

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	474
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 #3
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Lightweight Aggregate Kiln (LWAK)
13	Combustor Type	
	Combustor Characteristics	Counter current rotary kiln manufactured by Vulcan. Aggregate process rate 10 tons/hr. 9' ID Shell x 125' long. Burner consists of a 3/4" fuel pipe and a 4" atomizing air pipe. Solids retention time = 1.25 to 2.5 hours. Gas outlet temperature = 850 -1200 °F.
14		
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	QS/FF
18	APCS General Class	WQ, FF
	APCS Characteristics	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), BHA manuf., fiberglass bags
19		
20	Hazardous Wastes	Liq
21	Haz Waste Description	The raw material was excavated from the Virginia Solite quarry
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	4.3
26	Height (ft)	80
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	474C10	
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 ₂ , Metals, Cr ⁺⁶
12		
13	474C11	
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 ₂ emissions limits
21	Content	CO, PM, HCl/Cl ₂ , POHC DRE, PCCD/F
22		
23	474C12	
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	474C1	
34		
35	Report Name/Date	Stationary Source Sampling Report Reference No. 11583, Virginia Solite Corporation, Cascade, Virginia, Prepared by Entropy, June 1993; COC Forms attached, dated August 23, 1993
36	Report Prepare	Entropy
37	Testing Firm	Entropy
38	Cond Descr	?
39	Testing Dates	June 23, 1993
40	Cond Dates	Jun-93

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 1											
2												
3												
4	474C10	CoC				R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0147		0.0066		0.0045		0.0086
7	CO (RA)	E1	ppmv	y		45.2		46.2		46.0		45.8
8	CO (MHRA)	E1	ppmv	y		45.0		55.8		77.0		59.3
9	HCl	E1	ppmv	y		1706		1301		1871		1626
10	Cl2	E1	ppmv	y		81.70		5.45		39.80		42
11	Total Chlorine	E1	ppmv	y		1869		1312		1951		1711
12												
13	Antimony		lb/hr			1.41E-04		4.79E-05		6.43E-05		
14	Arsenic		lb/hr			4.71E-04		4.75E-04		4.77E-04		
15	Barium		lb/hr			1.68E-03		7.34E-04		7.77E-04		
16	Beryllium		lb/hr		nd	4.17E-06	nd	3.86E-06	nd	5.11E-05		
17	Cadmium		lb/hr			1.13E-04		1.61E-04		2.30E-04		
18	Chromium		lb/hr			4.42E-04		3.92E-04		5.03E-04		
19	Chromium (Hex)		lb/hr		nd	4.28E-05	nd	4.67E-05	nd	4.70E-05		
20	Cobalt		lb/hr			8.80E-05	nd	3.86E-05		1.01E-04		
21	Copper		lb/hr			1.19E-03		4.42E-04		6.65E-04		
22	Lead		lb/hr			1.94E-03		3.23E-03		4.77E-03		
23	Manganese		lb/hr			2.52E-03		3.68E-04		1.46E-03		
24	Mercury		lb/hr			3.02E-04		2.91E-04		1.54E-04		
25	Nickel		lb/hr			2.12E-03		9.89E-05		4.82E-04		
26	Selenium		lb/hr			6.46E-04		7.42E-04		6.24E-04		
27	Silver		lb/hr			2.84E-05		1.89E-05	nd	1.51E-05		
28	Thallium		lb/hr		nd	4.17E-05	nd	3.86E-05	nd	3.78E-05		
29	Zinc		lb/hr			2.00E-03		5.15E-04		1.04E-03		
30												
31	Sampling Train	PM, HCl/Cl: E1										
32	Stack Gas Flowrate		dscfm			24822		27419		27303		26515
33	O2		%			16.5		16.5		16.5		16.5
34	Moisture		%			5.3		5.7		6.4		5.8
35	Temperature		°F			326		340		347		338
36												
37	Sampling Train	Metals	E2									
38	Stack Gas Flowrate		dscfm			25216		27232		27760		
