

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase I ID No.	348
4	EPA ID No.	
5	Facility Name	Occidental Chemical Corp, Niagara Plant
6	Facility Location	
7	City	Niagara Falls
8	State	NY
9	Unit ID Name/No.	
10	Other Sister Facilities	
11	Combustor Class	Incinerator
12	Combustor Type	Liquid injection
13	Combustor Characteristics	Liquid Injection, Carbon steel shell w/ high temperature refractory lining. 12' 8" OD x 21' tall, Internal Volume=1017 ft <sup>3</sup> .
14	Capacity (MMBtu/hr)	
15	Soot Blowing	No
16	APCS Detailed Acronym	QC/ABS/IWS
17	APCS General Class	QC, LEWS, IWS
18	APCS Characteristics	Quench Chamber, Absorber/Condensor, Two Stage Ionizing Wet Scrubber.
19	Hazardous Wastes	Liquid Organics, Waste water, Fuel Oil
20	Haz Waste Description	Liquid Organics: Taft NAPL blended w/ 1,2 dichlorobenzene,1,2,4-trichlorobenzene, and tetrachloroethane. Aqueous Liquid Waste: Durez waste blended w/ phenol
21	Supplemental Fuel	Fuel Oil, Natural Gas
22		
23	Stack Characteristics	
24	Diameter (ft)	2.0
25	Height (ft)	127.5
26	Gas Velocity (ft/sec)	19.7
27	Gas Temperature (°F)	85.5
28		
29	Permitting Status	
30	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Condition Description</b>	
2		
3	<b>348C10</b>	
4		
5	Report Name/Date	Trial Burn Report, Occidental Chemical Corporation, Niagara Plant Liquid Waste Incinerator Burning Organic and Aqueous Wastes, January 1998
6	Report Preparation	Focus Environmental Inc
7	Testing Firm	Focus/Galson Corp/RCRA Labnet
8	Testing Dates	October 13-17, 1997
9	Cond Date	October 1, 1997
10	Condition Descr	Trial Burn, Maximum Combined waste and fuel oil feed, minimum temperature, max stack gas flow, max Cl feed
11	Content	PM, HCl/Cl <sub>2</sub> , CO, SVOC, VOC, D/F
12		
13	<b>348C1</b>	
14		
15	Report Name/Date	Preliminary Trial Burn of the Occidental Chemical Corporation Liquid Waste Incinerator Facility, Niagara Falls, New York, Test Report, MRI Project No. 3539-M(02), February 10, 1994
16	Report Preparation	MRI
17	Testing Firm	MRI
18	Testing Dates	Dec 15-16, 1993
19	Cond Date	02/10/94
20	Condition Descr	Preliminary trial burn, NOMINAL CONDITIONS
21	Content	
22		
23	<b>348C2</b>	
24		
25	Report Name/Date	Trial Burn of the Occidental Chemical Corporation Liquid Waste Incinerator Facility, Niagara Falls, New York, Test Report, MRI Project No. 3539-M(03), March 16, 1995
26	Report Preparation	MRI
27	Testing Firm	MRI
28	Testing Dates	Dec 12 - 14, 1994
29	Cond Date	04/16/95
30	Condition Descr	Trial burn, LOW COMB TEMP/HIGH WASTE FEED
31	Content	
32		
33	<b>348C3</b>	
34		
35	Report Name/Date	Trial Burn of the Occidental Chemical Corporation Liquid Waste Incinerator Facility, Niagara Falls, New York, Test Report, MRI Project No. 3539-M(03), March 16, 1995
36	Report Preparation	MRI
37	Testing Firm	MRI
38	Testing Dates	Dec 15-16, 1994
39	Cond Date	04/16/95
40	Condition Descr	Trial burn, HIGH COMB TEMP/HIGH WASTE FEED
41	Content	
42		
43	<b>348C4</b>	
44		
45	Report Name/Date	Trial Burn of the Occidental Chemical Corporation Liquid Waste Incinerator Facility, Niagara Falls, New York, Test Report, MRI Project No. 3539-M(03), March 16, 1995
46	Report Preparation	MRI
47	Testing Firm	MRI
48	Testing Dates	Dec 17-18, 1994
49	Cond Date	04/16/95
50	Condition Descr	Trial burn, LOW COMB TEMP/HIGH WASTE FEED
51	Content	

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2		Comments	Units	7% O2								
3	<b>348C10</b>					R1		R2		R3		Cond Avg
4												
5												
6	PM	E1	gr/dscf	y		0.0016		0.0013		0.0007		0.0012
7	CO (RA)	E1	ppmv	y		0.0		0.0		0.0		0.0
8	HCl		lbs/hr			0.009		0.007		0.008		
9	Cl2		lbs/hr			0.020		0.020		0.022		
10												
11												
12	POHC DRE	Phenol										
13	POHC Feedrate		lb/hr			110		130		180		140
14	Emission Rate		lb/hr	nd		3.2E-05	nd	3.0E-05	nd	3.1E-05		
15	DRE		%	>		99.99997	>	99.99998	>	99.99998		
16												
17	POHC DRE	1,2 Dichlorobenzene										
18	POHC Feedrate		lb/hr			160		160		170		163
19	Emission Rate		lb/hr			1.2E-05		6.0E-06	nd	6.3E-06		0.00001
20	DRE		%			99.999993		99.999996	>	99.999996		
21												
22	POHC DRE	1,2,4-Trichlorobenzene										
23	POHC Feedrate		lb/hr			160		150		160		157
24	Emission Rate		lb/hr			1.3E-05		1.4E-05		1.4E-05		0.00001
25	DRE		%			99.999992		99.999991		99.999991		
26												
27	POHC DRE	Tetrachlorethane										
28	POHC Feedrate		lb/hr			740		850		910		833
29	Emission Rate		lb/hr	nd		2.9E-04	nd	7.4E-05	nd	5.3E-05		0.00014
30	DRE		%	>		99.99996	>	99.999991	>	99.999994		
31						min						
32												
33	Sampling Train	PM, HCl/Cl2	E1									
34	Stack Gas Flowrate		dscfm			6893		6751		6455		6700
35	O2		%			13.2		13.0		12.3		12.8
36	Moisture		%			4.5		4.2		5.0		4.6
37	Temperature		°F			82.9		88.1		85.5		85.5
38												
39	Sampling Train	D/F										
40	Stack Gas Flowrate		dscfm			6295		6638		6275		6403
41	O2		%			13.2		13.0		12.3		12.8
42	Moisture		%			6.4		5.3		4.5		
43	Temperature		°F			91		89.3		87.8		
44												
45	HCl	E1	ppmv	y		0.44		0.30		0.34		0.30
46	Cl2	E1	ppmv	y		0.48		0.47		0.51		0.5
47	Total Chlorine	E1	ppmv	y		1.39		1.24		1.36		1.3

