File
PCB-Tissue analysis

File	✓	
Destroy		
CDB		
JTG		
WHH	✓	
MNJ		
REK		
RAM		
EPW	✓	✓
GJL	✓	

October 28, 1971

Dr. M. L. Keplinger
Industrial Bio-Test Laboratories, Inc.
1810 Frontage Road
Northbrook, Illinois 60062

Dear Kep:

Enclosed is a copy of a memo from Scott Tucker relative to tissue samples from our Aroclor studies. He and his associates will want to discuss this with you Tuesday.

Sincerely,

Elmer P. Wheeler
Mgr., Environmental Health

EPW/bks

Enclosure

DSW 040973

STLCOPCB4022516

OCT 27 1971

Monsanto INDUSTRIAL CHEMICALS COMPANY

FROM (NAME & LOCATION) E. S. Tucker/W. M. Mees - S. Second Street - S. Louis

DATE October 25, 1971

cc: W. B. Papageorge - GO
E. P. Wheeler - GO
J. D. Hinchen - Res. 2
W. M. Mees - Res. 2

SUBJECT INVENTORY OF INDUSTRIAL BIO-TEST LABORATORIES TISSUES

REFERENCE

TO : R. E. Keller
Research 1

The results of our inventory of materials for the studies listed below is given in this memo report.

I. Toxicity, Reproduction, and Residue Study on: Aroclor 1242, Aroclor 1254 and Aroclor 1260 in White Leghorn Chickens. IBT No. J7300.

II. Toxicity, Reproduction, and Residue Study with Aroclor 1242, Lot #AK-255 in White Leghorn Chickens. IBT No. J8746.

III. Three-Generation Reproduction Study in Albino Rats with: Aroclor 1242, Aroclor 1254, and Aroclor 1260. IBT No. P7297.

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I. IBT No. J7300

Our inventory of all samples currently stored in our St. Louis freezers shows that we have received complete duplicate samples of muscle, liver and fat chicken tissues from the residue sacrifice and final sacrifice periods (matrix chart Nos. 1-120). However, we have found that we are missing a number of egg and chick samples and that we will, in some cases, need help in interpreting the IBT labeling system.

The following is an inventory list of all egg samples from this study. Please have the appropriate IBT personnel review it so they can (1) identify the samples according to our matrix chart numbers, and (2) ship us those samples which are noted as missing.

Eggs

IBT Label	Matrix No.
Aroclor 1242 - 10 ppm, 9-5-69	122(?)
Aroclor 1242 - 10 ppm, 9-24-69	
Aroclor 1242 - 10 ppm, 9-26-69	
Aroclor 1242 - 10 ppm, 9-28-69	
Aroclor 1242 - 10 ppm, 9-30-69	
Aroclor 1242 - 10 ppm, 11-12-69	128(?)
Aroclor 1242 - 10 ppm, 11-18-69	129(?)
Aroclor 1242 - 10 ppm, 11-24-69	130(?)

DSW 040974

Eggs (Cont'd)

IBT Label	Matrix No.
Aroclor 1242 - 100 ppm, 8-21-69	123(?)
Aroclor 1242 - 100 ppm, 9-5-69	
Aroclor 1242 - 100 ppm, 9-24-69	
Aroclor 1242 - 100 ppm, 9-26-69	
Aroclor 1242 - 100 ppm, 9-28-69	
Aroclor 1242 - 100 ppm, 10-24-69	132(?)
Aroclor 1242 - 100 ppm, 10-29-69	133(?)
Aroclor 1242 - 100 ppm, 11-5-69	134(?)
Aroclor 1242 - 100 ppm, 11-12-69	135(?)
Aroclor 1254 - 1 ppm, ?	136(?)
Aroclor 1254 - 1 ppm, ?	
Aroclor 1254 - 1 ppm, 9-5-69	
Aroclor 1254 - 1 ppm, 11-18-69	141(?)
Aroclor 1254 - 1 ppm, 11-24-69	142(?)
Aroclor 1254 - 100 ppm, 9-5-69	138(?)
Aroclor 1254 - 100 ppm, 9-10-69	
Aroclor 1254 - 100 ppm, 9-26-69	
Aroclor 1254 - 100 ppm, 9-28-69	
Aroclor 1254 - 100 ppm, 9-29-69	
Aroclor 1254 - 100 ppm, 9-30-69	
Aroclor 1254 - 100 ppm, 11-5-69	149(?)
Aroclor 1254 - 100 ppm, 11-12-69	150(?)
Aroclor 1260 - 1 ppm, 9-5-69	151(?)
Aroclor 1260 - 1 ppm, 9-24-69	
Aroclor 1260 - 1 ppm, 9-26-69	
Aroclor 1260 - 1 ppm, 9-28-69	
Aroclor 1260 - 1 ppm, 9-30-69	
Aroclor 1260 - 1 ppm, 11-18-69	155(?)
Aroclor 1260 - 1 ppm, 11-24-69	156(?)
Aroclor 1260 - 10 ppm, 9-5-69	152(?)
Aroclor 1260 - 10 ppm, 11-18-69	159(?)
Aroclor 1260 - 10 ppm, 11-24-69	160(?)

