

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase I ID No.	311
4	EPA ID No.	VAD046970521
5	Facility Name	Solite Corp
6	Facility Location	
7	City	Cascade
8	State	Virginia
9	Unit ID Name/No.	Kiln #2
10	Other Sister Facilities	Kiln #1(336) for CoC(metals) only
11	Number of Sister Facilities	1
12	Combustor Class	Lightweight Aggregate Kiln (LWAK)
13	Combustor Type	
14	Combustor Characteristics	
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	QS/FF
18	APCS General Class	FF
19	APCS Characteristics	BHA, Quench system (air and water). Baghouse (reverse air cleaning, 580 bags, cloth area = 29,155 ft2, net air to cloth ratio = 2.23:1, design operating temp < 450 °F at inlet), fiberglass cloth material
20	Hazardous Wastes	Liq
21	Haz Waste Description	The raw material was excavated from the Virginia Solite quarry
22	Supplemental Fuel	
23		
24	Stack Characteristics	
25	Diameter (ft)	4.3
26	Height (ft)	80
27	Gas Velocity (ft/sec)	17.8
28	Gas Temperature (°F)	346.4
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Condition Description</b>	
2		
3	<b>311C10</b>	
4		
5	Report Name/Date	RCRA Testing, Kilns 1,2,3,4, Certification of Compliance, August 1999
6	Report Preparation	Solite/Entropy/Blue Ridge
7	Testing Firm	Entropy
8	Testing Dates	May 25-26, 1999
9	Cond Dates	May-99
10	Condition Descr	COC, Metals SRE
11	Content	CO, PM, HCl/Cl <sub>2</sub> , Metals, Cr <sup>+6</sup>
12		
13	<b>311C11</b>	
14		
15	Report Name/Date	Trial Burn Report, Solite Corp, Virginia Solite Div., March 2000
16	Report Preparation	Solite/Entropy/Blue Ridge
17	Testing Firm	Entropy
18	Testing Dates	November 8-19, 1999
19	Cond Dates	Nov-99
20	Condition Descr	Trial Burn, organics DRE, HCl/Cl <sub>2</sub> emissions limits
21	Content	CO, PM, HCl/Cl <sub>2</sub> , POHC DRE, PCCD/F
22		
23	<b>311C12</b>	
24		
25	Report Name/Date	Trial Burn Report, Kiln 1 DRE Retest, Kilns 1-4 D/F. Solite Corp, Virginia Solite Div., July 2000
26	Report Preparation	Solite/Entropy/B3 Systems
27	Testing Firm	Entropy
28	Testing Dates	May 9-19, 2000
29	Cond Dates	May-00
30	Condition Descr	Trial Burn, D/F Retest
31	Content	D/F, CO
32		
33	<b>311C1</b>	
34		
35	Report Name/Date	Emission Test Report for No. 4 Aggregate Kiln Solite Corporation, Leaksville Plant, Cascade, Virginia, Prepared by IEA, August 8, 1992
36	Report Prepare	IEA
37	Testing Firm	IEA
38	Cond Descr	CoC, MAX HW FEED,MAX RAW MATERIAL
39	Testing Dates	June 18, 1992
40	Cond Dates	Jun-92

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions 1</b>											
2												
3												
4	<b>311C10</b>	CoC				R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0015		0.0011		0.0011		0.0012
7	CO (RA)	E1	ppmv	y		18.4		19.8		65.3		34.5
8	CO (MHRA)	E1	ppmv	y		31.7		60.5		75.4		55.9
9	HCl	E1	ppmv	y		1421		1423		816		1220
10	Cl2	E1	ppmv	y		0.46		0.63		43.30		15
11	Total Chlorine	E1	ppmv	y		1422		1424		903		1250
12												
13												
14	Antimony		lb/hr			5.54E-04		1.94E-04		5.49E-05		
15	Arsenic		lb/hr			1.16E-04		1.15E-04		2.47E-04		
16	Barium		lb/hr			4.49E-05		6.19E-05		2.37E-05		
17	Beryllium		lb/hr		nd	4.01E-06	nd	3.95E-06	nd	3.95E-06		
18	Cadmium		lb/hr			5.17E-05	nd	1.58E-05		5.13E-05		
19	Chromium		lb/hr			7.62E-04		2.85E-04		4.50E-04		
20	Chromium (Hex)		lb/hr		nd	6.37E-05	nd	5.67E-05	nd	5.13E-05		
21	Cobalt		lb/hr			4.73E-05	nd	3.95E-05		1.42E-04		
22	Copper		lb/hr			2.17E-04		2.83E-05		3.01E-04		
23	Lead		lb/hr			2.06E-04		4.03E-05		8.29E-05		
24	Manganese		lb/hr			9.83E-04		2.75E-04		1.13E-03		
25	Mercury		lb/hr		nd	1.02E-04		1.67E-04	nd	1.01E-04		
26	Nickel		lb/hr			3.13E-03		2.99E-04		8.71E-03		