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	<b>Stack Gas Emissions 2</b>													
2														
3	<b>348C1</b>					R1		R2		R3		R4		Cond Avg
4														
5	PM	E1	gr/dscf	y		0.0032		0.0009		0.0010				0.0017
6														
7	CO (RA)	E1	ppmv	y		8.4		6.7		8.3				7.8
8														
9	HCl	E1	ppmv	y	nd	0.1	nd	0.0	nd	0.1				0.1
10	Cl2	E1	ppmv	y		0.5		0.5		0.2				0.4
11	Total Chlorine	E1	ppmv	y	5	1.1	4.6	1.1	10	0.5			6	0.9
12														
13	Arsenic	E2	ug/dscm	y	nd	0.9	nd	0.3	nd	0.4				0.5
14	Cadmium	E2	ug/dscm	y		5.6		1.3		1.7				2.9
15	Chromium	E2	ug/dscm	y		3.3		2.0		2.2				2.5
16	Chromium (Hex)	E3	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3				0.3
17	Nickel	E2	ug/dscm	y		9.7		3.4		3.7				5.6
18														
19	SVM	E2	ug/dscm	y		5.6		1.3		1.7				2.9
20	LVM	E2	ug/dscm	y	22	4.2	15	2.4	14	2.6			18	3.1
21														
22	Sampling Train	Cr Hex	E3											
23	Moisture		%			2.5		2.1		1.6				
24	Oxygen		%			11.2		11.2		11.0				
25	Stack gas flowrate		dscfm			5761.0		6011.0		6016.0				
26	Temperature		°F			72.0		67.0		70.0				
27														
28	Sampling Train	Halogens	E1											
29	Moisture		%			2.5		2.2		2.3				
30	Oxygen		%			11.8		11.4		11.0				
31	Stack gas flowrate		dscfm			6182.0		6208.0		6167.0				
32	Temperature		°F			69.0		66.0		67.0				
33														
34	Sampling Train	Metals	E2											
35	Moisture		%			2.5		2.2		2.3				
36	Oxygen		%			11.0		11.2		11.0				
37	Stack gas flowrate		dscfm			5907.0		6307.0		6083.0				
38	Temperature		°F			70.0		67.0		67.0				
39														
40	<b>348C2</b>					R1		R2		R3		R4		Cond Avg
41														
42	PM	E1	gr/dscf	y		0.0002		0.0003		0.0004				0.0003
43														
44	CO (RA)	E1	ppmv	y		0.8		-0.1		0.7		-0.1		0.5
45	CO (MHRA)	E1	ppmv	y		1.7		-0.1		8.1		-0.1		3.2
46	HC (RA)	E1	ppmv	y		1.3		1.0		0.5				0.9
47	HC (MHRA)	E1	ppmv	y		5.3		5.8		2.1				4.4
48														
49	HCl	E1	ppmv	y		0.6		2.1		1.0				1.2
50	Cl2	E1	ppmv	y		0.5		1.5		0.3				0.8
51	Total Chlorine	E1	ppmv	y		1.7		5.1		1.6				2.8
52														
53	Antimony	E2	ug/dscm	y			nd	0.3	nd	0.3	nd	0.1		0.2
54	Arsenic	E2	ug/dscm	y				4.5		4.2		6.1		4.9
55	Barium	E2	ug/dscm	y				0.6		4.7		0.4		1.9
56	Beryllium	E2	ug/dscm	y			nd	0.2	nd	0.2	nd	0.2		0.2
57	Cadmium	E2	ug/dscm	y				2.9		3.2		0.8		2.3
58	Chromium	E2	ug/dscm	y				3.9		3.3		1.0		2.7
59	Chromium (Hex)	E3	ug/dscm	y				2.9		2.4		3.9		3.0
60	Lead	E2	ug/dscm	y				1.9		1.9		0.9		1.6
61	Mercury	E2	ug/dscm	y					nd	4.4	nd	3.4		3.6
62	Nickel	E2	ug/dscm	y					59.7	66.4		18.9		48.3
63	Selenium	E2	ug/dscm	y			nd	0.5	nd	0.1	nd	0.1		0.2
64	Silver	E2	ug/dscm	y			nd	1.1	nd	1.1	nd	1.3		1.2
65	Thallium	E2	ug/dscm	y			nd	0.4		0.4	nd	0.5		0.4
66														
67	SVM	E2	ug/dscm	y				4.8		5.2		1.7		3.9
68	LVM	E2	ug/dscm	y			1.8	8.5	2.1	7.7	2	7.2	2.1	7.8
69														
70	Sampling Train	Cr Hex	E3											
71	Moisture		%					5.3		5.1		5.5		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
72	Oxygen		%					12.3		12.3		12.5		
73	Stack gas flowrate		dscfm					6485.0		5918.0		6423.0		
74	Temperature		°F					93.0		92.0		95.0		
75														
76	Sampling Train	Halogens	E1											
77	Moisture		%			4.8		5.0		4.9				
78	Oxygen		%			12.3		12.1		12.6				
79	Stack gas flowrate		dscfm			6429.0		6352.0		6420.0				
80	Temperature		°F			90.0		92.0		91.0				
81														
82	Sampling Train	Metals	E2											
83	Moisture		%					5.0		4.9		5.3		
84	Oxygen		%					12.2		12.4		12.2		
85	Stack gas flowrate		dscfm					6500.0		6449.0		5701.0		
86	Temperature		°F					92.0		91.0		94.0		
87														
88	Sampling Train	SVOC	E4											
89	Moisture		%			4.9		5.2		5.1				
90	Oxygen		%			12.3		12.5		12.2				
91	Stack gas flowrate		dscfm			6245.0		6141.0		5677.0				
92	Temperature		°F			91.0		92.0		92.0				
93														
94	1,2,4-Trichlorobenzene	DRE	%			99.999988		99.999983		99.999994				
95	1,2-dichlorobenzene	DRE	%			99.999989		99.999985		99.999998				
96	PCBs	DRE	%			99.999993		99.999993		99.999993				
97	Tetrachloroethene	DRE	%			99.999978		99.999989		99.999987				
98														
99	<b>348C3</b>					R1		R2		R3		R4		Cond Avg
100														
101	PM	E1	gr/dscf	y		0.0002		0.0002		0.0003				0.0002
102														
103	CO (RA)	E1	ppmv	y		2.0		1.6		1.7				1.7
104	CO (MHRA)	E1	ppmv	y		3.6		2.8		2.0				2.8
105	HC (RA)	E1	ppmv	y		0.7		0.5		0.5				0.6
106	HC (MHRA)	E1	ppmv	y		2.7		1.2		1.5				1.8
107														
108	HCl	E1	ppmv	y		0.3		0.7		0.6				0.5
109	Cl2	E1	ppmv	y		0.2		0.3		0.2				0.2
110	Total Chlorine	E1	ppmv	y		0.7		1.2		1.1				1.0
111														
112	HF	E1	ug/dscm	y	nd	0.1	nd	0.1	nd	0.1				0.1
113														
114	Antimony	E2	ug/dscm	y	nd	0.2	nd	0.1	nd	0.1		100		0.1
115	Arsenic	E2	ug/dscm	y		2.9		2.0		5.7				3.5
116	Barium	E2	ug/dscm	y		3.6		0.1		0.1				1.3
117	Beryllium	E2	ug/dscm	y	nd	0.1	nd	0.1		0.1				0.1
118	Cadmium	E2	ug/dscm	y		1.8		0.4		1.0				1.0
119	Chromium	E2	ug/dscm	y		1.5		0.4		1.0				1.0
120	Chromium (Hex)	E3	ug/dscm	y		1.0		0.6		1.0				0.9
121	Lead	E2	ug/dscm	y		0.4		0.3		0.9				0.6
122	Mercury	E2	ug/dscm	y	nd	3.2	nd	2.9	nd	3.0		100		3.0
123	Nickel	E2	ug/dscm	y		26.1		5.1		15.4				15.5
124	Selenium	E2	ug/dscm	y	nd	0.2	nd	0.2	nd	0.2		100		0.2
125	Silver	E2	ug/dscm	y	nd	0.9	nd	1.0	nd	1.0		100		1.0
126	Thallium	E2	ug/dscm	y	nd	0.4	nd	0.5	nd	0.5		100		0.4
127														
128	SVM	E2	ug/dscm	y		2.2		0.7		1.9				1.6
129	LVM	E2	ug/dscm	y	3	4.5	5.5	2.6		6.9		1.9		4.6
130														
131	1,2,4-Trichlorobenzene	DRE	%			99.999977		99.999989		99.999997				
132	1,2-dichlorobenzene	DRE	%			99.999989		99.999985		99.999984				
133	Parachlorobenzotrifluoride	DRE	%			99.999994		99.999995		99.999994				
134	Tetrachloroethene	DRE	%			99.999993		99.999991		99.999994				
135														
136	Sampling Train	Cr Hex	E3											
137	Moisture		%			5.9		5.4		5.5				
138	Oxygen		%			10.8		10.9		10.8				
139	Stack gas flowrate		dscfm			5994.0		5867.0		5829.0				
140	Temperature		°F			97.0		94.0		96.0				
141														
142	Sampling Train	Halogens	E1											

