156	9.9	5	650	68	1.7	58	19	110	3.2	1.20	4.57	3.6	26.2	0.32	26800	23	1.2	15.0	4.7	<0.5	<0.5	7.0	2.4	2.12	150
157	8.3	10	620	50	2.2	59	17	110	2.8	1.26	4.17	4.6	26.6	0.26	24800	21	0.9	14.0	4.7	<0.5	<0.5	7.0	2.5	2.20	150
158	6.7	35	570	32	1.8	57	15	120	1.4	1.16	3.69	5.2	26.4	0.36	23000	22	0.8	13.0	4.6	1.0	0.7	6.1	2.3	2.18	92
159	7.7	<1	590	64	1.7	55	16	110	2.6	1.14	4.29	4.1	24.8	0.35	26500	24	0.9	14.0	4.5	<0.5	<0.5	6.8	2.9	2.13	140
160	8.5	4	610	97	2.1	54	17	96	2.7	1.12	4.25	3.6	22.9	0.19	29500	20	0.9	14.0	4.4	<0.5	<0.5	5.6	1.3	1.97	150

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	0.1	0.01	2	1	0.2	0.01	0.2	1	0.01	0.01	2	0.01	2	1	0.01	1	0.001	2	1	0.02	1	1
129	0.4	2.20	31	62.0	0.4	0.76	0.2	54	3.80	0.40	32	1.45	459	<1	1.62	43	0.061	19	65	0.14	54	97
131	0.4	1.63	15	50.0	0.2	0.81	0.3	46	3.22	0.21	26	1.27	348	1	0.78	41	0.059	12	55	0.13	44	79
132	0.6	1.72	18	52.0	0.2	0.91	0.3	50	3.40	0.22	30	1.34	374	1	0.81	43	0.064	13	59	0.13	46	89
133	0.7	1.90	20	54.0	0.4	0.87	0.2	56	3.55	0.24	27	1.45	404	1	1.00	45	0.065	20	59	0.14	49	96
134	0.8	1.97	22	60.0	0.2	0.83	0.2	61	3.62	0.27	26	1.39	411	2	0.94	43	0.064	22	62	0.14	50	98
135	0.4	1.86	15	61.0	<0.2	1.21	0.4	59	3.44	0.29	30	1.21	368	2	0.94	38	0.054	23	77	0.13	47	96
136	0.6	1.96	22	64.0	0.2	0.81	0.3	94	3.48	0.28	27	1.32	391	1	0.97	42	0.059	27	65	0.14	51	98
137	0.7	1.92	20	63.0	<0.2	0.80	0.3	90	3.63	0.30	34	1.31	389	2	0.91	42	0.060	24	63	0.14	51	94
138	0.7	1.79	24	56.0	<0.2	0.74	<0.2	120	3.37	0.26	28	1.25	361	1	1.06	39	0.061	23	60	0.12	47	91
139	0.4	2.04	22	63.0	<0.2	0.76	0.3	96	3.92	0.33	36	1.36	395	2	1.28	42	0.068	24	68	0.13	51	95
140	0.8	2.25	28	67.0	0.2	0.83	0.3	113	4.14	0.40	35	1.48	435	1	1.45	45	0.076	22	75	0.14	55	105
141	0.6	2.29	29	67.0	0.3	0.83	0.3	99	4.18	0.41	36	1.49	440	<1	1.47	45	0.076	26	73	0.14	56	105
142	0.6	2.26	28	65.0	0.3	0.81	0.3	82	4.00	0.39	33	1.43	441	<1	1.29	44	0.065	23	67	0.14	56	101
143	0.4	1.33	19	36.0	0.2	0.48	<0.2	36	2.20	0.21	20	0.86	252	1	0.84	25	0.037	10	38	0.08	31	58
144	0.6	2.19	31	66.0	0.4	0.80	0.3	65	3.76	0.41	33	1.39	482	1	1.48	41	0.057	25	68	0.13	55	100
145	0.7	2.29	34	66.0	0.3	0.92	0.3	73	3.87	0.43	31	1.49	439	1	1.68	44	0.061	25	77	0.13	55	103
146	0.1	2.68	38	129.0	<0.2	0.80	0.2	56	3.62	0.52	4	1.43	437	2	1.78	40	0.060	28	80	0.17	60	104
147	0.5	2.20	33	65.0	<0.2	0.76	0.2	56	3.88	0.43	36	1.38	452	1	1.73	41	0.058	20	69	0.12	54	93
149	0.6	2.23	32	64.0	0.2	0.76	0.3	55	3.79	0.43	32	1.42	434	1	1.67	42	0.056	19	67	0.13	54	97
150	0.4	2.24	31	64.0	0.2	0.75	0.3	55	3.85	0.42	34	1.40	512	1	1.66	41	0.063	18	69	0.12	54	95
151	0.4	2.28	32	68.0	0.2	0.79	0.3	58	3.97	0.42	35	1.37	448	<1	1.40	42	0.058	17	69	0.13	56	93
152	0.4	2.14	33	63.0	0.2	0.77	0.3	52	3.78	0.42	36	1.41	420	<1	2.29	40	0.064	15	76	0.13	52	89
153	0.3	1.91	26	57.0	<0.2	0.68	0.2	50	3.35	0.34	30	1.22	371	1	1.32	37	0.053	17	59	0.11	47	81
154	1.0	1.97	33	57.0	0.2	0.70	0.3	55	3.49	0.34	26	1.27	401	1	1.35	38	0.058	18	62	0.11	48	85
155	0.5	2.12	27	61.0	0.2	0.77	0.2	62	3.77	0.36	31	1.37	411	1	1.29	42	0.061	17	64	0.12	51	93
156	0.6	1.98	22	58.0	0.2	0.77	0.3	59	3.65	0.28	29	1.34	405	<1	1.12	42	0.061	15	62	0.12	49	89
157	0.4	1.78	18	53.0	<0.2	0.75	0.3	51	3.37	0.24	30	1.24	362	<1	0.92	39	0.059	12	57	0.11	45	80
158	0.4	1.46	15	47.0	<0.2	0.72	0.3	38	2.97	0.19	22	1.11	338	<1	0.66	37	0.052	9	50	0.11	42	68
159	0.3	2.13	20	59.0	0.4	0.88	0.2	54	3.72	0.30	28	1.43	399	1	1.04	44	0.060	16	62	0.13	51	102
160	0.3	2.03	28	56.0	0.3	0.75	<0.2	43	3.48	0.30	25	1.34	376	<1	1.28	39	0.057	13	59	0.12	48	88

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - Miscellaneous

Site	CO2 %	C org %	Cl ppm	F ppm	Hg ppb	S ppm	LOI %
	0.1	0.4	100	50	10	50	
129	<0.1	1.5	-	714	145	1912	10.2
131	0.1	1.2	8968	651	70	1397	6.5
132	0.4	1.1	8824	812	70	1398	6.4
133	0.2	1.1	-	759	105	1635	7.0
134	0.8	1.0	-	708	155	1694	7.1
135	0.3	1.3	-	650	155	2239	7.3
136	0.4	1.3	-	711	150	1818	7.9
137	0.1	1.3	8860	700	170	1684	7.2
138	0.3	1.3	-	706	170	1722	8.0
139	<0.1	1.5	-	638	120	1644	9.0
140	<0.1	1.6	-	754	160	2044	9.6
141	0.4	1.5	-	659	140	1901	9.7
142	0.1	1.6	-	637	140	1563	9.4
143	0.3	1.6	-	712	160	2118	10.0
144	0.2	1.5	-	660	120	2052	10.1
145	0.4	1.5	-	708	160	1871	10.5
146	0.3	1.6	-	673	130	2264	10.9
147	0.2	1.6	-	650	105	2309	11.1
149	0.3	1.5	-	635	175	2065	10.6
150	-	-	-	616	140	2032	-
151	0.1	1.6	-	729	135	1702	9.9
152	0.1	1.4	-	606	120	2373	11.3
153	<0.1	1.7	-	698	100	2213	9.4
154	<0.1	1.5	-	622	85	1829	9.7
155	0.1	1.5	-	646	110	2022	9.2
156	0.1	1.4	-	637	105	1655	8.4
157	<0.1	1.3	-	581	85	1346	7.5
158	0.2	0.9	7666	616	55	1275	5.5
159	0.2	1.4	-	608	130	1717	8.4
160	0.2	1.5	-	598	90	1786	9.6

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - XRF

Site	Longitude	Latitude	Sediment Type	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Zr ppm
				0.2	0.01	0.06	0.05	0.04	0.01	0.03	0.01	0.5	0.02	30	10	10	20	10
161	123.3752	49.2868	Mud	14.3	2.49	6.4	2.16	2.91	0.08	3.5	0.22	58.5	0.73	570	19	79	220	130
164	123.2002	48.9967	Sand/Mud	10.7	2.50	4.1	1.44	2.00	0.06	2.8	0.13	74.4	0.59	490	18	53	240	140
168	123.3385	48.9973	Mud	13.7	2.89	5.7	1.85	2.48	0.06	3.7	0.20	61.6	0.78	460	18	76	250	160
169	123.4718	49.0110	Mud	14.5	2.50	6.6	2.29	3.09	0.08	3.7	0.22	58.4	0.78	570	20	85	210	140
170	123.3633	48.9745	Mud	14.0	2.73	5.9	1.91	2.53	0.06	3.6	0.20	61.6	0.77	480	18	68	230	160
171	123.2855	48.9412	Mud	13.8	3.05	5.4	1.75	2.22	0.06	3.3	0.19	64.3	0.75	480	16	68	270	170
172	123.2352	48.8843	Mud	13.3	2.95	5.3	1.77	2.24	0.05	3.6	0.19	63.3	0.73	450	20	60	260	180

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - INAA

Site	As ppm	Au ppb	Ba ppm	Br ppm	Ca %	Ce ppm	Co ppm	Cr ppm	Cs ppm	Eu ppm	Fe %	Hf ppm	La ppm	Lu ppm	Na ppm	Nd ppm	Sb ppm	Sc ppm	Sm ppm	Ta ppm	Tb ppm	Th ppm	U ppm	Yb ppm	Zn ppm
	0.5	2	10	1	0.5	3	1	1	0.5	0.01	0.05	0.5	0.1	0.05	10	5	0.1	0.1	0.1	0.5	0.5	0.1	0.1	0.05	20
161	10.0	5	670	97	0.7	49	17	100	2.3	1.21	4.14	4.1	22.7	0.36	29000	23	0.9	14.0	4.3	<0.5	<0.5	6.1	1.7	2.05	100
164	5.5	2	540	21	1.9	44	12	150	1.2	0.92	3.15	5.9	19.4	0.31	21700	15	0.6	10.0	3.5	<0.5	<0.5	4.0	1.1	1.99	<20
168	7.7	<1	520	100	1.1	49	14	87	2.5	1.09	3.94	4.4	20.6	0.25	30100	20	0.6	13.0	4.0	<0.5	0.8	5.2	2.1	2.03	150
169	6.8	<1	580	93	1.0	56	18	98	2.7	1.15	4.28	3.5	24.4	0.26	28800	25	0.8	14.0	4.5	<0.5	<0.5	6.9	2.6	2.10	120
170	7.3	<2	480	96	2.6	49	14	90	2.6	1.01	3.90	4.4	21.0	0.30	27700	22	0.6	13.0	4.0	1.0	0.8	5.2	1.7	1.99	85
171	6.6	3	450	62	1.9	47	13	77	2.1	1.07	3.50	4.7	20.5	0.28	26500	16	0.5	12.0	3.8	1.5	0.5	4.6	1.3	1.87	130
172	6.4	4	470	86	1.3	45	12	81	2.7	1.04	3.49	4.7	20.0	0.28	28000	25	0.4	12.0	3.7	1.5	<0.5	5.0	2.0	1.83	91

GSC Open File 3052
Strait of Georgia Sediments - Analytical Data - ICP-ES

Site	Ag ppm	Al %	B ppm	Ba ppm	Be ppm	Ca %	Cd ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	0.1	0.01	2	1	0.2	0.01	0.2	1	0.01	0.01	2	0.01	2	1	0.01	1	0.001	2	1	0.02	1	1
161	0.2	2.16	29	62.0	0.4	0.78	0.2	46	3.75	0.36	30	1.37	483	<1	1.34	40	0.063	14	63	0.13	52	93
164	0.1	1.21	9	54.0	0.2	0.67	<0.2	13	2.73	0.15	13	0.86	326	<1	0.40	34	0.035	4	42	0.13	41	45
168	0.3	1.77	26	43.0	0.2	0.74	0.2	25	2.99	0.26	27	1.02	282	<1	1.08	28	0.053	9	56	0.12	42	68
169	0.1	2.05	21	58.0	0.4	0.79	<0.2	40	3.69	0.30	30	1.39	421	<1	1.31	43	0.058	13	59	0.13	49	88
170	0.1	1.83	24	45.0	0.3	0.70	<0.2	27	3.11	0.26	30	1.05	288	<1	1.03	30	0.051	9	53	0.13	44	74
171	<0.1	1.68	20	41.0	0.3	0.71	<0.2	19	2.96	0.23	30	0.89	258	<1	0.71	24	0.053	8	53	0.13	41	64
172	0.2	1.57	25	37.0	0.2	0.74	<0.2	19	2.74	0.23	24	0.87	253	<1	0.86	23	0.049	8	54	0.11	38	59

GSC Open File 3052
 Strait of Georgia Sediments - Analytical Data - Miscellaneous

	CO2	C org	Cl	F	Hg	S	LOI
	%	%	ppm	ppm	ppb	ppm	%
Site	0.1	0.4	100	50	10	50	
161	0.1	1.6	-	668	95	1903	9.7
164	<0.1	<0.4	4660	435	25	872	2.8
168	0.1	1.4	-	559	60	1935	8.3
169	0.2	1.3	-	701	75	1614	9.1
170	<0.1	1.4	-	594	60	1823	8.1
171	<0.1	1.0	8070	516	40	1376	6.2
172	0.1	1.2	-	512	55	1786	7.3

Appendix C

Statistical Summary

N = number of samples

dl = determination limit

Cum % = cumulative frequency (as a percentage)

S = Sand

M = Mud

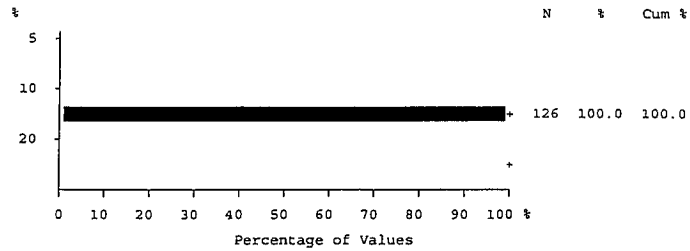
SM = Sandy mud

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Aluminum Oxide

Number of values - 127

Determination limit - 0.2 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	13.767	11.500	14.143	13.100
Standard deviation	0.987	1.252	0.463	0.842
Skewness	-1.703	1.049	-0.118	-0.698
Kurtosis	2.961	-0.247	-0.067	0.966
Geometric Mean	13.729	11.443	14.135	13.073
Percentiles				
Minimum value	10.300	10.300	12.800	10.700
25th	13.600	10.675	13.800	12.700
50th	14.000	11.000	14.100	12.850
75th	14.400	12.525	14.500	13.975
80th	14.500	12.580	14.600	14.000
90th	14.730	14.130	14.800	14.190
95th	14.900	14.300	14.900	14.295
98th	15.046	14.300	15.100	14.300
99th	15.100	14.300	15.100	14.300
Maximum value	15.100	14.300	15.100	14.300

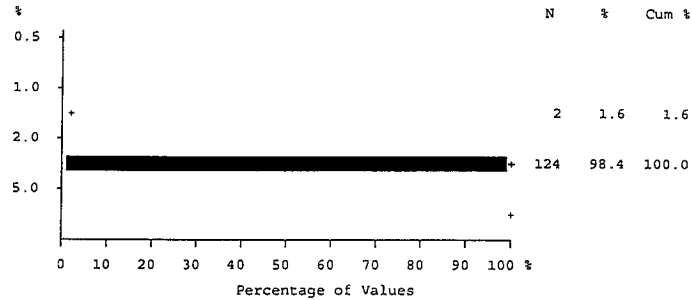
Al₂O₃ - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Calcium Oxide