27	Selenium		lb/hr			5.05E-04		3.24E-04		2.11E-04		
28	Silver		lb/hr			2.40E-05	nd	1.58E-05		1.89E-05		
29	Thallium		lb/hr		nd	4.01E-05	nd	3.95E-05	nd	3.95E-05		
30	Zinc		lb/hr			1.43E-03		1.40E-04		6.53E-04		
31												
32	Sampling Train	PM, HCl/ E1										
33	Stack Gas Flowrate		dscfm			25002		25700		26989		25897
34	O2		%			15.7		15.9		15.3		15.6
35	Moisture		%			15.3		15.4		16.4		15.7
36	Temperature		°F			271		274		277		274
37												
38	Sampling Train	Metals E2										
39	Stack Gas Flowrate		dscfm			24685		25746		26011		
40	O2		%			15.7		15.9		15.3		
41	Moisture		%			15.6		16		16.4		
42	Temperature		°F			266		269		271		
43												
44												
45	Antimony	E2	ug/dscm	y		15.9		5.5		1.4		7.59
46	Arsenic	E2	ug/dscm	y		3.3		3.3		6.2		4.28
47	Barium	E2	ug/dscm	y		1.3		1.8		0.6		1.22
48	Beryllium	E2	ug/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.11
49	Cadmium	E2	ug/dscm	y		1.5	nd	0.5		1.3		1.07
50	Chromium	E2	ug/dscm	y		21.8		8.1		11.4		13.76
51	Chromium (Hex)	E2	ug/dscm	y	nd	1.8	nd	1.6	nd	1.3	100	1.58
52	Cobalt	E2	ug/dscm	y		1.4	nd	1.1		3.6		2.02
53	Copper	E2	ug/dscm	y		6.2		0.8		7.6		4.87
54	Lead	E2	ug/dscm	y		5.9		1.1		2.1		3.05
55	Manganese	E2	ug/dscm	y		28.1		7.8		28.5		21.50
56	Mercury	E2	ug/dscm	y	nd	2.9		4.8	nd	2.5	53	3.41
57	Nickel	E2	ug/dscm	y		89.6		8.5		219.9		105.99
58	Selenium	E2	ug/dscm	y		14.4		9.2		5.3		9.67
59	Silver	E2	ug/dscm	y		0.7	nd	0.5		0.5		0.54
60	Thallium	E2	ug/dscm	y	nd	1.1	nd	1.1	nd	1.0	100	1.09
61	Zinc	E2	ug/dscm	y		40.9		4.0		16.5		20.46
62	LVM	E2	ug/dscm	y	0	25.2	1	11.5	1	17.7	0.6	18.15
63	SVM	E2	ug/dscm	y		7.4	28	1.6		3.4	3.6	4.12
64												
65	<b>311C11</b>	Trial Burn				R1		R2		R3		Cond Avg
66												
67												
68	PM	E1	gr/dscf	y		0.0017		0.0015		0.0018		0.0017
69	HCl	E1	ppmv	y		1623		1606		1497		1575
70	Cl2	E1	ppmv	y		2.52		0.72		3.45		2.23
71	Total Chlorine	E1	ppmv	y		1628		1607		1504		1580

	B	C	D	E	F	G	H	I	J	K	L	M
72												
73	POHC DRE	Perchloroethylene										
74	POHC Feedrate	lb/hr				45.54		45.54		45.54		45.54
75	Emission Rate	E2	lb/hr			0.000628		0.00076		0.000958		0.000782
76	DRE	E2	%			99.99862		99.99833		99.99790		
77												
78	POHC DRE	1,2,4 Trichlorobenzene										
79	POHC Feedrate	lb/hr				45.59		45.59		45.59		45.59
80	Emission Rate	E2	lb/hr			0.0013		0.00155		0.00121		0.001353
81	DRE	E2	%			99.99715		99.99660		99.99735		
82												
83	Sampling Train	PM, HCl/ E1										
84	Stack Gas Flowrate	dscfm				25358		25673		26765		25932
85	O2	%				16.0		16.0		15.8		15.9
86	Moisture	%				10.6		12.5		12.4		11.8
87	Temperature	°F				331		361		304		332
88												
89	Sampling Train	D/F	E2									
90	Stack Gas Flowrate	dscfm				25995		25675		25620		25763
91	O2	%				16		16		15.8		15.9
92	Moisture	%				11.6		11.5		10		11.0
93	Temperature	°F				364		358		334		352
94												
95												
96	<b>311C12</b>	Trial Burn					R1	R2		R3		Cond Avg
97												
98												
99	CO (RA)	E1	ppmv	y		30.7		26.0		32.0		30
100												
101												
102	Sampling Train	D/F	E1									
103	Stack Gas Flowrate	dscfm				20012		20050		21358		20473
104	O2	%				16.0		14.4		17.6		16.0
105	Moisture	%				12.4		10.2		9.6		10.7
106	Temperature	°F				295		291		299		295

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Stack Gas Emissions 2</b>												
2													
3													
4	<b>311C1</b>					R1		R2		R3		Cond Avg	
5													
6	PM	E1	gr/dscf	y		0.00400		0.00700		0.00600		0.00567	
7	CO (MHRA)	E1	ppmv	y		54.48		92.22		66.79		71.16	
8	CO (RA)	E1	ppmv	y		50.50		70.30		58.90		59.90	
