	B	C
1	**Source Description**	
2		
3	Phase I ID No.	3006
4	EPA ID No.	WVD004325353
5	Facility Name	Crompton Corp OSi Group
6	Facility Location	
7	City	Friendly
8	State	WV
9	Unit ID Name/No.	
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Rotary kiln
15		
16	Capacity (MMBtu/hr)	
17	Soot Blowing	
18	APCS Detailed Acronym	Q/CCS/CFS/IWS
19	APCS General Class	IWS, LEWS
20	APCS Characteristics	Quench, counter-current scrubber, two cross flow scrubbers, three stage ionizing wet scrubber
21	Hazardous Wastes	Liq, solid
22	Haz Waste Description	Solvents, spiked in SiCl4
23	Supplemental Fuel	
24		
25	Stack Characteristics	
26	Diameter (ft)	
27	Height (ft)	
28	Gas Velocity (ft/sec)	
29	Gas Temperature (°F)	
30		
31	Permitting Status	
32	HWC Burn Status (Date if Terminated)	
33		
34		
35	Notes:	
36		
37	Hope to show compliance with MACT alternative PM standard	
38	Expect to reduce HCl/Cl2 to MACT levels with operational / equipment changes	
39	Metals and D/F results used for compliance until MACT rule is in effect	
40	Wet scrubbers all operated with liquor pH << 7 very acidic, no wonder not capturing any Cl2	

	B	C
1	**Condition Description**	
2		
3	**3006C1**	
4		
5	Report Name/Date	Miniburn Test Report, May 2001
6	Report Prepare	Franklin Engineering Group
7	Testing Firm	DEECO, Inc.
8	Testing Dates	January 25-26, 2001
9	Cond Dates	Jan-01
10	Condition Descr	Worst case mini-burn to demo compliance with HWC MACT stnds
11	Content	PM, HCl/Cl2, D/F, CO, Cr, Pb, Ni

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions**											
2												
3		Comment	Units	7% O2								
4												
5												
6	**3006C1**	**Trial Burn**				R1		R2		R3		Cond Avg
7												
8	CO (RA)	E1	ppmv	y		11		10		10.6		10.5
9												
10	PM	E1	gr/dscf	y		0.0196		0.0172		0.0154		0.0174
11												
12	HCl	E1	ppmv	y		11.3		10.3		4.7		8.8
13	Cl2	E1	ppmv	y		103.2		69.7		64.3		79.1
14	Total Chlorine	E1	ppmv	y		217.7		149.7		133.3		166.9
15												
16	Chromium	E2	ug/dscm	y		3.83		4.72		7.53		5.4
17	Lead	E2	ug/dscm	y		6.66		14.3		28.1		16.4
18	Nickel	E2	ug/dscm	y		10.4		17		22.2		16.5
19												
20	SVM	E2	ug/dscm	y		6.66		14.3		28.1		16.4
21	LVM	E2	ug/dscm	y		3.83		4.72		7.53		5.4
22												
23	Sampling Train	PM, HCl/(	E1									
24	Stack Gas Flowrate		dscfm			14400		14200		14400		14333.3
25	O2		%			15.1		14.9		15.1		15.0
26	Moisture		%			1.6		1.5		1.4		1.5
27	Temperature		°F			60.5		61.6		57.1		59.7
28												
29	Sampling Train	Metals	E2									
30	Stack Gas Flowrate		dscfm			14400		14800		14400		14533.3
31	O2		%			15.1		15		15.1		15.1
32	Moisture		%			1.5		1.3		1.2		1.3
33	Temperature		°F			57.8		57.4		55.9		57.0

	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	AA	AB	AC
1	**Feedstream**																											
2																												
3																												
4	**3006C1**	Trial burn			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg	
5																												
6	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2									
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW		Solid HW									
8	Feed Class 2																				HW		HW		HW		HW	
9	Feedstream Description				Solvents		Solvents		Solvents		Solvents		SiCl4		SiCl4		SiCl4		SiCl4									
10	Feed Rate	gpm			4.5		4.3		3.8		4.20		1.74		1.69		1.18		1.54									
11	Heating Value	Btu/llb			11301		11888.5		12857		12015.50		3321		2552		2811		2894.67									
12	Specific Gravity				0.809		0.809		0.82		0.81		1.48		1.48		1.48		1.48									