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
143	Moisture		%			5.4		5.1		5.1				
144	Oxygen		%			10.6		10.7		10.4				
145	Stack gas flowrate		dscfm			6054.0		5739.0		5717.0				
146	Temperature		°F			94.0		92.0		92.0				
147														
148	Sampling Train	Metals	E2											
149	Moisture		%			5.4		4.9		5.4				
150	Oxygen		%			10.8		11.0		11.2				
151	Stack gas flowrate		dscfm			6115.0		5843.0		5652.0				
152	Temperature		°F			95.0		91.0		94.0				
153														
154	Sampling Train	SVOC	E4											
155	Moisture		%			5.7		5.1		5.4				
156	Oxygen		%			10.6		10.6		10.1				
157	Stack gas flowrate		dscfm			6017.0		5873.0		5803.0				
158	Temperature		°F			96.0		92.0		94.0				
159														
160	<b>348C4</b>					R1		R2		R3		R4		Cond Avg
161														
162	PM	E1	gr/dscf	y		0.0003		0.0004		0.0003				0.0003
163														
164	CO (RA)	E1	ppmv	y		-0.1		-0.1		-0.1				-0.1
165	CO (MHRA)	E1	ppmv	y		-0.1		-0.1		-0.1				-0.1
166	HC (MHRA)	E1	ppmv	y		2.0		3.3		2.8				2.7
167	HC (RA)	E1	ppmv	y		0.5		1.0		0.5				0.7
168														
169	HCl	E1	ppmv	y		1.5 nd		0.4 nd		0.3				0.7
170	Cl2	E1	ppmv	y		0.3		0.2		0.2				0.3
171	Total Chlorine	E1	ppmv	y		2.0 ###		0.8 ###		0.8			19	1.2
172														
173	HF	E1	ug/dscm	y	nd	0.1 nd		0.1 nd		0.1				
174														
175	Antimony	E2	ug/dscm	y	nd	0.1 nd		0.1 nd		0.1			100	0.1
176	Arsenic	E2	ug/dscm	y	nd	0.8 nd		0.6 nd		0.4			100	0.6
177	Barium	E2	ug/dscm	y		4.3		4.9		4.7				4.7
178	Beryllium	E2	ug/dscm	y	nd	0.2 nd		0.2 nd		0.2			100	0.2
179	Cadmium	E2	ug/dscm	y		0.1		0.0		3.1				1.1
180	Chromium	E2	ug/dscm	y		0.4		0.5		0.4				0.5
181	Chromium (Hex)	E3	ug/dscm	y	nd	0.4 nd		0.4 nd		0.4			100	0.4
182	Lead	E2	ug/dscm	y		0.9		1.1		1.0				1.0
183	Mercury	E2	ug/dscm	y		27.0		22.5		25.6				25.0
184	Nickel	E2	ug/dscm	y		0.7		13.9		0.4				5.0
185	Selenium	E2	ug/dscm	y	nd	0.1 nd		0.3 nd		0.3			100	0.2
186	Silver	E2	ug/dscm	y	nd	1.1 nd		1.2 nd		1.2			100	1.2
187	Thallium	E2	ug/dscm	y	nd	0.1 nd		0.1 nd		0.1			100	0.1
188														
189	SVM	E2	ug/dscm	y		1.0		1.1		4.1				2.0
190	LVM	E2	ug/dscm	y	69	1.4	58	1.3	59	0.9			62	1.2
191														
192	1,2,4-Trichlorobenzene	DRE	%			99.999995		99.999951		99.999987				
193														
194	Sampling Train	Cr Hex	E3											
195	Moisture		%			4.4		4.6		3.7				
196	Oxygen		%			12.7		12.5		12.3				
197	Stack gas flowrate		dscfm			5774.0		5870.0		5872.0				
198	Temperature		°F			87.0		88.0		85.0				
199														
200	Sampling Train	Halogens	E1											
201	Moisture		%			4.2		4.1		4.0				
202	Oxygen		%			12.4		12.7		12.4				
203	Stack gas flowrate		dscfm			5749.0		5804.0		5820.0				
204	Temperature		°F			85.0		85.0		84.0				
205														
206	Sampling Train	Metals	E2											
207	Moisture		%			4.1		4.0		3.9				
208	Oxygen		%			12.5		12.8		12.4				
209	Stack gas flowrate		dscfm			5767.0		5777.0		5762.0				
210	Temperature		°F			85.0		85.0		84.0				
211														
212	Sampling Train	SVOC	E4											
213	Moisture		%			4.5		4.3		4.2				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
214	Oxygen		%			12.5		12.3		12.4				
215	Stack gas flowrate		dscfm			5784.0		5880.0		5893.0				
216	Temperature		°F			88.0		87.0		85.0				



