	B	C
1	**Source Description**	
2		
3	Phase I ID No.	312
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 #4
10	Other Sister Facilities	
11	Combustor Class	Lightweight Aggregate Kiln
12	Combustor Type	
13	Combustor Characteristics	
14	Capacity (MMBtu/hr)	
15	Soot Blowing	
16	APCS	QS/FF
17	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), fiberglass bag material
18	Hazardous Wastes	Liquid Burnable Material (LBM)
19	Haz Waste Description	The raw material was excavated from the Virginia Solite quarry
20	Supplemental Fuel	Natural Gas
21		
22	Stack Characteristics	
23	Diameter (ft)	4.3
24	Height (ft)	64
25	Gas Velocity (ft/sec)	16.1
26	Gas Temperature (°F)	352
27		
28	Permitting Status	
29	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**312C10**	
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	Condition Descr	COC, Metals SRE
10	Content	CO, PM, HCl/Cl2, Metals, Cr^{+6}
11		
12	**312C11**	
13		
14	Report Name/Date	Trial Burn Report, Solite Corp, Virginia Solite Div., March 2000
15	Report Preparation	Solite/Entropy/Blue Ridge
16	Testing Firm	Entropy
17	Testing Dates	Nov 8-19, 1999
18	Condition Descr	Trial Burn, organics DRE, HCl/Cl2 emissions limits
19	Content	CO, PM, HCl/Cl2, POHC DRE, PCCD/F
20		
21	**312C12**	
22		
23	Report Name/Date	Trial Burn Report, Kiln 1 DRE Retest, Kilns 1-4 D/F. Solite Corp, Virginia Solite Div., July 2000
24	Report Preparation	Solite/Entropy/B3 Systems
25	Testing Firm	Entropy
26	Testing Dates	May 9-19, 2000
27	Condition Descr	Trial Burn, D/F Retest
28	Content	D/F, CO
29		
30	**312C1**	
31		
32	Report Name/Date	Emission Test Report for No. 4 Aggregate Kiln Solite Corporation, Leaksville Plant, Cascade, Virginia, Prepared by IEA August 8, 1992
33	Report Prepare	IEA
34	Testing Firm	IEA
35	Cond Descr	CoC, MAX HW FEED, MAX RAW MATERIAL
36	Test Dates	
37	Cond Date	08/08/92
38		
39		
40	**312C2**	
41		
42	Report Name/Date	Stationary Source Sampling Report, Reference # 13967, Virginia Solite Company, Leaksville Plant, Cascade, Virginia, May 1995
43	Report Prepare	Virginia Solite Company
44	Testing Firm	Entropy
45	Cond Descr	CoC
46	Test Dates	05/25/95
47	Cond Date	05/01/95

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 1**											
2												
3	**312C10**	CoC				R1		R2		R3		Cond Avg
4												
5												
6	PM		gr/dscf	y		0.0062		0.0044		0.0027		0.0044
7	CO (RA)		ppmv	y		37.8		35.9		43.4		39.0
8	CO (MHRA)		ppmv	y		66.0		57.3		51.7		58.3
9	HCl		ppmv	y		859		1013		1184		1019
10	Cl2		ppmv	y		0.93		1.61		2.52		1.7
11	Total Chlorine		ppmv	y		861		1016		1189		1022
12												
13												
14	Antimony		lb/hr		nd	3.79E-05	nd	4.46E-05	nd	4.72E-05		
15	Arsenic		lb/hr			3.78E-04		4.02E-04		4.14E-04		
16	Barium		lb/hr			4.41E-04		4.87E-04		3.38E-04		
17	Beryllium		lb/hr			3.94E-05		4.11E-05		4.34E-05		
18	Cadmium		lb/hr			1.18E-04		9.94E-05		1.01E-04		
19	Chromium		lb/hr			3.49E-04		5.49E-04		7.22E-04		
20	Cr^{+6}		lb/hr		nd	6.26E-05	nd	6.84E-05	nd	6.27E-05		