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	2.589	2.509	2.463	3.233
Standard deviation	0.488	0.499	0.277	0.739
Skewness	1.671	1.403	0.949	-0.136
Kurtosis	2.443	1.524	0.430	-1.576
Geometric Mean	2.550	2.471	2.448	3.149
Percentiles				
Minimum value	1.850	1.850	1.940	2.140
25th	2.278	2.288	2.263	2.470
50th	2.435	2.405	2.420	3.455
75th	2.723	2.573	2.558	3.940
80th	2.902	2.666	2.690	4.054
90th	3.380	3.672	2.920	4.188
95th	3.787	3.780	3.033	4.286
98th	4.135	3.780	3.181	4.290
99th	4.266	3.780	3.350	4.290
Maximum value	4.290	3.780	3.350	4.290

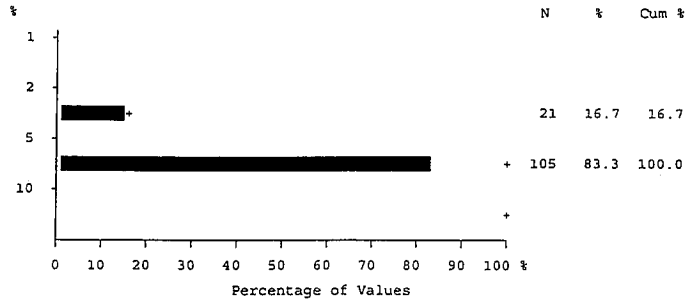
CaO - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Ferric Oxide

Number of values - 127

Determination limit - 0.06 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	5.989	4.050	6.391	5.030
Standard deviation	0.901	1.033	0.336	0.710
Skewness	-1.575	1.030	-1.379	0.480
Kurtosis	1.594	-0.086	2.510	-1.097
Geometric Mean	5.906	3.947	6.381	4.984
Percentiles				
Minimum value	3.000	3.000	5.100	4.100
25th	5.800	3.375	6.300	4.450
50th	6.400	3.600	6.400	4.800
75th	6.500	4.675	6.600	5.650
80th	6.600	4.840	6.700	5.780
90th	6.700	6.250	6.730	6.190
95th	6.800	6.400	6.800	6.390
98th	6.900	6.400	6.900	6.400
99th	6.900	6.400	6.900	6.400
Maximum value	6.900	6.400	6.900	6.400

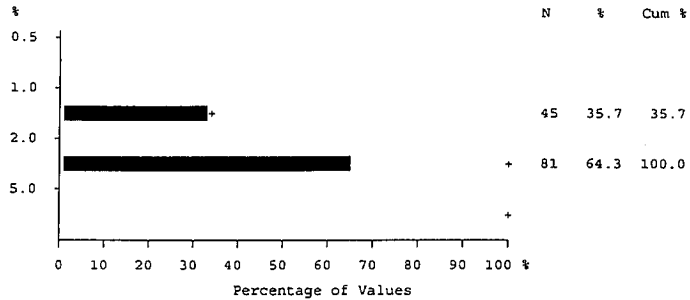
Fe₂O₃ - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Potassium Oxide

Number of values - 127

Determination limit - 0.05 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	1.975	1.373	2.112	1.617
Standard deviation	0.319	0.336	0.154	0.274
Skewness	-1.145	1.460	-0.444	0.515
Kurtosis	0.347	0.980	-0.077	-1.458
Geometric Mean	1.945	1.343	2.107	1.596
Percentiles				
Minimum value	1.110	1.110	1.660	1.260
25th	1.900	1.168	2.013	1.405
50th	2.060	1.240	2.115	1.510
75th	2.190	1.498	2.210	1.930
80th	2.210	1.602	2.256	1.974
90th	2.303	2.153	2.323	2.010
95th	2.347	2.210	2.350	2.096
98th	2.355	2.210	2.361	2.100
99th	2.367	2.210	2.370	2.100
Maximum value	2.370	2.210	2.370	2.100

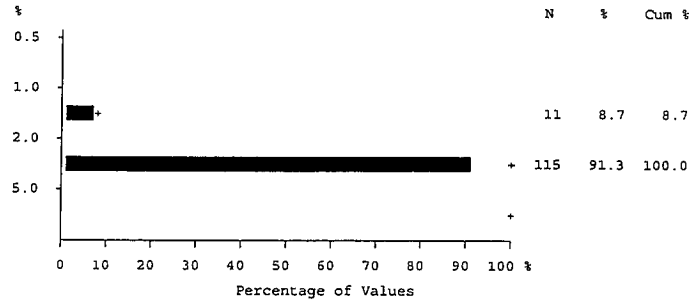
K2O - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Magnesium Oxide

Number of values - 127

Determination limit - 0.04 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	2.760	1.928	2.953	2.251
Standard deviation	0.434	0.474	0.191	0.355
Skewness	-1.383	1.141	-2.448	0.665
Kurtosis	0.580	0.083	6.801	-1.277
Geometric Mean	2.719	1.883	2.946	2.226
Percentiles				
Minimum value	1.490	1.490	2.100	1.840
25th	2.608	1.575	2.910	1.993
50th	2.955	1.765	3.000	2.075
75th	3.030	2.113	3.060	2.593
80th	3.056	2.338	3.076	2.712
90th	3.093	2.960	3.123	2.815
95th	3.140	3.020	3.140	2.925
98th	3.150	3.020	3.150	2.930
99th	3.150	3.020	3.150	2.930
Maximum value	3.150	3.020	3.150	2.930

MgO - XRF

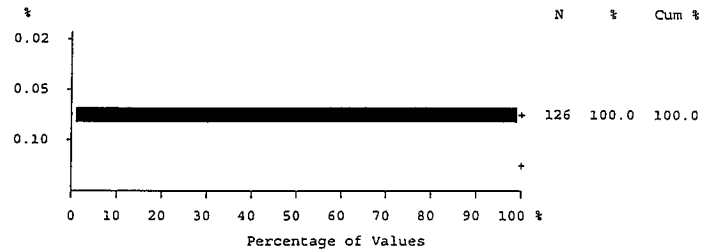
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Manganese Oxide

Number of values - 127

Determination limit - 0.01 %

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.069	0.067	0.071	0.063
Standard deviation	0.008	0.007	0.006	0.011
Skewness	-0.502	0.312	-0.323	0.604
Kurtosis	1.137	-1.141	2.778	-0.340
Geometric Mean	0.069	0.067	0.071	0.062
Percentiles				
Minimum value	0.050	0.060	0.050	0.050
25th	0.070	0.060	0.070	0.050
50th	0.070	0.070	0.070	0.060
75th	0.070	0.070	0.070	0.070
80th	0.070	0.070	0.070	0.070
90th	0.080	0.079	0.080	0.079
95th	0.080	0.080	0.080	0.090
98th	0.085	0.080	0.081	0.090
99th	0.090	0.080	0.090	0.090
Maximum value	0.090	0.080	0.090	0.090



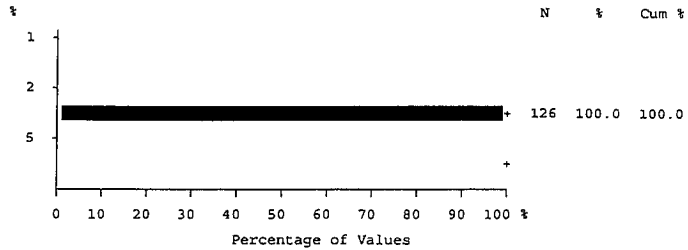
MnO - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Sodium Oxide

Number of values - 127

Determination limit - 0.03 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	3.480	2.860	3.557	3.420
Standard deviation	0.369	0.334	0.330	0.255
Skewness	-0.146	0.958	0.261	-0.430
Kurtosis	0.374	-0.261	0.249	0.159
Geometric Mean	3.460	2.844	3.542	3.411
Percentiles				
Minimum value	2.500	2.500	2.900	2.800
25th	3.300	2.600	3.325	3.300
50th	3.500	2.750	3.600	3.500
75th	3.700	3.050	3.700	3.500
80th	3.700	3.160	3.800	3.580
90th	3.900	3.560	3.930	3.790
95th	4.100	3.600	4.115	3.895
98th	4.400	3.600	4.406	3.900
99th	4.473	3.600	4.500	3.900
Maximum value	4.500	3.600	4.500	3.900

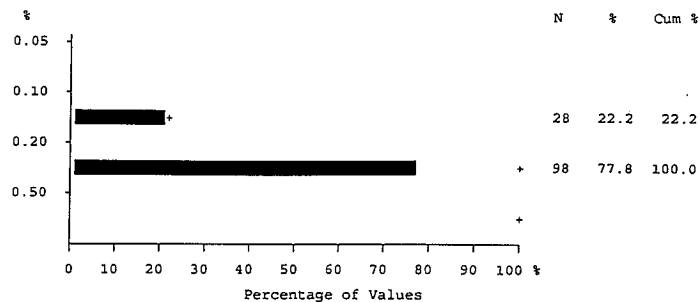
Na₂O - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Phosphorus Pentoxide

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.213	0.141	0.230	0.168
Standard deviation	0.037	0.036	0.016	0.029
Skewness	-1.220	1.415	-0.260	0.642
Kurtosis	0.461	0.711	0.145	-1.131
Geometric Mean	0.209	0.138	0.229	0.166
Percentiles				
Minimum value	0.120	0.120	0.190	0.130
25th	0.200	0.120	0.220	0.150
50th	0.230	0.120	0.230	0.155
75th	0.240	0.163	0.240	0.190
80th	0.240	0.168	0.240	0.198
90th	0.250	0.224	0.250	0.220
95th	0.250	0.230	0.250	0.220
98th	0.260	0.230	0.261	0.220
99th	0.267	0.230	0.270	0.220
Maximum value	0.270	0.230	0.270	0.220

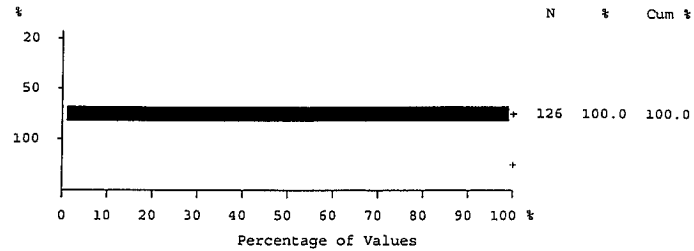
P2O5 - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Silica Dioxide

Number of values - 127

Determination limit - 0.5 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	60.017	71.100	57.949	64.400
Standard deviation	5.083	5.735	2.356	4.489
Skewness	1.486	-1.084	0.766	-0.220
Kurtosis	1.693	-0.276	1.047	-0.184
Geometric Mean	59.818	70.876	57.902	64.249
Percentiles				
Minimum value	51.000	58.300	51.000	55.800
25th	56.600	66.400	56.500	61.300
50th	58.000	73.850	57.300	65.700
75th	61.625	74.625	59.000	67.200
80th	63.600	75.340	60.100	67.440
90th	67.200	75.870	61.250	67.870
95th	73.895	75.900	62.790	74.075
98th	74.952	75.900	64.360	74.400
99th	75.819	75.900	65.300	74.400
Maximum value	75.900	75.900	65.300	74.400

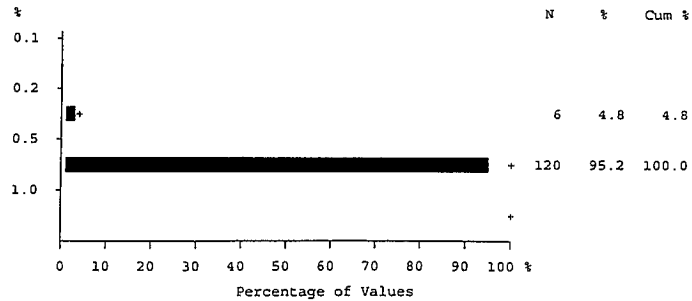
Silica - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Titanium Dioxide

Number of values - 127

Determination limit - 0.02 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.717	0.508	0.756	0.632
Standard deviation	0.090	0.126	0.026	0.065
Skewness	-2.111	0.464	-1.055	-0.392
Kurtosis	4.210	-1.332	1.644	-0.159
Geometric Mean	0.710	0.495	0.756	0.629
Percentiles				
Minimum value	0.360	0.360	0.660	0.480
25th	0.718	0.408	0.740	0.603
50th	0.750	0.475	0.760	0.630
75th	0.770	0.605	0.780	0.670
80th	0.776	0.638	0.780	0.678
90th	0.780	0.731	0.783	0.729
95th	0.790	0.740	0.790	0.739
98th	0.790	0.740	0.791	0.740
99th	0.797	0.740	0.800	0.740
Maximum value	0.800	0.740	0.800	0.740

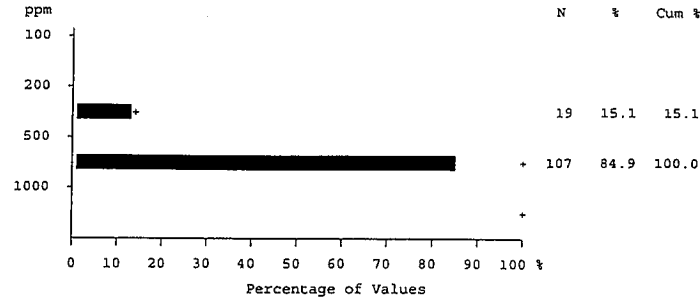
TiO₂ - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Barium

Number of values - 127

Determination limit - 30 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	547.857	545.000	555.625	512.000
Standard deviation	44.893	40.069	39.036	56.717
Skewness	-0.403	-1.059	-0.590	1.004
Kurtosis	-0.145	0.555	0.504	0.155
Geometric Mean	545.976	543.584	554.219	509.205
Percentiles				
Minimum value	450.000	450.000	450.000	450.000
25th	530.000	527.500	540.000	470.000
50th	550.000	560.000	550.000	490.000
75th	580.000	562.500	580.000	550.000
80th	590.000	568.000	590.000	550.000
90th	603.000	597.000	610.000	607.000
95th	620.000	600.000	620.000	657.500
98th	624.600	600.000	620.600	660.000
99th	651.900	600.000	630.000	660.000
Maximum value	660.000	600.000	630.000	660.000

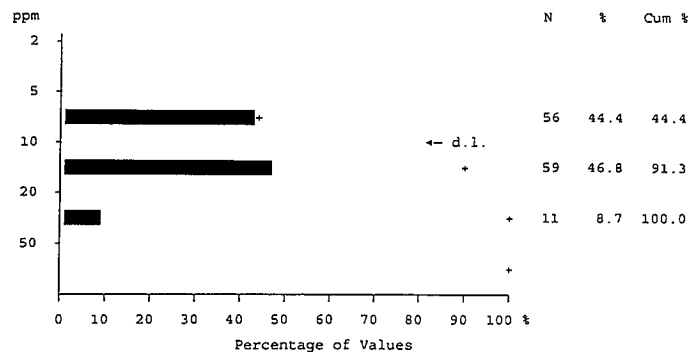
Ba - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Niobium

Number of values - 127

Determination limit - 10 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	56	9	30	17
Number of missing values	1	0	1	0
Mean	10.643	5.500	12.094	6.250
Standard deviation	5.955	1.581	5.937	3.323
Skewness	0.485	2.277	0.115	2.458
Kurtosis	-1.336	3.570	-1.504	5.255
Geometric Mean	9.054	5.359	10.505	5.768
Percentiles				
Minimum value	5.000	5.000	5.000	5.000
25th	5.000	5.000	5.000	5.000
50th	10.000	5.000	11.000	5.000
75th	17.250	5.000	18.750	5.000
80th	18.000	5.000	19.000	5.000
90th	19.000	9.500	20.000	11.000
95th	20.000	10.000	21.000	17.650
98th	21.000	10.000	21.120	18.000
99th	22.460	10.000	23.000	18.000
Maximum value	23.000	10.000	23.000	18.000