	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	<b>Feedrate 1</b>																			
2																				
3																				
4	<b>348C10</b>	<b>Trial</b>	<b>Units</b>		<b>R1</b>		<b>R2</b>		<b>R3</b>		<b>R1</b>		<b>R2</b>		<b>R3</b>		<b>R1</b>		<b>R2</b>	
5																				
6	Feedstream Description				Aq. Waste, Nozzle 1		Aq. Waste, Nozzle 1		Aq. Waste, Nozzle 1		Aq. Waste, Nozzle 2		Aq. Waste, Nozzle 2		Aq. Waste, Nozzle 2		Organic Waste		Organic Waste	
7	Feed Class 2																			
8	Feed Rate	lb/min			7.85		8.05		7.97		26.62		26.49		26.56		35.29		35.44	
9	Heating Value	Btu/lb															3800		4450	
10	Specific Gravity				1.02		1.03		1.03		1.01		1.02		1.02		1.50		1.5	
11																				
12	Ash	%			0.14		0.26		0.1		0.2		0.1		0.1		0.06		0.03	
13	Chlorine	mg/kg			2282		198		653		256		287		516		702000		695000	
14																				
15	Phenol	mg/kg			54000		59000		57000		55000		65000		98000		6.8		5.5	
16	1,2 Dichlorobenzene	mg/kg															77000		73000	
17	1,2,4-Trichlorobenzene	mg/kg															74000		71000	
18	Tetrachloroethane	mg/kg			8.93		13.86		13.73		8.04		6.41		16.67		350000		400000	
19																				
20	Stack Gas Flowrate	dscfm			6893		6751		6455		6893		6751		6455		6893		6751	
21	Oxygen	%			13.2		13.0		12.3		12.8		0.0		0.0		13.2		13.0	
22																				
23	Thermal Feedrate	MMBtu/hr			0.0		0.0		0.0		0.0		0.0		0.0		8.0		9.5	
24	Est Total Firing Rate	MMBtu/hr																		
25																				
26																				
27	<i>Feedrate MTEC Calculations</i>																			
28	Ash	mg/dscm			45.9		87.0		31.9		191.2		42.0		44.0		88.4		44.2	
29	Chlorine	ug/dscm			74831		6628		20814		27189		12044		22707		103486415		102427807	

	B	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	<b>Feedrate 1</b>															
2																
3																
4	<b>348C10</b>	R3		R1		R2		R3		R1		R2		R3		Cond Avg
5																
6	Feedstream Description	Organic Waste		Fuel Oil		Fuel Oil		Fuel Oil		Total		Total		Total		Total
7	Feed Class 2									Total		Total		Total		Total
8	Feed Rate	35.13		4.51		4.66		4.85		74.3		74.6		74.5		74.5
9	Heating Value	3390		20100		19700		17100		3026		3343		2711		2711
10	Specific Gravity	1.49		0.90		0.89		0.88								
11																
12	Ash	0.02								4.80		3.48		2.49		2.49
13	Chlorine	742000								1488		1478		1565		1565
14																
15	Phenol	6.1								113.3		131.8		183.4		183.4
16	1,2 Dichlorobenzene	81000								163.04		155.23		170.73		170.73
17	1,2,4-Trichlorobenzene	76000								156.69		150.97		160.19		160.19
18	Tetrachloroethane	430000								741.11		850.58		906.39		906.39
19																
20	Stack Gas Flowrate	6455		6893		6751		6455		6893		6751		6455		6700
21	Oxygen	12.3		13.2		13.0		12.3		13.2		13.0		12.3		12.8
22																
23	Thermal Feedrate	7.1		5.4		5.5		5.0		13.5		15.0		12.1		13.5
24	Est Total Firing Rate									17		17		18		17.3
25																
26																
27	<i>Feedrate MTEC Calculations</i>															
28	Ash	28.1		0.0		0.0		0.0		325.5		173.2		104.0		200.9
29	Chlorine	104247106		0		0		0		103588435		102446480		104290627		103441847

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	<b>Feedstream 2</b>																							
2																								
3																								
4	<b>348C1</b>		R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg			
5																								
6	Feedstream Descr		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Fuel oil		Fuel oil		Fuel oil		Fuel oil		Fuel oil	
7	Feed Class 2		HW		HW		HW		HW		HW		HW		MF		MF		MF		MF		MF	
8	Feedrate	lb/hr	2388		2388		2406							330		360		360						
9	Heating value	Btu/lb	7230		7332		7588							19813		18660		19249						
10	Ash	%	1.46		2.57		1.28							0.012		0.012		0.012						
11	Chlorine	ppmw	660000		665000		678000							30		30		35						
12	Arsenic	ppmw	0.34		0.35		0.37							8.05		8.07		6.87						
13	Cadmium	ppmw	1.21		0.848		0.527							0.228		0.14		0.131						
14	Chromium	ppmw	2.98		3.25		2.92							1.58		1.59		1.35						
15	Nickel	ppmw	3.59		3.69		3.57							13.8		13.4		12.1						
16																								
17	Stack Gas Flowrate		6182		6208		6167							6182		6208		6167						
18	Oxygen		11.8		11.4		11							11.8		11.4		11						
19																								
20	Feedrate MTECs																							
21	Ash	mg/dscm	2294.7		3854.7		1869.3							2.6		2.7		2.6						
22	Chlorine	ug/dscm	103730777.4		99742265.7		99014220.1							651.6		678.3		764.8						
23	Arsenic	ug/dscm	53.4		52.5		54.0							174.8		182.5		150.1						
24	Cadmium	ug/dscm	190.2		127.2		77.0							5.0		3.2		2.9						
25	Chromium	ug/dscm	468.4		487.5		426.4							34.3		36.0		29.5						
26	Nickel	ug/dscm	564.2		553.5		521.4							299.7		303.0		264.4						
27																								
28	SVM	ug/dscm	190.2		127.2		77.0							5.0		3.2		2.9						
29	LVM	ug/dscm	468.4		487.5		426.4							34.3		36.0		29.5						
30																								
31	<b>348C2</b>																							
32																								
33	Feedstream Descr		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Fuel oil		Fuel oil		Fuel oil		Fuel oil		Fuel oil	
34	Feed Class 2		HW		HW		HW		HW		HW		HW		MF		MF		MF		MF		MF	
35	Feedrate	lb/hr	2436		2430		2412		2400					243		246		300		296.4				
36	Heating value	Btu/lb	6031		6091		5810		5908					19070		18799		19034		19043				
37	Ash	wt %	0.02		0.055		0.046		0.042					0.07		0.041		0.054		0.041				
38	Chlorine	ppmw	683087		686831		620232		586250					82.30452675		569		25		25				
39	Arsenic	ppmw			7.85		7.73							7.81		7.93		7.89		7.73				
40	Cadmium	ppmw			0.42		0.41		0.42					0.43		0.42		0.41		0.41				
41	Chromium	ppmw			1.28		1.26		1.27					1.3		1.29		1.26		1.26				
42	Nickel	ppmw			1.16		1.14		1.15					4.55		3.01		3.83		3.83				
43	HF	ppmw	279		267		286		275					16		13		14		34				
44																								
45	Stack Gas Flowrate		6429		6352		6420		5701					6429		6352		6420		5701				
46	Oxygen		12.3		12.1		12.6		12.2					12.3		12.1		12.6		12.2				
47																								
48	Ash	mg/dscm	32.6		88.5		77.0		75.2					11.4		6.7		11.2		9.1				
49	Chlorine	ug/dscm	111361954.9		110510118.2		103839713.7		104980004.5					1338.5		9269.9		520.6		552.9				
50	Arsenic	ug/dscm			1263.1		1294.2		1398.5					0.0		129.2		164.3		171.0				
51	Cadmium	ug/dscm			67.6		68.6		75.2					0.0		7.0		8.7		9.1				
52	Chromium	ug/dscm			206.0		211.0		227.4					0.0		21.2		26.9		27.9				
53	Nickel	ug/dscm			186.6		190.9		205.9					0.0		74.1		62.7		84.7				
54																								
55	SVM	ug/dscm			67.6		68.6		75.2					0.0		7.0		8.7		9.1				
56	LVM	ug/dscm			1469.0		1505.1		1626.0					0.0		150.3		191.2		198.8				
57																								
58	<b>348C3</b>																							
59																								
60	Feedstream Descr		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Fuel oil		Fuel oil		Fuel oil		Fuel oil		Fuel oil	