9	HC (MHRA)	E1	ppmv	y		5.23		5.71		4.94		5.29	
10	HC (RA)	E1	ppmv	y		4.50		5.10		4.60		4.73	
11	HCl	E1	ppmv	y		1293.82		1147.52		1257.15		1232.83	
12	Cl2	E1	ppmv	y		30.34		3.87		7.57		13.93	
13	Total Chlorine	E1	ppmv	y		1354.51		1155.26		1272.28		1260.68	
14	Antimony	E2	ug/dscm	y	nd	3.82		5.56		1.98		3.79	
15	Arsenic	E2	ug/dscm	y		6.83		10.81		4.16		7.26	
16	Barium	E2	ug/dscm	y	nd	51.45	nd	38.41	nd	26.34		38.73	
17	Beryllium	E2	ug/dscm	y	nd	1.48	nd	2.34	nd	1.69	100	1.83	
18	Cadmium	E2	ug/dscm	y		16.98		131.03		412.63		186.88	
19	Chromium	E2	ug/dscm	y	nd	24.05	nd	30.84	nd	28.88		27.92	high nds?
20	Chromium (Hex)	E3	ug/dscm	y	nd	3.23	nd	2.40	nd	1.81		2.48	
21	Lead	E2	ug/dscm	y		162.40	nd	291.85		534.21		329.49	
22	Mercury	E2	ug/dscm	y	nd	11.06	nd	18.49	nd	15.51	100	15.02	
23	Silver	E2	ug/dscm	y	nd	3.75	nd	76.46	nd	3.79	100	28.00	
24	Thallium	E2	ug/dscm	y	nd	1.32	nd	2.84	nd	1.04	100	1.74	
25	SVM	E2	ug/dscm	y		179.38	70	422.87		946.84	19	516.36	
26	LVM	E2	ug/dscm	y	79	32.35	75	43.98	88	34.73	80	37.02	
27													
28	Sampling Train	Halogens	E1										
29	Stack Gas Flowrate		dscfm			32800		31000		29700			
30	O2		%			17		17.2		17.2			
31	Moisture		%			6.1		6.3		6.9			
32	Temperature		°F			339.5		340.9		339.6			
33													
34	Sampling Train	Metals	E2										
35	Stack Gas Flowrate		dscfm			32000		33200		30700			
36	O2		%			17		17.1		17.2			
37	Moisture		%			5.4		6		6.7			
38	Temperature		°F			355		349		344.3			
39													
40	Sampling Train	Cr Hex	E3										
41	Stack Gas Flowrate		dscfm			32600		33000		30700			
42	O2		%			16.9		17.5		17			
43	Moisture		%			4.6		6.2		6.1			
44	Temperature		°F			356.1		342.4		350.5			

	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	AD	
1	<b>Feedstream 1</b>																													
2																														
3																														
4	<b>311C10</b>	CoC			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
5																														
6	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4		F4		F4	
7	Feed Class				Raw Material		Raw Material		Raw Material		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Total		Total		Total		Total	
8	Feed Class 2				RM		RM		RM		HW		HW		HW		Spike		Spike		Spike		Total		Total		Total		Total	
9	Feedstream Description				Raw Material		Raw Material		Raw Material		LBM		LBM		LBM		Spike		Spike		Spike		Total		Total		Total		Total	
10	Feed Rate	lb/hr			29340		28940		29280		2358		2239.2		2331.6		198		194.1		210.7		31896		31373		31822		31697.2	
11	Density	g/cc									0.89		0.866		0.904															
12	Heating Value	Btu/lb									12148		11165		11045															
13																														
14	Ash	%									2.47		1.77		1.59															
15	Chlorine	g/hr	nd		332.7	nd	328.2	nd	332.0		6663.41		4812.17		3795.43		22731.98		21761.04		26901.45		29728		26901		31029			
16																														
17	Antimony	g/hr	nd		3.327	nd	3.282	nd	3.320		8.620		4.570		2.310								11.9		7.9		5.6			
18	Arsenic	g/hr			274.6		141.770		176.160		1.21		0.60		0.26		437.37		466.14		425.34		713.1		608.5		601.8			
19	Barium	g/hr			1777.3		1627.8		1390.7		229.26		178.84		205.19								2007		1807		1596			
20	Beryllium	g/hr			27.060		26.120		30.070		0.027		0.025		0.026		78.9		78.97		79.1		106.0		105.1		109.2			
21	Cadmium	g/hr			2.730	nd	1.313	nd	1.328		3.03		1.51		1.01		212.06		218.14		224.72		217.8		221.0		227.1			
22	Chromium	g/hr			736.110		734.47		802.65		22.34		17.50		16.37		752.32		764.59		1051.42		1511		1517		1870			
23	Lead	g/hr			180.38		156.87		198.68		28.40		14.82		10.22		5650		5473		5535		5859		5645		5744			
