

Monsanto

COMPANY
CONFIDENTIAL

FROM (NAME & LOCATION) E. E. Stewart, Krummrich

DATE : December 7, 1971

cc: A. E. Leisy
H. J. Horner
R. M. McCutchan

SUBJECT : PCB CONTROL

REFERENCE :

TO : Mr. W. C. Engman

Starting with the 11/3 series of sewer samples and continuing throughout the month of November, there appeared in our sewer streams a lower chlorinated biphenyl. At present the material is called 1221. It may be primarily a monochlorinated compound, and whether this should be considered as a PCB has yet to be resolved.

However, the presence of 1221 may give us a clue to the source of PCB that is present in our sewer system.

Data on the amount of the various Aroclors are tabulated below:

	1221		1242-48		1254-60		Approx.
	%	ppb	%	ppb	%	ppb	Flow GPM
Dept. 246 (4-Z)	65	375	25	144	10	58	240
24" Sewer (2-A)	20	9	64	29	16	7	4000
30" Sewer (1-B)	80	182	12	27	8	18	3940
Influent	57	217	30	114	13	50	8650
Effluent	64	159	26	64	11	27	8650

1. Note that Dept. 246 flow is primarily through the 30" sewer and not the 24" sewer we believe. There must be a cross flow occurring.
2. These data would indicate that most of our losses are coming from the department.
3. Either there are discrepancies in our sampling procedures or there are major cross flows between the sewer system and the underground water system.

DSW 296243

Future Plans:

1. A work request has been given AR&D to characterize the reported 1221. Try to identify if it is mono or polychlorinated. I have asked Harry Campbell to review past chromatographs to determine if "1221" were present during six specific periods prior to 11/3. Each period corresponds to different times when 1016, 1105 and 1109 were produced.
2. Plans are being made to divert the entire sewer water from Dept. 246 to the North and flow to the treatment plant via Monsanto Avenue rather than thru the 24 and 30 inch sewers in the plant. This will permit us to note changes when the entire department flow is diverted from the other plant sewers.
3. Flow measurements from the 24" and 30" sewers are being recalculated from LiCl tests to be conducted week of 12/6. Additional checking for cross flow will be made. This work is being done primarily to study mercury data.
4. A Parshall flume and isokinetic sampling station will be installed during the forthcoming major sewer repair project along Second Street.



Edward E. Stewart
Technical Services Department

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DSW 296244

FLOW MEASUREMENTS

G.P.M.

DATE NOV 24
350 - 4950
2410 - 5150

SEWER

30 W 1-B	6470 5/30/68	6500 6/1/68	5300 10/18/68	5900 6/17/69	5560 8/24/69	3500 1-27-60	3800 1-20-70	4300 4-10-70	3340 12-70
24 W 2-A	4400 5/20/68	5000 6/13/68	5150 10/18/68	4530 8/29/69	3315 1-22-70	3300 1-27-70	—	3720 4-10-70	3700 4-10-70
24 E 3-E	2850 11/1/67	2900 1/16/69	2460 2/21/69	2600 4-9-70	2760 6-8-71	2780 7-11-71	2800 9-1-71	2440 4-20-70	5000 9-10-70
MVO	19000	15500 7-2-70						3500 1-21-71	5300 10-21-70
30 E	4850 6/17/69							4000 —	4000 1-22-71
262	250	300 8/7/69	380 2/23/70					4050 5-15-71	3500 5-15-71
24 N	1000	820 6-17-71						4650 6-7-71	3940 6-8-71
236	338 6-2-61	350	300 4-9-70 Est.					4800 6-11-71	4050 9-13-71
237	430	500 4-9-70 Est.						3950 —	3950 9-1-71
237-A (3-I-2)	990 1/20/68	800 9-10/69	585 4-9-70	515 9-1-71				4230 6-17-71	2600 12-10-71
217	1600 2-20-69	550 4-9-70						3850 7-1-71	
236-37 (3-I)	2530 6-3/67	2270 1/14/69	2420 2/20/69	2000 4-9-70	2160 7-13-71	2400 9-1-71		3525 7/21/71	
248 abandoned	1820 9/17/68	1900 6-30-70	1630 8-27-70	1760 12-10-70	1530 1-21-71	1360 6-7-71	1310 6-11-71	3600 12-10-71	
# 50	120				248	1210 7/21/71	1060 7-1-71		
# B 2	223 7/14/67	460 1/10/69	342 12/1/68	396 5/27/69	350 6/17/69	1012 7/21/71			

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FLOW MEASUREMENTS

G.P.M.

WELL	400 8-5-69	450 5-4-70	400 Bridle					
W								
I	600 8/7/69	610 9-22-70	1000 Bridle					
221	127 4-9-70							
254 N-Sewer	50 4-17-70	100 Bridle	75 Bridle					
268 Stations	130 4-21-70	280 5-4-70						
222 Parshall flume	575 6-30-70							
258	550							
214 (H ₂ SO ₄)	60	25 Bridle						
Run off 18"	60	33 Bridle						
255-24"	2700 6-7-71	2840 6-11-71	2600 6-17-71	2760 6-18-71	2723 7-1-71			
4-J	850 6-18-71	1010 7-1-71	929 7-29-71					
246 4-2	240 6-17-71							
Dept. 248	340 7-1-71	300 7/19/71						
Co. Power Dist old lab.	600 7-13-71							
Transformer main 9-2	100 7/15/71							
3-C	2480 7-1-71							

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