	B	C
1	**Source Description**	
2		
3	Phase I ID No.	340
4	EPA ID No.	WVD056866312
5	Facility Name	Bayer Coporation
6	Facility Location	
7	City	New Martinsville
8	State	West Virginia
9	Unit ID Name/No.	FBI
10	Other Sister Facilities	None
11	Combustor Class	Onsite Incinerator
12	Combustor Type	Fluidized Bed Incinerator
13	Combustor Characteristics	
14		
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS	ESP/CI/WS
18	APCS Characteristics	Carbon added upstream of wet scrubber, downstream of ESP. 2-stage wet scrubber
19		Carbon used in new demo testing. Not part of regular system
20	Hazardous Wastes	Liquid and solid
21	Haz Waste Description	Waste H2O sludge, MCB/MEA/polyol liquids
22	Supplemental Fuel	
23		
24	Stack Characteristics	
25	Diameter (ft)	3.00
26	Height (ft)	36
27	Gas Velocity (ft/sec)	30.0
28	Gas Temperature (°F)	150
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**340C10**	
4		
5	Report Name/Date	Investigation of PCDD/PCDF Emissions from the Fluidized Bed Incinerator with and without Carbon Injection, December 1998
6	Report Prepare	ENSR
7	Testing Firm	Bayer Coporation
8	Testing Dates	July 7, 1998
9	Condition Descr	Baseline test
10	Content	PM, CO, PCDD/F
11		
12	**340C11**	
13		
14	Report Name/Date	Investigation of PCDD/PCDF Emissions from the Fluidized Bed Incinerator with and without Carbon Injection, December 1998
15	Report Prepare	ENSR
16	Testing Firm	Bayer Coporation
17	Testing Dates	July 8, 1998
18	Condition Descr	Carbon injected rate 1
19	Content	PM, CO, PCDD/F
20		
21	**340C12**	
22		
23	Report Name/Date	Investigation of PCDD/PCDF Emissions from the Fluidized Bed Incinerator with and without Carbon Injection, December 1998
24	Report Prepare	ENSR
25	Testing Firm	Bayer Coporation
26	Testing Dates	July 9, 1998
27	Condition Descr	Carbon injected rate 2
28	Content	PM, CO, PCDD/F
29		
30	**340C1**	
31		
32	Report Name/Date	Final Trial Burn Report for the Fluidized Bed Incinerator, Miles, Inc., New Martinsville, WV, ENSR Document No. 4690-009-400, September 1992
33	Report Prepare	ENSR
34	Testing Firm	ENSR
35	Cond Descr	Trial burn, MAX LIQUID FEED AND ASH INPUT
36	Test Dates	21-May-92
37	Cond Date	09/01/92
38		
39	**340C2**	
40		
41	Report Name/Date	Final Trial Burn Report for the Fluidized Bed Incinerator, Miles, Inc., New Martinsville, WV, ENSR Document No. 4690-009-400, September 1992
42	Report Prepare	ENSR
43	Testing Firm	ENSR
44	Cond Descr	Trial burn, MAX HEAT INPUT
45	Test Dates	22-May-92
46	Cond Date	09/01/92
47		
48	**340C50**	
49		
50		Results of PCDD/PCDF testing in 1992, as reported in the 1998 Carbon Injection Demonstration Test Report sited above

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 1**											
2												
3		Commer	Units	7% O2		R1		R2		R3		Cond Avg
4												
5	**340C10**											
6												
7	PM		gr/dscf	y		0.0013						0.0013
8	CO (RA)		ppmv	y		0.68						0.6800
9												
10	HC		ppmv	n		0.86						
11	NOx		lb/hr	n		4.9						
12	SO2		lb/hr	n		0.03						
13												
14	Sampling Train	PM, CO										
15	Stack Gas Flowrate		dscfm			7840						7840.0
16	O2		%			8.77						8.8
17	Moisture		%			26.9						26.9
18	Temperature		°F			150						150.0
19												
20	Sampling Train	PCDD/PCDF										
21	Stack Gas Flowrate		dscfm			8206						8206.0
22	O2		%			8.77						8.8
23	Moisture		%			25.7						25.7
24	Temperature		°F			152.4						152.4
25												
26	HC		ppmv	y		0.98						
27	NOx		ppmv	y		233.7						
28	SO2		ppmv	y		1.4						
29												
30	**340C11**					R1		R2		R3		Cond Avg
31												
32	PM		gr/dscf	y		0.0015		0.0019				0.0017