39	O2		%			16.5		16.5		16.4		
40	Moisture		%			5.6		5.5		5.7		
41	Temperature		°F			319		332		342		
42												
43												
44												
45												
46	Antimony	E2	ug/dscm	y		4.7		1.5		1.9		2.67
47	Arsenic	E2	ug/dscm	y		15.5		14.5		14.0		14.68
48	Barium	E2	ug/dscm	y		55.4		22.4		22.8		33.54
49	Beryllium	E2	ug/dscm	y	nd	0.1	nd	0.1	nd	1.5	100	0.58
50	Cadmium	E2	ug/dscm	y		3.7		4.9		6.7		5.13
51	Chromium	E2	ug/dscm	y		14.6		12.0		14.7		13.77
52	Chromium (Hex)	E2	ug/dscm	y	nd	1.4	nd	1.4	nd	1.4	100	1.41
53	Cobalt	E2	ug/dscm	y		2.9	nd	1.2		3.0		2.35
54	Copper	E2	ug/dscm	y		39.3		13.5		19.5		24.08
55	Lead	E2	ug/dscm	y		64.0		98.7		139.8		100.83
56	Manganese	E2	ug/dscm	y		83.1		11.2		42.8		45.72
57	Mercury	E2	ug/dscm	y		10.0		8.9		4.5		7.79
58	Nickel	E2	ug/dscm	y		69.9		3.0		14.1		29.03
59	Selenium	E2	ug/dscm	y		21.3		22.7		18.3		20.76
60	Silver	E2	ug/dscm	y		0.9		0.6	nd	0.4		0.65
61	Thallium	E2	ug/dscm	y	nd	1.4	nd	1.2	nd	1.1	100	1.22
62	Zinc	E2	ug/dscm	y		66.0		15.7		30.5		37.40
63												
64	LVM	E2	ug/dscm	y		30.3		26.6		30.2		29.03
65	SVM	E2	ug/dscm	y		67.7		103.6		146.6		105.96
66												
67	474C11	Trial Burn				R1		R2		R3		Cond Avg
68												
69	PM	E1	gr/dscf	y		0.0076		0.0033		0.0005		0.0038
70	HCl	E1	ppmv	y		1414		1625		1499		1513
71	Cl2	E1	ppmv	y		2.10		2.83		4.26		3.06

	B	C	D	E	F	G	H	I	J	K	L	M
72	Total Chlorine	E1	ppmv	y		1418		1631		1508		1519
73												
74	POHC DRE	Perchloroethylene										
75	POHC Feedrate		lb/hr			47.7		46.79		49.75		48.08
76	Emission Rate	E2	lb/hr			0.000564		0.000752		0.000624		0.000647
77	DRE	E2	%			99.9988%		99.9984%		99.9987%		
78												
79	POHC DRE	1,2,4 Trichlorobenzene										
80	POHC Feedrate		lb/hr			47.75		46.84		49.8		48.13
81	Emission Rate	E2	lb/hr			0.00151		0.00137		0.00104		0.001307
82	DRE	E2	%			99.9968%		99.9971%		99.9979%		
83												
84	Sampling Train	PM, HCl/Cl: E1										
85	Stack Gas Flowrate		dscfm			26389		26719		27571		26893
86	O2		%			15.7		16.2		15.9		15.9
87	Moisture		%			9.3		8.4		8.7		8.8
88	Temperature		°F			362		364		359		362
89												
90	Sampling Train	D/F	E2									
91	Stack Gas Flowrate		dscfm			26486		28045		27363		27298
92	O2		%			15.7		16.2		15.9		15.9
93	Moisture		%			8.0		8.2		9.0		8.4
94	Temperature		°F			356		359		348		354
95												
96	474C12	Trial Burn										
97						R1		R2		R3		Cond Avg
98	CO (RA)	E1	ppmv	y		11.7		14.9		16.4		14.3
99												
100	Sampling Train	D/F	E1									
101	Stack Gas Flowrate		dscfm			20683		19909		19711		20101
102	O2		%			16.0		16.0		15.9		16.0
103	Moisture		%			15.6		16.8		16.2		16.2
104	Temperature		°F			281		278		276		278

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 2											
2												
3												
4	474C1					R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.00178		0.00501		0.00290		0.00323
7	CO (MHRA)	E1	ppmv	y		51.80		51.50		69.60		57.63
8	HC (MHRA)	E1	ppmv	y		4.20		2.40		3.00		3.20
9	HCl	E1	ppmv	y		994.00		810.00		1058.00		954.00
10	Cl2	E1	ppmv	y		0.40	nd	0.33	nd	0.34		0.36
11	Total Chlorine	E1	ppmv	y		994.80		810.66		1058.68		954.71
12	Antimony	E2	ug/dscm	y		23.43		5.90	nd	2.31		10.54
13	Arsenic	E2	ug/dscm	y		12.07		3.72		3.18		6.32
14	Barium	E2	ug/dscm	y		179.22		24.88		24.42		76.18