13	Ash	%			0.12		0.57		0.81		0.50		35.3		35.3		35.3		35.30									
14	Chlorine	%			0.35		0.38		0.11		0.28		83.5		83.5		83.5		83.50									
15	Chromium	ppmw			1.05		1.05		1.05		1.05		1.05		1.05		1.05		1.05									
16	Lead	ppmw			0.01		0.01		0.01		0.01		0.01		0.01		0.01		0.01									
17	Nickel	ppmw			13		16		4.8		11.27		1.42		1.42		1.42		1.42									
18																												
19	Stack Gas Flowrate	dscfm			14400.0		14200.0		14400.0		14333.3		14400		14200		14400		14333.3									
20	Oxygen	%			15.1		14.9		15.1		15.0		15.1		14.9		15.1		15.0									
21																												
22	*Feedrate MTEC Calculations*																											
23	Ash	mg/dscm		y	96.1		427.8		555.1		372.9		19993.6		19047.0		13558.9		17541.1		20089.7		19474.7		14114.0		17914.0	
24	Chlorine	ug/dscm		y	280243		285170		75387		208815		47293746		45054430		32072770		41492506		47573989		45339599		32148157		41701321	
25	Chromium	ug/dscm		y	84.1		78.8		72.0		78.3		59.5		56.7		40.3		52.2		143.5		135.5		112.3		130.5	
26	Lead	ug/dscm		y	0.8		0.8		0.7		0.7		0.6		0.5		0.4		0.5		1.4		1.3		1.1		1.2	
27	Nickel	ug/dscm		y	1040.9		1200.7		329.0		840.2		80.4		76.6		54.5		70.6		1121.3		1277.3		383.5		910.8	
28																												
29	SVM	ug/dscm		y	0.8		0.8		0.7		0.7		0.6		0.5		0.4		0.5		1.4		1.3		1.1		1.2	
30	LVM	ug/dscm		y	84.1		78.8		72.0		78.3		59.5		56.7		40.3		52.2		143.5		135.5		112.3		130.5	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	**Feedstream**															
2																
3																
4	**3006C1**	R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
5																
6	Feedstream Number	F3		F3		F3		F3		F4		F4		F4		F4
7	Feed Class	Spike		Spike		Spike		Spike		Total		Total		Total		Total
8	Feed Class 2	Spike		Spike		Spike		Spike		Total		Total		Total		Total
9	Feedstream Description	Metal Spike		Metal Spike		Metal Spike		Metal Spike		Total		Total		Total		Total
10	Feed Rate	0.57		0.60		0.82		0.66								
11	Heating Value	4471.00		4175.00		3712.00		4119.33								
12	Specific Gravity	1.06		1.06		1.06		1.06								
13	Ash	2.57		3.61		1.66		2.61								
14	Chlorine	0.18		0.27		0.03		0.16								
15	Chromium	438.70		450.90		441.80		443.80								
16	Lead	475.10		478.20		462.30		471.87								
17	Nickel	501.20		504.90		489.30		498.47								
18																
19	Stack Gas Flowrate	14400		14200		14400.0		14333.3						14533.3		14533.3
20	Oxygen	15.1		14.9		15.1		15.0						15.1		15.1
21																
22	*Feedrate MTEC Calculation*															
23	Ash	341.5		495.3		317.3		401.5		20431.3		19970.0		14431.4		18277.5
24	Chlorine	23920		37044		5735		24581		47597909		45376644		32153892		41709482
25	Chromium	5829.8		6186.4		8446.0		6818.2		5973.4		6321.9		8558.3		6951.2
26	Lead	6313.5		6561.0		8837.9		7249.3		6314.9		6562.3		8839.0		7238.7
27	Nickel	6660.4		6927.3		9354.1		7658.0		7781.7		8204.7		9737.6		8574.6
28																
29	SVM	6313.5		6561.0		8837.9		7249.3		6314.9		6562.3		8839.0		7238.7
30	LVM	5829.8		6186.4		8446.0		6818.2		5973.4		6321.9		8558.3		6951.2

	B	C	D	E	F	G
1	**Process Information**					
2						
3	**3006C1**		R1	R2	R3	Cond Avg
4						
5	Kiln Temperature	F	1645	1670	1650	1655
6	IWS Voltage (total to 3 stages)	kV	56.3	55.9	55.6	
7	CCS Liquor pH		2.5-6	2.1-6	2.3-2.3	
8	CFS No. 1 Liquor pH		3.2-1.6	1.6-1.5	1.6-1.4	
9	CFS No. 2 Liquor pH		4.6-2.3	2.4-2.3	2.3-2.3	
10	IWS No. 1 Liquor pH		2.5-2.3	2.1-2.4	2.0-1.8	
11	IWS No. 2 Liquor pH		2.7-2.5	2.4-2.5	2.1-2.1	