	B	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	
1	<b>Feedstream 2</b>																				
2																					
3																					
4	<b>348C1</b>	R1	R2	R3	R4	Cond Avg	R1	R2	R3	R4	Cond Avg										
5																					
6	Feedstream Descr	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total										
7	Feed Class 2	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total										
8	Feedrate	49.6	50	50																	
9	Heating value	0	0	0																	
10	Ash	0	0	0																	
11	Chlorine																				
12	Arsenic	636	648	658																	
13	Cadmium	252	251	252																	
14	Chromium	1150	1160	1160																	
15	Nickel	4760	4780	4790																	
16																					
17	Stack Gas Flowrate	6182	6208	6167																	
18	Oxygen	11.8	11.4	11																	
19																					
20	Feedrate MTECs																				
21	Ash	0.0	0.0	0.0		2297.3	3857.4	1871.9													2675.5
22	Chlorine	0.0	0.0	0.0		103731428.9	99742944.0	99014984.9													100829786.0
23	Arsenic	2076.2	2035.0	1997.0		2304.5	2270.0	2201.1													2258.5
24	Cadmium	822.6	788.3	764.8		1017.8	918.6	844.6													927.0
25	Chromium	3754.1	3642.9	3520.5		4256.8	4166.3	3976.4													4133.2
26	Nickel	15538.8	15011.4	14537.1		16402.8	15867.8	15322.9													15864.5
27																					
28	SVM	822.6	788.3	764.8		1017.8	918.6	844.6													927.0
29	LVM	3754.1	3642.9	3520.5		4256.8	4166.3	3976.4													4133.2
30																					
31	<b>348C2</b>																				
32																					
33	Feedstream Descr	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total										
34	Feed Class 2	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total										
35	Feedrate		50.8	51.4		50															
36	Heating value		0	0		0															
37	Ash		0	0		0															
38	Chlorine																				
39	Arsenic		726	721		713															
40	Cadmium		261	261		261															
41	Chromium		1095	1095		1087															
42	Nickel		4727	4752		4695															
43	HF																				
44																					
45	Stack Gas Flowrate	6429	6352	6420		5701															
46	Oxygen	12.3	12.1	12.6		12.2															
47																					
48	Ash		0.0	0.0		0.0	44.0	95.2	88.3	84.3	77.9										
49	Chlorine		0.0	0.0		0.0	111363293.4	110519388.0	103840234.3	104980557.3	107675868.3										
50	Arsenic		2442.0	2572.4		2659.9		3834.2	4030.8	4229.4	4031.5										
51	Cadmium		877.9	931.2		973.7		952.5	1008.6	1058.0	1006.3										
52	Chromium		3683.2	3906.7		4055.2		3910.3	4144.5	4310.5	4121.8										
53	Nickel		15899.9	16954.0		17515.3		16160.7	17207.5	17806.0	17058.0										
54																					
55	SVM		877.9	931.2		973.7		952.5	1008.6	1058.0	1006.3										
56	LVM		6125.2	6479.0		6715.1		7744.5	8175.3	8539.9	8153.3										
57																					
58	<b>348C3</b>																				
59																					
60	Feedstream Descr	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total										

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
61	Feed Class 2			HW		HW		HW		HW		HW		MF		MF		MF		MF		MF		
62	Feedrate	lb/hr			2412		2340		2430						420		350.4		256.8					
63	Heating value	Btu/lb			7883		7092		6865						18978		19355		19145					
64	Ash	wt %			0.02		0.02		0.02						0.046		0.03		0.03					
65	Chlorine	ppmw			482172		490171		490123						119.0		57.1		38.9					
66	Arsenic	ppmw			7.93		7.89		7.69						7.81		7.73		7.81					
67	Cadmium	ppmw			0.42		0.42		0.41						0.42		0.41		0.42					
68	Chromium	ppmw			1.29		1.29		1.25						1.27		1.26		1.27					
69	Nickel	ppmw			1.16		1.16		1.15						3.14		3.1		6.28					
70	HF	ppmw			85299		140902		104300						23.8		16		16					
71																								
72	Stack Gas Flowrate				6115		5843		5652						6115		5843		5652					
73	Oxygen				10.8		11		11.2						10.8		11		11.2					
74																								
75	Ash	mg/dscm			29.0		30.0		32.8						11.6		6.7		5.2					
76	Chlorine	ug/dscm			69795799.2		73480776.0		80487740.4						3000.7		1281.3		675.8					
77	Arsenic	ug/dscm			1147.9		1182.8		1262.8						196.9		173.5		135.5					
78	Cadmium	ug/dscm			60.8		63.0		67.3						10.6		9.2		7.3					
79	Chromium	ug/dscm			186.7		193.4		205.3						32.0		28.3		22.0					
80	Nickel	ug/dscm			167.9		173.9		188.9						79.1		69.6		109.0					
81																								
82	SVM	ug/dscm			60.8		63.0		67.3						10.6		9.2		7.3					
83	LVM	ug/dscm			1334.6		1376.2		1468.1						228.9		201.8		157.6					
84																								
85	<b>348C4</b>																							
86																								
87	Feedstream Descr			Organic liquid		Organic liquid		Organic liquid		Organic liquid		Organic liquid		Fuel oil		Fuel oil		Fuel oil		Fuel oil		Fuel oil		Fuel oil
88	Feed Class 2			HW		HW		HW		HW		HW		MF		MF		MF		MF		MF		MF
89	Feedrate	lb/hr			1560		1578		1584															
90	Heating value	Btu/lb			11149		10966		10808															
91	Ash	wt %			0.876		0.843		0.926															
92	Chlorine	ppmw			334615.4		338403.0		287247.5															
93	Arsenic	ppmw			7.97		7.81		7.97															
94	Cadmium	ppmw			0.46		0.42		0.41															
95	Chromium	ppmw			12.69		11.95		11.5															
96	Nickel	ppmw			9.87		9.67		9.3															
97	HF	ppmw			20198.7		20000.0		21799.2															
98																								
99	Stack Gas Flowrate				5749		5804		5820						5749		5804		5820					
100	Oxygen				12.4		12.7		12.4						12.4		12.7		12.4					
101																								
102	Ash	mg/dscm			1034.6		1033.7		1097.0						0.0		0.0		0.0					
103	Chlorine	ug/dscm			39520819.9		41493681.0		34027979.6						0.0		0.0		0.0					
104	Arsenic	ug/dscm			941.3		957.6		944.1						0.0		0.0		0.0					
105	Cadmium	ug/dscm			54.3		51.5		48.6						0.0		0.0		0.0					
106	Chromium	ug/dscm			1498.8		1465.3		1362.3						0.0		0.0		0.0					
107	Nickel	ug/dscm			1165.7		1185.7		1101.7						0.0		0.0		0.0					
108																								
109	SVM	ug/dscm			54.3		51.5		48.6						0.0		0.0		0.0					
110	LVM	ug/dscm			2440.1		2422.9		2306.5						0.0		0.0		0.0					