15	Beryllium	E2	ug/dscm	y	nd	0.21	nd	0.19	nd	0.23	100	0.21
16	Cadmium	E2	ug/dscm	y		8.96		9.90		15.25		11.37
17	Chromium	E2	ug/dscm	y		14.10		49.02		17.98		27.04
18	Chromium (Hex)	E3	ug/dscm	y		13.63		19.48		12.47		15.20
19	Lead	E2	ug/dscm	y		54.10		65.78		79.85		66.58
20	Mercury	E2	ug/dscm	y		6.76		9.15		9.17		8.36
21	Silver	E2	ug/dscm	y	nd	0.83	nd	0.76	nd	0.92	100	0.84
22	Thallium	E2	ug/dscm	y	nd	2.07	nd	1.91	nd	2.31	100	2.10
23	SVM	E2	ug/dscm	y		63.06		75.68		95.10		77.95
24	LVM	E2	ug/dscm	y		26.38		52.94		21.39		33.57
25												
26	Sampling Train	Halogens	E1									
27	Stack Gas Flowrate		dscfm			17873		18367		19244		
28	O2		%			14.4		14.3		15.4		
29	Moisture		%			14.6		13.9		12.8		
30	Temperature		°F			308		319		322		
31												
32	Sampling Train	Metals	E2									
33	Stack Gas Flowrate		dscfm			16747		17979		18556		
34	O2		%			14.4		14.3		15.4		
35	Moisture		%			15.7		15.8		14.2		
36	Temperature		°F			308		324		323		
37												
38	Sampling Train	Cr Hex	E3									
39	Stack Gas Flowrate		dscfm			17075		16205		22960		
40	O2		%			14.4		14.3		15.4		
41	Moisture		%			19.1		18.2		12.4		
42	Temperature		°F			307		314		330		

	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	Feedstream 1																																	
4	474C10	CoC			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg					
5	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				RM		RM		RM		LBM		LBM		LBM		Spike		Spike		Spike		Total		Total		Total		Total					
10	Feed Rate	lb/hr			28260		30160		30260		2712.6		2804.4		2713.8		187.6		187.6		187.6		31160		33152		33161		32491					
11	Density	g/cc									0.882		0.859		0.862																			
12	Heating Value	Btu/lb									11096		13738		15520																			
4	Ash	%									1.4		1.3		1.34																			
5	Chlorine	g/hr	nd	320.8	nd	342.3	nd	343.5	3928.9	4450.9	4066.61	17595.63	18044.15	18004.29	21845	22837	22414	22366																
7	Antimony	g/hr	nd	3.21	nd	3.42	nd	3.43	9.700	5.470	2.560											13		9		6								
8	Arsenic	g/hr		141.0		118.510		155.000	1.36	0.72	0.31	309.18	494.98	451	452	614	606																	
9	Barium	g/hr		1538.3		1856.9		1646.0	258.00	214.04	226.94											1796		2071		1873								
10	Beryllium	g/hr		27.69		37.96		29.63	0.03	0.03	0.03	88.34	92.24	92.76	116	130	122																	
11	Cadmium	g/hr	nd	1.28	nd	1.37	nd	1.37	3.41	1.81	1.12	198.54	192.42	195.09	203	196	198																	
12	Chromium	g/hr		721.7		719.5		663.9	25.14	20.95	18.10	1398.98	1325.9	1472.05	2146	2066	2154																	
13	Lead	g/hr		139.7		158.4		160.5	31.96	17.74	11.31	5229	5283	5468	5401	5459	5640																	
14	Manganese	g/hr		11486		12042		13031	85.0	43.0	41.5																							
15	Mercury	g/hr	nd	1.28	nd	1.37	nd	1.37	0.02	0.01	0.01																							
16	Nickel	g/hr		439.7		438.3		474.6	2.93	1.86	2.53																							
17	Silver	g/hr		2.620		2.800		3.140	0.77	0.72	0.70																							
18	Thallium	g/hr		6.470		7.260		7.710	0.02	0.03	0.02																							
1	Stack Gas Flowrate	dscfm		25216		27232		27760	25216	27232	27760	25216	27232	27760	25216	27232	27760	26736																
2	Oxygen	%		16.5		16.5		16.4	16.5	16.5	16.4	16.5	16.5	16.4	16.5	16.5	16.4	16																