21	Cobalt		lb/hr		nd	3.79E-05	nd	4.46E-05		1.07E-04		
22	Copper		lb/hr			3.78E-04		4.56E-04		3.01E-04		
23	Lead		lb/hr			1.87E-03		2.79E-03		2.70E-03		
24	Manganese		lb/hr			1.20E-03		1.72E-03		2.30E-03		
25	Mercury		lb/hr			1.53E-04		1.71E-04		2.08E-04		
26	Nickel		lb/hr			7.48E-04		1.35E-04		2.76E-03		
27	Selenium		lb/hr			8.75E-04		4.23E-04		4.51E-04		
28	Silver		lb/hr		nd	1.52E-05	nd	1.78E-05	nd	1.75E-05		
29	Thallium		lb/hr		nd	3.79E-05	nd	4.46E-05	nd	4.37E-05		
30	Zinc		lb/hr			5.32E-04		5.83E-04		4.04E-04		
31												
32	Sampling Train	PM, HCl/Cl2										
33	Stack Gas Flowrate		dscfm			27436		29549		29919		28968
34	O2		%			15.0		16.0		16.9		16.0
35	Moisture		%			12.8		6.8		5.3		8.3
36	Temperature		°F			360		331		343		345
37												
38	Sampling Train	Metals										
39	Stack Gas Flowrate		dscfm			27559		28855		29386		
40	O2		%			15.0		16.0		16.9		
41	Moisture		%			13		7.9		5.3		
42	Temperature		°F			354		324		337		
43												
44												
45												
46												
47	Antimony		ug/dscm	y	nd	0.9	nd	1.2	nd	1.5		
48	Arsenic		ug/dscm	y		8.6		10.4		12.9		
49	Barium		ug/dscm	y		10.0		12.6		10.5		
50	Beryllium		ug/dscm	y		0.9		1.1		1.3		
51	Cadmium		ug/dscm	y		2.7		2.6		3.1		
52	Chromium		ug/dscm	y		7.9		14.2		22.4		
53	Cr^{+6}		ug/dscm	y	nd	1.4	nd	1.8	nd	1.9		
54	Cobalt		ug/dscm	y	nd	0.9	nd	1.2		3.3		
55	Copper		ug/dscm	y		8.6		11.8		9.4		
56	Lead		ug/dscm	y		42.3		72.4		83.9		
57	Manganese		ug/dscm	y		27.2		44.6		71.5		
58	Mercury		ug/dscm	y		3.5		4.4		6.5		4.79
59	Nickel		ug/dscm	y		16.9		3.5		85.7		
60	Selenium		ug/dscm	y		19.8		11.0		14.0		
61	Silver		ug/dscm	y	nd	0.3	nd	0.5	nd	0.5		
62	Thallium		ug/dscm	y	nd	0.9	nd	1.2	nd	1.4		
63	Zinc		ug/dscm	y		12.0		15.1		12.6		
64												
65	LVM		ug/dscm	y		17.3		25.7		36.6		26.58
66	SVM		ug/dscm	y		45.0		75.0		87.0		69.00
67												
68												
69												
70	**312C11**	Trial Burn				R1		R2		R3		Cond Avg

	B	C	D	E	F	G	H	I	J	K	L	M
71												
72												
73	PM		gr/dscf			0.0041		0.0069		0.0052		0.0054
74	HCl		ppmv			1369		1402		1717		1496
75	Cl2		ppmv			0.74		1.12		1.30		1.05
76	Total Chlorine		ppmv	y		1370		1404		1720		1498
77												
78	POHC DRE	Perchloroethylene										
79	POHC Feedrate		lb/hr			45.54		44.15		44.33		44.67
80	Emission Rate		lb/hr			0.000954		0.000827		0.000619		0.000800
81	DRE		%			99.9979%		99.9981%		99.9986%		
82												
83	POHC DRE	1,2,4 Trichlorobenzene										
84	POHC Feedrate		lb/hr			45.59		44.2		44.38		44.72
85	Emission Rate		lb/hr			0.00116		0.000996		0.000964		0.001040
86	DRE		%			99.9975%		99.9977%		99.9978%		
87												
88	Sampling Train	PM, HCl/Cl2										
89	Stack Gas Flowrate		dscfm			32462		28498		29100		30020
90	O2		%			16.1		16.5		16.4		16.3
91	Moisture		%			8.8		9.8		9.2		9.3
92	Temperature		°F			325		335		337		332
93												
94	Sampling Train	D/F										
95	Stack Gas Flowrate		dscfm			32261		30828		28416		30502
96	O2		%			16.1		16.5		16.4		16.3
97	Moisture		%			8.6		8.6		8.9		8.7
98	Temperature		°F			328		331		337		332