	B	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
61	Feed Class 2	Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total
62	Feedrate	49.4		49.4		46.6														
63	Heating value	0		0		0														
64	Ash	0		0		0														
65	Chlorine																			
66	Arsenic	726		724		701														
67	Cadmium	263		263		255														
68	Chromium	1095		1098		1070														
69	Nickel	4811		4791		4642														
70	HF																			
71																				
72	Stack Gas Flowrate	6115		5843		5652														
73	Oxygen	10.8		11		11.2														
74																				
75	Ash	0.0		0.0		0.0						40.5		36.7		38.1				38.4
76	Chlorine	0.0		0.0		0.0						69798799.8		73482057.3		80488416.2				74589757.8
77	Arsenic	2152.4		2291.3		2207.6						3497.1		3647.6		3606.0				3583.6
78	Cadmium	779.7		832.3		803.1						851.1		904.5		877.7				877.8
79	Chromium	3246.3		3474.9		3369.7						3465.1		3696.5		3597.0				3586.2
80	Nickel	14263.0		15162.2		14618.7						14510.1		15405.7		14916.5				14944.1
81																				
82	SVM	779.7		832.3		803.1						851.1		904.5		877.7				877.8
83	LVM	5398.7		5766.1		5577.3						6962.2		7344.1		7203.0				7169.7
84																				
85	<b>348C4</b>																			
86																				
87	Feedstream Descr	Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total
88	Feed Class 2	Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total
89	Feedrate																			
90	Heating value																			
91	Ash																			
92	Chlorine																			
93	Arsenic																			
94	Cadmium																			
95	Chromium																			
96	Nickel																			
97	HF																			
98																				
99	Stack Gas Flowrate	5749		5804		5820														
100	Oxygen	12.4		12.7		12.4														
101																				
102	Ash											1034.6		1033.7		1097.0				1055.1
103	Chlorine											39520819.9		41493681.0		34027979.6				38347493.5
104	Arsenic											941.3		957.6		944.1				947.7
105	Cadmium											54.3		51.5		48.6				51.5
106	Chromium											1498.8		1465.3		1362.3				1442.1
107	Nickel											1165.7		1185.7		1101.7				1151.0
108																				
109	SVM											54.3		51.5		48.6				51.5
110	LVM											2440.1		2422.9		2306.5				2389.8

	B	C
1	<b>Process Information</b>	
2		
3	<b>348C10 Trial Burn</b>	
4		
5	Combustion chamber body temperature	°C
6	Combustion chamber exit temperature	°C
7	Combustion chamber pressure	in H <sub>2</sub> O
8	Combustion air flow rate	scfm
9	Quench outlet gas temperature	°C
10	Absorber/Condensor recycle liquid pH	
11	IWS unit 1 DC Voltage	kV
12	IWS unit 2 DC Voltage	kV

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<b>PCDD/PCDF</b>																
2	N																
3	Facility Name and ID:	OCC, Niagara Plant															
4	Condition ID:	348C10															
5	Condition/Test Date:	Oct 13-17, 1997															
6																	
7		I-TEF	Run 1				Run 2				Run 3						
8		Wght Fact	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	
9			Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND
10	Detected in sample volume (ng)																
11	2,3,7,8-TCDD	1	0.005	0.005	0.005	0.005	0.009	0.009	0.009	0.009	0.011	0.011	0.011	0.011	0.011	0.011	0.011
12	1,2,3,7,8-PCDD	0.5	0.005	0.002	0.005	0.002	0.009	0.005	0.009	0.005	0.014	0.007	0.014	0.007	0.014	0.007	0.014
13	1,2,3,4,7,8-HxCDD	0.1	0.003	0.000	0.003	0.000	0.005	0.000	0.005	0.000	0.007	0.001	0.007	0.001	0.007	0.001	0.007
14	1,2,3,6,7,8-HxCDD	0.1	0.004	0.000	0.004	0.000	0.006	0.001	0.006	0.001	0.011	0.001	0.011	0.001	0.011	0.001	0.011
15	1,2,3,7,8,9-HxCDD	0.1	0.003	0.000	0.003	0.000	0.004	0.000	0.004	0.000	0.005	0.001	0.005	0.001	0.005	0.001	0.005
16	1,2,3,4,6,7,8-HpCDD	0.01	0.011	0.000	0.011	0.000	0.013	0.000	0.013	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011
17	OCDD	0.001	0.040	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018
18	2,3,7,8-TCDF	0.1	0.022	0.002	0.022	0.002	0.047	0.005	0.047	0.005	0.071	0.007	0.071	0.007	0.071	0.007	0.071
19	1,2,3,7,8-PCDF	0.05	0.054	0.003	0.054	0.003	0.140	0.007	0.140	0.007	0.210	0.011	0.210	0.011	0.210	0.011	0.210
20	2,3,4,7,8-PCDF	0.5	0.015	0.008	0.015	0.008	0.025	0.013	0.025	0.013	0.035	0.018	0.035	0.018	0.035	0.018	0.035
21	1,2,3,4,7,8-HxCDF	0.1	0.066	0.007	0.066	0.007	0.160	0.016	0.160	0.016	0.220	0.022	0.220	0.022	0.220	0.022	0.220
22	1,2,3,6,7,8-HxCDF	0.1	0.035	0.004	0.035	0.004	0.081	0.008	0.081	0.008	0.110	0.011	0.110	0.011	0.110	0.011	0.110
23	2,3,4,6,7,8-HxCDF	0.1	0.012	0.001	0.012	0.001	0.014	0.001	0.014	0.001	0.015	0.002	0.015	0.002	0.015	0.002	0.015
24	1,2,3,7,8,9-HxCDF	0.1	0.004	0.000	0.004	0.000	0.005	0.000	0.005	0.000	0.006	0.001	0.006	0.001	0.006	0.001	0.006
25	1,2,3,4,6,7,8-HpCDF	0.01	0.063	0.001	0.063	0.001	0.120	0.001	0.120	0.001	0.140	0.001	0.140	0.001	0.140	0.001	0.140
26	1,2,3,4,7,8,9-HpCDF	0.01	0.005	0.000	0.005	0.000	0.007	0.000	0.007	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008
27	OCDF	0.001	0.019	0.000	0.019	0.000	0.021	0.000	0.021	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017
28	Total TCDD	0	0.540	0.000	0.540	0.000	0.990	0.000	0.990	0.000	1.300	0.000	1.300	0.000	1.300	0.000	1.300
29	Total PCDD	0	0.015	0.000	0.015	0.000	0.330	0.000	0.330	0.000	0.510	0.000	0.510	0.000	0.510	0.000	0.510
30	Total HxCDD	0	0.055	0.000	0.055	0.000	0.093	0.000	0.093	0.000	0.140	0.000	0.140	0.000	0.140	0.000	0.140
31	Total HpCDD	0	0.021	0.000	0.021	0.000	0.024	0.000	0.024	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020
32	Total TCDF	0	2.800	0.000	2.800	0.000	5.200	0.000	5.200	0.000	5.000	0.000	5.000	0.000	5.000	0.000	5.000
33	Total PCDF	0	1.200	0.000	1.200	0.000	2.600	0.000	2.600	0.000	3.200	0.000	3.200	0.000	3.200	0.000	3.200
34	Total HxCDF	0	0.440	0.000	0.440	0.000	0.950	0.000	0.950	0.000	1.200	0.000	1.200	0.000	1.200	0.000	1.200
35	Total HpCDF	0	0.087	0.000	0.087	0.000	0.160	0.000	0.160	0.000	0.180	0.000	0.180	0.000	0.180	0.000	0.180
36																	
37	Gas sample volume (dscf)			129.62	129.62	129.62		146.98	146.98	146.98			132.17	132.17	132.17		
38	O2 (%)			13.20	13.20	13.20		13.0	13.0	13.0			12.30	12.30	12.30		
39																	
40	PCDD/PCDF (ng in sample)			0.034	5.2	0.034		0.067	10.4	0.067			0.092	11.6	0.092		
41	PCDD/PCDF (ng/dscm @ 7% O2)	0.0		0.016	2.55	0.016	0.0	0.028	4.38	0.028	0.0		0.040	4.98	0.040		
42																	
43	TEQ Cond Avg	0.028															
44	Total Cond Avg	3.97															