33	CO (RA)		ppmv	y		7.09		2.64				4.8650
34												
35	HC		ppmv	n		0.81		0.76				
36	NOx		lb/hr	n		2.8		3.6				
37	SO2		lb/hr	n		0.03		0.03				
38												
39	Sampling Train	PM, CO										
40	Stack Gas Flowrate		dscfm			7361		7450				7405.5
41	O2		%			8.6		8.47				8.5
42	Moisture		%			25.7		25.7				25.7
43	Temperature		°F			150		150				150.0
44												
45	Sampling Train	PCDD/PCDF										
46	Stack Gas Flowrate		dscfm			7608		7780				7694.0
47	O2		%			8.6		8.47				8.5
48	Moisture		%			27.7		27.7				27.7
49	Temperature		°F			153.6		153.6				153.6
50												
51	HC		ppmv	y		0.91		0.85				0.9
52	NOx		ppmv	y		142.9		177.3				160.1
53	SO2		ppmv	y		1.5		1.5				1.5
54												
55	**340C12**					R1		R2		R3		Cond Avg
56												
57	PM		gr/dscf	y		0.0024		0.0026				0.0025
58	CO (RA)		ppmv	y		1.51		0.73				1.1200
59												
60	HC		ppmv	n		0.84		0.86				
61	NOx		lb/hr	n		3.1		3.6				
62	SO2		lb/hr	n		0.03		0.03				
63												
64	Sampling Train	PM, CO										
65	Stack Gas Flowrate		dscfm			7372		7814				7593.0
66	O2		%			8.97		10.17				9.6
67	Moisture		%			25		24.4				24.7
68	Temperature		°F			150		149				149.5
69												
70	Sampling Train	PCDD/PCDF										
71	Stack Gas Flowrate		dscfm			7720		7652				7686.0

	B	C	D	E	F	G	H	I	J	K	L	M
72	O2		%			8.97		10.17				9.6
73	Moisture		%			26.4		25.7				26.1
74	Temperature		°F			153.4		151.6				152.5
75												
76	HC		ppmv	y		0.98		1.11				1.0
77	NOx		ppmv	y		160.1		194.5				177.3
78	SO2		ppmv	y		1.6		1.6				1.6

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 2**											
2												
3	**340C1**					R1		R2		R3		Cond Avg
4												
5	PM		gr/dscf	y		0.0088		0.0087		0.0052		0.0076
6	CO		ppmv	y		81.6		46.4		21.9		
7	HC		ppmv	y		4.0				0.3		
8	HCl		ppmv	y		9.8		12.5		18.2		13.5
9	Antimony		ug/dscm	y		2.8	nd	6.2		3.0		
10	Arsenic		ug/dscm	y	nd	4.7	nd	5.2	nd	5.0		
11	Barium		ug/dscm	y		8.4		6.5		5.9		
12	Beryllium		ug/dscm	y		3.4		0.1		0.1		
13	Cadmium		ug/dscm	y		2.5		1.0		1.1		
14	Chromium		ug/dscm	y		403.7		0.1	nd	0.4		
15	Lead		ug/dscm	y	nd	4.7		4.5		3.0		
16	Mercury		ug/dscm	y		5.6		9.1		7.5		7.4
17	Silver		ug/dscm	y	nd	1.9	nd	2.1	nd	2.0		
18	Thallium		ug/dscm	y	nd	9.3	nd	10.7	nd	10.3		
19	SVM		ug/dscm	y		4.8		5.6		4.1		4.8
20	LVM		ug/dscm	y		409.4		2.8		3.0		138.4
21		1 high outlier run for Cr R1										
22												
23	Sampling Train	Halogens										
24	Moisture					33.6		33.6		31.5		
25	Oxygen					7.7		8.8		8.9		
26	Stack gas flowrate					8760.0		8783.0		9555.0		
27	Temperature					162.0		158.0		157.0		
28												
29	Sampling Train	Metals										
30	Moisture					31.4		28.7		28.9		
31	Oxygen					7.7		8.8		8.9		
32	Stack gas flowrate					9071.0		9452.0		9913.0		
33	Temperature					160.0		157.0		156.0		
34												
35	Carbon Tetrachloride	DRE	%			99.9996		99.999		99.999		
36	Chlorobenzene	DRE	%			99.9958		99.998		99.9987		
37												
38	**340C2**					R1		R2		R3		Cond Avg
39												
40	PM		gr/dscf	y		0.0046		0.0067		0.0041		0.0051
41	CO		ppmv	y		12.7		11.2		13.0		
42	HC		ppmv	y		1.0		1.1		2.3		
43	HCl		ppmv	y		20.9		24.7		17.9		21.2
44	Antimony		ug/dscm	y	nd	5.7	nd	6.2	nd	5.6		
45	Arsenic		ug/dscm	y	nd	4.5	nd	5.2	nd	4.7		
46	Barium		ug/dscm	y		9.7		7.5		155.6		
47	Beryllium		ug/dscm	y		0.2	nd	0.2	nd	0.2		
48	Cadmium		ug/dscm	y		0.9		1.1		0.7		
49	Chromium		ug/dscm	y		0.1		0.6		0.2		
50	Lead		ug/dscm	y		19.0		7.5		10.6		
51	Mercury		ug/dscm	y		10.3		13.1		13.5		12.3
52	Silver		ug/dscm	y	nd	1.8		2.0	nd	1.8		
53	Thallium		ug/dscm	y	nd	9.4	nd	10.5	nd	9.7		
54	SVM		ug/dscm	y		20.0		8.6		11.3		13.3
