

APR 22 1996



The Commonwealth of Massachusetts

Division of Marine Fisheries
Leverett Saltonstall State Office Building
100 Cambridge Street
Boston, Massachusetts 02202

PHILIP G. COATES
DIRECTOR

727-3193

April 17, 1996

Superfund Records Center

SITE: New Bedford

BREAK: 3.2

OTHER: 505835

Suzanne Condon, Director of Environmental Health
Department of Public Health
250 Washington Street, 7th Floor
Boston, MA 02108

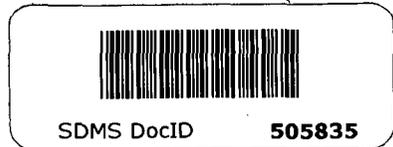
624-5200

Suzanne
Dear Ms. Condon:

Enclosed please find results of PCB analysis on American lobster from Area 3 of New Bedford Harbor. The table provides the mean PCB concentrations (ppm wet weight) from several locations within Area 3 from 1980 through 1995 broken down by season and year. The graph depicts the yearly mean PCB concentration for each calendar year.

From 1980 through 1990 PCBs were quantified as Aroclor 1254. From 1991 through 1995 PCBs were quantified as the sum of eighteen congeners adopted as standard protocol by NOAA and the U.S. EPA. An earlier intercomparison with WHOI was conducted using lobster from Buzzards Bay. WHOI quantified by the congener method and DMF used Aroclor 1254. For the present analysis conversion from dry weight to wet weight accomplished using the mean percent dry weight for New Bedford Harbor lobster from 1991 through 1995 (20.9%, SD=3.4, n=50). This was done because in the WHOI/DMF intercomparison the samples were dried at 110°C which chars the sample. WHOI included sixteen of the standard eighteen congeners. The two congeners not included make up less than one percent of the sum of all congeners. The result of summing the sixteen congeners and comparing this to the reported DMF value as Aroclor 1254 for the same three lobsters was as follows:

Sample I.D.	16 congeners WHOI	1254 DMF
P936	0.4	0.386
P938	0.2	0.224
P960	0.2	0.152



OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages **4**

To <i>Tade Schwartz</i>	From <i>Jane Johnson</i>
Dept./Agency	Phone # <i>617 573-5735</i>
Fax # <i>617 727-3337</i>	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Suzanne Condon
Page II

We conclude there was good agreement between the Aroclor 1254 and congener quantification methods, and for the purposes of estimating PCB concentrations the methods are comparable. It is important to note that from 1992 each yearly mean PCB concentration and 95% confidence interval was below 2 ppm. It is further noted that from 1992 all individual samples were below 2 ppm.

If you have any questions concerning the enclosed analyses please do not hesitate to call me.

Sincerely,

A handwritten signature in cursive script that reads "W. Leigh Bridges". The signature is written in black ink and is positioned above the typed name.

W. Leigh Bridges
Assistant Director

enclosures

cc: Phil Coates, DMF
Peg Brady, CZM
Jack Terrill, NMFS
Elaine Krueger, DPH

WLB/JPS/jps

PCB SUMMARY SHEET

PCB analysis in lobsters from sampling sites in New Bedford Harbor (Area 3)
 Division of Marine Fisheries and State Food and Drug
 ppm (ug/g wet wt. edible portion)

Station	*1980 Spring DMF	*1980 Fall DMF	*1981 Summer DMF	*1981 Fall DMF	1982 Spring DMF	1982 Spring F&D	1982 Summer F&D	1982 Fall DMF	1982 Fall F&D	1983 Spring DMF	1983 Fall DMF	1984 Spring F&D	1984 Fall F&D	1985 Spring DMF	1985 Fall DMF	*1986 Spring DMF	1986 Fall DMF	1987 Spring DMF	1987 Fall DMF
JJJ	5.8	3.2		1.7	5.4	6.5	2.2	1.9	5.0	3.5	2.0	5.7	5.0	4.3	4.6				
KKK	4.8			0.8	2.1	6.5	1.9	1.4	3.2	7.0	2.3	6.0	4.4	3.3	2.6	1.88	1.15	5.29	2.79
LLL				2.2	4.6	8.1	5.7	23.8	8.1	2.7	4.4	7.6	7.0	6.8	6.8	4.83	8.31	7.82	2.91
MMM	4.4			0.7	4.0	5.5	2.2	2.2	6.4	7.6	3.4	9.3	4.2	5.5	4.4	1.41	1.55	4.95	4.08
RR				1.2	7.5	8.8	4.6	11.5	3.3	6.1	2.9	8.1	7.0	6.1	11.4	3.43	3.21	5.52	5.83**
SS	4.7	2.3	8.8	0.5	7.5	7.4	6.1	6.9	4.1	3.8	3.9	11.1	7.6	3.6	3.8	3.01	2.35	5.79	5.24
TT		1.6	8.3	1.1	4.4	5.8	3.4	3.2	6.1	7.8	5.5	2.9	3.4	5.1	3.9	4.51	1.77	4.49	6.58**
UU	3.4	0.8	4.0	0.4	2.9	4.6	2.5	2.4	2.1	2.1	1.3	3.1	4.9	3.4	1.0	2.59	1.38	4.65	2.36
VV	2.4	0.8	2.5	0.7	3.3	3.9	0.7	0.6	2.7	1.0	2.1	7.0	1.5	3.9		1.61	1.81	1.74	0.89
YY	4.8	1.2	1.7	0.7	2.0	5.5	2.1	1.2	3.2		2.8	2.9	4.1	5.2	*2.0	1.72	1.91	2.99	1.23
ZZ	2.4	2.3		1.1	2.9	3.5	1.7	1.3	2.9	1.2	2.0	3.6	3.3	5.6	1.1	3.15	2.63	3.15	2.60
Season Ave.	4.1	1.7	5.1	1.0	4.2	6.0	3.0	5.1	4.3	4.3	3.0	6.1	4.8	4.8	4.2	2.81	2.61	4.64	3.45