4	Thermal Feedrate	MMBtu/hr		0.0		0.0		0.0	30.1	38.5	42.1																							
5	Estimated Firing Rate	MMBtu/hr																																
8	<i>Feedrate MTEC Calculations</i>																																	
9	Ash	mg/dscm							73019	66817	63959																							
10	Chlorine	ug/dscm		23306		23032		22176	285478	299465	262570	1278517	1214045	1162490	1,587,301	1,536,542	1,447,236	1523693																
11	Antimony	ug/dscm		233		230		222	705	368	165	0	0	0	938	598	387	641																
12	Arsenic	ug/dscm		10246		7974		10008	99	48	20	22465	33303	29120	32810	41325	39148	37761																
13	Barium	ug/dscm		111771		124933		106279	18747	14401	14653	0	0	0	130517	139334	120932	130261																
14	Beryllium	ug/dscm		2012		2554		1913	2	2	2	6419	6206	5989	8433	8762	7904	8367																
15	Cadmium	ug/dscm		93		92		89	248	122	72	14426	12946	12596	14767	13160	12757	13562																
16	Chromium	ug/dscm		52439		48411		42866	1827	1410	1169	101651	89209	95046	155917	139030	139081	144676																
17	Lead	ug/dscm		10152		10656		10362	2322	1194	730	379964	355444	353062	392439	367293	364155	374629																
18	Manganese	ug/dscm		834555		810226		841379	6176	2893	2676	0	0	0	840731	813119	844055	832635																
19	Mercury	ug/dscm		93		92		89	2	1	1	0	0	0	95	93	89	92																
20	Nickel	ug/dscm		31948		29488		30644	213	125	163	0	0	0	32161	29613	30807	30860																
21	Silver	ug/dscm		190		188		203	56	48	45	0	0	0	246	237	248	244																
22	Thallium	ug/dscm		470		488		498	2	2	2	0	0	0	472	490	499	487																
5	SVM	ug/dscm		10245		10748		10451	2570	1315	803	394390	368390	365659	407206	380454	376912	388191																
6	LVM	ug/dscm		64697		58939		54787	1928	1460	1191	130536	128718	130156	197160	189117	186133	190804																
9	474C11	Trial burn			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg					

	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	Feedstream Number				F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F4	F4	F4	F4	F4	F4	F4	F4	F4					
2	Feed Class				Raw Material	Raw Material	Raw Material	Raw Material	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	Total					
3	Feed Class 2				RM	RM	RM	RM	HW	HW	HW	HW	HW	HW	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total					
4	Feedstream Description				RM	RM	RM	RM	LBM	LBM	LBM	LBM	LBM	LBM	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total					
5	Feed Rate	lb/min							23.76	37.2	37.71																							
6	Density	g/cc							0.882	0.909	0.942																							
7																																		
8	Heating Value	Btu/lb							12835	11735	11111																							
9																																		
0	Ash	%							1.94	2.01	3.55																							
1	Chlorine	%			0.019	0.018	0.018		0.62	0.67	0.56																							
2																																		
3	Chlorine	g/hr																															39239	
4																																		
5	Stack Gas Flowrate	dscfm			26389	26719	27571		26389	26719	27571				26389	26719	27571				26389	26719	27571				26389	26719	27571			26893		
6	Oxygen	%			15.7	16.2	15.9		15.7	16.2	15.9				15.7	16.2	15.9				15.7	16.2	15.9				15.7	16.2	15.9			16		
7																																		