55	LVM		ug/dscm	y		2.6		3.4		2.7		2.9
56												
57	Sampling Train	Halogens										
58	Moisture					32.1		31.7		31.3		
59	Oxygen					8.0		8.6		7.9		
60	Stack gas flowrate					9889.0		9363.0		9166.0		
61	Temperature					162.2		159.8		160.7		
62												
63	Sampling Train	Metals										
64	Moisture					31.4		30.3		30.7		
65	Oxygen					8.0		8.6		7.9		
66	Stack gas flowrate					9495.0		9214.0		9739.0		
67	Temperature					161.0		159.0		159.0		
68												
69	Carbon Tetrachloride	DRE	%			99.9991		99.9988		99.9989		
70	Chlorobenzene	DRE	%			99.9991		99.9991		99.9981		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	**Feedstreams 1**														
2															
3															
4	**340C10**	**Trial burn**			Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg				
5															
6	Feedstream Description				Solid Organi	Wastewater :	MCB	MEA	Polyol	Total Liq-B	Total				
7	Feed Rate		lb/hr		1377	3818	150	0.00	172	288	5805.00				
8	Heating Value		Btu/lb												
9	Chlorine		%wt		1.7	0.3	31.5								
10	Ash		lb/hr		16.5	155.0					171.50				
11															
12	Stack Gas Flowrate		dscfm		7840.0	7840.0	7840.0	7840.0	7840.0	7840.0					
13	Oxygen		%		8.8	8.8	8.8	8.8	8.8	8.8					
14															
15	Thermal Feedrate		MMBtu/hr												
16	Estimated Firing Rate		MMBtu/hr												
17															
18	*Feedrate MTEC Calculations*														
19	Chlorine		ug/dscm	y	913874.5	402442.1	1844614.0				3160930.52				
20	Ash		mg/dscm	y	644.2	6051.1					6695.27				
21															
22	**340C11**	**Trial burn**			1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2
23															
24	Feedstream Description				Solid Organi	Solid Organic	Solid Oragnic	Wastewater Sluge	Wastewater Slu	Wastewater Sl	MCB	MCB	MCB	MEA	MEA
25	Feed Rate		lb/hr		1203	1200	1201.5	3968	3905	3937	173	170	172	0	0
26	Heating Value		Btu/lb												
27	Chlorine		%wt		1.7	1.7		0.27	0.3		31.5	31.5			
28	Ash		lb/hr		14	14		161	159						
29															
30	Stack Gas Flowrate		dscfm		7361.0	7450	7405.5	7361.0	7450	7405.5	7361.0	7450	7405.5	7361.0	7450
31	Oxygen		%		8.6	8.47	8.535	8.6	8.47	8.535	8.6	8.47	8.535	8.6	8.47
32															
33	Thermal Feedrate		MMBtu/hr												
34	Estimated Firing Rate		MMBtu/hr												
35															
36	*Feedrate MTEC Calculations*														
37	Chlorine		ug/dscm	y	838691.5	818029.6	828360.6	439362.6	422789.0	431075.8	2234829.3	2147327.7	2191078.519		
38	Ash		mg/dscm	y	590.5	577.4	584.0	6602.6	6375.8	6489.2					
39															
40	**340C12**	**Trial burn**			1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2
41															
42	Feedstream Description				Solid Organi	Solid Organic	Solid Oragnic	Wastewater Sluge	Wastewater Slu	Wastewater Sl	MCB	MCB	MCB	MEA	MEA
43	Feed Rate		lb/hr		1236	1256	1246	3734	3726	3730	204	0	102	0	202
44	Heating Value		Btu/lb												
45	Chlorine		%wt		1.7	1.7		0.27	0.3		31.5	31.5			8
46	Ash		lb/hr		15	15		152	151						
47															
48	Stack Gas Flowrate		dscfm		7372.0	7814	7593	7372.0	7814	7593	7372.0	7814	7593	7372.0	7814
49	Oxygen		%		9.0	10.17	9.57	9.0	10.17	9.57	9.0	10.17	9.57	9.0	10.17
50															
51	Thermal Feedrate		MMBtu/hr												
52	Estimated Firing Rate		MMBtu/hr												
53															
54	*Feedrate MTEC Calculations*														
55	Chlorine		ug/dscm	y	888200.8	990603.9	939402.3	426169.0	466732.5	446450.8	2716342.2	0.0	1358171.1		749726.4
56	Ash		mg/dscm	y	606.9	612.8	609.9	6233.5	6128.2	6180.9					

	B	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	**Feedstreams 1**													