24	Manganese	g/hr			11725		11841		11788		75.33		35.93		37.48								11800		11877		11826			
25	Mercury	g/hr	nd		0.126	nd	0.131	nd	0.133	nd	0.010	nd	0.010	nd	0.010								0.137		0.141		0.143			
26	Nickel	g/hr			449.62		458.80		505.96		2.61		1.55		2.29								452.2		460.4		508.3			
27	Silver	g/hr			2.690		2.630		2.990		3.37		0.60		0.63								6.06		3.23		3.62			
28	Thallium	g/hr			7.230		6.800		6.760	nd	0.267	nd	0.254	nd	0.264								7.50		7.05		7.02			
29																														
30																														
31	Stack Gas Flowrate	dscfm			24685		25746		26011		24685		25746		26011		24685		25746		26011		24685		25746		26011		25481	
32	Oxygen	%			15.7		15.9		15.3		15.7		15.9		15.3		15.7		15.9		15.3		15.7		15.9		15.3		15.6	
33																														
34	Thermal Feedrate	MMBtu/hr									28.6		25.0		25.8								28.6		25.0		25.8		26.5	
35	Estimated Firing Rate	MMBtu/hr																					41.53		41.68		47.07		43.4	
36																														
37																														
38	<i>Feedrate MTEC Calculations</i>																													
39	Ash	mg/dscm									1666		1130		936															
40	Chlorine	ug/dscm			20968		20607		18465		419931		302170		211067		1432579		1366438		1496009		#####		#####		#####		#####	
41																														
42	Antimony	ug/dscm			210		206		185		543		287		128		0		0		0		753		493		313		520	
43	Arsenic	ug/dscm			17302		8902		9796		76		38		15		27563		29270		23653		44942		38210		33465		38,872	
44	Barium	ug/dscm			112005		102212		77340		14448		11230		11411		0		0		0		126453		113442		88751		#####	
45	Beryllium	ug/dscm			1705		1640		1672		2		2		1		4972		4959		4399		6679		6600		6072		6,451	
46	Cadmium	ug/dscm			172		82		74		191		95		56		13364		13698		12497		13727		13875		12627		13,410	
47	Chromium	ug/dscm			46390		46119		44636		1408		1099		910		47412		48011		58470		95209		95229		104016		98,152	
48	Lead	ug/dscm			11368		9850		11049		1790		931		568		356063		343691		307799		369220		354472		319416		#####	
49	Manganese	ug/dscm			738898		743513		655548		4747		2256		2084		0		0		0		743645		745769		657632		#####	
50	Mercury	ug/dscm			8		8		7	nd	1	nd	1	nd	1		0		0		0		8.6		8.8		7.9		8	
51	Nickel	ug/dscm			28335		28809		28137		164		97		127		0		0		0		28500		28907		28264		28,557	
52	Silver	ug/dscm			170		165		166		212		38		35		0		0		0		382		203		201		262	
53	Thallium	ug/dscm			456		427		376		17		16		15		0		0		0		472		443		391		435	
54																														
55	SVM	ug/dscm			11540		9933		11123		1981		1025		625		369427		357389		320295		382947		368347		332043		361112	
56	LVM	ug/dscm			65398		56662		56105		1486		1138		927		79947		82240		86522		146830		140040		143554		143475	
57																														
58																														
59	<b>311C11</b>	Trial burn			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
60																														

	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	AD	
51	Feedstream Number				F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F4	F4	F4	F4	F4	F4	F4	F4	
52	Feed Class				Raw Material	Raw Material	Raw Material	Raw Material	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
53	Feed Class 2				RM	RM	RM	RM	HW	HW	HW	HW	HW	HW	HW	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
54	Feedstream Description				Raw Material	Raw Material	Raw Material	Raw Material	LBM	LBM	LBM	LBM	LBM	LBM	LBM	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
55	Feed Rate	lb/min							40.52	40.54	38.18																			
56	Density	g/cc							0.89	0.913	0.908																			
57																														
58	Heating Value	Btu/lb							12635	11549	11586																			