99												
100												
101												
102												
103												
104	**312C12**	Trial Burn				R1		R2		R3		Cond Avg
105												
106												
107	CO (RA)		ppmv	y		35.6		49.9		52.6		46.0
108												
109												
110	Sampling Train	D/F										
111	Stack Gas Flowrate		dscfm			27311		27719		26369		27133
112	O2		%			16.0		15.9		11.6		14.5
113	Moisture		%			14.5		14.1		14.3		14.3
114	Temperature		°F			303		304		303		303

	B	C	D	E	F	G	H	I	J	K	L
1	**Stack Gas Emissions 2**										
2											
3	**312C1**				R1		R2		R3		Cond Avg
4											
5	PM		gr/dscf		0.00700		0.00500		0.01800		0.01000
6	CO (MHRA)		ppmv		194.40		86.60		67.60		
7	CO (RA)		ppmv		128.10		74.70		61.10		
8	HC (MHRA)		ppmv		5.90		3.50		2.20		
9	HC (RA)		ppmv		4.70		3.20		1.60		
10	HCl		ppmv		1267.09		1312.47		1078.18		
11	Cl2		ppmv		25.20		0.18		8.28		
12	Total Cl		ppmv		1317.49		1312.83		1094.74		1241.69
13	Antimony		ug/dscm		4.26		3.77		6.26		
14	Arsenic		ug/dscm		4.40		9.64		4.47		
15	Barium		ug/dscm	nd	13.13	nd	33.38	nd	28.60		
16	Beryllium		ug/dscm	nd	1.09	nd	2.25	nd	1.04		
17	Cadmium		ug/dscm		64.46		82.38		10.72		
18	Chromium		ug/dscm		27.07	nd	37.69	nd	11.05		
19	Chromium (Hex)		ug/dscm	nd	2.96		5.13	nd	3.46		
20	Lead		ug/dscm		105.29		527.69		431.91		
21	Mercury		ug/dscm	nd	10.53	nd	7.65	nd	8.79		4.49
22	Silver		ug/dscm	nd	4.96	nd	5.79	nd	4.47		
23	Thallium		ug/dscm	nd	1.08	nd	1.16	nd	1.88		
24	LVM		ug/dscm		32.01		29.61		10.51		24.05
25	SVM		ug/dscm		169.75		610.08		442.64		407.49
26											
27	Sampling Train		Cr Hex								
28	Gas Flowrate				29100		28300		27100		
29	Moisture				9.1		12.7		14		
30	Oxygen				15.8		15.9		15.9		
31	Temperature				346.2		343		351.5		
32											
33	Sampling Train		Halogens								
34	Gas Flowrate				27100		27100		27500		
35	Moisture				9.7		10		9.5		
36	Oxygen				15.9		15.9		16.2		
37	Temperature				346.2		333.5		349.5		
38											
39	Sampling Train		Metals								
40	Gas Flowrate				28000		28100		30000		
41	Moisture				10.3		10.9		6.7		
42	Oxygen				16.2		15.8		16.3		
43	Temperature				340		340.1		347.5		
44											
45	**312C2**				R1		R2		R3		Cond Avg
46											
47	PM		gr/dscf		0.01470		0.01350		0.01110		0.01310
48	HCl		ppmv		543.07		469.05		559.63		
49	Cl2		ppmv		0.53		0.38		0.26		
50	Total Cl		ppmv		544.13		469.81		560.15		524.70
51	Antimony		ug/dscm		3.00		2.78		2.91		
52	Arsenic		ug/dscm		20.46		26.49		26.33		
53	Barium		ug/dscm		70.10		89.35		101.63		
54	Beryllium		ug/dscm		2.92		4.62		6.21		
55	Cadmium		ug/dscm		36.54		55.23		63.87		
56	Chromium		ug/dscm		72.88		103.05		137.89		
57	Chromium (Hex)		ug/dscm	nd	2.44	nd	2.46	nd	2.44		
58	Lead		ug/dscm		264.13		417.58		504.93		
59	Mercury		ug/dscm		4.01		5.14		4.32		4.49
60	Nickel		ug/dscm		4.23		4.09		3.91		
61	Selenium		ug/dscm	nd	1.59	nd	1.61	nd	1.78		
62	Silver		ug/dscm		0.70		1.79	nd	0.71		
63	Thallium		ug/dscm	nd	1.59	nd	1.61	nd	1.78		
64	LVM		ug/dscm		96.26		134.16		170.43		133.62
65	SVM		ug/dscm		300.67		472.80		568.80		447.43