	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>348C2</b>													
2														
3	ng/dscm	I-TEF		Total	Run 1			Total	Run 2			Total	Run 3	
4		Wt Fact		Full ND	1/2 ND	TEQ		Full ND	1/2 ND	TEQ		Full ND	1/2 ND	TEQ
5	4D 2378	1	1	0.012	0.006	0.006	1	0.012	0.006	0.006	1	0.006	0.003	0.003
6	4D Other	0		0.196	0.196	0.000		0.212	0.212	0.000		0.150	0.150	0.000
7	4D Total	0		0.209	0.209	0.000		0.225	0.225	0.000		0.156	0.156	0.000
8	5D 12378	0.5		0.010	0.010	0.005	1	0.017	0.009	0.004	1	0.008	0.004	0.002
9	5D Other	0		0.097	0.097	0.000		0.076	0.076	0.000		0.069	0.069	0.000
10	5D Total	0		0.107	0.107	0.000		0.093	0.093	0.000		0.077	0.077	0.000
11	6D 123478	0.1	1	0.013	0.006	0.001		0.011	0.011	0.001	1	0.008	0.004	0.000
12	6D 123678	0.1	1	0.008	0.004	0.000	1	0.012	0.006	0.001	1	0.045	0.022	0.002
13	6D 123789	0.1	1	0.005	0.003	0.000		0.131	0.131	0.013	1	0.008	0.004	0.000
14	6D Other	0		0.030	0.030	0.000		-0.085	-0.085	0.000		-0.042	-0.042	0.000
15	6D Total	0		0.055	0.055	0.000		0.070	0.070	0.000		0.019	0.019	0.000
16	7D 1234678	0.01		0.111	0.111	0.001		0.063	0.063	0.001		0.020	0.020	0.000
17	7D Other	0		0.092	0.092	0.000		0.051	0.051	0.000		0.000	0.000	0.000
18	7D Total	0		0.203	0.203	0.000		0.114	0.114	0.000		0.020	0.020	0.000
19	8D	0.001		0.516	0.516	0.001		0.337	0.337	0.000		0.052	0.052	0.000
20	4F 2378	0.1	1	0.031	0.016	0.002		0.040	0.040	0.004		0.032	0.032	0.003
21	4F Other	0		2.722	2.722	0.000		2.366	2.366	0.000		2.248	2.248	0.000
22	4F Total	0		2.753	2.753	0.000		2.406	2.406	0.000		2.280	2.280	0.000
23	5F 12378	0.05		0.111	0.111	0.006		0.106	0.106	0.005		0.085	0.085	0.004
24	5F 23478	0.5		0.024	0.024	0.012	1	0.005	0.002	0.001	1	0.023	0.011	0.006
25	5F Other	0		1.304	1.304	0.000		1.019	1.019	0.000		0.854	0.854	0.000
26	5F Total	0		1.439	1.439	0.000		1.130	1.130	0.000		0.962	0.962	0.000
27	6F 123478	0.1		0.106	0.106	0.011		0.134	0.134	0.013		0.095	0.095	0.010
28	6F 123678	0.1		0.065	0.065	0.007		0.083	0.083	0.008		0.058	0.058	0.006
29	6F 123789	0.1	1	0.005	0.002	0.000		0.015	0.015	0.002	1	0.006	0.003	0.000
30	6F 234678	0.1	1	0.022	0.011	0.001		0.028	0.028	0.003	1	0.012	0.006	0.001
31	6F Other	0		0.412	0.412	0.000		0.446	0.446	0.000		0.302	0.302	0.000
32	6F Total	0		0.610	0.610	0.000		0.706	0.706	0.000		0.474	0.474	0.000
33	7F 1234678	0.01		0.256	0.256	0.003		0.369	0.369	0.004		0.200	0.200	0.002
34	7F 1234789	0.01		0.020	0.020	0.000	1	0.045	0.023	0.000	1	0.021	0.011	0.000
35	7F Other	0		0.099	0.099	0.000		0.116	0.116	0.000		0.055	0.055	0.000
36	7F Total	0		0.375	0.375	0.000		0.531	0.531	0.000		0.276	0.276	0.000
37	8F	0.001		0.123	0.123	0.000		0.264	0.264	0.000		0.092	0.092	0.000
38	Total PCDD/PCDF			6.389	6.389			5.875	5.875			4.408	4.408	
39	TEQ		31.7	0.064		0.054	31.6	0.080		0.067	54.4	0.055		0.040