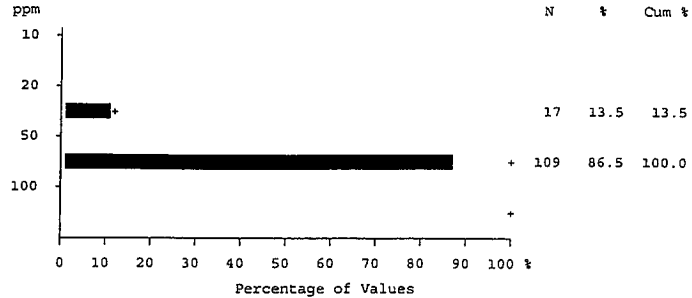
Nb - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Rubidium

Number of values - 127

Determination limit - 10 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	69.698	47.300	75.510	53.000
Standard deviation	13.354	13.647	6.712	11.466
Skewness	-1.006	1.393	-0.008	0.426
Kurtosis	0.227	0.854	0.774	-1.205
Geometric Mean	68.173	45.870	75.211	51.863
Percentiles				
Minimum value	36.000	36.000	58.000	36.000
25th	65.750	38.500	72.000	43.250
50th	74.000	41.500	76.000	50.000
75th	77.250	53.250	79.000	64.750
80th	79.000	56.000	80.000	66.800
90th	83.300	78.600	85.000	69.900
95th	85.000	81.000	86.450	74.750
98th	89.920	81.000	91.300	75.000
99th	94.650	81.000	96.000	75.000
Maximum value	96.000	81.000	96.000	75.000

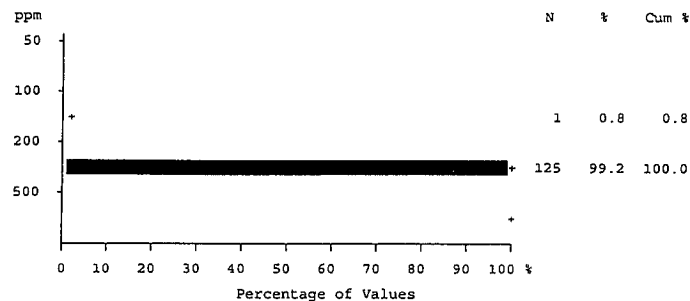
Rb - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Strontium

Number of values - 127

Determination limit - 20 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	269.921	310.000	251.250	339.500
Standard deviation	46.433	32.660	24.889	53.653
Skewness	1.209	1.223	0.005	-0.391
Kurtosis	1.296	0.871	0.688	-1.225
Geometric Mean	266.337	308.571	250.012	335.217
Percentiles				
Minimum value	190.000	270.000	190.000	240.000
25th	240.000	290.000	240.000	292.500
50th	260.000	305.000	250.000	360.000
75th	280.000	320.000	270.000	385.000
80th	290.000	320.000	270.000	390.000
90th	353.000	383.000	280.000	400.000
95th	383.000	390.000	290.000	419.000
98th	400.000	390.000	302.400	420.000
99th	414.600	390.000	340.000	420.000
Maximum value	420.000	390.000	340.000	420.000

Sr - XRF

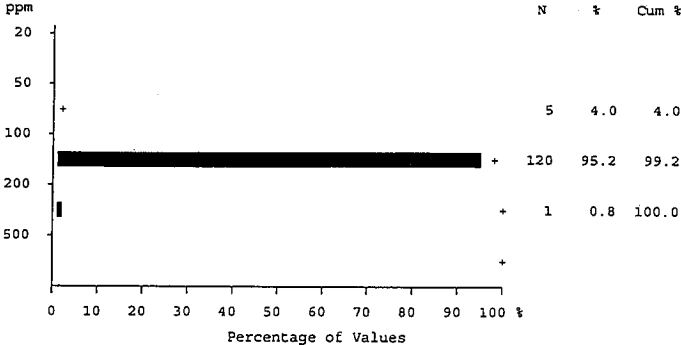
GSC Open File 3052

Statistics for Strait of Georgia Sediments

Zirconium

Number of values - 127

Determination limit - 10 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	136.627	103.500	136.667	153.000
Standard deviation	24.546	41.932	17.331	27.739
Skewness	-0.078	0.691	0.886	0.070
Kurtosis	1.040	-0.875	0.172	-1.655
Geometric Mean	134.251	96.644	135.642	150.596
Percentiles				
Minimum value	65.000	65.000	110.000	120.000
25th	120.000	68.750	120.000	122.500
50th	130.000	92.000	130.000	155.000
75th	150.000	132.500	150.000	180.000
80th	160.000	138.000	150.000	180.000
90th	170.000	185.000	160.000	189.000
95th	180.000	190.000	170.000	199.500
98th	190.000	190.000	180.600	200.000
99th	197.300	190.000	190.000	200.000
Maximum value	200.000	190.000	190.000	200.000

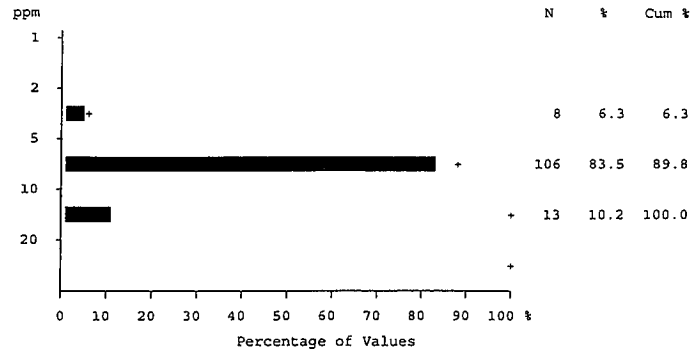
Zr - XRF

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Arsenic

Number of values - 127

Determination limit - 0.5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	7.920	4.420	8.623	6.260
Standard deviation	1.829	1.532	1.217	1.309
Skewness	-0.654	1.130	-0.107	0.916
Kurtosis	-0.037	0.202	-0.252	-0.386
Geometric Mean	7.667	4.221	8.535	6.142
Percentiles				
Minimum value	2.900	2.900	5.500	4.900
25th	6.800	3.400	7.700	5.300
50th	8.300	3.950	8.700	5.650
75th	9.300	5.375	9.500	7.000
80th	9.500	5.540	9.700	7.240
90th	10.000	7.760	10.000	8.730
95th	10.000	8.000	10.100	9.275
98th	11.000	8.000	11.040	9.300
99th	11.720	8.000	12.000	9.300
Maximum value	12.000	8.000	12.000	9.300

As - INAA

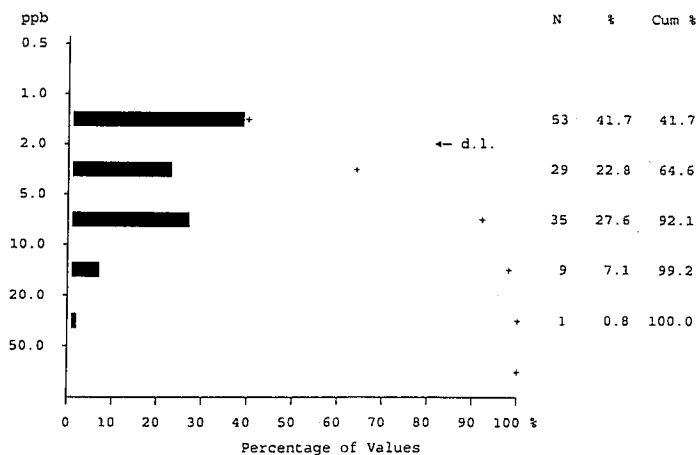
GSC Open File 3052

Statistics for Strait of Georgia Sediments

Gold

Number of values - 127

Determination limit - 2 ppb



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	53	6	38	9
Number of missing values	0	0	0	0
Mean	4.173	2.200	4.711	2.550
Standard deviation	4.490	1.989	4.916	1.849
Skewness	3.229	1.355	2.936	0.874
Kurtosis	16.681	0.542	13.546	-0.398
Geometric Mean	2.696	1.669	3.013	1.998
Percentiles				
Minimum value	1.000	1.000	1.000	1.000
25th	1.000	1.000	1.000	1.000
50th	4.000	1.000	4.000	2.000
75th	6.000	3.250	6.000	4.000
80th	6.000	3.800	7.000	4.000
90th	9.000	6.700	10.000	5.800
95th	11.000	7.000	14.100	6.950
98th	18.000	7.000	18.680	7.000
99th	30.240	7.000	35.000	7.000
Maximum value	35.000	7.000	35.000	7.000

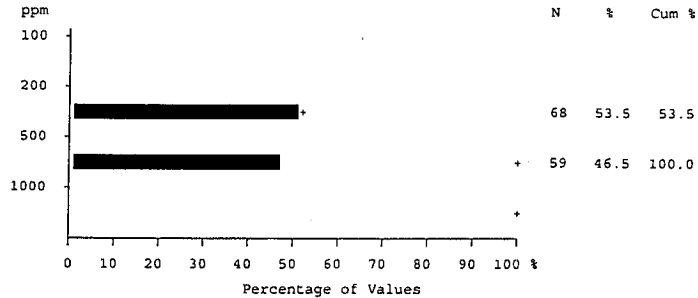
Au - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Barium

Number of values - 127

Determination limit - 10 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	489.528	481.000	502.474	431.000
Standard deviation	69.589	81.165	62.116	70.703
Skewness	-0.081	-0.898	0.273	0.370
Kurtosis	-0.066	-0.174	-0.032	-1.484
Geometric Mean	484.450	473.820	498.689	425.649
Percentiles				
Minimum value	300.000	300.000	350.000	340.000
25th	450.000	440.000	470.000	362.500
50th	490.000	500.000	490.000	410.000
75th	540.000	540.000	545.000	500.000
80th	550.000	540.000	554.000	516.000
90th	580.000	576.000	582.000	539.000
95th	610.000	580.000	620.000	549.500
98th	633.200	580.000	650.800	550.000
99th	664.400	580.000	670.000	550.000
Maximum value	670.000	580.000	670.000	550.000

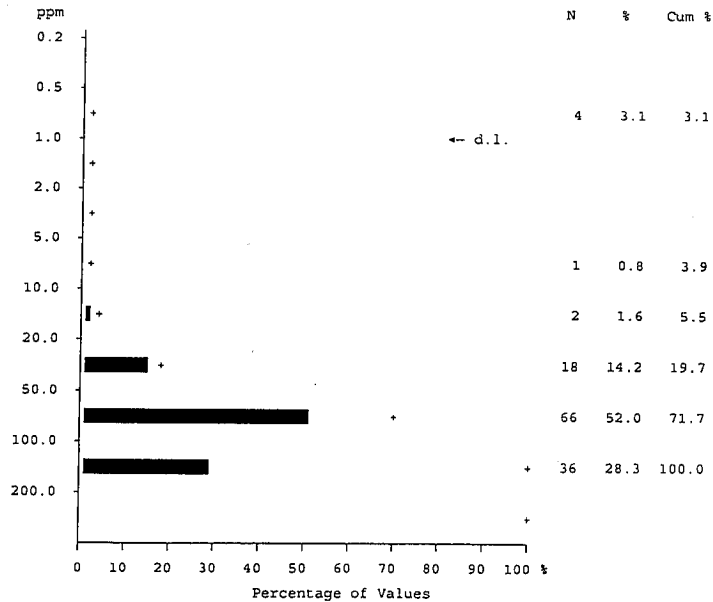
Ba - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Bromine

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	4	4	0	0
Number of missing values	0	0	0	0
Mean	78.717	16.000	91.216	49.450
Standard deviation	34.238	19.701	25.874	20.930
Skewness	-0.298	0.938	0.018	0.729
Kurtosis	-0.428	-0.580	-0.456	-0.515
Geometric Mean	62.500	4.632	87.233	45.568
Percentiles				
Minimum value	0.500	0.500	32.000	21.000
25th	54.000	0.500	74.500	33.250
50th	85.000	8.500	91.000	41.500
75th	100.000	30.000	110.000	64.500
80th	110.000	36.600	110.000	69.000
90th	120.000	56.100	130.000	85.600
95th	130.000	58.000	131.000	97.450
98th	144.400	58.000	150.000	98.000
99th	150.000	58.000	150.000	98.000
Maximum value	150.000	58.000	150.000	98.000

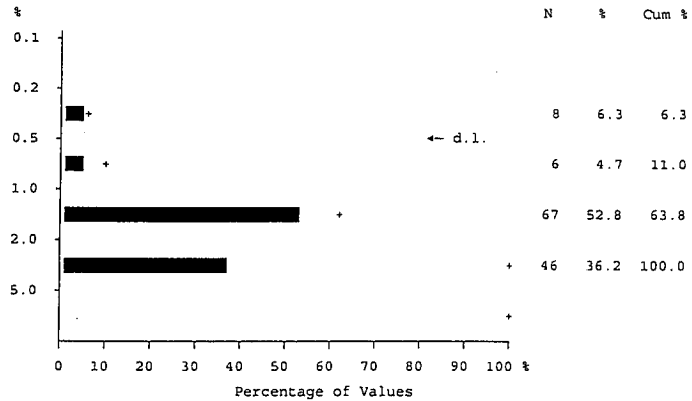
Br - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Calcium

Number of values - 127

Determination limit - 0.5 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	8	1	7	0
Number of missing values	0	0	0	0
Mean	1.766	1.565	1.693	2.220
Standard deviation	0.699	0.526	0.713	0.523
Skewness	-0.135	-1.380	0.028	-0.528
Kurtosis	0.121	1.163	0.185	-0.691
Geometric Mean	1.564	1.397	1.481	2.152
Percentiles				
Minimum value	0.250	0.250	0.250	1.200
25th	1.300	1.500	1.200	1.925
50th	1.800	1.700	1.700	2.250
75th	2.200	1.825	2.100	2.600
80th	2.240	1.880	2.200	2.680
90th	2.700	2.170	2.700	2.890
95th	2.860	2.200	2.810	2.995
98th	3.188	2.200	3.320	3.000
99th	3.660	2.200	3.800	3.000
Maximum value	3.800	2.200	3.800	3.000

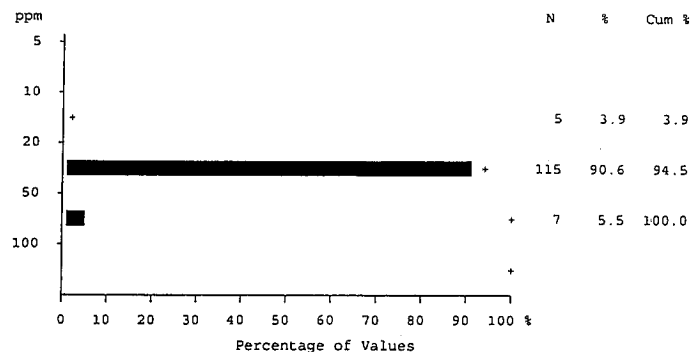
Ca - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Cerium

Number of values - 127

Determination limit - 3 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	40.677	24.900	43.670	34.050
Standard deviation	7.630	8.685	4.497	5.021
Skewness	-0.941	0.292	1.332	-0.009
Kurtosis	2.215	-1.603	2.150	-0.638
Geometric Mean	39.785	23.564	43.457	33.690
Percentiles				
Minimum value	15.000	15.000	36.000	24.000
25th	38.000	17.000	41.000	31.000
50th	42.000	24.000	43.000	34.000
75th	45.000	31.500	45.500	38.000
80th	45.000	32.600	46.000	38.800
90th	48.000	39.300	49.000	40.900
95th	52.800	40.000	55.100	43.850
98th	57.440	40.000	58.040	44.000
99th	58.720	40.000	59.000	44.000
Maximum value	59.000	40.000	59.000	44.000

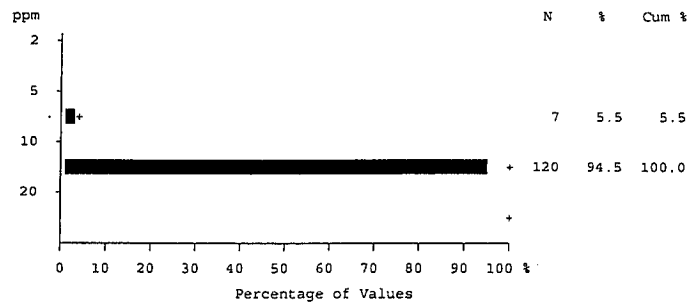
Ce - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Cobalt