8	Thermal Feedrate	MMBtu/hr							18.30	26.19	25.14																18.30	26.19	25.14			23		
9	Estimated Firing Rate	MMBtu/hr																									44.40	40.71	44.64			43		
0																																		
1	<i>Feedrate MTEC Calculations</i>																																	
2	Chlorine	ug/dscm																															2374361	
3																																		
4																																		
5	474C12	Trial burn			R1	R2	R3		R1	R2	R3			R1	R2	R3					R1	R2	R3				R1	R2	R3			Cond Avg		
6																																		
7	Feed Class 2				RM	RM	RM		HW	HW	HW			Spike	Spike	Spike					Total	Total	Total				Total	Total	Total			Total		
8	Feedstream Description				RM	RM	RM	RM	LBM	LBM	LBM			Spike	Spike	Spike					Total	Total	Total				Total	Total	Total			Total		
9	Feed Rate	lb/hr							40.7	40.2	38.83																							
0	Density	g/cc							0.93	0.916	0.91																							
1																																		
2	Heating Value	Btu/lb							11126	11484	11770																							
3																																		
4	Ash	%							3.73	2.93	1.83																							
5	Chlorine	%			0.0095	0.009	0.008		2.55	1.96	2.6																							
6																																		
7																																		
8	Stack Gas Flowrate	dscfm			20683	19909	19711		20683	19909	19711				20683	19909	19711				20683	19909	19711				20683	19909	19711			20101		
9	Oxygen	%			16.0	16.0	15.9		16	16	15.9				16	16	15.9				16	16	15.9				16	16	15.9			16		
0																																		
1	Thermal Feedrate	MMBtu/hr							27.17	27.70	27.42																27.17	27.70	27.42			27		
2	Estimated Firing Rate	MMBtu/hr																									32.83	31.60	31.91			32		

	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	Feedstream 2																																	
2																																		
3																																		
4	474C1		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	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4				
7	Feed Class		Liq HW	Liq HW	Liq HW	Raw materia	Raw material	Raw material	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total					
8	Feed Class 2		HW	HW	HW	RM	RM	RM	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total					
9	Feedstream Description		Liq haz waste		Raw material		Raw material		Spike		Total		Total		Total		Total		Total		Total		Total		Total		Total							
10	Feedrate	lb/hr	3051	2898	2895	25160	25220	25700	0.74	0.69	0.57																							
11	Heating value	Btu/lb	10619	10766	10984																													
12	Chlorine	lb/hr	45.2031	38.7509	42.2679	7.2084	6.0338	6.2624																										
13	Antimony	lb/hr	0.0311	0.0282	0.0600	0.0251	0.0251	0.0258																										
14	Arsenic	lb/hr	0.8854	0.6071	0.6541	0.3439	0.2910	0.3333																										
15	Barium	lb/hr	0.2487	0.1881	0.4707	9.7119	9.6341	7.6330																										
16	Beryllium	lb/hr	0.2762	0.2665	0.2535	0.0972	0.1082	0.0869																										
17	Cadmium	lb/hr	1.7796	1.7985	1.7008	0.4815	0.4866	0.4608																										
18	Chromium	lb/hr	0.1777	0.1627	0.4164	2.8691	2.9134	2.5232	0.7390	0.6876	0.5675																							
19	Chromium (Hex)	lb/hr							0.7390	0.6876	0.5675																							