2														
3														
4	**340C10**													
5														
6	Feedstream Description													
7	Feed Rate													
8	Heating Value													
9	Chlorine													
10	Ash													
11														
12	Stack Gas Flowrate													
13	Oxygen													
14														
15	Thermal Feedrate													
16	Estimated Firing Rate													
17														
18	*Feedrate MTEC Calculation*													
19	Chlorine													
20	Ash													
21														
22	**340C11**	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg
23														
24	Feedstream Description	MEA	Polyol	Polyol	Polyol	Total Liq-B	Total Liq-E	Total Liq-B	PAC	PAC	PAC	Total	Total	Total
25	Feed Rate		165	183	174	346	351	349	7	7	7	5862	5816	5839
26	Heating Value													
27	Chlorine													
28	Ash								7	6.5	7			
29														
30	Stack Gas Flowrate	7405.5	7361.0	7450	7405.5	7361.0	7450	7405.5	7361.0	7450	7405.5			
31	Oxygen	8.535	8.6	8.47	8.535	8.6	8.47	8.535	8.6	8.47	8.535			
32														
33	Thermal Feedrate													
34	Estimated Firing Rate													
35														
36	*Feedrate MTEC Calculation*													
37	Chlorine											3512883	3388146	3450515
38	Ash								287.1	260.6	273.9	7480	7214	7347
39														
40	**340C12**	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg	1	2	Cond Avg
41														
42	Feedstream Description	MEA	Polyol	Polyol	Polyol	Total Liq-B	Total Liq-E	Total Liq-B	PAC	PAC	PAC	Total	Total	Total
43	Feed Rate	101	175	175	175	330	310	320	19.8	19.8	20	5699	5689	5694
44	Heating Value													
45	Chlorine													
46	Ash								19.8	19.8	20			
47														
48	Stack Gas Flowrate	7593	7372.0	7814	7593	7372.0	7814	7593	7372.0	7814	7593			
49	Oxygen	9.57	9.0	10.17	9.57	9.0	10.17	9.57	9.0	10.17	9.57			
50														
51	Thermal Feedrate													
52	Estimated Firing Rate													
53														
54	*Feedrate MTEC Calculation*													
55	Chlorine	749726.4										4030712	2207063	3493751
56	Ash								812.0	803.6	807.8	7652	7545	7599

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	**Feedstreams 2**																								
2																									
3																									
4	**340C1**			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
5																									
6	Feedstream			TDI Residue						Waste water sludge						Mixed organic liquids						Total		Total	
7	Feedrate	lb/hr		2097		2268		2208		967		695		543		341.7		264.8		358					
8	Feedrate wet	lb/hr								4115		4017		3961											
9	Heating value	Btu/lb		10347		10489		10578		1909		2029		1748		11930		12171		11025					
10	Ash	wt %		0.42		0.3		1.25		73.81		71.64		68.33		0.08		0.07		0.33					
11	Chlorine	ppmw		14800		14400		13200		12900		15700		17500		114000		89300		199000					
12	Antimony	ppmw	1	3.5	1	3.3	1	3.3	1	27	1	30	1	32	1	3	1	3	1	2.9					
13	Arsenic	ppmw	1	2.9	1	2.8	1	2.8		50		41		54	1	2.5	1	2.5	1	2.4					
14	Barium	ppmw	1	1.15		0.841		9.26		226		220		194	1	0.099	1	0.099	1	0.0981					
15	Beryllium	ppmw		1.55		0.785		4.24		81.7		89.9		76.8	1	0.099	1	0.099	1	0.098					
16	Cadmium	ppmw	1	0.172	1	0.168		0.441		0.212		0.257		0.18	1	0.149	1	0.148	1	0.147					
17	Chromium	ppmw		18.2		12.1		17.7		143		138		140		2.92		2.67	1	0.196					
18	Lead	ppmw	1	2.9	1	2.8	1	2.8		50		35		42	1	2.5	1	2.5	1	2.4					
19	Mercury	ppmw	1	0.055	1	0.055	1	0.046		0.62		0.65		0.7	1	18.2	1	7.14	1	1.67					
20	Silver	ppmw	1	1.2	1	1.1	1	1.1	1	8.8	1	9.9	1	11	1	0.99	1	0.99	1	0.98					
21	Thallium	ppmw	1	5.7	1	5.6	1	5.5	1	30	1	50	1	40	1	5	1	0.49	1	4.9					