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	14.480	9.500	15.629	11.400
Standard deviation	2.690	2.068	1.603	1.789
Skewness	-0.784	0.678	-0.246	0.522
Kurtosis	-0.009	-0.275	0.286	-1.040
Geometric Mean	14.193	9.310	15.545	11.272
Percentiles				
Minimum value	7.000	7.000	11.000	9.000
25th	13.000	7.750	15.000	10.000
50th	15.000	9.500	15.000	11.000
75th	16.000	10.250	17.000	12.750
80th	17.000	10.800	17.000	13.800
90th	17.200	13.700	18.000	14.000
95th	18.000	14.000	18.000	14.950
98th	19.000	14.000	19.000	15.000
99th	19.000	14.000	19.000	15.000
Maximum value	19.000	14.000	19.000	15.000

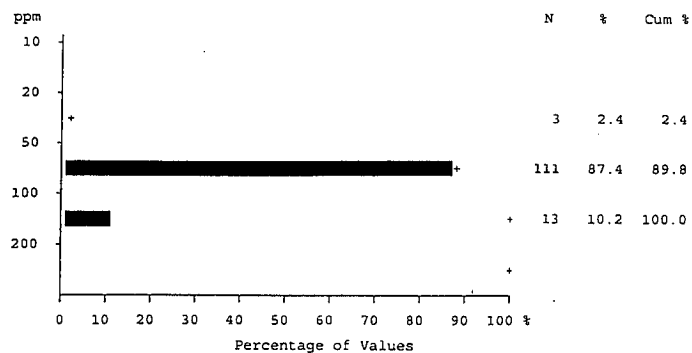
Co - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Chromium

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	84.882	72.600	87.196	79.800
Standard deviation	14.211	31.028	9.180	17.990
Skewness	0.698	0.814	0.762	2.841
Kurtosis	5.144	-0.432	0.881	8.723
Geometric Mean	83.677	67.309	86.736	78.390
Percentiles				
Minimum value	39.000	39.000	70.000	59.000
25th	78.000	46.250	80.500	70.250
50th	84.000	67.500	86.000	77.000
75th	91.000	89.500	93.000	82.000
80th	93.000	97.200	94.400	84.400
90th	100.000	136.000	100.000	87.700
95th	106.000	140.000	101.000	146.900
98th	128.800	140.000	110.400	150.000
99th	147.200	140.000	120.000	150.000
Maximum value	150.000	140.000	120.000	150.000

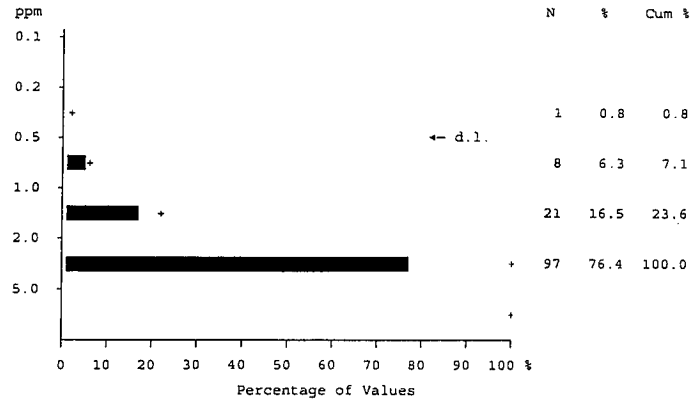
Cr - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Cesium

Number of values - 127

Determination limit - 0.5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	1	0	0	1
Number of missing values	0	0	0	0
Mean	2.393	1.230	2.666	1.653
Standard deviation	0.747	0.646	0.530	0.643
Skewness	-0.732	0.935	-0.762	0.033
Kurtosis	-0.085	-0.854	1.469	-0.585
Geometric Mean	2.228	1.107	2.601	1.494
Percentiles				
Minimum value	0.250	0.600	0.700	0.250
25th	2.100	0.875	2.400	1.200
50th	2.500	0.900	2.700	1.600
75th	2.900	1.750	3.000	2.100
80th	3.000	2.080	3.100	2.340
90th	3.200	2.470	3.220	2.680
95th	3.360	2.500	3.510	2.795
98th	3.700	2.500	3.704	2.800
99th	3.772	2.500	3.800	2.800
Maximum value	3.800	2.500	3.800	2.800

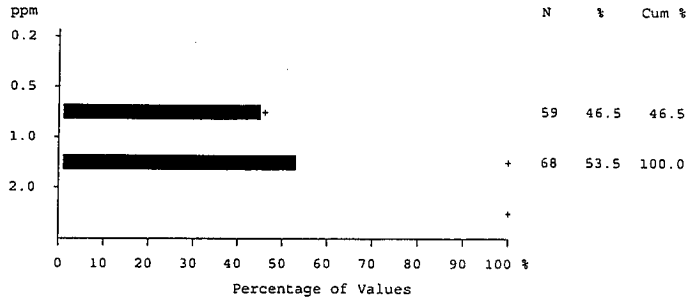
Cs - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Europium

Number of values - 127

Determination limit - 0.01 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	0.973	0.727	1.021	0.862
Standard deviation	0.131	0.123	0.093	0.080
Skewness	-0.755	0.747	-0.497	-0.453
Kurtosis	0.376	-0.564	0.836	-0.538
Geometric Mean	0.963	0.718	1.017	0.858
Percentiles				
Minimum value	0.590	0.590	0.760	0.680
25th	0.900	0.633	0.980	0.810
50th	1.010	0.710	1.030	0.850
75th	1.060	0.800	1.080	0.938
80th	1.074	0.822	1.090	0.940
90th	1.112	0.974	1.132	0.958
95th	1.156	0.990	1.180	0.988
98th	1.204	0.990	1.212	0.990
99th	1.246	0.990	1.260	0.990
Maximum value	1.260	0.990	1.260	0.990

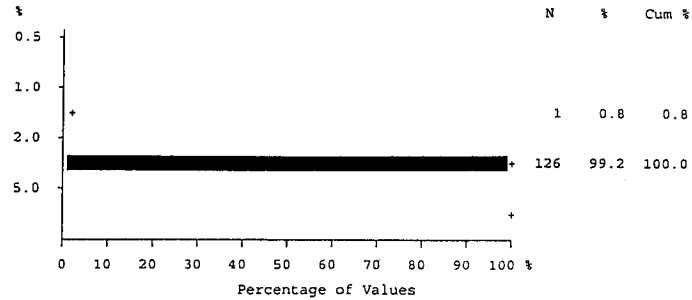
Eu - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Iron

Number of values - 127

Determination limit - 0.05 %



	All-units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	3.705	2.566	3.950	3.084
Standard deviation	0.538	0.574	0.228	0.324
Skewness	-1.361	0.783	-0.367	0.461
Kurtosis	1.291	-0.609	0.523	-1.002
Geometric Mean	3.659	2.513	3.943	3.068
Percentiles				
Minimum value	1.970	1.970	3.160	2.570
25th	3.570	2.140	3.810	2.835
50th	3.860	2.385	3.960	2.965
75th	4.050	2.943	4.125	3.318
80th	4.120	3.036	4.152	3.438
90th	4.230	3.718	4.250	3.658
95th	4.262	3.790	4.281	3.689
98th	4.299	3.790	4.320	3.690
99th	4.497	3.790	4.570	3.690
Maximum value	4.570	3.790	4.570	3.690

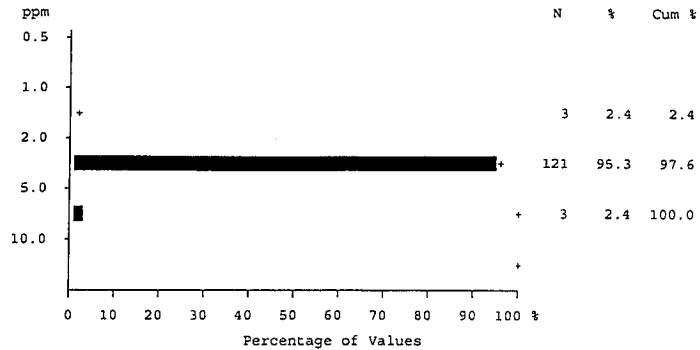
Fe - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Hafnium

Number of values - 127

Determination limit - 0.5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	3.434	2.770	3.382	4.015
Standard deviation	0.692	1.085	0.499	0.872
Skewness	0.614	0.817	1.025	0.129
Kurtosis	0.906	-0.944	1.374	-0.973
Geometric Mean	3.366	2.606	3.349	3.924
Percentiles				
Minimum value	1.900	1.900	2.600	2.700
25th	3.000	1.900	3.000	3.100
50th	3.300	2.300	3.300	4.200
75th	3.700	3.475	3.600	4.675
80th	3.900	4.080	3.640	4.700
90th	4.420	4.840	4.100	4.990
95th	4.700	4.900	4.420	5.855
98th	5.088	4.900	4.720	5.900
99th	5.704	4.900	5.200	5.900
Maximum value	5.900	4.900	5.200	5.900

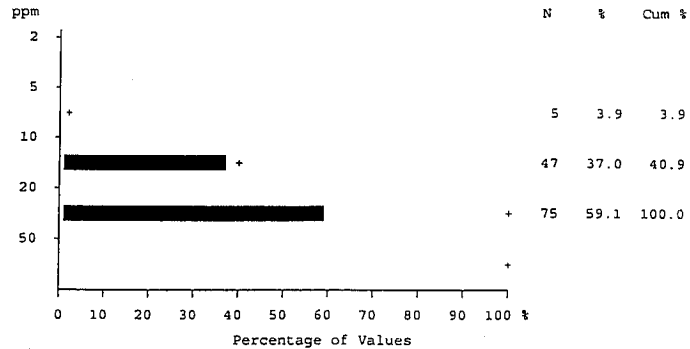
Hf - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Lanthanum

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	19.823	12.700	21.147	16.960
Standard deviation	3.395	4.781	1.826	2.119
Skewness	-1.396	0.348	0.835	-0.531
Kurtosis	3.119	-1.520	0.534	0.044
Geometric Mean	19.446	11.915	21.072	16.825
Percentiles				
Minimum value	7.500	7.500	17.600	11.700
25th	18.800	8.600	19.950	15.950
50th	20.300	12.000	20.700	17.250
75th	21.500	16.500	22.250	18.475
80th	22.040	16.500	22.840	18.740
90th	23.320	20.820	23.940	19.350
95th	24.260	21.300	24.440	20.825
98th	26.288	21.300	26.408	20.900
99th	26.544	21.300	26.600	20.900
Maximum value	26.600	21.300	26.600	20.900

La - INAA

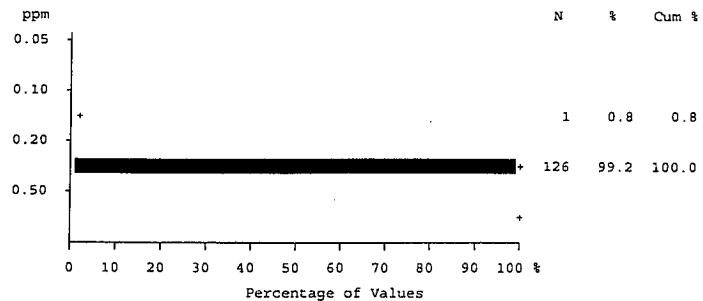
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Lutetium

Number of values - 127

Determination limit - 0.05 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	0.262	0.232	0.267	0.249
Standard deviation	0.034	0.023	0.036	0.019
Skewness	0.585	-0.013	0.381	1.562
Kurtosis	0.134	-1.270	-0.150	2.390
Geometric Mean	0.260	0.231	0.265	0.248
Percentiles				
Minimum value	0.190	0.200	0.190	0.230
25th	0.240	0.215	0.240	0.240
50th	0.260	0.235	0.260	0.240
75th	0.280	0.250	0.290	0.260
80th	0.290	0.250	0.300	0.260
90th	0.312	0.268	0.320	0.278
95th	0.330	0.270	0.330	0.309
98th	0.354	0.270	0.360	0.310
99th	0.360	0.270	0.360	0.310
Maximum value	0.360	0.270	0.360	0.310



Lu - INAA

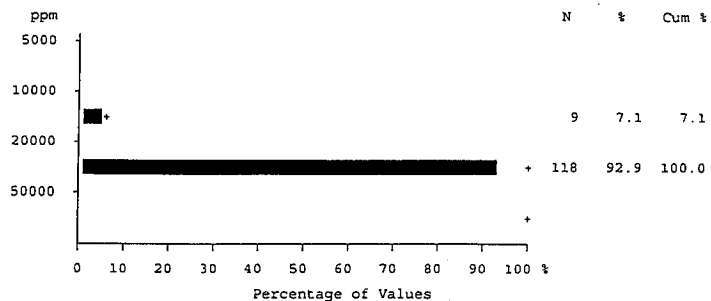
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Sodium

Number of values - 127

Determination limit - 10 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	24098.425	19060.000	24843.299	23005.000
Standard deviation	2944.890	2073.751	2666.923	1444.217
Skewness	0.215	0.985	0.623	-1.375
Kurtosis	0.400	-0.142	-0.030	1.713
Geometric Mean	23919.173	18965.119	24706.208	22958.880
Percentiles				
Minimum value	16800.000	16800.000	20500.000	18600.000
25th	22500.000	17775.000	22900.000	21900.000
50th	23900.000	18350.000	24400.000	23400.000
75th	25900.000	20075.000	26650.000	24100.000
80th	26500.000	20900.000	27060.000	24100.000
90th	28200.000	23450.000	28840.000	24290.000
95th	29360.000	23700.000	29560.000	24585.000
98th	30644.000	23700.000	30808.000	24600.000
99th	32644.000	23700.000	33400.000	24600.000
Maximum value	33400.000	23700.000	33400.000	24600.000



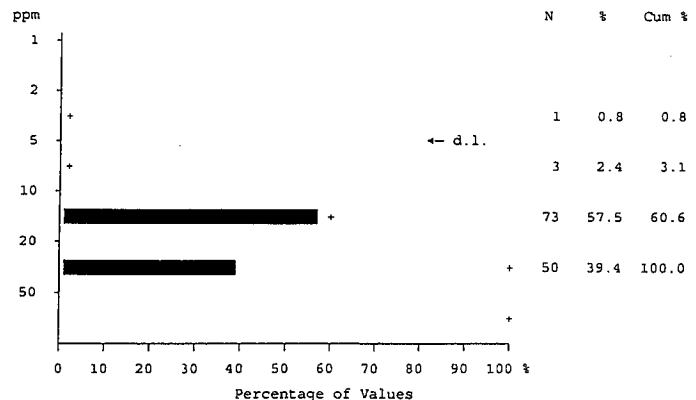
Na - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Neodymium

Number of values - 127

Determination limit - 5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	1	0	1	0
Number of missing values	0	0	0	0
Mean	17.807	11.500	19.088	14.750
Standard deviation	3.941	2.799	3.358	1.773
Skewness	-0.580	0.328	-1.104	0.683
Kurtosis	0.869	-1.627	4.453	-0.115
Geometric Mean	17.245	11.203	18.645	14.653
Percentiles				
Minimum value	2.500	8.000	2.500	12.000
25th	15.000	9.000	17.000	13.000
50th	18.000	10.500	20.000	15.000
75th	21.000	14.250	21.000	15.000
80th	21.000	14.800	22.000	15.800
90th	22.200	15.900	23.000	17.900
95th	24.000	16.000	25.000	18.950
98th	25.000	16.000	25.000	19.000
99th	25.000	16.000	25.000	19.000
Maximum value	25.000	16.000	25.000	19.000

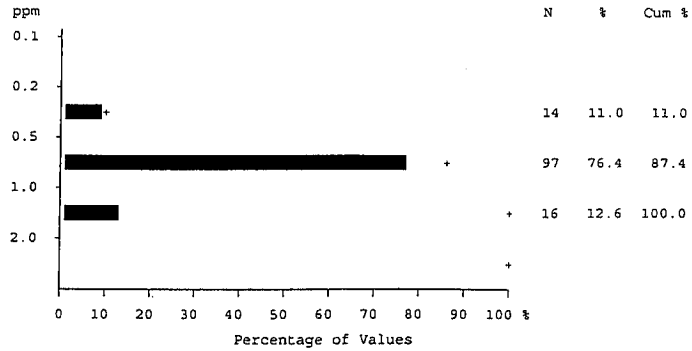
Nd - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Antimony