12	IWS No. 3 Liquor pH		5.6-5.7	5.3-6	5.7-5.5	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**PCDD/PCDF**																	
2	N																	
3	Facility Name and ID:		Crompton OSi															
4	Condition ID:		3006C1															
5	Condition/Test Date:		Miniburn, January 2001															
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
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
10	Detected in sample volume (pg)																	
11		2,3,7,8-TCDD	1	nd	0.839	0.839	0.420	0.420	nd	0.539	0.539	0.270	0.270		1.260	1.260	1.260	1.260
12		Total TCDD	0		16.300	0.000	16.300	0.000		3.430	0.000	3.430	0.000		2.720	0.000	2.720	0.000
13		1,2,3,7,8-PCDD	0.5	nd	1.070	0.535	0.535	0.268	nd	1.100	0.550	0.550	0.275	nd	0.699	0.350	0.350	0.175
14		Total PCDD	0		8.510	0.000	8.510	0.000		0.000	0.000				1.690	0.000	1.690	0.000
15		1,2,3,4,7,8-HxCDD	0.1	nd	1.880	0.188	0.940	0.094	nd	1.020	0.102	0.510	0.051	nd	4.410	0.441	2.205	0.221
16		1,2,3,6,7,8-HxCDD	0.1	nd	2.100	0.210	1.050	0.105	nd	1.140	0.114	0.570	0.057	nd	4.910	0.491	2.455	0.246
17		1,2,3,7,8,9-HxCDD	0.1	nd	1.880	0.188	0.940	0.094	nd	1.020	0.102	0.510	0.051	nd	4.400	0.440	2.200	0.220
18		Total HxCDD	0		3.310	0.000	3.310	0.000		0.000	0.000				2.010	0.000	2.010	0.000
19		1,2,3,4,6,7,8-HpCDD	0.01		7.320	0.073	7.320	0.073		2.320	0.023	2.320	0.023		3.570	0.036	3.570	0.036
20		Total HpCDD	0		12.900	0.000	12.900	0.000		4.390	0.000	4.390	0.000		6.410	0.000	6.410	0.000
21		OCDD	0.001		28.800	0.029	28.800	0.029		8.930	0.009	8.930	0.009		16.400	0.016	16.400	0.016
22		2,3,7,8-TCDF	0.1		3.680	0.368	3.680	0.368	nd	1.220	0.122	0.610	0.061		4.360	0.436	4.360	0.436
23		Total TCDF	0		39.100	0.000	39.100	0.000		4.930	0.000	4.930	0.000		26.600	0.000	26.600	0.000
24		1,2,3,7,8-PCDF	0.05		2.030	0.102	2.030	0.102	nd	1.190	0.060	0.595	0.030	nd	1.290	0.065	0.645	0.032
25		2,3,4,7,8-PCDF	0.5		2.480	1.240	2.480	1.240	nd	1.180	0.590	0.590	0.295	nd	1.270	0.635	0.635	0.318
26		Total PCDF	0		21.300	0.000	21.300	0.000		0.000	0.000				2.770	0.000	2.770	0.000
27		1,2,3,4,7,8-HxCDF	0.1		3.760	0.376	3.760	0.376		2.120	0.212	2.120	0.212		2.180	0.218	2.180	0.218
28		1,2,3,6,7,8-HxCDF	0.1		2.360	0.236	2.360	0.236	nd	0.563	0.056	0.282	0.028		1.020	0.102	1.020	0.102
29		2,3,4,6,7,8-HxCDF	0.1		2.470	0.247	2.470	0.247	nd	0.599	0.060	0.300	0.030		1.180	0.118	1.180	0.118
30		1,2,3,7,8,9-HxCDF	0.1	nd	0.431	0.043	0.216	0.022	nd	0.685	0.069	0.343	0.034	nd	0.349	0.035	0.175	0.017
31		Total HxCDF	0		18.500	0.000	18.500	0.000		2.120	0.000	2.120	0.000		4.370	0.000	4.370	0.000
32		1,2,3,4,6,7,8-HpCDF	0.01		8.230	0.082	8.230	0.082		1.960	0.020	1.960	0.020		3.760	0.038	3.760	0.038
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	1.300	0.013	0.650	0.007	nd	0.943	0.009	0.472	0.005	nd	0.634	0.006	0.317	0.003
34		Total HpCDF	0		10.100	0.000	10.100	0.000		1.960	0.000	1.960	0.000		3.760	0.000	3.760	0.000
35		OCDF	0.001		7.500	0.008	7.500	0.008	nd	5.480	0.005	2.740	0.003		5.410	0.005	5.410	0.005
36																		
37		Gas sample volume (dscf)				175.34	175.34	175.34			172.99	172.99	172.99			171.642	171.642	171.642
38		O2 (%)				14.9	14.9	14.9			15.1	15.1	15.1			15.2	15.2	15.2
39																		
40		PCDD/PCDF (ng in sample)				0.005	0.2	0.004			0.003	0.0	0.001			0.00	0.1	0.00
41		PCDD/PCDF (ng/dscm @ 7% O2)		42.2		0.0022	0.0769	0.0017	90.0		0.0013	0.0138	0.0007	52.5		0.0023	0.0358	0.0017
42																		
43		TEQ Cond Avg	0.0014															
44		Total Cond Avg	0.0422															