59																														
70	Ash	%							1.74	2.77	2.88																			
71	Chlorine	%			0.02	0.02	0.018		0.35	0.39	0.7																			
72																														
73	Chlorine	g/hr																												35161
74																														
75	Stack Gas Flowrate	dscfm			25358	25673	26765		25358	25673	26765				25358	25673	26765				25358	25673	26765				26765	25932		
76	Oxygen	%			16.0	16.0	15.8		16	16	15.8				16	16	15.8				16	16	15.8				15.8	15.9		
77																														
78	Thermal Feedrate	MMBtu/hr							30.7	28.1	26.5											30.7	28.1	26.5			26.5	28.5		
79	Estimated Firing Rate	MMBtu/hr																				40.25	40.75	44.18			44.18	41.7		
80																														
81	<i>Feedrate MTEC Calculations</i>																													
82	Chlorine	ug/dscm																											2.21E+06	
83																														
84																														
85	<b>311C12</b>	Trial burn			R1	R2	R3		R1	R2	R3				R1	R2	R3				R1	R2	R3				R3	Cond Avg		
86																														
87	Feedstream Number				F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F4	F4	F4	F4	F4	F4	F4	F4	
88	Feed Class				Raw Material	Raw Material	Raw Material	Raw Material	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
89	Feed Class 2				RM	RM	RM	RM	HW	HW	HW	HW	HW	HW	HW	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
90	Feedstream Description				Raw Material	Raw Material	Raw Material	Raw Material	LBM	LBM	LBM	LBM	LBM	LBM	LBM	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	
91	Feed Rate	lb/min			8.84	8.76	8.69		35.44	33	33.36																			
92	Density	g/cc							0.97	0.972	0.968																			
93																														
94	Heating Value	Btu/lb							12353	11920	11742																			
95																														
96	Ash	%							6.21	6.54	3.73																			
97	Chlorine	%			0.0095	0.0095	0.0095		2.63	2.7	2.85																			
98																														
99																														
00	Stack Gas Flowrate	dscfm			20012	20050	21358		20012	20050	21358				20012	20050	21358				20012	20050	21358				21358	20473		
01	Oxygen	%			16.0	14.4	17.6		16	14.4	17.6				16	14.4	17.6				16	14.4	17.6				17.6	16.0		
02																														
03	Thermal Feedrate	MMBtu/hr							26.3	23.6	23.5											26.3	23.6	23.5			23.5	24.5		
04	Estimated Firing Rate	MMBtu/hr																				31.77	42.01	23.05			23.05	32.3		



	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	AD	
1	<b>Feedstream 2</b>																													
2																														
3																														
4	<b>311C1</b>		R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	Cond Avg			
5																														
6	Feedstream Number	F1	F1	F1	F2	F2	F2	F3	F3	F3	F4	F4	F4	F4																
7	Feed Class	Raw Material	Raw Material	Raw Material	Liq HW	Liq HW	Liq HW	Spike	Spike	Spike	Total	Total	Total	Total																
8	Feed Class 2	RM	RM	RM	HW	HW	HW	Spike	Spike	Spike	Total	Total	Total	Total																
9	Feedstream Description	Raw material	Raw material	Raw material	Liq waste	Liq waste	Liq waste	Spike	Spike	Spike	Total	Total	Total	Total																
10	Feed Rate	lb/hr	23832	28417	28417	2733	2654	2558	12.975	13.269	13.184																			
11	Heating Value	Btu/lb				12100	10000	10700	0	0	0																			
12	Thermal Feedrate	MMBtu/hr				33.07	26.54	27.37				33.07	26.54	27.37	29.0															
13	Chlorine	lb/hr	nd	11.1 nd	11.2 nd	11.3	44.73834	24.96976	18.8343																					
14	Antimony	lb/hr	nd	0.0107 nd	0.0109 nd	0.0105	0.00816	0.00728	0.00639																					