20	Lead	lb/hr	21.4159	17.6628	21.7953	6.9491	0.9610	0.8975																										
21	Mercury	lb/hr	0.0002	0.0002	0.0002	0.0011	0.0011	0.0011																										
22	Silver	lb/hr	0.0011	0.0011	0.0011	0.0101	0.0101	0.0104																										
23	Thallium	lb/hr	0.0026	0.0026	0.0026	0.0251	0.0251	0.0258																										
24																																		
25	Gas flowrate		16747	17979	18556	16747	17979	18556	16747	17979	18556	16747	17979	18556	16747	17979	18556	16747	17979	18556	16747	17979	18556	17760.67										
26	Oxygen		14.4	14.3	15.4	14.4	14.3	15.4	14.4	14.3	15.4	14.4	14.3	15.4	14.4	14.3	15.4	14.4	14.3	15.4	14.4	14.3	15.4	14.7										
27																																		
28	Thermal Feedrate	MMBtu/hr	32.4	31.2	31.8																		32.4	31.2	31.8	31.8								
29	Estimated Firing Rate	MMBtu/hr																					35.09	38.24	32.99	35.52								
30																																		
31	Feedrate MTECs																																	
32	Chlorine	ug/dscm	1530854	1204170	1522596	244120	187497	225587	0	0	0	1774973	1391667	1748183	1638274																			
33	Antimony	ug/dscm	1053	877	2160	851	781	929	0	0	0	1904	1658	3089	2217																			
34	Arsenic	ug/dscm	29984	18867	23562	11647	9043	12008	0	0	0	41631	27910	35570	35037																			
35	Barium	ug/dscm	8422	5844	16955	328905	299376	274959	0	0	0	337327	305220	291914	311487																			
36	Beryllium	ug/dscm	9355	8283	9133	3293	3364	3129	0	0	0	12648	11646	12262	12185																			
37	Cadmium	ug/dscm	60267	55888	61269	16306	15120	16598	0	0	0	76573	71008	77867	75149																			
38	Chromium	ug/dscm	6018	5056	15002	97164	90532	90891	25026	21367	20441	128208	116955	126334	123832																			
39	Chromium (Hex)	ug/dscm	0	0	0	0	0	0	25026	21367	20441	25026	21367	20441	22278																			
40	Lead	ug/dscm	725274	548865	785122	235340	29862	32330	0	0	0	960614	578728	817452	785598																			
41	Mercury	ug/dscm	7	7	8	37	34	40	0	0	0	45	41	48	45																			
42	Silver	ug/dscm	37	34	40	343	315	373	0	0	0	381	349	413	381																			
43	Thallium	ug/dscm	90	82	95	851	781	929	0	0	0	941	863	1024	943																			
44	SVM	ug/dscm	785541	604753	846391	251646	44982	48928	0	0	0	1037186	649735	895319	860747																			
45	LVM	ug/dscm	45357	32205	47697	112104	102939	106027	25026	21367	20441	182487	156511	174165	171055																			

	B	C	D	E	F	G	H
1	Process Information 1						
2		Units		R1	R2	R3	Cond Avg
3	474C10		CoC				
4							
5	Max comb chamber temp	°F		2930	2882	2941	2917.7
6	Max baghouse inlet temperature	°F		434.3	434.6	428.8	432.6
7	Min baghouse pressure drop	in. w.c.		4.47	4.31	4.37	4.38
8							
9	474C11						
10							
11	Combustion zone temperature	°F		1615	1559	1656	1610
12	Min mid kiln temperature	°F		1086	1079	1067	1077
13	Max kiln exit temperature	°F		481	474	481	479
14	Max baghouse inlet temperature	°F		436	437	438	437
15	Kiln maximum negative pressure	in. w.c.					-4.37
16							
17	474C12						
18							
19	Comb zone temperature	°F		1976	1982	1980	1980
20	Mid kiln temperature	°F		973	892	929	931
21	Max kiln exit temperature	°F		385	364	368	372
22	Baghouse inlet temperature	°F		354	353	352	353
23	Kiln maximum negative pressure	in. w.c.					-4.24