66											
67	Sampling Train		Cr Hex								
68	Gas Flowrate				26903		24771		23663		
69	Moisture				11.6		12.9		14.1		
70	Oxygen				14.9		14.8		14.4		
71	Temperature				352		347		350		

	B	C	D	E	F	G	H	I	J	K	L
72											
73	Sampling Train	Metals									
74	Gas Flowrate				30853		26852		26244		
75	Moisture				5.8		12.9		13.3		
76	Oxygen				14.9		14.8		14.4		
77	Temperature				355		347		355		
78											
79	Sampling Train	Particulate									
80	Gas Flowrate				28128		26347		25897		
81	Moisture				12.3		12.8		13.7		
82	Oxygen				14.9		14.8		14.4		
83	Temperature				358		353		351		

	B	C	D	F	H	J	L	N	P	R	T	V	X	Z	AB
1	**Feedstream 1**														
2															
3															
4	**312C10**	CoC		R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
5															
6	Feedstream Description			RM	RM	RM	LBM	LBM	LBM	Spike	Spike	Spike	Total	Total	Total
7	Feed Rate		lb/hr	30380	30400	31320	3055.8	2726.4	2380.2	191.9	192	191.9	33628	33318	33892
8	Density		g/cc				0.906	0.942	0.94						
9	Heating Value		Btu/lb				14841	13104	13026						
10															
11	Ash		%				4.24	4.285	4.6						
12	Chlorine		g/hr	4092.8	3890.8	355.5	3914.6	4451.3	4382.7	19598.1	19558.8	18149.0	27605	27901	22887
13															
14	Antimony		g/hr	3.45	3.45	3.55	4.050	4.280	4.270				7	8	8
15	Arsenic		g/hr	169.5	203.3	284.1	1.29	1.09	1.25	407.66	473.8	482.95	578	678	768
16	Barium		g/hr	1805.2	1696.3	1505.9	233.48	263.26	272.98				2039	1960	1779
17	Beryllium		g/hr	29.49	28.27	20.88	0.03	0.03	0.03	88.22	100.68	75.59	118	129	96
18	Cadmium		g/hr	1.38	1.38	1.42	0.99	0.94	1.00	220.95	230	213.2	223	232	216
19	Chromium		g/hr	763.4	759.3	801.3	19.99	19.59	23.67	1504.53	1515.9	1515.9	2288	2295	2341
20	Lead		g/hr	191.6	210.0	251.5	25.45	24.80	30.68	5228	5328	5228	5445	5562	5510
21	Manganese		g/hr	13036	11767	12062	202.7	202.2	195.3				13239	11969	12257
22	Mercury		g/hr	0.13	0.14	0.14	0.01	0.01	0.01				0.1	0.2	0.1
23	Nickel		g/hr	469.9	504.9	505.8	11.52	10.71	10.32				481	516	516
24	Silver		g/hr	2.960	3.470	3.480	0.14	0.29	0.41				3.1	3.8	3.9
25	Thallium		g/hr	7.790	7.510	8.420	0.35	0.31	0.27				8.1	7.8	8.7
26															
27															
28	Stack Gas Flowrate		dscfm	27559	28855	29386	27559	28855	29386	27559	28855	29386	27559	28855	29386
29	Oxygen		%	15.0	16.0	16.9	15	16	16.9	15	16	16.9	15	16	16.9
30															
31	Heat Input		MMBtu/hr				45.4	35.7	31.0				45.4	35.7	31.0
32	Est Total Firing Rate		MMBtu/hr										52.5	45.8	38.2
33															
34															
35	*Feedrate MTEC Calculations*														
36	Ash		mg/dscm				175984	181864	204101						
37	Chlorine		ug/dscm	204076	222348	24327	195194	254382	299924	977212	1117743	1241994	1,376,483	1,594,474	1,566,244
38															
39	Antimony		ug/dscm	172	197	243	202	245	292	0	0	0	374	442	535
40	Arsenic		ug/dscm	8452	11618	19445	64	62	86	20327	27077	33050	28843	38756	52580
41	Barium		ug/dscm	90014	96941	103055	11642	15045	18681	0	0	0	101656	111986	121736
42	Beryllium		ug/dscm	1470	1616	1429	2	2	2	4399	5754	5173	5871	7371	6604