The following egg samples appear to be missing:

Controls	166-170
Aroclor 1242 - 1 ppm	121
Aroclor 1242 - 1 ppm	124
Aroclor 1242 - 1 ppm	125
Aroclor 1242 - 1 ppm	126
Aroclor 1242 - 1 ppm	127
Aroclor 1242 - 10 ppm	131
Aroclor 1254 - 1 ppm	139
Aroclor 1254 - 1 ppm	140
Aroclor 1254 - 10 ppm	137
Aroclor 1254 - 10 ppm	143
Aroclor 1254 - 10 ppm	144
Aroclor 1254 - 10 ppm	145
Aroclor 1254 - 10 ppm	146
Aroclor 1254 - 100 ppm	148
Aroclor 1254 - 100 ppm	149

DSW 040975

IBT Label	Matrix No.
Aroclor 1260 - 1 ppm	154
Aroclor 1260 - 1 ppm	157
Aroclor 1260 - 10 ppm	158
Aroclor 1260 - 10 ppm	161
Aroclor 1260 - 100 ppm	153
Aroclor 1260 - 100 ppm	162
Aroclor 1260 - 100 ppm	163
Aroclor 1260 - 100 ppm	164
Aroclor 1260 - 100 ppm	165

We also do not completely understand how the egg samples were composited during the study. In some cases, we have received only one collection (1260-10 ppm) and in another (1254-100 ppm) as many as six.

Chicks and/or Mortalities

The following is our inventory of the chicks and/or mortalities(?) that we also have in hand from this study. It would be very helpful to us if IBT could identify these samples according to our matrix chart numbers and if they could differentiate the chicks from the young mortalities.

IBT Label	Date
Control, ?	?
Control, #1	11-24-69
Control, #2	11-24-69
Aroclor 1242, 1 ppm, #1	12-8-69
Aroclor 1242, 1 ppm, #1	12-2-69
Aroclor 1242, 1 ppm, #2	12-2-69
Aroclor 1242, 10 ppm, ?	12-8-69
Aroclor 1242, 10 ppm, ?	10-17-69
Aroclor 1242, 10 ppm, ?	?
Aroclor 1242, 10 ppm, ?	12-2-69
Aroclor 1242, 100 ppm, ?	11-17-69
Aroclor 1254, 1 ppm, #1	10-17-69
Aroclor 1254, 1 ppm, #953♀	10-9-69
Aroclor 1254, 1 ppm, #2	10-21-69
Aroclor 1254, 1 ppm, #2	12-8-69
Aroclor 1254, 1 ppm, #1	12-8-69
Aroclor 1254, 1 ppm, ?	10-20-69
Aroclor 1254, 1 ppm, #1	11-17-69
Aroclor 1254, 1 ppm, ?	11-17-69
Aroclor 1254, 1 ppm, ?	12-2-69
Aroclor 1254, 1 ppm, #2	12-2-69