	C	D	E	F	G
1	Process Information 2				
2					
3	474C1		R1	R2	R3
4					
5	Combustion Temperature	F	2490	2403	2613
6	FF Temperature	F	405	411	407
7	FF Pressure Drop	in H2O	4.9	5.89	7.3

	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:		Solite Corp, Lightweight Aggregate Kiln #3															
4	Condition ID:		474C11 Trial Burn															
5	Condition/Test Date:		Nov 18-19, 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	0.970	0.970	0.970	0.970	0.930	0.930	0.930	0.930	0.730	0.730	0.730	0.730	0.730	0.730	0.730
12	1,2,3,7,8-PCDD		0.5	1.690	0.845	1.690	0.845	1.760	0.880	1.760	0.880	1.730	0.865	1.730	0.865	1.730	0.865	1.730
13	1,2,3,4,7,8-HxCDD		0.1	0.770	0.077	0.770	0.077	0.880	0.088	0.880	0.088	1.040	0.104	1.040	0.104	1.040	0.104	1.040
14	1,2,3,6,7,8-HxCDD		0.1	3.070	0.307	3.070	0.307	2.970	0.297	2.970	0.297	5.140	0.514	5.140	0.514	5.140	0.514	5.140
15	1,2,3,7,8,9-HxCDD		0.1	1.830	0.183	1.830	0.183	1.960	0.196	1.960	0.196	3.210	0.321	3.210	0.321	3.210	0.321	3.210
16	1,2,3,4,6,7,8-HpCDD		0.01	6.480	0.065	6.480	0.065	7.200	0.072	7.200	0.072	14.590	0.146	14.590	0.146	14.590	0.146	14.590
17	OCDD		0.001	1.570	0.002	1.570	0.002	2.130	0.002	2.130	0.002	4.630	0.005	4.630	0.005	4.630	0.005	4.630
18	2,3,7,8-TCDF		0.1	27.210	2.721	27.210	2.721	26.500	2.650	26.500	2.650	20.600	2.060	20.600	2.060	20.600	2.060	20.600
19	1,2,3,7,8-PCDF		0.05	19.690	0.985	19.690	0.985	21.730	1.087	21.730	1.087	18.100	0.905	18.100	0.905	18.100	0.905	18.100
20	2,3,4,7,8-PCDF		0.5	33.260	16.630	33.260	16.630	35.200	17.600	35.200	17.600	28.920	14.460	28.920	14.460	28.920	14.460	28.920
21	1,2,3,4,7,8-HxCDF		0.1	23.820	2.382	23.820	2.382	26.100	2.610	26.100	2.610	25.850	2.585	25.850	2.585	25.850	2.585	25.850
22	1,2,3,6,7,8-HxCDF		0.1	11.150	1.115	11.150	1.115	12.200	1.220	12.200	1.220	12.020	1.202	12.020	1.202	12.020	1.202	12.020
23	2,3,4,6,7,8-HxCDF		0.1	0.710	0.071	0.710	0.071	0.820	0.082	0.820	0.082	0.980	0.098	0.980	0.098	0.980	0.098	0.980
24	1,2,3,7,8,9-HxCDF		0.1	10.420	1.042	10.420	1.042	11.600	1.160	11.600	1.160	11.830	1.183	11.830	1.183	11.830	1.183	11.830
25	1,2,3,4,6,7,8-HpCDF		0.01	8.830	0.088	8.830	0.088	11.310	0.113	11.310	0.113	13.430	0.134	13.430	0.134	13.430	0.134	13.430
26	1,2,3,4,7,8,9-HpCDF		0.01	1.700	0.017	1.700	0.017	1.890	0.019	1.890	0.019	2.310	0.023	2.310	0.023	2.310	0.023	2.310
27	OCDF		0.001	0.940	0.001	0.940	0.001	1.240	0.001	1.240	0.001	1.850	0.002	1.850	0.002	1.850	0.002	1.850
28	Total TCDD		0	32.580	0.000	32.580	0.000	27.020	0.000	27.020	0.000	24.590	0.000	24.590	0.000	24.590	0.000	24.590
29	Total PCDD		0	33.480	0.000	33.480	0.000	29.910	0.000	29.910	0.000	39.850	0.000	39.850	0.000	39.850	0.000	39.850
30	Total HxCDD		0	34.170	0.000	34.170	0.000	30.930	0.000	30.930	0.000	53.140	0.000	53.140	0.000	53.140	0.000	53.140
31	Total HpCDD		0	14.300	0.000	14.300	0.000	15.200	0.000	15.200	0.000	29.110	0.000	29.110	0.000	29.110	0.000	29.110
32	Total TCDF		0	727.55	0.000	727.550	0.000	767.53	0.000	767.530	0.000	581.68	0.000	581.680	0.000	581.680	0.000	581.680
33	Total PCDF		0	362.73	0.000	362.730	0.000	356.18	0.000	356.180	0.000	270.82	0.000	270.820	0.000	270.820	0.000	270.820
34	Total HxCDF		0	108.600	0.000	108.600	0.000	116.580	0.000	116.580	0.000	109.290	0.000	109.290	0.000	109.290	0.000	109.290