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	0.736	0.530	0.794	0.560
Standard deviation	0.198	0.134	0.162	0.216
Skewness	-0.242	0.261	-0.105	0.553
Kurtosis	-0.413	-0.352	0.126	-1.038
Geometric Mean	0.706	0.514	0.776	0.523
Percentiles				
Minimum value	0.300	0.300	0.400	0.300
25th	0.600	0.475	0.700	0.400
50th	0.700	0.500	0.800	0.500
75th	0.900	0.600	0.900	0.700
80th	0.900	0.600	0.900	0.780
90th	1.000	0.780	1.000	0.900
95th	1.060	0.800	1.100	0.995
98th	1.100	0.800	1.104	1.000
99th	1.172	0.800	1.200	1.000
Maximum value	1.200	0.800	1.200	1.000

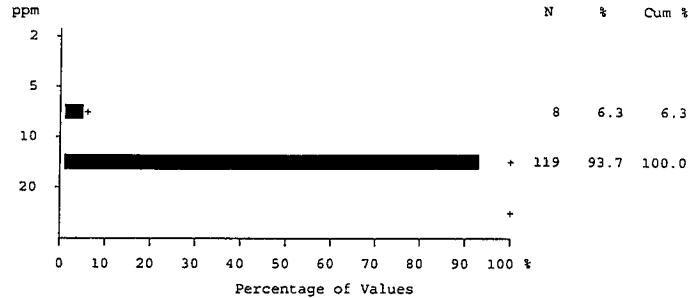
Sb - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Scandium

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	13.413	9.990	14.206	11.275
Standard deviation	1.739	1.697	0.828	1.016
Skewness	-1.160	1.110	0.936	0.261
Kurtosis	0.456	0.414	1.457	-0.941
Geometric Mean	13.286	9.873	14.181	11.232
Percentiles				
Minimum value	7.900	7.900	11.000	9.700
25th	13.000	9.025	14.000	11.000
50th	14.000	9.450	14.000	11.000
75th	15.000	11.000	15.000	12.000
80th	15.000	11.000	15.000	12.000
90th	15.000	13.700	15.000	13.000
95th	15.000	14.000	15.000	13.000
98th	15.000	14.000	15.040	13.000
99th	15.720	14.000	16.000	13.000
Maximum value	16.000	14.000	16.000	13.000

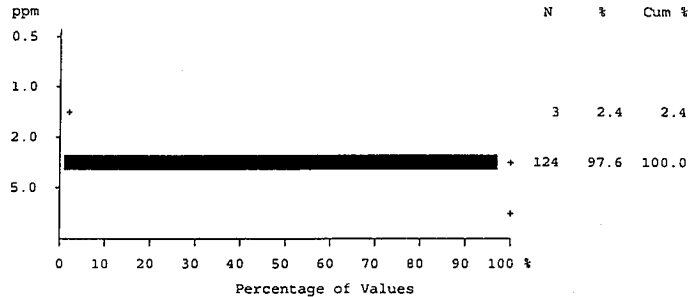
Sc - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Samarium

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	3.707	2.430	3.955	3.145
Standard deviation	0.591	0.640	0.324	0.302
Skewness	-1.143	0.606	0.341	-0.609
Kurtosis	1.636	-1.041	-0.582	-0.239
Geometric Mean	3.651	2.360	3.942	3.131
Percentiles				
Minimum value	1.800	1.800	3.400	2.400
25th	3.500	1.875	3.700	2.925
50th	3.800	2.300	3.900	3.150
75th	4.100	2.800	4.200	3.400
80th	4.200	3.020	4.240	3.400
90th	4.320	3.640	4.400	3.500
95th	4.500	3.700	4.600	3.595
98th	4.700	3.700	4.700	3.600
99th	4.700	3.700	4.700	3.600
Maximum value	4.700	3.700	4.700	3.600

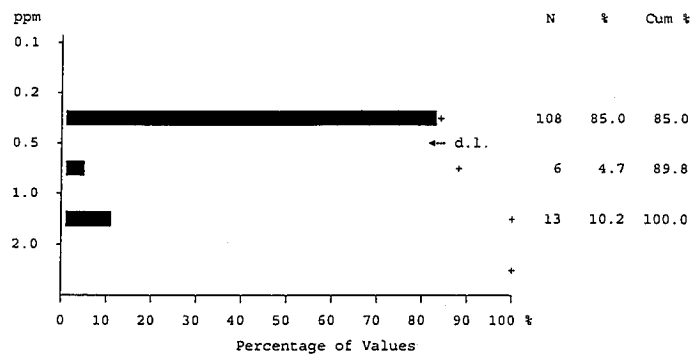
Sm - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Tantalum

Number of values - 127

Determination limit - 0.5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	108	9	81	18
Number of missing values	0	0	0	0
Mean	0.381	0.355	0.382	0.390
Standard deviation	0.336	0.332	0.318	0.434
Skewness	2.452	2.277	2.207	2.527
Kurtosis	4.883	3.570	3.541	4.745
Geometric Mean	0.311	0.295	0.315	0.302
Percentiles				
Minimum value	0.250	0.250	0.250	0.250
25th	0.250	0.250	0.250	0.250
50th	0.250	0.250	0.250	0.250
75th	0.250	0.250	0.250	0.250
80th	0.250	0.250	0.250	0.250
90th	1.000	1.195	1.000	1.375
95th	1.260	1.300	1.200	1.785
98th	1.500	1.300	1.500	1.800
99th	1.716	1.300	1.500	1.800
Maximum value	1.800	1.300	1.500	1.800

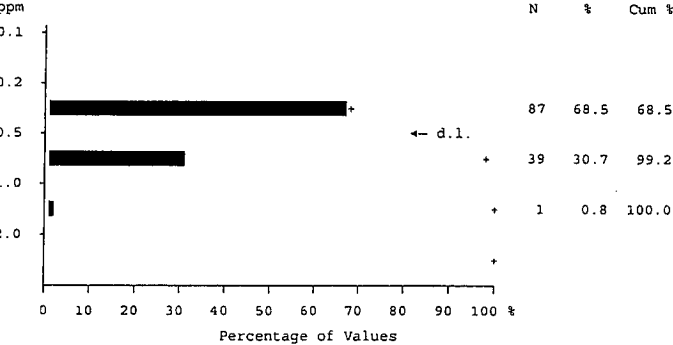
Ta - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Terbium

Number of values - 127

Determination limit - 0.5 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	87	9	64	14
Number of missing values	0	0	0	0
Mean	0.380	0.285	0.397	0.345
Standard deviation	0.203	0.111	0.216	0.151
Skewness	1.127	2.277	0.975	0.893
Kurtosis	-0.205	3.570	-0.606	-1.164
Geometric Mean	0.338	0.273	0.350	0.319
Percentiles				
Minimum value	0.250	0.250	0.250	0.250
25th	0.250	0.250	0.250	0.250
50th	0.250	0.250	0.250	0.250
75th	0.600	0.250	0.600	0.500
80th	0.600	0.250	0.600	0.580
90th	0.700	0.565	0.720	0.600
95th	0.800	0.600	0.800	0.600
98th	0.844	0.600	0.904	0.600
99th	0.972	0.600	1.000	0.600
Maximum value	1.000	0.600	1.000	0.600

Tb - INAA

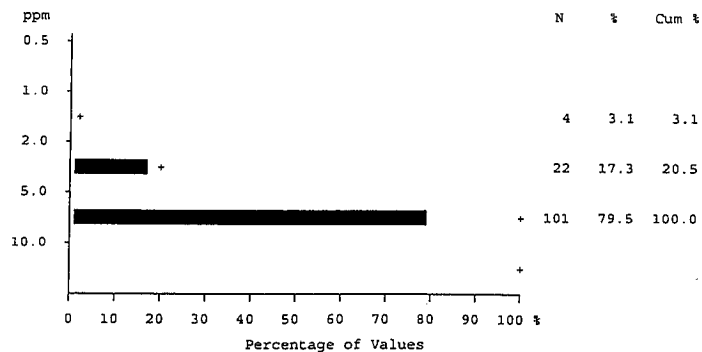
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Thorium

Number of values - 127

Determination limit - 0.1 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	5.395	2.810	5.903	4.225
Standard deviation	1.168	1.300	0.515	0.798
Skewness	-1.484	0.768	-0.193	-0.117
Kurtosis	1.930	-0.831	-0.004	-0.621
Geometric Mean	5.216	2.574	5.880	4.149
Percentiles				
Minimum value	1.500	1.500	4.400	2.400
25th	5.200	1.800	5.600	3.675
50th	5.700	2.300	5.900	4.000
75th	6.100	3.925	6.200	5.075
80th	6.200	3.980	6.300	5.180
90th	6.500	5.350	6.600	5.390
95th	6.660	5.500	6.810	5.400
98th	6.944	5.500	7.000	5.400
99th	7.000	5.500	7.000	5.400
Maximum value	7.000	5.500	7.000	5.400



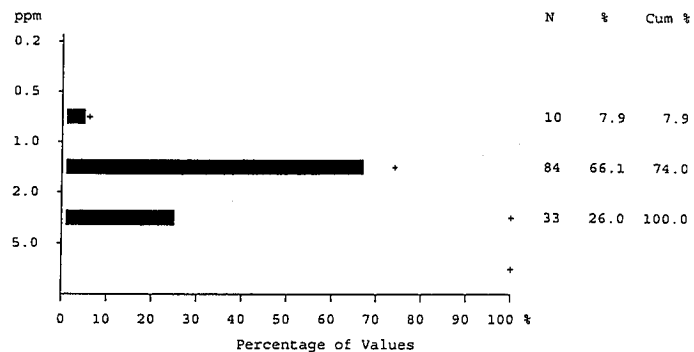
Th - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Uranium

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	1.627	0.900	1.765	1.320
Standard deviation	0.463	0.442	0.386	0.319
Skewness	-0.176	1.367	0.096	-0.154
Kurtosis	-0.238	0.997	-0.272	-0.905
Geometric Mean	1.551	0.825	1.722	1.280
Percentiles				
Minimum value	0.500	0.500	1.000	0.700
25th	1.300	0.575	1.500	1.125
50th	1.700	0.800	1.800	1.250
75th	2.000	1.100	2.000	1.600
80th	2.000	1.100	2.100	1.600
90th	2.200	1.910	2.200	1.700
95th	2.360	2.000	2.410	1.890
98th	2.544	2.000	2.612	1.900
99th	2.816	2.000	2.900	1.900
Maximum value	2.900	2.000	2.900	1.900

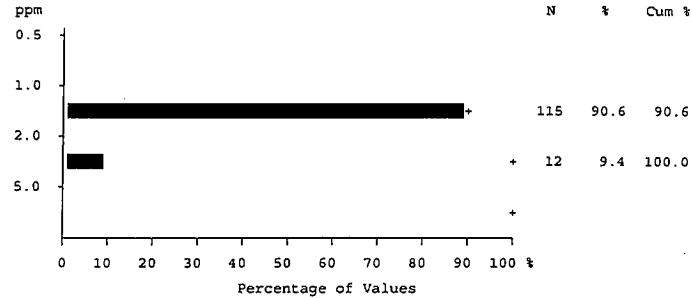
U - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Ytterbium

Number of values - 127

Determination limit - 0.05 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	1.782	1.448	1.858	1.585
Standard deviation	0.192	0.178	0.120	0.167
Skewness	-0.677	0.074	0.528	0.814
Kurtosis	0.519	-1.819	0.229	0.051
Geometric Mean	1.771	1.438	1.854	1.577
Percentiles				
Minimum value	1.230	1.230	1.590	1.320
25th	1.680	1.270	1.770	1.478
50th	1.810	1.440	1.840	1.560
75th	1.890	1.618	1.925	1.658
80th	1.924	1.656	1.970	1.676
90th	1.996	1.688	2.022	1.877
95th	2.050	1.690	2.102	1.985
98th	2.152	1.690	2.181	1.990
99th	2.194	1.690	2.200	1.990
Maximum value	2.200	1.690	2.200	1.990

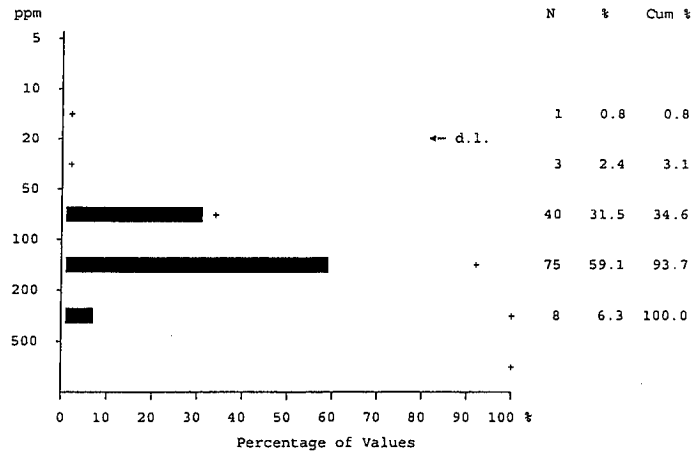
Yb - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Zinc

Number of values - 127

Determination limit - 20 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	1	0	0	1
Number of missing values	0	0	0	0
Mean	122.142	57.500	136.258	86.000
Standard deviation	45.661	15.116	39.778	33.645
Skewness	0.114	0.099	0.191	-0.156
Kurtosis	-0.402	-1.495	-0.248	-0.312
Geometric Mean	111.983	55.665	130.134	76.654
Percentiles				
Minimum value	10.000	35.000	50.000	10.000
25th	90.000	47.500	100.000	60.500
50th	120.000	54.000	140.000	88.000
75th	150.000	71.750	160.000	107.000
80th	160.000	75.600	170.000	118.000
90th	182.000	79.700	190.000	138.000
95th	200.000	80.000	210.000	149.500
98th	214.400	80.000	221.200	150.000
99th	241.600	80.000	250.000	150.000
Maximum value	250.000	80.000	250.000	150.000

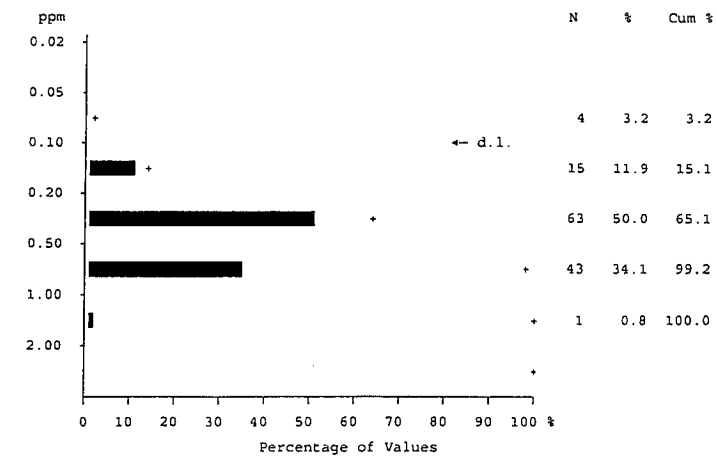
Zn - INAA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Silver

Number of values - 127

Determination limit - 0.1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	4	1	3	0
Number of missing values	1	0	1	0
Mean	0.387	0.325	0.401	0.355
Standard deviation	0.221	0.202	0.226	0.209
Skewness	0.513	0.119	0.530	0.344
Kurtosis	-0.430	-1.705	-0.404	-1.262
Geometric Mean	0.316	0.255	0.329	0.291
Percentiles				
Minimum value	0.050	0.050	0.050	0.100
25th	0.200	0.175	0.200	0.200
50th	0.400	0.300	0.400	0.350
75th	0.500	0.525	0.500	0.500
80th	0.600	0.580	0.600	0.580
90th	0.700	0.600	0.730	0.700
95th	0.800	0.600	0.815	0.700
98th	0.900	0.600	0.906	0.700
99th	0.973	0.600	1.000	0.700
Maximum value	1.000	0.600	1.000	0.700