43	Cadmium		ug/dscm	69	79	97	49	54	68	11017	13144	14590	11135	13277	14756
44	Chromium		ug/dscm	38067	43392	54833	997	1120	1620	75020	86630	103738	114083	131142	160190
45	Lead		ug/dscm	9551	12002	17208	1269	1417	2100	260666	304464	357746	271486	317884	377054
46	Manganese		ug/dscm	650021	672431	825408	10108	11556	13368	0	0	0	660130	683987	838775
47	Mercury		ug/dscm	7	8	9	1	1	1	0	0	0	7.2	8.6	10.0
48	Nickel		ug/dscm	23431	28852	34611	574	612	706	0	0	0	24005	29464	35317
49	Silver		ug/dscm	148	198	238	7	17	28	0	0	0	155	215	266
50	Thallium		ug/dscm	388	429	576	17	18	18	0	0	0	406	447	595
51															
52	SVM		ug/dscm	9620	12081	17305	1318	1471	2168	271683	317608	372336	282622	331160	391810
53	LVM		ug/dscm	47989	56625	75706	1063	1184	1707	99746	119461	141960	148797	177270	219374
54															
55															
56	**312C11**	Trial burn		R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
57															
58	Feedstream Description			RM	RM	RM	LBM	LBM	LBM	Spike	Spike	Spike	Total	Total	Total
59	Feed Rate		lb/hr												
60	Density		g/cc				0.916	0.91	0.915						

	B	AD
1	**Feedstream 1**	
2		
3		
4	**312C10**	Cond Avg
5		
6	Feedstream Description	Total
7	Feed Rate	33612.7
8	Density	
9	Heating Value	
10		
11	Ash	
12	Chlorine	26131
13		
14	Antimony	
15	Arsenic	
16	Barium	
17	Beryllium	
18	Cadmium	
19	Chromium	
20	Lead	
21	Manganese	
22	Mercury	
23	Nickel	
24	Silver	
25	Thallium	
26		
27		
28	Stack Gas Flowrate	28600
29	Oxygen	16.0
30		
31	Heat Input	37.4
32	Est Total Firing Rate	45.5
33		
34		
35	*Feedrate MTEC Calculatior*	
36	Ash	
37	Chlorine	1,512,400
38		
39	Antimony	
40	Arsenic	
41	Barium	
42	Beryllium	
43	Cadmium	
44	Chromium	
45	Lead	
46	Manganese	
47	Mercury	8.60
48	Nickel	
49	Silver	
50	Thallium	
51		
52	SVM	335,197
53	LVM	181,814
54		
55		
56	**312C11**	Cond Avg
57		
58	Feedstream Description	Total
59	Feed Rate	
60	Density	

	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
61																												
62	Heating Value		Btu/lb								10884		11480		11234													
63																												
64	Ash		%								3.44		3.47		0.51													
65	Chlorine		%		0.017		0.0195		0.0175		0.67		0.67		0.62													
66																												
67	Chlorine (max, proposed)		g/hr																									
68																												
69	Stack Gas Flowrate		dscfm		32462		28498		29100		32462		28498		29100		32462		28498		29100		32462		28498		29100	
70	Oxygen		%		16.1		16.5		16.4		16.1		16.5		16.4		16.1		16.5		16.4		16.1		16.5		16.4	
71																												
72	Heat Input		MMBtu/hr																									
73	Est Total Firing Rate		MMBtu/hr																				50.50		40.71		42.50	
74																												
75	*Feedrate MTEC Calculations*																											
76	Chlorine(max)		ug/dscm																									
77																												
78																												
79	**312C12**	Trial burn			Run 1		Run 2		Run 3		Run 1		Run 2		Run 3		Run 1		Run 2		Run 3		Run 1		Run 2		Run 3	