22	Chlorine	lb/hr																				94.6		77.5	
23	Ash	lb/hr																				722.9		504.9	
24																									
25	Flowrate	dscfm		8760		8783		9555		8760		8783		9555		8760		8783		9555		8760		8783	
26	Oxygen	%		7.73		8.83		8.92		7.73		8.83		8.92		7.73		8.83		8.92		7.73		8.83	
27																									
28	Feedrate MTECs																								
29	Ash	mg/dscm		283.6		238.3		895.1		22983.3		17436.3		12032.6		8.8		6.5		38.3		23275.7		17681.0	
30	Chlorine	ug/dscm		999381.5		1143716.2		945195.4		401686.6		382117.7		308167.2		1254356.6		828098.8		2310386.7		2655424.7		2353932.8	
31	Antimony	ug/dscm	1	236.3	1	262.1	1	236.3	1	840.7	1	730.2	1	563.5	1	33.0	1	27.8	1	33.7		1110.1		1020.1	
32	Arsenic	ug/dscm	1	195.8	1	222.4	1	200.5		1556.9		997.9		950.9	1	27.5	1	23.2	1	27.9		1780.3		1243.5	
33	Barium	ug/dscm	1	77.7		66.8		663.1		7037.3		5354.5		3416.3	1	1.1	1	0.9	1	1.1		7116.0		5422.2	
34	Beryllium	ug/dscm		104.7		62.3		303.6		2544.0		2188.0		1352.4	1	1.1	1	0.9	1	1.1		2649.8		2251.3	
35	Cadmium	ug/dscm	1	11.6	1	13.3		31.6		6.6		6.3		3.2	1	1.6	1	1.4	1	1.7		19.9		21.0	
36	Chromium	ug/dscm		1229.0		961.0		1267.4		4452.8		3358.7		2465.3		32.1		24.8	1	2.3		5713.9		4344.5	
37	Lead	ug/dscm	1	195.8	1	222.4	1	200.5		1556.9		851.9		739.6	1	27.5	1	23.2	1	27.9		1780.3		1097.4	
38	Mercury	ug/dscm	1	3.7	1	4.4	1	3.3		19.3		15.8		12.3	1	200.3	1	66.2	1	19.4		121.3		51.1	
39	Silver	ug/dscm	1	81.0	1	87.4	1	78.8	1	274.0	1	241.0	1	193.7	1	10.9	1	9.2	1	11.4		365.9		337.5	
40	Thallium	ug/dscm	1	384.9	1	444.8	1	393.8	1	934.2	1	1216.9	1	704.4	1	55.0	1	4.5	1	56.9		1374.1		1666.3	
41	SVM	ug/dscm		103.7		117.9		131.8		1563.5		858.1		742.8		14.6		12.3		14.8		1681.8		988.3	
42	LVM	ug/dscm		1431.5		1134.6		1671.3		8553.7		6544.7		4768.7		46.4		36.8		16.8		10031.7		7716.1	
43																									
44	Ash	mg/dscm																				23278.2		17681.5	
45	Chlorine	ug/dscm																				3046227.3		2714028.8	
46																									
47	**340C2**			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
48																									
49	Feedrate	lb/hr		2404		2187		2513		764		767		887		250		239.3		173.3					
50	Feedrate wet	lb/hr								3800		3975		3943											
51	Heating value	Btu/lb		10720		10469		10991		2358		1865		1825		11426		13337		14798					
52	Ash	wt %		0.31		0.29		0.29		68.33		74.24		74.5		0.1		0.17		0.07					
53	Chlorine	ppmw		10500		10700		13100		16900		11900		12600		133000		18400		5100					
54	Antimony	ppmw	1	3.3	1	3.3	1	3.2	1	32	1	26	1	30	1	2.9	1	2.7	1	3					
55	Arsenic	ppmw	1	2.7	1	2.7	1	2.7		13		43		40	1	2.5	1	2.2	1	2.5					
56	Barium	ppmw		0.657		0.65		1.64		92.1		164		210	1	0.098	1	0.09	1	0.098					
57	Beryllium	ppmw		0.383		0.325		0.438		38		66.9		76.8	1	0.098	1	0.09	1	0.098					
58	Cadmium	ppmw	1	0.164	1	0.162	1	0.164	1	0.135	1	0.149		0.163	1	0.147	1	0.135	1	0.148					
59	Chromium	ppmw		13.5		12.9		13.3		57.3		100		128	1	0.197	1	0.18	1	0.197					
60	Lead	ppmw	1	2.7	1	2.7	1	2.7		23		27		38	1	2.5	1	2.2	1	2.5					

	B	AA	AB	AC	AD	AE	AF
1	**Feedstreams 2**						
2							
3							
4	**340C1**	R3		Cond Avg			
5							
6	Feedstream	Total		Total			
7	Feedrate						
8	Feedrate wet						
9	Heating value						
10	Ash						
11	Chlorine						
12	Antimony						
13	Arsenic						
14	Barium						
15	Beryllium						
16	Cadmium						
17	Chromium						
18	Lead						
19	Mercury						
20	Silver						
21	Thallium						
22	Chlorine	123.5					
23	Ash	447.3					
24							
25	Flowrate	9555					
26	Oxygen	8.92					
27							
28	Feedrate MTEC						
29	Ash	12966.0		17974.2			
30	Chlorine	3563749.3		2857702.3	do not use this one		
31	Antimony	833.5		987.9			