35	Total HpCDF		0	15.770	0.000	15.770	0.000	18.990	0.000	18.990	0.000	22.530	0.000	22.530	0.000	22.530	0.000	22.530
36																		
37	Gas sample volume (dscf)				128.45	128.45	128.45		130.86	130.86	130.86		129.21	129.21	129.21		129.21	129.21
38	O2 (%)				15.70	15.70	15.70		16.2	16.2	16.2		15.90	15.90	15.90		15.90	15.90
39																		
40	PCDD/PCDF (ng in sample)				27.500	1331.7	27.500		29.007	1365.7	29.007		25.337	1137.5	25.337		19.020	853.92
41	PCDD/PCDF (ng/dscm @ 7% O2)			0.0	19.983	967.68	19.983	0.0	22.846	1075.64	22.846	0.0	19.020	853.92	19.020		19.020	853.92
42																		
43	TEQ Cond Avg		20.617															
44	Total Cond Avg		965.75															

	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:		Solite Corp, Lightweight Aggregate Kiln #3															
4	Condition ID:		474C12 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	7.8	8	8	8	11.3	11	11	11	15.0	15	15	15	15	15	15
12	1,2,3,7,8-PCDD		0.5	20.9	10	21	10	21.7	11	22	11	28.9	14	29	14	29	14	14
13	1,2,3,4,7,8-HxCDD		0.1	18.4	2	18	2	23.8	2	24	2	22.4	2	22	2	22	2	2
14	1,2,3,6,7,8-HxCDD		0.1	58.2	6	58	6	72.0	7	72	7	74.5	7	75	7	75	7	7
15	1,2,3,7,8,9-HxCDD		0.1	30.7	3	31	3	38.4	4	38	4	38.7	4	39	4	39	4	4
16	1,2,3,4,6,7,8-HpCDD		0.01	197.0	2	197	2	410.0	4	410	4	269.0	3	269	3	269	3	3
17	OCDD		0.001	365.0	0	365	0	1850.0	2	1850	2	392.0	0	392	0	392	0	0
18	2,3,7,8-TCDF		0.1	112.0	11	112	11	200.0	20	200	20	340.0	34	340	34	340	34	34
19	1,2,3,7,8-PCDF		0.05	91.7	5	92	5	117.0	6	117	6	201.0	10	201	10	201	10	10
20	2,3,4,7,8-PCDF		0.5	154.0	77	154	77	183.0	92	183	92	295.0	148	295	148	295	148	148
21	1,2,3,4,7,8-HxCDF		0.1	109.0	11	109	11	110.0	11	110	11	153.0	15	153	15	153	15	15
22	1,2,3,6,7,8-HxCDF		0.1	89.4	9	89	9	92.6	9	93	9	129.0	13	129	13	129	13	13
23	2,3,4,6,7,8-HxCDF		0.1	24.3	2	24	2	28.9	3	29	3	37.1	4	37	4	37	4	4
24	1,2,3,7,8,9-HxCDF		0.1	60.1	6	60	6	79.6	8	80	8	86.4	9	86	9	86	9	9
25	1,2,3,4,6,7,8-HpCDF		0.01	198.0	2	198	2	391.0	4	391	4	234.0	2	234	2	234	2	2
26	1,2,3,4,7,8,9-HpCDF		0.01	27.3	0	27	0	50.6	1	51	1	45.6	0	46	0	46	0	0
27	OCDF		0.001	151.0	0	151	0	371.0	0	371	0	167.0	0	167	0	167	0	0
28	Total TCDD		0	393	0	393	0	550	0	550	0	834	0	834	0	834	0	0
29	Total PCDD		0	445	0	445	0	504	0	504	0	589	0	589	0	589	0	0
30	Total HxCDD		0	575	0	575	0	664	0	664	0	731	0	731	0	731	0	0
31	Total HpCDD		0	336	0	336	0	710	0	710	0	468	0	468	0	468	0	0
32	Total TCDF		0	7100	0	7100	0	13800	0	13800	0	22300	0	22300	0	22300	0	0
33	Total PCDF		0	2050	0	2050	0	3170	0	3170	0	5260	0	5260	0	5260	0	0
34	Total HxCDF		0	758	0	758	0	807	0	807	0	1050	0	1050	0	1050	0	0
35	Total HpCDF		0	301	0	301	0	582	0	582	0	374	0	374	0	374	0	0
36																		
37	Gas sample volume (dscf)				126.54	126.54	126.54		123.32	123.32	123.32		121.03	121.03	121.03		121.03	121.03
38	O2 (%)				16.00	16.00	16.00		16.0	16.0	16.0		15.90	15.90	15.90		15.90	15.90
39																		
40	PCDD/PCDF (ng in sample)				0.155	12.5	0.155		0.195	23.0	0.195		0.281	32.2	0.281		0.281	0.281
41	PCDD/PCDF (ng/dscm @ 7% O2)			0.0	0.121	9.75	0.121	0.0	0.156	18.46	0.156	0.0	0.225	25.78	0.225		0.225	0.225
42																		
43	TEQ Cond Avg		0.168															
44	Total Cond Avg		18.00															