80																												
81	Feedstream Description				RM		RM		RM		LBM		LBM		LBM		Spike		Spike		Spike		Total		Total		Total	
82	Feed Rate		lb/hr																									
83	Density		g/cc								0.94		0.952		0.938													
84																												
85	Heating Value		Btu/lb								10866		10850		11011													
86																												
87	Ash		%								4.42		5.05		3.73													
88	Chlorine		%		0.0095		0.009				2.95		2.89		3.1													
89																												
90																												
91	Stack Gas Flowrate		dscfm		27311		27719		26369		27311		27719		26369		27311		27719		26369		27311		27719		26369	
92	Oxygen		%		16.0		15.9		11.6		16		15.9		11.6		16		15.9		11.6		16		15.9		11.6	
93																												
94	Heat Input		MMBtu/hr																									
95	Est Total Firing Rate		MMBtu/hr																				43.35		44.88		78.69	

	B	AD
61		
62	Heating Value	
63		
64	Ash	
65	Chlorine	
66		
67	Chlorine (max, proposed)	37657
68		
69	Stack Gas Flowrate	30020
70	Oxygen	16.3
71		
72	Heat Input	
73	Est Total Firing Rate	44.6
74		
75	*Feedrate MTEC Calculatior*	
76	Chlorine(max)	2.22E+06
77		
78		
79	**312C12**	Average
80		
81	Feedstream Description	Total
82	Feed Rate	
83	Density	
84		
85	Heating Value	
86		
87	Ash	
88	Chlorine	
89		
90		
91	Stack Gas Flowrate	27133
92	Oxygen	14.5
93		
94	Heat Input	
95	Est Total Firing Rate	55.6

	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**																											
2																												
3																												
4	**312C1**			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg
5																												
6	Feedstream			Shale						Liquid waste						Spike						Total						
7	Feedrate	lb/hr		31636		28218		28615		3097		3000		2938		18.728		18.788		18.617								
8	Heating value	Btu/lb																										
9	Chlorine	lb/hr	1	12.6	1	11.3	1	11.1		67.81879		71.82375		74.39745														
10	Antimony	lb/hr	1	0.0123	1	0.011	1	0.0108		0.007716		0.010141		0.0097														
11	Arsenic	lb/hr		0.132		0.147		0.103		0.019841		0.003748	1	0.000661		0.7352341		0.96803986		1.27447926								
12	Barium	lb/hr		3.14		3.14		3.17		0.25397		0.202162		0.171077														
13	Beryllium	lb/hr		0.0421		0.116		0.042	1	0.00022	1	0.00022	1	0.00022		0.08002698		0.1686519		0.18672962								
14	Cadmium	lb/hr	1	0.0142	1	0.0127	1	0.0125	1	0.001323	1	0.001323	1	0.001323		2.70239868		2.18343584		2.30535022								
15	Chromium	lb/hr		3.36		2.84		2.53		0.02866		0.023589		0.018298		0.72354972		0.48875982		0.433710958								
16	Chromium (Hex)	lb/hr														0.72354972		0.48875982		0.43364482								
17	Lead	lb/hr	1	0.066	1	0.0593	1	0.0584		0.109128		0.074515		0.054895		14.5029611		14.99590966		14.43285482								
18	Mercury	lb/hr	1	0.00126	1	0.0011	1	0.0011		0.000661		0.000441		0.00022														
19	Silver	lb/hr	1	0.022	1	0.0198	1	0.0195	1	0.002205	1	0.002205	1	0.001984														
20	Thallium	lb/hr		0.0468		0.0446		0.0415	1	0.001323	1	0.001102	1	0.001102														