4.52

(Continued)

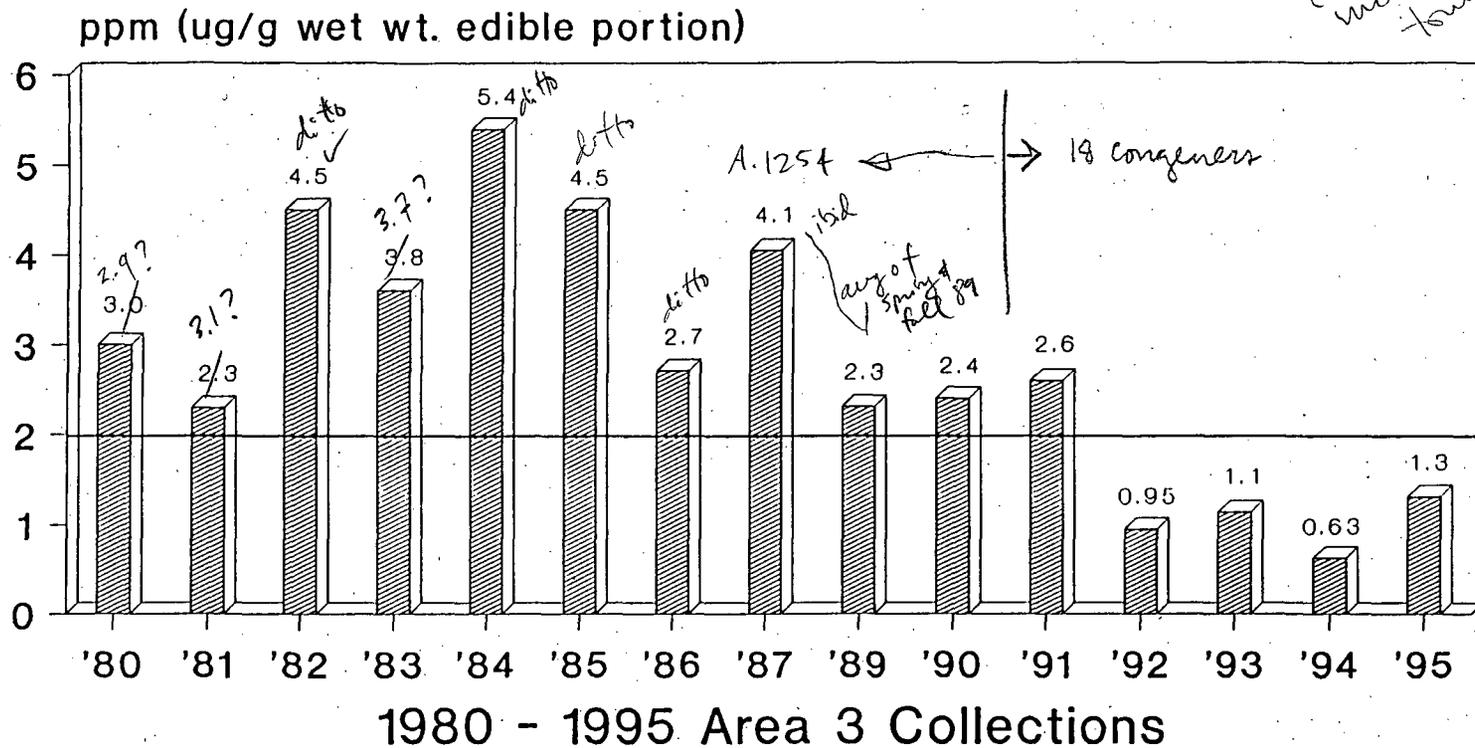
Station	Spring 1989 DMF	Fall 1989 DMF	Spring 1990 DMF	Spring 1991 DMF	Spring 1992 DMF	Spring 1993 DMF	Spring 1994 DMF	Spring 1995 DMF	Station Average
JJJ									4.1
KKK	2.90	1.12	1.60	2.60	1.70	1.50	0.40	0.94	2.8
LLL	2.09	1.80	4.63	6.30	0.21	0.80	0.38	1.60	5.4
MMM	3.17	2.19	1.63	2.20	1.00	0.76	0.33	1.50	3.4
RR	4.19	1.74	2.11	1.60	0.77	1.20	0.68	1.00	4.6
SS	3.74	1.90	1.82	1.10	0.62	1.20	0.75	1.40	4.1
TT	1.58	1.81	1.52	2.10	0.48	1.40	0.46	1.40	3.5
UU	2.58	1.58	2.84	3.70	1.30	1.30	1.10	1.50	2.4
VV	3.18	1.47	1.94	2.00	1.10	1.20	0.77	0.97	2.0
YY	2.01	2.13	3.57	2.70	1.20	0.95	0.77	1.70	2.4
ZZ	2.56	2.53	2.37	2.10	1.10	1.10	0.64	1.10	2.3
Season Ave.	2.80	1.83	2.40	2.60	0.95	1.10	0.63	1.30	

*Includes tonalley
 8-25-00 filecon w/ J. Schwartz
 - has data thru 98;
 will send once OK
 from report.*

* Values for 1980-1981, Spring 1986, and Sta. YY - Fall 1985 represent averages of individual analyses or single analyses. All other values are composite PCB concentrations of 2-3 individuals.

** Values are averages of two composites.

Mean Annual PCB Levels in American Lobster Outer New Bedford Harbor - Area 3



Division of Marine Fisheries
Cat Cove Marine Laboratory

Mean PCBs