32	Arsenic	1179.3		1401.0			
33	Barium	4080.5		5539.6			
34	Beryllium	1657.2		2186.1			
35	Cadmium	36.5		25.8			
36	Chromium	3735.0		4597.8			
37	Lead	968.0		1281.9			
38	Mercury	23.7		65.4			
39	Silver	283.8		329.1			
40	Thallium	1155.1		1398.5			
41	SVM	889.4		1186.5			
42	LVM	6456.7		8068.2			
43							
44	Ash	14506.0		18488.6			
45	Chlorine	4005120.0		3255125.4	use this one		
46							
47	**340C2**	R3		Cond Avg			
48							
49	Feedrate						
50	Feedrate wet						
51	Heating value						
52	Ash						
53	Chlorine						
54	Antimony						
55	Arsenic						
56	Barium						
57	Beryllium						
58	Cadmium						
59	Chromium						
60	Lead						

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
61	Mercury	ppmw	1	0.045	1	0.049	1	0.045		0.72		0.67		0.64	1	1.67	1	16.7	1	2					
62	Silver	ppmw	1	1.1	1	1.1	1	1.1	1	11	1	8.8	1	1	1	0.98	1	0.9	1	0.98					
63	Thallium	ppmw	1	5.5	1	5.4	1	5.5	1	50	1	50	1	40	1	4.9	1	4.5	1	4.9					
64	Ash	lb/hr																				529.6		576.3	
65	Chlorine	lb/hr																				131.5		104.6	
66																									
67	Flowrate	dscfm		9889		9363		9166		9889		9363		9166		9889		9363		9166		9889		9363	
68	Oxygen	%		7.97		8.6		7.93		7.97		8.6		7.93		7.97		8.6		7.93		7.97		8.6	
69																									
70	Feedrate MTECs																								
71	Ash	mg/dscm		216.5		204.5		227.7		15165.4		18358.7		20647.7		7.3		13.1		3.8		15389.2		18576.3	
72	Chlorine	ug/dscm		733285.6		754470.1		1028619.0		375084.8		294274.0		349208.6		965919.8		141961.3		27615.9		2074290.2		1190705.4	
73	Antimony	ug/dscm	1	230.5	1	232.7	1	251.3	1	710.2	1	643.0	1	831.4	1	21.1	1	20.8	1	16.2		961.7		896.5	
74	Arsenic	ug/dscm	1	188.6	1	190.4	1	212.0		288.5		1063.3		1108.6	1	18.2	1	17.0	1	13.5		495.2		1270.7	
75	Barium	ug/dscm		45.9		45.8		128.8		2044.1		4055.5		5820.1	1	0.7	1	0.7	1	0.5		2090.7		4102.1	
76	Beryllium	ug/dscm		26.7		22.9		34.4		843.4		1654.4		2128.5	1	0.7	1	0.7	1	0.5		870.8		1678.0	
77	Cadmium	ug/dscm	1	11.5	1	11.4	1	12.9	1	3.0	1	3.7		4.5	1	1.1	1	1.0	1	0.8		15.5		16.1	
78	Chromium	ug/dscm		942.8		909.6		1044.3		1271.7		2472.9		3547.5	1	1.4	1	1.4	1	1.1		2216.0		3383.9	
79	Lead	ug/dscm	1	188.6	1	190.4	1	212.0		510.5		667.7		1053.2	1	18.2	1	17.0	1	13.5		717.2		875.0	
80	Mercury	ug/dscm	1	3.1	1	3.5	1	3.5		16.0		16.6		17.7	1	12.1	1	128.8	1	10.8		23.6		82.7	
81	Silver	ug/dscm	1	76.8	1	77.6	1	86.4	1	244.1	1	217.6	1	27.7	1	7.1	1	6.9	1	5.3		328.1		302.1	
82	Thallium	ug/dscm	1	384.1	1	380.8	1	431.9	1	1109.7	1	1236.4	1	1108.6	1	35.6	1	34.7	1	26.5		1529.4		1651.9	
83	SVM	ug/dscm		100.0		100.9		112.4		512.0		669.5		1055.4		9.6		9.0		7.2		621.6		779.4	
84	LVM	ug/dscm		1063.8		1027.7		1184.7		2403.6		5190.6		6784.6		10.1		9.5		7.6		3477.6		6227.8	
85																									
86	Ash	mg/dscm																				15385.0		18580.5	
87	Chlorine	ug/dscm																				3820103.8		3372416.3	

	B	AA	AB	AC	AD	AE	AF
61	Mercury						
62	Silver						
63	Thallium						
64	Ash	668.3					
65	Chlorine	105.7					
66							
67	Flowrate	9166					
68	Oxygen	7.93					
69							
70	Feedrate MTEC						
71	Ash	20879.2		18281.6			
72	Chlorine	1405443.5		1556813.0	do not know why this is low? do not use		
73	Antimony	1099.0		985.7			
74	Arsenic	1334.1		1033.4			
75	Barium	5949.4		4047.4			
76	Beryllium	2163.4		1570.8			
77	Cadmium	18.2		16.6			
78	Chromium	4592.9		3397.6			
79	Lead	1278.7		957.0			
80	Mercury	24.9		43.8			
81	Silver	119.4		249.9			
82	Thallium	1567.0		1582.8			
83	SVM	1175.0		858.7			
84	LVM	7976.9		5894.1			
85							
86	Ash	20881.5		18282.4	use this one		
87	Chlorine	3302674.3		3498398.1	use this one		