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>348C3</b>													
2					Run 1				Run 2				Run 3	
3	ng/dscm	I-TEF		Total	Total	TEQ		Total	Total	TEQ		Total	Total	TEQ
4		Wt Fact		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND
5	4D 2378	1		0.008	0.008	0.008	1	0.009	0.005	0.005	1	0.009	0.004	0.004
6	4D Other	0		0.144	0.144	0.000		0.153	0.153	0.000		0.071	0.071	0.000
7	4D Total	0		0.151	0.151	0.000		0.162	0.162	0.000		0.080	0.080	0.000
8	5D 12378	0.5	1	0.003	0.001	0.001	1	0.003	0.001	0.001	1	0.009	0.004	0.002
9	5D Other	0		0.046	0.046	0.000		0.059	0.059	0.000		0.000	0.000	0.000
10	5D Total	0		0.049	0.049	0.000		0.062	0.062	0.000	1	0.009	0.004	0.000
11	6D 123478	0.1	1	0.006	0.003	0.000	1	0.006	0.003	0.000	1	0.008	0.004	0.000
12	6D 123678	0.1	1	0.006	0.003	0.000	1	0.005	0.003	0.000	1	0.008	0.004	0.000
13	6D 123789	0.1	1	0.006	0.003	0.000	1	0.004	0.002	0.000	1	0.008	0.004	0.000
14	6D Other	0		-0.010	-0.010	0.000		0.026	0.026	0.000		-0.012	-0.012	0.000
15	6D Total	0		0.008	0.008	0.000		0.041	0.041	0.000		0.012	0.012	0.000
16	7D 1234678	0.01	1	0.022	0.011	0.000	1	0.026	0.013	0.000	1	0.025	0.013	0.000
17	7D Other	0		-0.007	-0.007	0.000		0.003	0.003	0.000		-0.001	-0.001	0.000
18	7D Total	0		0.016	0.016	0.000		0.029	0.029	0.000		0.024	0.024	0.000
19	8D	0.001		0.122	0.122	0.000		0.049	0.049	0.000		0.143	0.143	0.000
20	4F 2378	0.1		0.020	0.020	0.002		0.022	0.022	0.002		0.022	0.022	0.002
21	4F Other	0		1.886	1.886	0.000		1.598	1.598	0.000		1.019	1.019	0.000
22	4F Total	0		1.906	1.906	0.000		1.620	1.620	0.000		1.041	1.041	0.000
23	5F 12378	0.05		0.038	0.038	0.002		0.043	0.043	0.002		0.045	0.045	0.002
24	5F 23478	0.5		0.013	0.013	0.007		0.025	0.025	0.013	1	0.014	0.007	0.004
25	5F Other	0		0.573	0.573	0.000		0.415	0.415	0.000		0.321	0.321	0.000
26	5F Total	0		0.623	0.623	0.000		0.483	0.483	0.000		0.380	0.380	0.000
27	6F 123478	0.1		0.041	0.041	0.004		0.044	0.044	0.004		0.054	0.054	0.005
28	6F 123678	0.1		0.024	0.024	0.002		0.031	0.031	0.003		0.038	0.038	0.004
29	6F 123789	0.1	1	0.004	0.002	0.000	1	0.003	0.002	0.000		0.005	0.005	0.000
30	6F 234678	0.1		0.007	0.007	0.001		0.018	0.018	0.002		0.010	0.010	0.001
31	6F Other	0		0.145	0.145	0.000		0.191	0.191	0.000		0.164	0.164	0.000
32	6F Total	0		0.222	0.222	0.000		0.287	0.287	0.000		0.270	0.270	0.000
33	7F 1234678	0.01		0.082	0.082	0.001		0.092	0.092	0.001		0.140	0.140	0.001
34	7F 1234789	0.01	1	0.009	0.005	0.000		0.011	0.011	0.000		0.015	0.015	0.000
35	7F Other	0		0.023	0.023	0.000		0.049	0.049	0.000		0.070	0.070	0.000
36	7F Total	0		0.115	0.115	0.000		0.152	0.152	0.000		0.226	0.226	0.000
37	8F	0.001		0.046	0.046	0.000		0.040	0.040	0.000		0.084	0.084	0.000
38	Total PCDD/PCDF			3.258	3.258			2.925	2.925			2.270	2.265	
39	TEQ		12.6	0.030		0.028	32.0	0.040		0.034	57.8	0.040		0.028

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<b>348C4</b>													
2				Run 1				Run 2				Run 3		
3	ng/dscm	I-TEF		Total	Total	TEQ		Total	Total	TEQ		Total	Total	TEQ
4		Wt Fact		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND
5	4D 2378	1	1	0.006	0.003	0.003	1	0.005	0.003	0.003	1	0.029	0.015	0.015
6	4D Other	0		0.042	0.042	0.000		0.003	0.003	0.000		0.000	0.000	0.000
7	4D Total	0		0.048	0.048	0.000	1	0.009	0.004	0.000	1	0.029	0.015	0.000
8	5D 12378	0.5	1	0.007	0.004	0.002	1	0.010	0.005	0.003	1	0.029	0.015	0.007
9	5D Other	0		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
10	5D Total	0	1	0.007	0.004	0.000	1	0.010	0.005	0.000	1	0.029	0.015	0.000
11	6D 123478	0.1	1	0.009	0.005	0.000	1	0.016	0.008	0.001	1	0.028	0.014	0.001
12	6D 123678	0.1	1	0.008	0.004	0.000	1	0.014	0.007	0.001	1	0.025	0.013	0.001
13	6D 123789	0.1	1	0.009	0.005	0.000	1	0.016	0.008	0.001	1	0.028	0.014	0.001
14	6D Other	0		-0.018	-0.018	0.000		-0.031	-0.031	0.000		-0.054	-0.054	0.000
15	6D Total	0	1	0.009	0.004	0.000	1	0.015	0.008	0.000	1	0.027	0.014	0.000
16	7D 1234678	0.01	1	0.015	0.007	0.000	1	0.040	0.020	0.000		0.036	0.036	0.000
17	7D Other	0		-0.004	-0.004	0.000		-0.012	-0.012	0.000		0.000	0.000	0.000
18	7D Total	0	1	0.010	0.005	0.000		0.029	0.029	0.000		0.036	0.036	0.000
19	8D	0.001	1	0.033	0.016	0.000		0.147	0.147	0.000	1	0.044	0.022	0.000
20	4F 2378	0.1	1	0.012	0.006	0.001	1	0.018	0.009	0.001	1	0.014	0.007	0.001
21	4F Other	0		0.850	0.850	0.000		0.399	0.399	0.000		0.398	0.398	0.000
22	4F Total	0		0.861	0.861	0.000		0.417	0.417	0.000		0.412	0.412	0.000
23	5F 12378	0.05		0.016	0.016	0.001		0.018	0.018	0.001	1	0.015	0.008	0.000
24	5F 23478	0.5	1	0.006	0.003	0.002	1	0.009	0.004	0.002	1	0.018	0.009	0.005
25	5F Other	0		0.109	0.109	0.000		-0.008	-0.008	0.000		0.012	0.012	0.000
26	5F Total	0		0.131	0.131	0.000		0.018	0.018	0.000		0.046	0.046	0.000
27	6F 123478	0.1		0.014	0.014	0.001	1	0.027	0.013	0.001		0.025	0.025	0.002
28	6F 123678	0.1	1	0.012	0.006	0.001	1	0.018	0.009	0.001		0.022	0.022	0.002
29	6F 123789	0.1	1	0.005	0.003	0.000	1	0.016	0.008	0.001	1	0.010	0.005	0.000
30	6F 234678	0.1		0.006	0.006	0.001		0.024	0.024	0.002	1	0.007	0.003	0.000
31	6F Other	0		0.030	0.030	0.000		-0.031	-0.031	0.000		0.059	0.059	0.000
32	6F Total	0		0.067	0.067	0.000		0.053	0.053	0.000		0.122	0.122	0.000
33	7F 1234678	0.01		0.031	0.031	0.000	1	0.039	0.019	0.000		0.080	0.080	0.001
34	7F 1234789	0.01	1	0.003	0.002	0.000	1	0.028	0.014	0.000	1	0.017	0.008	0.000
35	7F Other	0		0.007	0.007	0.000		-0.048	-0.048	0.000		-0.009	-0.009	0.000
36	7F Total	0		0.042	0.042	0.000	1	0.018	0.009	0.000		0.087	0.087	0.000
37	8F	0.001		0.029	0.029	0.000		0.060	0.060	0.000		0.127	0.127	0.000
38	Total PCDD/PCDF			1.238	1.208			0.778	0.751			0.960	0.895	
39	TEQ		85.4	0.021		0.012	89.1	0.032		0.018	91.7	0.071		0.039