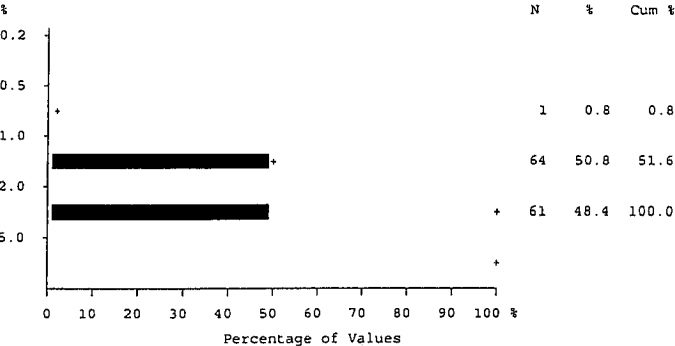
Ag - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Aluminum (partial extraction)

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	1.881	1.270	2.003	1.602
Standard deviation	0.340	0.296	0.218	0.359
Skewness	-0.893	1.437	-0.503	0.100
Kurtosis	0.174	0.871	1.025	-1.213
Geometric Mean	1.846	1.244	1.991	1.563
Percentiles				
Minimum value	0.990	1.040	1.330	0.990
25th	1.698	1.068	1.913	1.353
50th	1.980	1.165	2.030	1.595
75th	2.123	1.373	2.148	1.843
80th	2.150	1.488	2.196	1.986
90th	2.240	1.953	2.250	2.159
95th	2.277	2.000	2.282	2.170
98th	2.331	2.000	2.398	2.170
99th	2.599	2.000	2.680	2.170
Maximum value	2.680	2.000	2.680	2.170

Al - ICP-ES

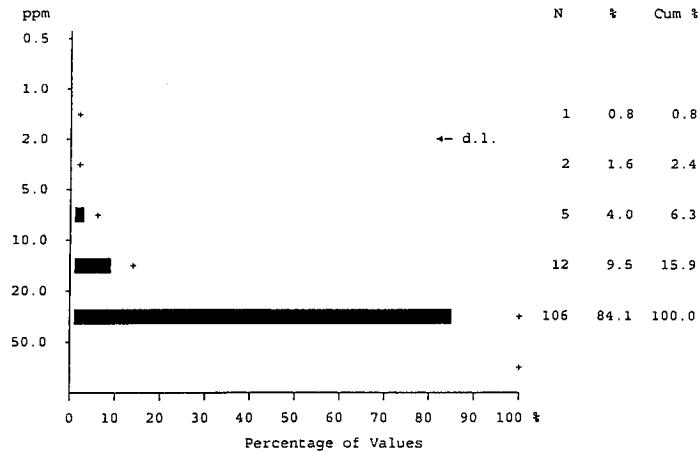
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Boron (partial extraction)

Number of values - 127

Determination limit - 2 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	1	1	0	0
Number of missing values	1	0	1	0
Mean	24.389	10.000	26.448	21.700
Standard deviation	7.234	8.219	5.374	5.469
Skewness	-0.891	0.528	0.004	-0.695
Kurtosis	1.219	-1.561	-0.438	-0.313
Geometric Mean	22.488	6.763	25.882	20.887
Percentiles				
Minimum value	1.000	1.000	15.000	9.000
25th	21.000	3.500	22.250	19.250
50th	25.000	7.000	26.500	23.000
75th	29.000	20.250	30.750	25.000
80th	30.000	20.800	31.000	25.800
90th	32.300	22.800	33.000	28.800
95th	35.000	23.000	36.150	29.950
98th	38.000	23.000	38.000	30.000
99th	38.000	23.000	38.000	30.000
Maximum value	38.000	23.000	38.000	30.000



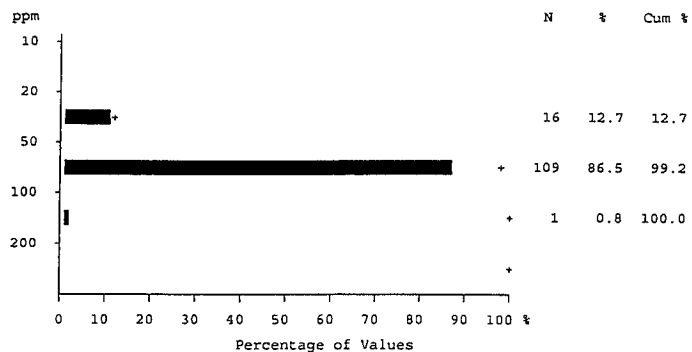
B - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Barium (partial extraction)

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	58.405	67.500	57.448	58.450
Standard deviation	11.562	14.699	10.159	14.594
Skewness	1.983	-0.241	3.067	0.840
Kurtosis	11.131	-0.707	24.039	0.822
Geometric Mean	57.385	65.914	56.679	56.826
Percentiles				
Minimum value	33.000	39.000	33.000	34.000
25th	54.000	57.750	55.000	48.500
50th	58.000	67.000	58.000	56.500
75th	62.000	78.000	61.000	66.250
80th	63.600	78.000	62.000	70.200
90th	67.000	90.600	65.000	76.700
95th	76.650	92.000	67.000	97.900
98th	95.220	92.000	71.660	99.000
99th	120.900	92.000	129.000	99.000
Maximum value	129.000	92.000	129.000	99.000

Ba - ICP-ES

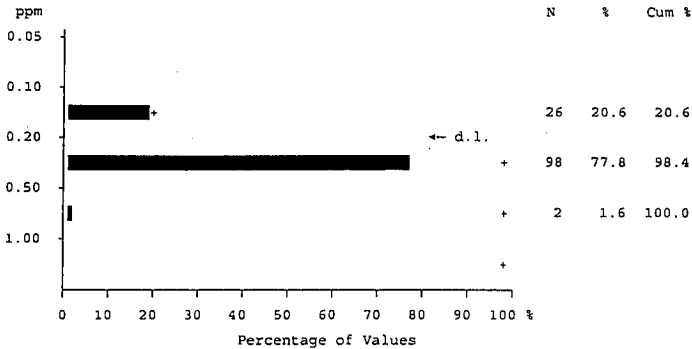
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Beryllium

Number of values - 127

Determination limit - 0.2 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	26	3	17	6
Number of missing values	1	0	1	0
Mean	0.236	0.180	0.245	0.220
Standard deviation	0.098	0.063	0.100	0.095
Skewness	0.348	0.095	0.327	-0.028
Kurtosis	-0.500	-0.930	-0.548	-1.400
Geometric Mean	0.214	0.169	0.223	0.198
Percentiles				
Minimum value	0.100	0.100	0.100	0.100
25th	0.200	0.100	0.200	0.100
50th	0.200	0.200	0.200	0.200
75th	0.300	0.200	0.300	0.300
80th	0.300	0.200	0.300	0.300
90th	0.400	0.290	0.400	0.300
95th	0.400	0.300	0.400	0.395
98th	0.446	0.300	0.500	0.400
99th	0.500	0.300	0.500	0.400
Maximum value	0.500	0.300	0.500	0.400



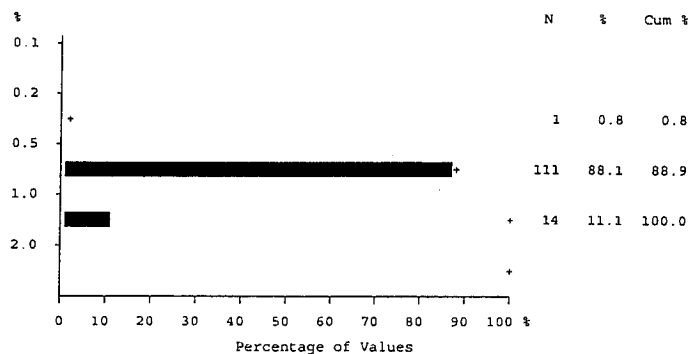
Be - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Calcium (partial extraction)

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.819	0.762	0.781	1.035
Standard deviation	0.175	0.254	0.081	0.285
Skewness	2.204	1.873	1.920	0.172
Kurtosis	5.257	2.482	11.949	-1.297
Geometric Mean	0.804	0.734	0.777	0.997
Percentiles				
Minimum value	0.480	0.530	0.480	0.630
25th	0.748	0.640	0.750	0.763
50th	0.780	0.720	0.775	1.050
75th	0.810	0.765	0.810	1.298
80th	0.830	0.776	0.810	1.308
90th	1.099	1.383	0.830	1.418
95th	1.297	1.450	0.884	1.582
98th	1.439	1.450	1.144	1.590
99th	1.552	1.450	1.210	1.590
Maximum value	1.590	1.450	1.210	1.590

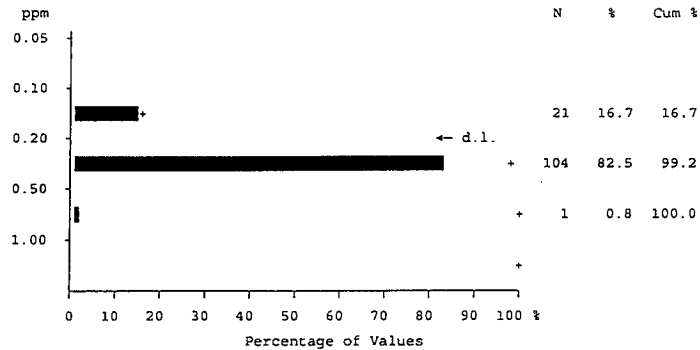
Ca - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Cadmium

Number of values - 127

Determination limit - 0.2 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	21	6	11	4
Number of missing values	1	0	1	0
Mean	0.232	0.140	0.246	0.210
Standard deviation	0.083	0.052	0.081	0.072
Skewness	0.376	0.349	0.431	-0.130
Kurtosis	1.690	-2.055	2.507	-1.159
Geometric Mean	0.216	0.132	0.231	0.197
Percentiles				
Minimum value	0.100	0.100	0.100	0.100
25th	0.200	0.100	0.200	0.200
50th	0.200	0.100	0.300	0.200
75th	0.300	0.200	0.300	0.300
80th	0.300	0.200	0.300	0.300
90th	0.300	0.200	0.300	0.300
95th	0.300	0.200	0.300	0.300
98th	0.400	0.200	0.412	0.300
99th	0.546	0.200	0.600	0.300
Maximum value	0.600	0.200	0.600	0.300

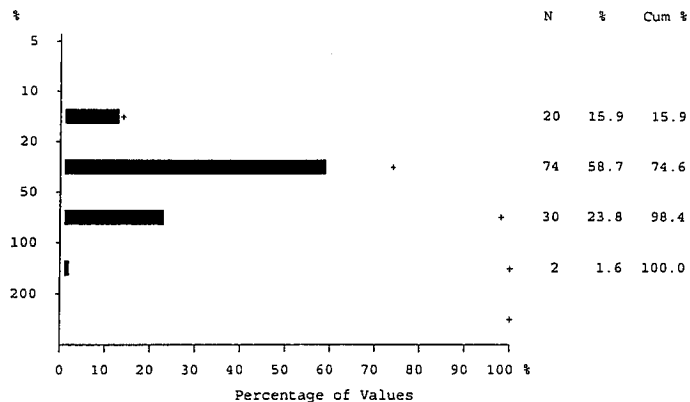
Cd - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Copper

Number of values - 127

Determination limit - 1 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	42.286	21.700	47.885	25.700
Standard deviation	19.180	11.490	17.470	12.674
Skewness	1.294	1.797	1.956	0.527
Kurtosis	3.301	1.903	4.839	-1.414
Geometric Mean	38.146	19.949	45.378	22.927
Percentiles				
Minimum value	11.000	14.000	19.000	11.000
25th	33.750	16.750	40.000	16.250
50th	42.000	17.000	43.000	20.500
75th	50.000	21.750	52.000	37.750
80th	52.000	27.800	55.000	42.800
90th	59.000	49.800	62.900	44.900
95th	87.200	52.000	94.300	47.850
98th	105.440	52.000	113.420	48.000
99th	118.110	52.000	120.000	48.000
Maximum value	120.000	52.000	120.000	48.000

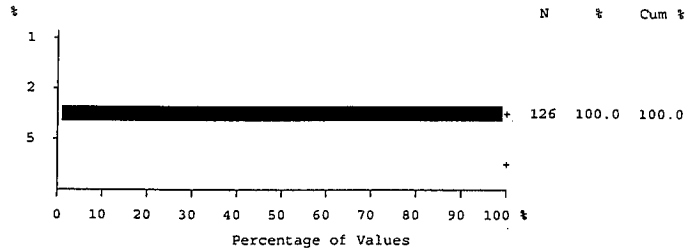
Cu - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Iron (partial extraction)

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	3.459	2.749	3.571	3.279
Standard deviation	0.441	0.527	0.324	0.507
Skewness	-1.153	0.295	-1.278	-0.181
Kurtosis	0.950	-1.468	2.598	-1.086
Geometric Mean	3.428	2.704	3.555	3.240
Percentiles				
Minimum value	2.090	2.090	2.200	2.400
25th	3.295	2.285	3.448	2.808
50th	3.610	2.685	3.625	3.340
75th	3.753	3.278	3.770	3.675
80th	3.780	3.294	3.806	3.762
90th	3.880	3.615	3.913	3.816
95th	3.970	3.650	3.975	4.210
98th	4.158	3.650	4.142	4.230
99th	4.217	3.650	4.180	4.230
Maximum value	4.230	3.650	4.180	4.230

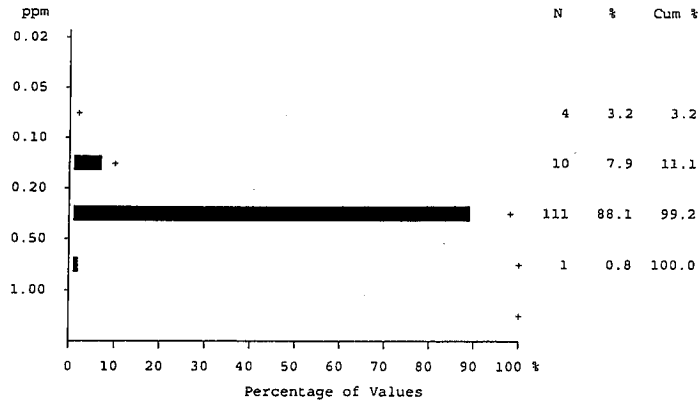
Fe - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Potassium (partial extraction)

Number of values - 127

Determination limit - 0.01 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.304	0.137	0.333	0.247
Standard deviation	0.091	0.075	0.068	0.079
Skewness	-0.530	1.106	-0.188	0.552
Kurtosis	-0.295	-0.356	-0.632	-0.960
Geometric Mean	0.286	0.123	0.326	0.236
Percentiles				
Minimum value	0.070	0.070	0.190	0.150
25th	0.240	0.090	0.280	0.200
50th	0.330	0.105	0.345	0.240
75th	0.370	0.180	0.380	0.313
80th	0.386	0.224	0.400	0.338
90th	0.410	0.294	0.420	0.387
95th	0.420	0.300	0.430	0.400
98th	0.430	0.300	0.435	0.400
99th	0.496	0.300	0.520	0.400
Maximum value	0.520	0.300	0.520	0.400

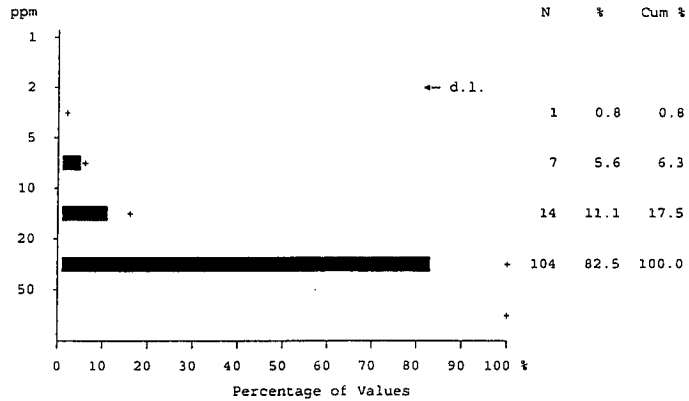
K - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Lithium