15	Arsenic	lb/hr		0.181	0.129	0.189	0.00088	0.00044	0.00816	0.7006	0.7586	0.6462																		
16	Barium	lb/hr		2.99	2.72	3.03	0.39661	0.30291	0.45569																					
17	Beryllium	lb/hr		0.0952	0.0468	0.033 nd	0.00022	0.00022 nd	0.00022	0.1556	0.162	0.2321																		
18	Cadmium	lb/hr	nd	0.0123 nd	0.0126 nd	0.0121	0.00992	0.00838	0.00728	1.1579	1.2952	1.2628																		
19	Chromium	lb/hr		2.07	3.26	2.35	0.06041	0.04497	0.06724	0.3554	0.3821	0.3887																		
20	Chromium (Hex)	lb/hr								0.3554	0.3821	0.3887																		
21	Lead	lb/hr		0.57 nd	0.0589 nd	0.0563	0.38029	0.28682	0.40719	10.617	10.683	10.666																		
22	Mercury	lb/hr	nd	0.0011 nd	0.00112 nd	0.00108	0.00044	0.00110	0.00088																					
23	Silver	lb/hr	nd	0.0192 nd	0.0196 nd	0.0188 nd	0.00198 nd	0.00176 nd	0.00176																					
24	Thallium	lb/hr	nd	0.0477	0.0401	0.0397 nd	0.00110 nd	0.00110 nd	0.00110																					
25																														
26	Stack Gas Flowrate	dscfm	32000	33200	30700	32000	33200	30700	32000	33200	30700																			
27	Oxygen	%	17	17.1	17.2	17	17.1	17.2	17	17.1	17.2																			
28																														
29	<i>Feedrate MTEC Calculations</i>																													
30	Chlorine	ug/dscm	100	162304	100	161894	100	181290	1308327	721868	604330	0	0	0	11	1470631	18	883763	23	785619	16	1046671								
31	Antimony	ug/dscm	100	313	100	315	100	337	239	210	205	0	0	0	57	551	60	525	62	542	60	540								
32	Arsenic	ug/dscm		5293		3729		6064	26	13	262	20489	21931	20733	25808	25673	27059	26180												
33	Barium	ug/dscm		87439		78634		97223	11598	8757	14622	0	0	0	99038	87391	111844	99424												
34	Beryllium	ug/dscm		2784		1353		1059	100	6	6	100	7	4552	4684	7449	7342	6044	8515	7300										
35	Cadmium	ug/dscm	100	180	100	182	100	194	290	242	233	33860	37444	40519	1	34330	37868	40946	37715											
36	Chromium	ug/dscm		60535		94246		75404	1767	1300	2158	10393	11045	12471	72694	106591	90032	89772												
37	Chromium (Hex)	ug/dscm		0		0		0	0	0	0	10393	11045	12471	10393	11045	12471	11303												
38	Lead	ug/dscm		16669		851		903	11121	8292	13065	310481	308831	342246	338271	317974	356214	337486												
39	Mercury	ug/dscm	100	16	100	16	100	17	13	32	28	0	0	0	56	29	34	48	38	46	40	41								
40	Silver	ug/dscm	100	561	100	567	100	603	100	58	100	51	100	57	0	0	0	100	620	100	618	100	660	100	632					
41	Thallium	ug/dscm	100	1395	100	1159	100	1274	100	32	100	32	100	35	0	0	0	100	1427	100	1191	100	1309	100	1309					
42	SVM	ug/dscm	1.1	16849	18	1034	18	1097	11411	8534	13299	344341	346275	382764	372601	355842	397161	375201												
43	LVM	ug/dscm		68612		99328		82527	1799	1319	2426	35433	37661	40653	105844	138308	125606	123253												

	B	C	D	E	F	G	H
1	<b>Process Information 1</b>						
2		Units		R1	R2	R3	Cond Avg
3							
4	<b>311C10</b>	CoC					
5							
6	Max comb chamber temp	°F		2870	2795	2500	2863.3
7	Max baghouse inlet temperature	°F		432.9	430.6	441.4	432
8	Min baghouse pressure drop	in. w.c.		3.78	4.41	3.69	4.22
9							
10	<b>311C11</b>	Trial burn					
11							
12	Combustion zone temperature	°F		1847	1832	1832	1837
13	Min mid kiln temperature	°F		961	1002	929	959
14	Max kiln exit temperature	°F		470	482	480	477.3
15	Max baghouse inlet temperature	°F		447	442	451	447
16	Kiln maximum negative pressure	in. w.c.					-4.37
17							
18	<b>311C12</b>	Trial burn					
19							
20	Combustion zone temperature	°F		1840	2032	1997	1956
21	Mid kiln temperature	°F		1108	1052	1081	1080
22	Kiln exit temperature	°F		392	376	372	380