DSW 040976

IBT Label (Cont'd)	Date
Aroclor 1254, 10 ppm, ?	12-2-69
Aroclor 1254, 100 ppm, #802	10-3-69
Aroclor 1254, 100 ppm, #2	?
Aroclor 1260, 1 ppm, #1	12-8-69
Aroclor 1260, 1 ppm, #1	12-2-69
Aroclor 1260, 1 ppm, #2	12-2-69
Aroclor 1260, 1 ppm, 1 chick	?
Aroclor 1260, 1 ppm, ?	12-8-69
Aroclor 1260, 1 ppm, ?	11-24-69
Aroclor 1260, 1 ppm, ?	11-24-69
Aroclor 1260, 1 ppm, ?	10-17-69
Aroclor 1260, 1 ppm, ?	10-17-69
Aroclor 1260, 1 ppm, ?	10-29-69
Aroclor 1260, 1 ppm, #2	11-17-69
Aroclor 1260, 1 ppm, #1	11-17-69
Aroclor 1260, 10 ppm, ?	10-17-69
Aroclor 1260, 10 ppm, Many	10-29-69
Aroclor 1260, 10 ppm, #2	12-8-69
Aroclor 1260, 10 ppm, #2	12-2-69
Aroclor 1260, 10 ppm, #1	12-2-69
Aroclor 1260, 10 ppm, #1	12-8-69
Aroclor 1260, 10 ppm, #1	11-17-69
Aroclor 1260, 10 ppm, #2	11-17-69
Aroclor 1260, 100 ppm, #943	10-6-69
Aroclor 1260, 100 ppm, #1	?
? , #945	8-1-69
? , #239	8-8-69
? , #908	8-8-69
? , #909	8-8-69
? , #918	?
? , #863	?
? , #899	?
? , #209♂	10-4-69
? , Box Mort?	?
? , #545	?
? , #906	?
? , #610	?
? , #580	?
? , #905	?
? , #584	?
? , #534	?
? , #543	?
? , #423	?
? , #554	?
? , #449	?
? , #992	?
? , Cont.	?
? , Unk.	?
? , #651♀	11-17-69
? , 6 Wk Male	11-17-69
? , 10 Unk.	11-17-69

DSW 040977

II. IBT No. J8746

We have none of the tissue samples from this repeat study with Aroclor 1242. Attached is a numbered matrix sheet for this study. We would appreciate it if IBT would identify these samples with our matrix numbers before shipment to St. Louis.

III. IBT No. P7297

The last report we received on this study was an interim report covering the first generation. We need a copy of the final report if available. The attached matrix represents our understanding of the samples which were retained for residue analysis. At this time, we have in St. Louis whole pup samples from several first generation litters. These samples would correspond to matrix numbers 31 thru 60. If the other tissue samples shown on the matrix were retained, we would appreciate it if IBT would ship these samples to us as soon as possible. Again, it would be helpful if IBT would identify the samples with our matrix numbers. An inventory list of the samples in hand is included for reference purposes.

IBT Label	Matrix No.	
Control, F-1a ?, 12-26-69 Control, F-1c, 2-13-70	40,41,42	?
A-I, Aroclor 1242, 1 ppm?, F-1a?, 12 0-69 A-I, Aroclor 1242, 1 ppm?, F-1a?, 12-30-69 A-I, Aroclor 1242, 1 ppm?, F-1a?, 1-5-70	31,32,33	?
A-II, Aroclor 1242, 10 ppm?, F-1a?, 12-23-69	43,44,45	?
A-III, Aroclor 1242, 100 ppm?, F-1a?, 12-29-69	52,53,54	?
B-I, Aroclor 1254, 1 ppm?, F-1b?, 1-30-70 B-I, Aroclor 1254, 1 ppm?, F-1c, 2-13-70 B-I, Aroclor 1254, 1 ppm?, F-1c, 2-13-70 B-I, Aroclor 1254, 1 ppm?, F-1c, 2-13-70	34,35,36	?
B-II, Aroclor 1254, 10 ppm?, F-1a?, 12-23-69 B-II, Aroclor 1254, 10 ppm?, F-1a?, 12-26-69 B-II, Aroclor 1254, 10 ppm?, F-1a?, 1-2-70	46,47,48	?
B-III, Aroclor 1254, 100 ppm?, F-1a?, 12-30-69 B-III, Aroclor 1254, 100 ppm?, F-1b?, 1-30-70 B-III, Aroclor 1254, 100 ppm?, F-1c?, 2-5-70	55,56,57	?
C-I, Aroclor 1260, 1 ppm?, F-1a?, 12-26-69 C-I, Aroclor 1260, 1 ppm?, F-1a?, 12-26-69 C-I, Aroclor 1260, 1 ppm?, F-1a?, 12-26-69	37,38,39	?
C-II, Aroclor 1260, 10 ppm?, F-1a?, 12-26-69	49,50,51	?
C-III, Aroclor 1260, 100 ppm?, F-1b?, 1-19-69	58,59,60	?