Number of values - 127

Determination limit - 2 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	25.794	11.800	28.573	19.450
Standard deviation	7.236	5.712	4.654	6.022
Skewness	-1.023	1.214	-1.568	0.645
Kurtosis	0.428	0.033	6.439	-0.521
Geometric Mean	24.327	10.861	27.976	18.613
Percentiles				
Minimum value	4.000	8.000	4.000	11.000
25th	22.000	8.000	26.000	16.000
50th	27.000	9.000	29.000	18.000
75th	31.000	16.250	31.000	22.000
80th	31.000	16.800	32.000	24.400
90th	34.000	24.200	34.000	30.800
95th	35.000	25.000	35.150	31.950
98th	36.000	25.000	36.000	32.000
99th	36.000	25.000	36.000	32.000
Maximum value	36.000	25.000	36.000	32.000

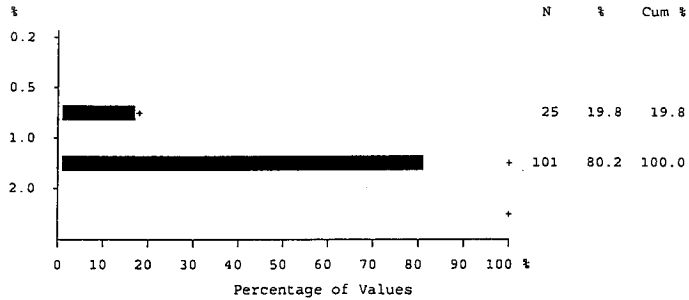
Li - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Magnesium (partial extraction)

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	1.203	0.797	1.299	0.944
Standard deviation	0.242	0.234	0.136	0.252
Skewness	-1.103	1.182	-1.465	0.591
Kurtosis	-0.059	0.365	2.394	-1.326
Geometric Mean	1.173	0.771	1.291	0.915
Percentiles				
Minimum value	0.570	0.570	0.840	0.630
25th	1.108	0.620	1.253	0.763
50th	1.295	0.735	1.325	0.820
75th	1.370	0.903	1.388	1.215
80th	1.380	0.974	1.400	1.248
90th	1.420	1.315	1.430	1.359
95th	1.450	1.350	1.482	1.379
98th	1.490	1.350	1.490	1.380
99th	1.490	1.350	1.490	1.380
Maximum value	1.490	1.350	1.490	1.380

Mg - ICP-ES

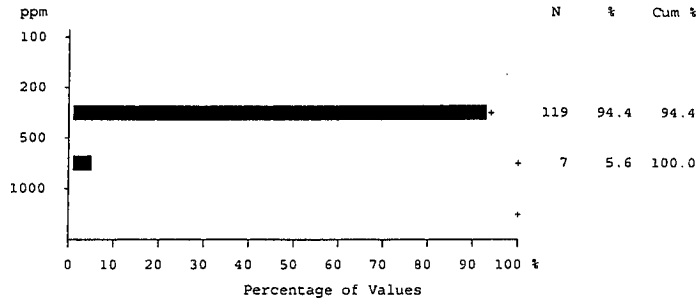
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Manganese

Number of values - 127

Determination limit - 2 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	406.230	436.600	408.438	380.450
Standard deviation	62.254	96.829	54.917	69.046
Skewness	-0.077	0.546	-0.763	0.352
Kurtosis	0.742	-1.375	1.148	-0.974
Geometric Mean	401.267	427.529	404.375	374.615
Percentiles				
Minimum value	252.000	323.000	252.000	281.000
25th	374.000	357.500	383.750	320.750
50th	405.000	402.500	411.000	378.000
75th	440.250	541.500	440.750	428.000
80th	449.200	549.200	449.200	438.800
90th	482.300	603.300	469.600	496.600
95th	513.300	609.000	496.300	513.200
98th	544.440	609.000	515.140	514.000
99th	593.610	609.000	533.000	514.000
Maximum value	609.000	609.000	533.000	514.000



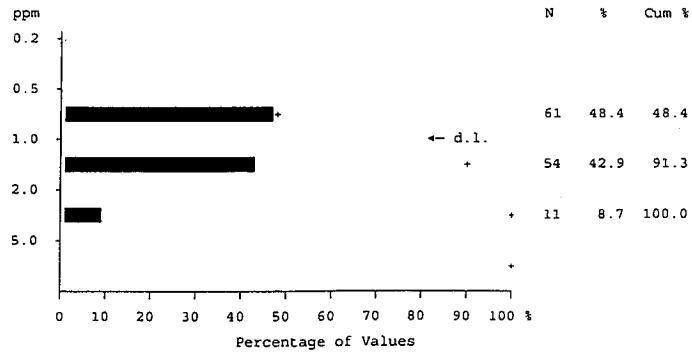
Mn - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Molybdenum

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	61	5	49	7
Number of missing values	1	0	1	0
Mean	0.845	0.750	0.828	0.975
Standard deviation	0.431	0.264	0.428	0.499
Skewness	1.449	0.000	1.505	0.996
Kurtosis	1.700	-2.190	1.864	-0.050
Geometric Mean	0.760	0.707	0.744	0.871
Percentiles				
Minimum value	0.500	0.500	0.500	0.500
25th	0.500	0.500	0.500	0.500
50th	1.000	0.750	0.500	1.000
75th	1.000	1.000	1.000	1.000
80th	1.000	1.000	1.000	1.000
90th	1.000	1.000	1.000	2.000
95th	2.000	1.000	2.000	2.000
98th	2.000	1.000	2.000	2.000
99th	2.000	1.000	2.000	2.000
Maximum value	2.000	1.000	2.000	2.000

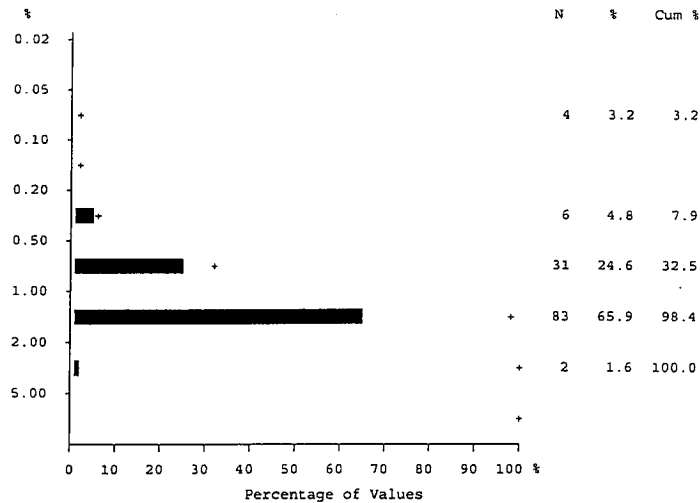
Mo - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Sodium (partial extraction)

Number of values - 127

Determination limit - 0.01 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	1.144	0.341	1.301	0.796
Standard deviation	0.441	0.319	0.327	0.325
Skewness	-0.303	0.834	0.314	0.891
Kurtosis	-0.081	-0.639	-0.135	-0.449
Geometric Mean	1.006	0.216	1.259	0.740
Percentiles				
Minimum value	0.060	0.060	0.660	0.400
25th	0.867	0.070	1.045	0.580
50th	1.175	0.255	1.300	0.680
75th	1.450	0.605	1.503	1.065
80th	1.498	0.616	1.572	1.118
90th	1.716	0.980	1.760	1.431
95th	1.800	1.020	1.826	1.517
98th	2.004	1.020	2.036	1.520
99th	2.217	1.020	2.290	1.520
Maximum value	2.290	1.020	2.290	1.520

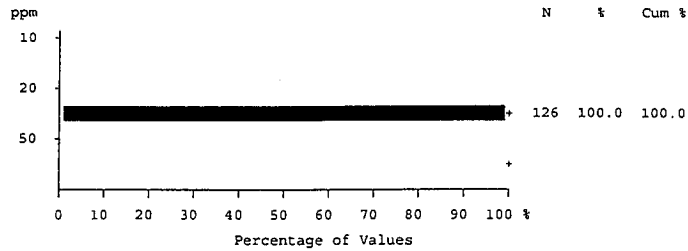
Na - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Nickel

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	37.508	32.200	39.323	31.450
Standard deviation	5.937	4.158	4.805	6.177
Skewness	-0.937	1.125	-1.631	0.200
Kurtosis	-0.004	0.300	3.022	-1.217
Geometric Mean	36.976	31.979	38.976	30.874
Percentiles				
Minimum value	22.000	28.000	23.000	22.000
25th	34.000	29.000	38.000	27.250
50th	39.000	31.000	40.000	30.000
75th	42.000	34.250	42.000	36.250
80th	42.000	34.800	43.000	39.400
90th	43.300	41.300	44.000	41.000
95th	45.000	42.000	45.000	41.000
98th	45.460	42.000	46.120	41.000
99th	47.460	42.000	48.000	41.000
Maximum value	48.000	42.000	48.000	41.000

Ni - ICP-ES

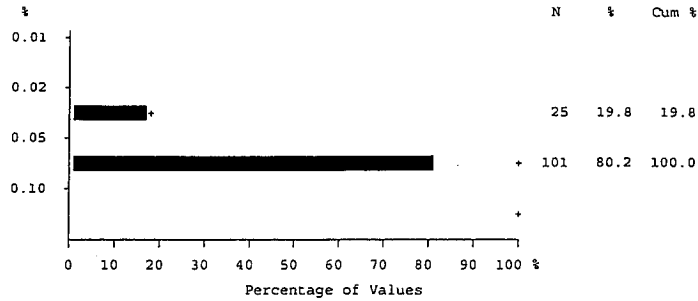
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Phosphorus (partial extraction)

Number of values - 127

Determination limit - 0.001 %

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.055	0.035	0.060	0.044
Standard deviation	0.011	0.011	0.005	0.010
Skewness	-1.120	1.178	-0.472	0.679
Kurtosis	0.476	0.073	3.264	-1.216
Geometric Mean	0.054	0.034	0.059	0.043
Percentiles				
Minimum value	0.027	0.027	0.037	0.033
25th	0.052	0.028	0.057	0.037
50th	0.059	0.031	0.060	0.039
75th	0.062	0.043	0.063	0.054
80th	0.063	0.044	0.064	0.056
90th	0.064	0.059	0.065	0.060
95th	0.065	0.060	0.066	0.062
98th	0.072	0.060	0.076	0.062
99th	0.076	0.060	0.076	0.062
Maximum value	0.076	0.060	0.076	0.062



P - ICP-ES

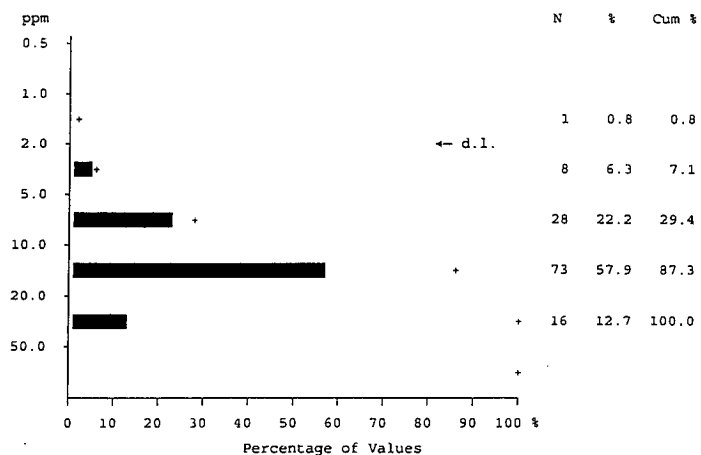
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Lead

Number of values - 127

Determination limit - 2 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	1	1	0	0
Number of missing values	1	0	1	0
Mean	12.405	4.800	14.073	8.200
Standard deviation	5.743	3.676	5.126	4.008
Skewness	0.567	1.387	0.880	0.802
Kurtosis	0.004	1.093	-0.015	-0.673
Geometric Mean	10.928	3.815	13.234	7.379
Percentiles				
Minimum value	1.000	1.000	5.000	4.000
25th	8.000	2.750	11.000	5.000
50th	11.500	3.500	13.000	7.500
75th	15.250	6.000	17.000	11.000
80th	17.000	6.000	18.000	11.800
90th	22.000	13.200	23.000	15.000
95th	24.000	14.000	25.000	16.900
98th	26.460	14.000	27.060	17.000
99th	27.730	14.000	28.000	17.000
Maximum value	28.000	14.000	28.000	17.000



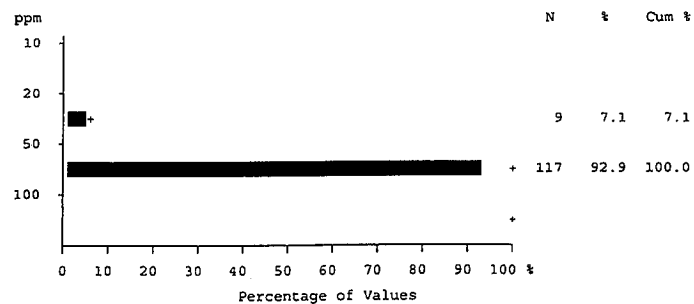
Pb - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Strontium (partial extraction)

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	62.587	48.400	63.021	67.600
Standard deviation	9.332	15.586	6.101	11.767
Skewness	-0.374	1.198	-0.351	-0.032
Kurtosis	1.622	0.214	2.422	-0.527
Geometric Mean	61.833	46.549	62.713	66.588
Percentiles				
Minimum value	36.000	36.000	38.000	42.000
25th	59.000	37.500	60.000	59.750
50th	63.000	41.500	63.000	67.000
75th	67.000	59.250	66.750	78.000
80th	68.000	59.800	67.000	79.000
90th	74.300	82.500	69.000	83.600
95th	79.000	85.000	75.150	90.650
98th	84.460	85.000	77.180	91.000
99th	89.380	85.000	80.000	91.000
Maximum value	91.000	85.000	80.000	91.000

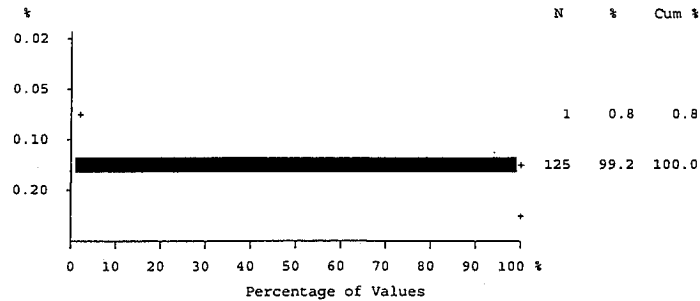
Sr - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Titanium (partial extraction)

Number of values - 127

Determination limit - 0.02 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	0.126	0.115	0.127	0.126
Standard deviation	0.014	0.011	0.014	0.014
Skewness	-0.298	0.000	-0.353	-0.503
Kurtosis	0.185	-1.485	0.528	-0.673
Geometric Mean	0.125	0.115	0.126	0.125
Percentiles				
Minimum value	0.080	0.100	0.080	0.100
25th	0.110	0.108	0.120	0.113
50th	0.130	0.115	0.130	0.130
75th	0.140	0.123	0.140	0.130
80th	0.140	0.128	0.140	0.138
90th	0.140	0.130	0.140	0.140
95th	0.140	0.130	0.140	0.150
98th	0.150	0.130	0.151	0.150
99th	0.165	0.130	0.170	0.150
Maximum value	0.170	0.130	0.170	0.150

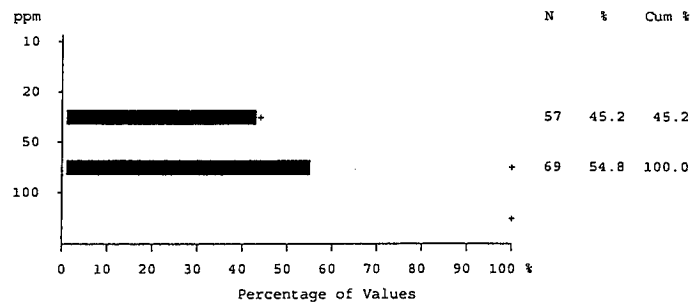
Ti - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Vanadium (partial extraction)