23	Baghouse inlet temperature	°F		358	359	364	352
24	Kiln maximum negative pressure	in. w.c.					-7.29

	C	D	E	F	G
1	<b>Process Information 2</b>				
2					
3	<b>311C1</b>		1	2	3
4					
5	Combustion Temperature	F	2473	2448	2425
6	FF Temperature	F	423	401	412
7	FF Pressure Drop	in H2O	3.2	5.2	6.1

	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:		Solite Corp, Lightweight Aggregate Kiln #2															
4	Condition ID:		<b>311C11</b> Trial Burn															
5	Condition/Test Date:		Nov 8-19, 1999															
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	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	1/2 ND
10	Detected in sample volume (ng)																	
11	2,3,7,8-TCDD		1	1.410	1.410	1.410	1.410	0.760	0.760	0.760	0.760	0.200	0.200	0.200	0.200	0.200	0.200	0.200
12	1,2,3,7,8-PCDD		0.5	3.220	1.610	3.220	1.610	2.590	1.295	2.590	1.295	0.650	0.325	0.650	0.325	0.650	0.325	0.650
13	1,2,3,4,7,8-HxCDD		0.1	2.830	0.283	2.830	0.283	1.690	0.169	1.690	0.169	0.390	0.039	0.390	0.039	0.390	0.039	0.390
14	1,2,3,6,7,8-HxCDD		0.1	14.990	1.499	14.990	1.499	12.020	1.202	12.020	1.202	1.770	0.177	1.770	0.177	1.770	0.177	1.770
15	1,2,3,7,8,9-HxCDD		0.1	11.480	1.148	11.480	1.148	7.320	0.732	7.320	0.732	1.370	0.137	1.370	0.137	1.370	0.137	1.370
16	1,2,3,4,6,7,8-HpCDD		0.01	51.410	0.514	51.410	0.514	38.940	0.389	38.940	0.389	6.130	0.061	6.130	0.061	6.130	0.061	6.130
17	OCDD		0.001	21.530	0.022	21.530	0.022	16.700	0.017	16.700	0.017	3.370	0.003	3.370	0.003	3.370	0.003	3.370
18	2,3,7,8-TCDF		0.1	32.510	3.251	32.510	3.251	26.760	2.676	26.760	2.676	5.800	0.580	5.800	0.580	5.800	0.580	5.800
19	1,2,3,7,8-PCDF		0.05	25.830	1.292	25.830	1.292	18.010	0.901	18.010	0.901	4.030	0.202	4.030	0.202	4.030	0.202	4.030
20	2,3,4,7,8-PCDF		0.5	49.450	24.725	49.450	24.725	33.400	16.700	33.400	16.700	6.920	3.460	6.920	3.460	6.920	3.460	6.920
21	1,2,3,4,7,8-HxCDF		0.1	35.540	3.554	35.540	3.554	32.060	3.206	32.060	3.206	6.650	0.665	6.650	0.665	6.650	0.665	6.650
22	1,2,3,6,7,8-HxCDF		0.1	20.390	2.039	20.390	2.039	17.000	1.700	17.000	1.700	3.530	0.353	3.530	0.353	3.530	0.353	3.530
23	2,3,4,6,7,8-HxCDF		0.1	2.340	0.234	2.340	0.234	21.490	2.149	21.490	2.149	0.300	0.030	0.300	0.030	0.300	0.030	0.300
24	1,2,3,7,8,9-HxCDF		0.1	22.710	2.271	22.710	2.271	2.080	0.208	2.080	0.208	3.590	0.359	3.590	0.359	3.590	0.359	3.590
25	1,2,3,4,6,7,8-HpCDF		0.01	25.450	0.255	25.450	0.255	23.800	0.238	23.800	0.238	4.340	0.043	4.340	0.043	4.340	0.043	4.340
26	1,2,3,4,7,8,9-HpCDF		0.01	4.920	0.049	4.920	0.049	5.960	0.060	5.960	0.060	0.730	0.007	0.730	0.007	0.730	0.007	0.730
27	OCDF		0.001	4.320	0.004	4.320	0.004	3.800	0.004	3.800	0.004	0.610	0.001	0.610	0.001	0.610	0.001	0.610
28	Total TCDD		0	75.480	0.000	75.480	0.000	47.310	0.000	47.310	0.000	17.590	0.000	17.590	0.000	17.590	0.000	17.590
29	Total PCDD		0	117.640	0.000	117.640	0.000	100.150	0.000	100.150	0.000	23.250	0.000	23.250	0.000	23.250	0.000	23.250
30	Total HxCDD		0	168.220	0.000	168.220	0.000	114.390	0.000	114.390	0.000	19.660	0.000	19.660	0.000	19.660	0.000	19.660
31	Total HpCDD		0	106.170	0.000	106.170	0.000	78.210	0.000	78.210	0.000	12.010	0.000	12.010	0.000	12.010	0.000	12.010
32	Total TCDF		0	357.31	0.000	357.310	0.000	510.71	0.000	510.710	0.000	201.690	0.000	201.690	0.000	201.690	0.000	201.690
33	Total PCDF		0	361.340	0.000	361.340	0.000	300.880	0.000	300.880	0.000	73.750	0.000	73.750	0.000	73.750	0.000	73.750
34	Total HxCDF		0	174.220	0.000	174.220	0.000	151.370	0.000	151.370	0.000	32.290	0.000	32.290	0.000	32.290	0.000	32.290
35	Total HpCDF		0	43.550	0.000	43.550	0.000	43.940	0.000	43.940	0.000	7.110	0.000	7.110	0.000	7.110	0.000	7.110