db

W. M. Mees E. S. Tucker

DSM 040978

STLCOPCB4022521

Biotest Study # J7300

Toxicity, Reproduction and Residue Study on Aroclor in White Leghorn Chickens

Residue

		1) ~~Final~~ Sacrifice						30 Day Chick Sacrifice			1st wk.	2nd wk.	3rd wk.	4th wk	1st wk.	2nd wk.	3rd wk.	4th wk.	1st wk	2nd wk	3rd wk	4th wk.	2) ~~Final~~ Sacrifice					
		1ppm		10ppm		100ppm		1ppm	10ppm	100ppm	1ppm				10ppm				100ppm				1ppm		10ppm		100ppm	
		♂	♀	♂	♀	♂	♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Recovery Period												♂	♀	♂	♀	♂	♀
Aroclor 1242	Muscle	1	2	3	4	5	6	171	172	173													19	20	21	22	23	24
	Liver	7	8	9	10	11	12	174	175	176													25	26	27	28	29	30
	Fat	13	14	15	16	17	18	177	178	179													31	32	33	34	35	36
	Egg	121		122		123					124	125	126	127	128	129	130	131	132	133	134	135	NS		NS		NS	
Aroclor 1254	Muscle	37	38	39	40	41	42	180	181	182													55	56	57	58	59	60
	Liver	43	44	45	46	47	48	183	184	185													61	62	63	64	65	66
	Fat	49	50	51	52	53	54	186	187	188													67	68	69	70	71	72
	Egg	136		137		138					139	140	141	142	143	144	145	146	147	148	149	150	NS		NS		NS	
Aroclor 1260	Muscle	73	74	75	76	77	78	189	190	191													91	92	93	94	95	96
	Liver	79	80	81	82	83	84	192	193	194													97	98	99	100	101	102
	Fat	85	86	87	88	89	90	195	196	197													103	104	105	106	107	108
	Egg	151		152		153					154	155	156	157	158	159	160	161	162	163	164	165	NS		NS		NS	
Control	Muscle	109	110	*				198	*						*								115	116	*			
	Liver	111	112					199															117	118				
	Fat	113	114					200															119	120				
	Egg	166									167	168	169	170									NS					

* Common control

1) Between 22nd and 26th week.

2) Between 26th and 30th week.

NS – Not sampled

DSW 040979

STLCOPCB4022522

Biotest Study #8746

Toxicity, Reproduction and Residue Study on Aroclor in White Leghorn Chickens

		1) Residue Sacrifice						30 Day Chick Sacrifice			1st wk.	2nd wk.	3rd wk.	4th wk.	1st wk.	2nd wk.	3rd wk.	4th wk.	1st wk.	2nd wk.	3rd wk.	4th wk.	2) Recovery Sacrifice					
		2 ppm		4 ppm		8 ppm		2 ppm	4 ppm	8 ppm	2 ppm				4 ppm				8 ppm				2 ppm		4 ppm		8 ppm	
		♂	♀	♂	♀	♂	♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Recovery Period												♂	♀	♂	♀	♂	♀
Aroclor 1242	Muscle	1	2	3	4	5	6	69	70	71													19	20	21	22	23	24
	Liver	7	8	9	10	11	12	72	73	74													25	26	27	28	29	30
	Fat	13	14	15	16	17	18	75	76	77													31	32	33	34	35	36
	Egg	49		50		51					52	53	54	55	56	57	58	59	60	61	62	63	NS		NS		NS	
Control	Muscle	37	38	*				78	*						*								43	44	*			
	Liver	39	40					79															45	46				
	Fat	41	42					80															47	48				
	Egg	64									65	66	67	68									NS					

* Common control
1) Between 22nd and 26th week.
2) Between 26th and 30th week.

DSM 040980

STLCOPCB4022523

Biotest Study # P 7297

Three-Generation Reproduction Study In Albino Rats With Aroclor

		Parent Sacrifice (F2b litter)			Pup Sacrifice (F-3 generations)			Recovery Sacrifice (F2b litter)		
		1 ppm	10 ppm	100 ppm	1 ppm	10 ppm	100 ppm	1 ppm	10 ppm	100 ppm
		Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀	Composite ♂ ♀
Aroclor 1242	Muscle	1	13	22	31	43	52	61	73	82
	Liver	2	14	23	32	44	53	62	74	83
	Fat	3	15	24	33	45	54	63	75	84
Aroclor 1254	Muscle	4	16	25	34	46	55	64	76	85
	Liver	5	17	26	35	47	56	65	77	86
	Fat	6	18	27	36	48	57	66	78	87
Aroclor 1260	Muscle	7	19	28	37	49	58	67	79	88
	Liver	8	20	29	38	50	59	68	80	89
	Fat	9	21	30	39	51	60	69	81	90
Control	Muscle	10	*		40	*		70	*	
	Liver	11			41			71		
	Fat	12			42			72		

* Common controls, one per sacrifice

DSM 040981

STLCOPCB4022524