	B	C	D	E	F	G
1	**Process Information**					
2				R1	R2	R3
3	**340C10**					
4						
5	Freeboard Temperature	F		1782.68		
6	Stack Gas Velocity	acfm		1831		
7	Comb Air	scfm		4380		
8						
9	**340C11**					
10						
11	Freeboard Temperature	F		1724.8	1733.8	
12	Stack Gas Velocity	acfm		1733	1775	
13	Comb Air	scfm		4390	4320	
14						
15	**340C12**					
16						
17	Freeboard Temperature	F		1723	1708.6	
18	Stack Gas Velocity	acfm		1749	1713	
19	Comb Air	scfm		4620	4650	

	C	D	E	F	G
1	**Process Information 2**				
2					
3	**340C1**				
4					
5	Fluid Bed Temperature	F	1673	1678	1680
6	ESP Temperature	F	436	440	441
7					
8	**340C2**				
9					
10	Fluid Bed Temperature	F	1661	1662	1682
11	ESP Temperature	F	452	446	449

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**PCDD/PCDF**														
2															
3	Facility Name and ID:		Bayer, New Martinsville, WV												
4	Condition ID:		340C10												
5	Condition/Test Date:		Baseline test												
6															
7			I-TEF			Run 1			1 run only						
8			Wght Fact		Total	Total	TEQ								
9						1/2 ND	1/2 ND								
10	Detected in sample volume (pg)														
11		2,3,7,8-TCDD	1		240	240.00	240.00								
12		Total TCDD	0		4100	4100	0								
13		1,2,3,7,8-PCDD	0.5		990	990.00	495.00								
14		Total PCDD	0		8200	8200	0								
15		1,2,3,4,7,8-HxCDD	0.1		620	620.00	62.00								
16		1,2,3,6,7,8-HxCDD	0.1		1100	1100.00	110.00								
17		1,2,3,7,8,9-HxCDD	0.1		720	720.00	72.00								
18		Total HxCDD	0		10000	10000	0								
19		1,2,3,4,6,7,8-HpCDD	0.01		3200	3200.00	32.00								
20		Total HpCDD	0		6800	6800	0								
21		OCDD	0.001		10000	10000.00	10.00								
22		2,3,7,8-TCDF	0.1		1900	1900.00	190.00								
23		Total TCDF	0		100000	100000	0								
24		1,2,3,7,8-PCDF	0.05		6300	6300	315								
25		2,3,4,7,8-PCDF	0.5		7900	7900	3950								
26		Total PCDF	0		130000	130000	0								
27		1,2,3,4,7,8-HxCDF	0.1		12000	12000	1200								
28		1,2,3,6,7,8-HxCDF	0.1		14000	14000	1400								
29		2,3,4,6,7,8-HxCDF	0.1		14000	14000	1400								
30		1,2,3,7,8,9-HxCDF	0.1		3400	3400	340								
31		Total HxCDF	0		140000	140000	0								
32		1,2,3,4,6,7,8-HpCDF	0.01		63000	63000	630								
33		1,2,3,4,7,8,9-HpCDF	0.01		4600	4600	46								
34		Total HpCDF	0		95000	95000	0								
35		OCDF	0.001		31000	31000	31								
36															
37		Gas sample volume (dscf)				115.369	115.369								
38		O2 (%)				8.77	8.77								
39															
40		PCDD/PCDF (ng in sample)				535.1	10.523								
41		PCDD/PCDF (ng/dscm @ 7% O2)				187.612	3.689								
42															
43		TEQ Cond Avg	3.6895												
44		Total Cond Avg	187.6												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**PCDD/PCDF**														
2															
3	Facility Name and ID:		Bayer, New Martinsville, WV												
4	Condition ID:		340C11												
5	Condition/Test Date:		Carbon injected rate 1												
6															
7			I-TEF			Run 1				Run 2					
8			Wght Fact		Total	Total	TEQ		Total	Total	TEQ				
9						1/2 ND	1/2 ND			1/2 ND	1/2 ND				
10	Detected in sample volume (pg)														
11		2,3,7,8-TCDD	1		32	32.00	32.00		45	45.00	45.00				
12		Total TCDD	0		500	500	0		670	670	0.00				
13		1,2,3,7,8-PCDD	0.5		120	120.00	60.00		180	180.00	90.00				
14		Total PCDD	0		1000	1000	0		1500	1500	0.00				
15		1,2,3,4,7,8-HxCDD	0.1		87	87.00	8.70		130	130.00	13.00				
16		1,2,3,6,7,8-HxCDD	0.1		150	150.00	15.00		200	200.00	20.00				
17		1,2,3,7,8,9-HxCDD	0.1		110	110.00	11.00		150	150.00	15.00				
18		Total HxCDD	0		1600	1600	0		2100	2100	0.00				