36																		
37	Gas sample volume (dscf)				119.68	119.68	119.68		118.13	118.13	118.13		115.33	115.33	115.33	115.33	115.33	115.33
38	O2 (%)				16.00	16.00	16.00		16.0	16.0	16.0		15.80	15.80	15.80	15.80	15.80	15.80
39																		
40	PCDD/PCDF (ng in sample)				44.159	1429.8	44.159		32.405	1367.5	32.405		6.642	391.3	6.642	391.3	6.642	391.3
41	PCDD/PCDF (ng/dscm @ 7% O2)		0.0		36.508	1182.04	36.508	0.0	27.141	1145.32	27.141	0.0	5.479	322.80	5.479	322.80	5.479	322.80
42																		
43	TEQ Cond Avg			23.043														
44	Total Cond Avg			883.39														

	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:		Solite Corp, Lightweight Aggregate Kiln #2															
4	Condition ID:		<b>311C12</b> Trial Burn															
5	Condition/Test Date:		May 11-19, 2000															
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	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	1/2 ND
10	Detected in sample volume (pg)																	
11	2,3,7,8-TCDD		1	228	228	228	228	257	257	257	257	278	278	278	278	278	278	278
12	1,2,3,7,8-PCDD		0.5	387	194	387	194	557	279	557	279	696	348	696	348	696	348	696
13	1,2,3,4,7,8-HxCDD		0.1	150	15	150	15	210	21	210	21	277	28	277	28	277	28	277
14	1,2,3,6,7,8-HxCDD		0.1	279	28	279	28	413	41	413	41	488	49	488	49	488	49	488
15	1,2,3,7,8,9-HxCDD		0.1	124	12	124	12	173	17	173	17	209	21	209	21	209	21	209
16	1,2,3,4,6,7,8-HpCDD		0.01	361	4	361	4	1070	11	1070	11	462	5	462	5	462	5	462
17	OCDD		0.001	491	0	491	0	5920	6	5920	6	559	1	559	1	559	1	559
18	2,3,7,8-TCDF		0.1	4900	490	4900	490	5160	516	5160	516	5440	544	5440	544	5440	544	5440
19	1,2,3,7,8-PCDF		0.05	3980	199	3980	199	5000	250	5000	250	5760	288	5760	288	5760	288	5760
20	2,3,4,7,8-PCDF		0.5	7200	3600	7200	3600	8840	4420	8840	4420	10300	5150	10300	5150	10300	5150	10300
21	1,2,3,4,7,8-HxCDF		0.1	2620	262	2620	262	3530	353	3530	353	4800	480	4800	480	4800	480	4800
22	1,2,3,6,7,8-HxCDF		0.1	2350	235	2350	235	3110	311	3110	311	4140	414	4140	414	4140	414	4140
23	2,3,4,6,7,8-HxCDF		0.1	408	41	408	41	567	57	567	57	733	73	733	73	733	73	733
24	1,2,3,7,8,9-HxCDF		0.1	1340	134	1340	134	1850	185	1850	185	2370	237	2370	237	2370	237	2370
25	1,2,3,4,6,7,8-HpCDF		0.01	1910	19	1910	19	2790	28	2790	28	3060	31	3060	31	3060	31	3060
26	1,2,3,4,7,8,9-HpCDF		0.01	191	2	191	2	283	3	283	3	295	3	295	3	295	3	295
27	OCDF		0.001	224	0	224	0	1170	1	1170	1	266	0	266	0	266	0	266
28	Total TCDD		0	15300	0	15300	0	12100	0	12100	0	11800	0	11800	0	11800	0	11800
29	Total PCDD		0	14200	0	14200	0	13600	0	13600	0	13000	0	13000	0	13000	0	13000
30	Total HxCDD		0	4500	0	4500	0	6080	0	6080	0	7200	0	7200	0	7200	0	7200
31	Total HpCDD		0	738	0	738	0	1990	0	1990	0	976	0	976	0	976	0	976
32	Total TCDF		0	246920	0	246920	0	243000	0	243000	0	224000	0	224000	0	224000	0	224000
33	Total PCDF		0	126000	0	126000	0	144000	0	144000	0	158000	0	158000	0	158000	0	158000
34	Total HxCDF		0	26800	0	26800	0	35600	0	35600	0	44000	0	44000	0	44000	0	44000
35	Total HpCDF		0	2970	0	2970	0	4350	0	4350	0	4950	0	4950	0	4950	0	4950
36																		
37	Gas sample volume (dscf)				117.81	117.81	117.81		116.04	116.04	116.04				122.16	122.16	122.16	
38	O2 (%)				16.00	16.00	16.00		14.4	14.4	14.4				17.60	17.60	17.60	
39																		
40	PCDD/PCDF (ng in sample)				5.463	438.1	5.463		6.755	467.8	6.755				7.949	464.8	7.949	
41	PCDD/PCDF (ng/dscm @ 7% O2)		0.0		4.588	367.95	4.588	0.0	4.364	302.19	4.364	0.0			9.467	553.55	9.467	
42																		
43	TEQ Cond Avg			6.140														
44	Total Cond Avg			407.90														