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	48.484	39.000	50.229	44.850
Standard deviation	5.933	5.437	4.578	6.011
Skewness	-0.893	0.758	-1.149	-0.117
Kurtosis	0.392	-0.089	2.425	-0.383
Geometric Mean	48.087	38.678	50.002	44.454
Percentiles				
Minimum value	31.000	31.000	31.000	31.000
25th	45.000	36.000	48.000	41.000
50th	50.000	37.500	51.000	45.000
75th	52.000	42.250	53.000	49.000
80th	53.000	42.800	54.000	49.800
90th	55.000	50.200	55.300	54.800
95th	56.000	51.000	56.000	55.000
98th	56.920	51.000	58.120	55.000
99th	59.460	51.000	60.000	55.000
Maximum value	60.000	51.000	60.000	55.000

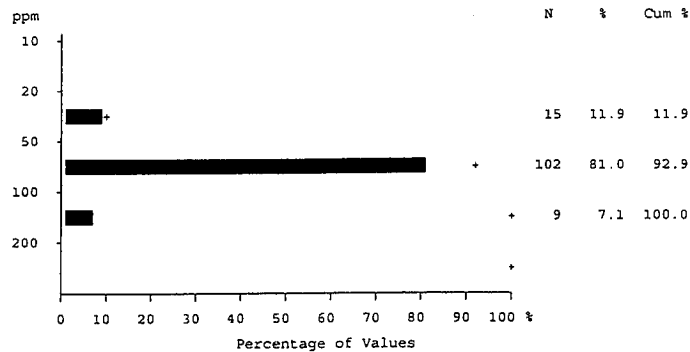
V - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Zinc

Number of values - 127

Determination limit - 1 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	78.357	44.200	85.760	59.900
Standard deviation	18.818	17.132	10.747	19.073
Skewness	-0.965	1.492	-0.458	0.463
Kurtosis	0.002	1.014	-0.113	-1.324
Geometric Mean	75.497	41.965	85.053	57.147
Percentiles				
Minimum value	32.000	32.000	58.000	34.000
25th	68.750	33.000	80.000	45.250
50th	84.000	36.500	85.500	53.000
75th	91.250	51.250	93.000	79.750
80th	93.000	56.200	95.000	82.000
90th	97.300	84.100	99.300	90.900
95th	102.650	87.000	103.150	91.950
98th	104.460	87.000	105.000	92.000
99th	105.000	87.000	105.000	92.000
Maximum value	105.000	87.000	105.000	92.000

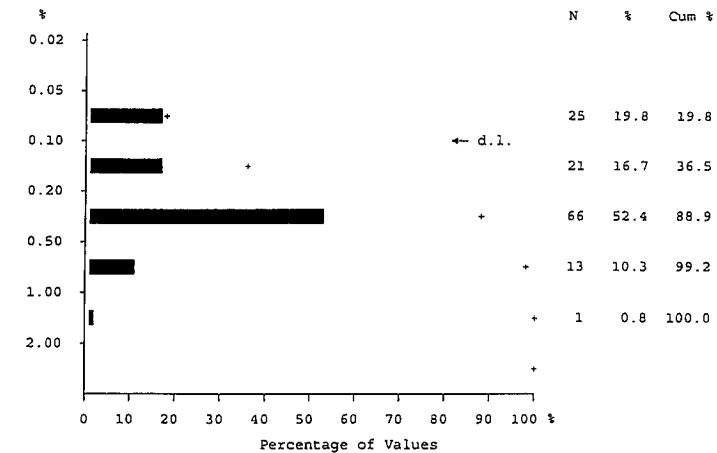
Zn - ICP-ES

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Carbon Dioxide

Number of values - 127

Determination limit - 0.1 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	25	7	16	2
Number of missing values	1	0	1	0
Mean	0.254	0.145	0.234	0.405
Standard deviation	0.194	0.162	0.152	0.296
Skewness	1.375	1.079	0.784	0.693
Kurtosis	2.762	-0.466	0.685	-0.470
Geometric Mean	0.186	0.090	0.182	0.291
Percentiles				
Minimum value	0.050	0.050	0.050	0.050
25th	0.100	0.050	0.100	0.125
50th	0.200	0.050	0.200	0.400
75th	0.400	0.300	0.300	0.575
80th	0.400	0.300	0.400	0.680
90th	0.500	0.480	0.400	0.890
95th	0.600	0.500	0.500	1.090
98th	0.846	0.500	0.612	1.100
99th	1.046	0.500	0.800	1.100
Maximum value	1.100	0.500	0.800	1.100

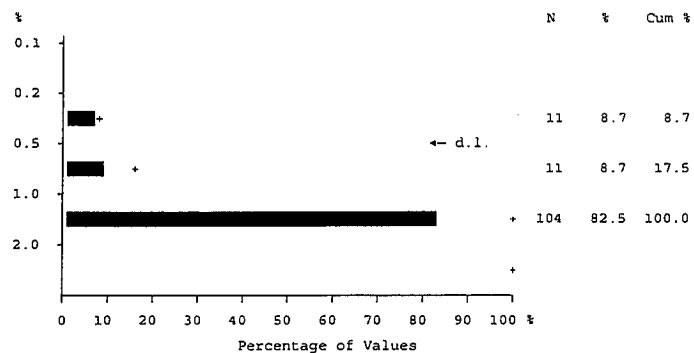
CO2

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Carbon (organic)

Number of values - 127

Determination limit - 0.4 %



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	9	7	0	2
Number of missing values	1	0	1	0
Mean	1.271	0.420	1.451	0.835
Standard deviation	0.444	0.402	0.198	0.525
Skewness	-1.236	1.233	-0.715	0.685
Kurtosis	0.436	-0.213	0.091	-1.012
Geometric Mean	1.131	0.310	1.436	0.687
Percentiles				
Minimum value	0.200	0.200	0.900	0.200
25th	1.100	0.200	1.300	0.500
50th	1.400	0.200	1.500	0.600
75th	1.600	0.625	1.600	1.200
80th	1.600	0.900	1.600	1.520
90th	1.700	1.270	1.700	1.690
95th	1.700	1.300	1.700	1.890
98th	1.800	1.300	1.800	1.900
99th	1.873	1.300	1.800	1.900
Maximum value	1.900	1.300	1.800	1.900

C org

GSC Open File 3052

Statistics for Strait of Georgia Sediments

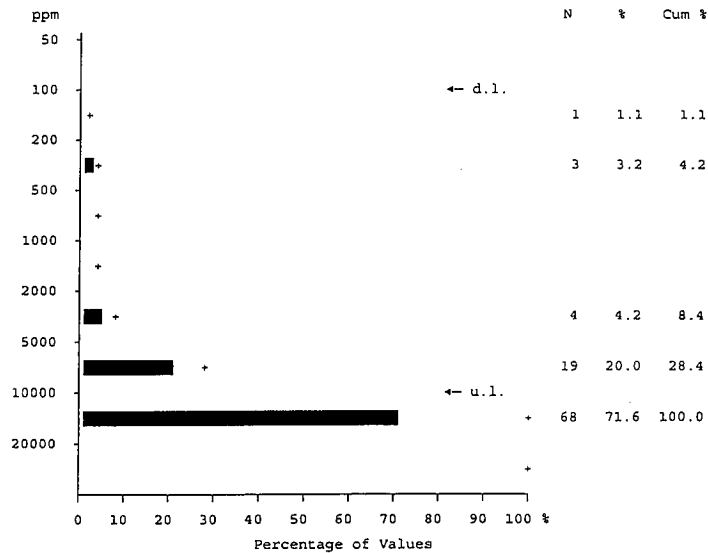
Chlorine

Number of values - 127

Determination limit - 100 ppm

Upper detection limit - 10000 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of values above u.l.	68	1	60	7
Number of missing values	32	0	32	0
Mean	12382.589	4161.000	14498.277	9617.400
Standard deviation	4433.603	4723.707	1757.474	4163.908
Skewness	-1.349	1.047	-3.140	0.437
Kurtosis	0.457	0.005	8.084	-1.728
Geometric Mean	10325.290	1664.882	14353.731	8814.717
Percentiles				
Minimum value	192.000	192.000	7666.000	4660.000
25th	8824.000	240.750	15000.000	6123.500
50th	15000.000	3070.500	15000.000	7585.000
75th	15000.000	6811.000	15000.000	15000.000
80th	15000.000	7675.600	15000.000	15000.000
90th	15000.000	14299.000	15000.000	15000.000
95th	15000.000	15000.000	15000.000	15000.000
98th	15000.000	15000.000	15000.000	15000.000
99th	15000.000	15000.000	15000.000	15000.000
Maximum value	15000.000	15000.000	15000.000	15000.000



Cl - IC

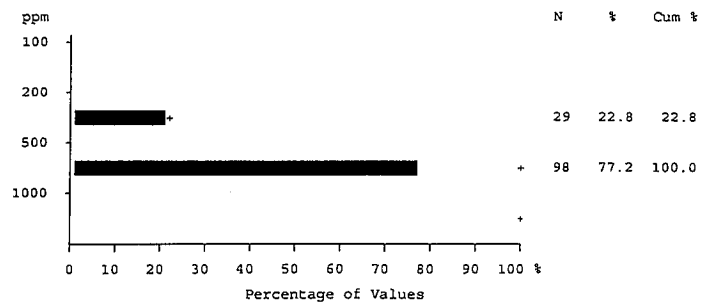
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Fluorine

Number of values - 127

Determination limit - 50 ppm

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	562.638	377.100	602.907	460.100
Standard deviation	106.074	98.525	71.146	83.537
Skewness	-0.613	1.528	0.247	-0.545
Kurtosis	0.255	0.979	0.030	-0.492
Geometric Mean	551.284	367.879	598.762	452.064
Percentiles				
Minimum value	281.000	307.000	436.000	281.000
25th	512.000	321.250	555.500	414.750
50th	579.000	341.500	600.000	471.000
75th	627.000	391.000	648.000	527.750
80th	643.000	452.600	660.400	546.000
90th	698.400	607.300	706.400	571.400
95th	711.600	622.000	715.500	580.600
98th	756.200	622.000	761.120	581.000
99th	797.160	622.000	812.000	581.000
Maximum value	812.000	622.000	812.000	581.000

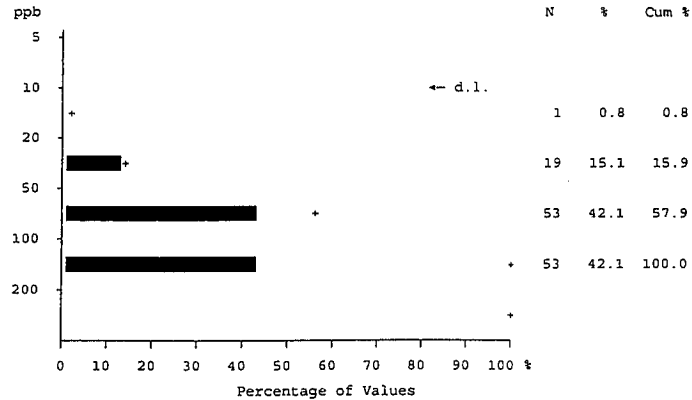


GSC Open File 3052
Statistics for Strait of Georgia Sediments

Mercury

Number of values - 127

Determination limit - 10 ppb



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	89.405	36.000	101.406	58.500
Standard deviation	36.582	25.473	29.287	31.208
Skewness	0.007	1.161	0.411	0.865
Kurtosis	-0.343	0.116	0.069	-0.358
Geometric Mean	79.932	29.702	97.090	51.559
Percentiles				
Minimum value	10.000	10.000	40.000	25.000
25th	67.500	20.000	85.000	31.250
50th	95.000	25.000	100.000	47.500
75th	110.000	52.500	117.500	75.000
80th	116.000	58.000	120.000	95.000
90th	140.000	91.500	146.500	104.500
95th	158.250	95.000	160.000	133.500
98th	170.000	95.000	170.300	135.000
99th	173.650	95.000	175.000	135.000
Maximum value	175.000	95.000	175.000	135.000

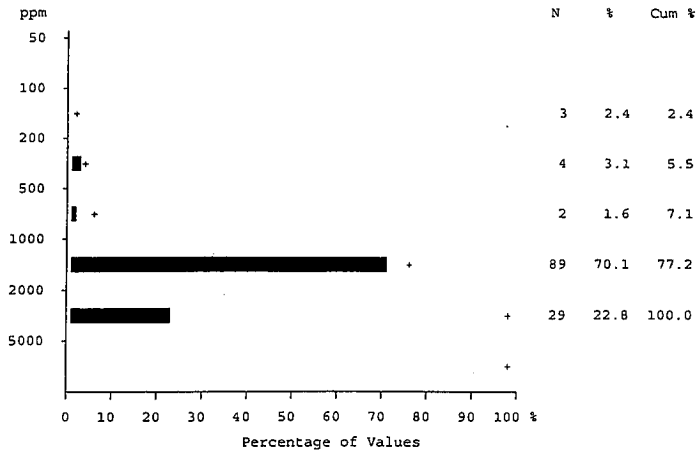
Hg - Cold Vapour AA

GSC Open File 3052
Statistics for Strait of Georgia Sediments

Sulphur (total)

Number of values - 127

Determination limit - 50 ppm



	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	0	0	0	0
Mean	1667.276	565.700	1644.629	1357.900
Standard deviation	524.252	514.855	355.475	398.242
Skewness	-0.336	0.706	2.210	0.712
Kurtosis	3.317	-1.572	10.120	-0.190
Geometric Mean	1528.998	395.804	1815.709	1305.775
Percentiles				
Minimum value	162.000	162.000	1134.000	718.000
25th	1398.000	170.250	1662.500	1094.500
50th	1724.000	298.500	1786.000	1247.500
75th	1948.000	1274.250	2025.500	1622.000
80th	2024.800	1314.400	2058.000	1721.000
90th	2121.400	1330.800	2203.400	1992.400
95th	2291.000	1331.000	2311.700	2312.000
98th	2753.160	1331.000	3260.520	2328.000
99th	3660.360	1331.000	3825.000	2328.000
Maximum value	3825.000	1331.000	3825.000	2328.000

S - IC

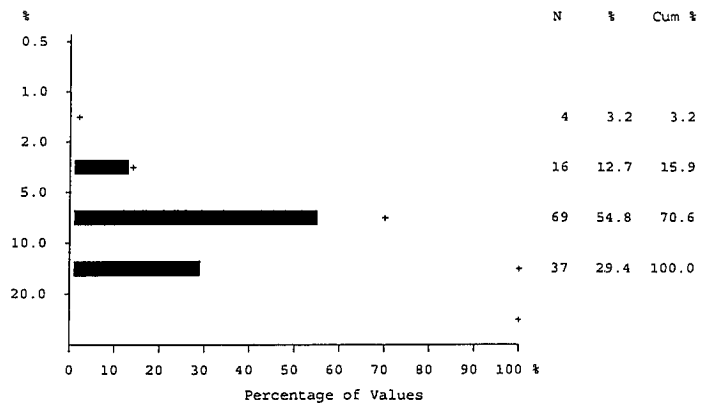
GSC Open File 3052
Statistics for Strait of Georgia Sediments

Loss On Ignition (900°C)

Number of values - 127

Determination limit - 0 %

	All units	S	M	SM
Number of values	127	10	97	20
Number of values below d.l.	0	0	0	0
Number of missing values	1	0	1	0
Mean	8.279	3.060	9.332	5.830
Standard deviation	2.738	2.218	1.676	2.587
Skewness	-0.567	1.347	0.998	0.927
Kurtosis	0.858	0.507	5.751	-0.413
Geometric Mean	7.623	2.567	9.188	5.364
Percentiles				
Minimum value	1.600	1.600	5.500	2.800
25th	7.100	1.600	8.400	4.125
50th	9.100	2.100	9.550	4.600
75th	10.100	4.400	10.200	7.775
80th	10.200	4.840	10.360	8.040
90th	10.800	8.060	10.830	10.420
95th	11.230	8.400	11.300	11.830
98th	12.638	8.400	13.106	11.900
99th	16.523	8.400	17.900	11.900
Maximum value	17.900	8.400	17.900	11.900



LOI