19		1,2,3,4,6,7,8-HpCDD	0.01		510	510.00	5.10		680	680.00	6.80				
20		Total HpCDD	0		1000	1000	0		1400	1400	0.00				
21		OCDD	0.001		1800	1800.00	1.80		2500	2500	2.50				
22		2,3,7,8-TCDF	0.1		290	290.00	29.00		350	350	35.00				
23		Total TCDF	0		13000	13000	0		17000	17000	0.00				
24		1,2,3,7,8-PCDF	0.05		880	880	44		1200	1200	60.00				
25		2,3,4,7,8-PCDF	0.5		1200	1200	600		1500	1500	750.00				
26		Total PCDF	0		17000	17000	0		24000	24000	0.00				
27		1,2,3,4,7,8-HxCDF	0.1		1700	1700	170		2400	2400	240.00				
28		1,2,3,6,7,8-HxCDF	0.1		1900	1900	190		2700	2700	270.00				
29		2,3,4,6,7,8-HxCDF	0.1		2200	2200	220		2400	2400	240.00				
30		1,2,3,7,8,9-HxCDF	0.1		480	480	48		580	580	58.00				
31		Total HxCDF	0		18000	18000	0		25000	25000	0.00				
32		1,2,3,4,6,7,8-HpCDF	0.01		8000	8000	80		11000	11000	110.00				
33		1,2,3,4,7,8,9-HpCDF	0.01		690	690	7		830	830	8.30				
34		Total HpCDF	0		12000	12000	0		17000	17000	0.00				
35		OCDF	0.001		3900	3900	4		4800	4800	4.80				
36															
37		Gas sample volume (dscf)				108.819	108.819			115.312	115.312				
38		O2 (%)				8.6	8.6			8.47	8.47				
39															
40		PCDD/PCDF (ng in sample)				69.8	1.525			96.0	1.968				
41		PCDD/PCDF (ng/dscm @ 7% O2)				25.590	0.559			32.859	0.674				
42															
43		TEQ Cond Avg	0.6166												
44		Total Cond Avg	29.2244												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**PCDD/PCDF**														
2															
3	Facility Name and ID:		Bayer, New Martinsville, WV												
4	Condition ID:		340C12												
5	Condition/Test Date:		Carbon injected rate 2												
6															
7			I-TEF			Run 1				Run 2					
8			Wght Fact		Total	Total	TEQ		Total	Total	TEQ				
9						1/2 ND	1/2 ND			1/2 ND	1/2 ND				
10	Detected in sample volume (pg)														
11		2,3,7,8-TCDD	1		31	31.00	31.00		11	11.00	11.00				
12		Total TCDD	0		510	510	0		210	210	0.00				
13		1,2,3,7,8-PCDD	0.5		120	120.00	60.00		36	36.00	18.00				
14		Total PCDD	0		1100	1100	0		400	400	0.00				
15		1,2,3,4,7,8-HxCDD	0.1		95	95.00	9.50		35	35.00	3.50				
16		1,2,3,6,7,8-HxCDD	0.1		140	140.00	14.00		70	70.00	7.00				
17		1,2,3,7,8,9-HxCDD	0.1		73	73.00	7.30		47	47.00	4.70				
18		Total HxCDD	0		1500	1500	0		710	710	0.00				
19		1,2,3,4,6,7,8-HpCDD	0.01		370	370.00	3.70		240	240.00	2.40				
20		Total HpCDD	0		810	810	0		470	470	0.00				
21		OCDD	0.001		800	800.00	0.80		700	700	0.70				
22		2,3,7,8-TCDF	0.1		290	290.00	29.00		150	150	15.00				
23		Total TCDF	0		12000	12000	0		5800	5800	0.00				
24		1,2,3,7,8-PCDF	0.05		830	830	42		310	310	15.50				
25		2,3,4,7,8-PCDF	0.5		1200	1200	600		480	480	240.00				
26		Total PCDF	0		18000	18000	0		6800	6800	0.00				
27		1,2,3,4,7,8-HxCDF	0.1		1700	1700	170		580	580	58.00				
28		1,2,3,6,7,8-HxCDF	0.1		1900	1900	190		660	660	66.00				
29		2,3,4,6,7,8-HxCDF	0.1		1700	1700	170		880	880	88.00				
30		1,2,3,7,8,9-HxCDF	0.1		390	390	39		220	220	22.00				
31		Total HxCDF	0		18000	18000	0		6700	6700	0.00				
32		1,2,3,4,6,7,8-HpCDF	0.01		6000	6000	60		2900	2900	29.00				
33		1,2,3,4,7,8,9-HpCDF	0.01		450	450	5		260	260	2.60				
34		Total HpCDF	0		9400	9400	0		4600	4600	0.00				
35		OCDF	0.001		1600	1600	2		1200	1200	1.20				
36															
37		Gas sample volume (dscf)				113.941	113.941			111.916	111.916				
38		O2 (%)				8.97	8.97			10.17	10.17				
39															
40		PCDD/PCDF (ng in sample)				63.7	1.432			27.6	0.585				
41		PCDD/PCDF (ng/dscm @ 7% O2)				22.997	0.517			11.261	0.239				
42															
43		TEQ Cond Avg	0.3777												
44		Total Cond Avg	17.1290												