21																												
22	Gas flowrate			28000		28100		30000		28000		28100		30000		28000		28100		30000								
23	Oxygen			16.2		15.8		16.3		16.2		15.8		16.3		16.2		15.8		16.3								
24																												
25	Chlorine	ug/dscm	1	175464	1	144739	1	147340		1888848		1839944		1975082		0		0		0		2064312		1984683		2122422		2057139
26	Antimony	ug/dscm	1	343	1	282	1	287		215		260		258		0		0		0		557		542		544		548
27	Arsenic	ug/dscm		3676		3766		2734		553		96	1	9		20477		24799		33835		24706		28661		36578		29982
28	Barium	ug/dscm		87453		80439		84156		7073		5179		4542		0		0		0		94527		85618		88698		89614
29	Beryllium	ug/dscm		1173		2972		1115	1	6	1	6	1	3		2229		4320		4957		3408		7298		6075		5593
30	Cadmium	ug/dscm	1	395	1	325	1	332	1	18	1	17	1	18		75266		55934		61202		75679		56276		61551		64502
31	Chromium	ug/dscm		93581		72754		67166		798		604		486		20152		12521		11514		114531		85879		79166		93192
32	Chromium (Hex)	ug/dscm		0		0		0		0		0		0		20152		12521		11512		20152		12521		11512		14728
33	Lead	ug/dscm	1	1838	1	760	1	775		3039		1909		1457		403928		384158		383159		408805		386826		385392		393674
34	Mercury	ug/dscm	1	18	1	14	1	15		18		11		6		0		0		0		36		25		20		27
35	Silver	ug/dscm	1	613	1	507	1	518	1	61	1	56	1	53		0		0		0		674		564		570		603
36	Thallium	ug/dscm		1303		1143		1102	1	37	1	28	1	29		0		0		0		1340		1171		1131		1214
37	SVM	ug/dscm		1117		542		554		3049		1917		1475		479193		440092		444361		483359		442551		446389		457433
38	LVM	ug/dscm		98430		79491		71015		1354		703		492		42858		41640		50306		142642		121834		121813		128763
39																												
40	**312C2**			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg
41																												
42	Feedstream			Shale						Liquid waste						Spike						Total						
43	Feedrate	lb/hr		?		?		?		?		?		?		?		?		?								
44	Heating value	Btu/lb																										
45	Chlorine	ppmw	1	17	1	16	1	16		4700		4400		3900														
46	Antimony	ppmw	1	1	1	1	1	1		33.1		32.4		12.1														
47	Arsenic	ppmw		2.65		4.9		3.85	1	1	1	1	1	1		39300												
48	Barium	ppmw		256		334		248		592		561		88.5														
49	Beryllium	ppmw		1.5		1.65		1.45	1	0.25	1	0.25	1	0.25		5250		4860		5070								
50	Cadmium	ppmw	1	0.4	1	0.4	1	0.4		19.4		19.7		10.1		40000		40000		33900								
51	Chromium	ppmw		35		41.1		39.4		184		165		101		135000				155000								
52	Chromium (Hex)	ppmw		0.31	1	0.1		0.19		86.5		98.3		76.4														
53	Lead	ppmw		9.2		11.7		10.9		876		817		262		355000		363000		345000								
54	Mercury	ppmw	1	0.0507	1	0.0508	1	0.0507	1	0.1185	1	0.1134	1	0.1032														
55	Nickel	ppmw		28.3		31.4		31.3		62.5		56.3		22.5														
56	Selenium	ppmw	1	1	1	1	1	1		4.35		4.05		1.7														
57	Silver	ppmw	1	0.4	1	0.4	1	0.4		0.505	1	0.5	1	0.5														
58	Thallium	ppmw	1	1	1	1	1	1	1	1	1	1	1	1														

	B	C	D	E	F	G	H
1	**Process Information 1**						
2		Units		R1	R2	R3	Cond Avg
3							
4	**312C10**	CoC					
5							
6	Max comb chamber temp	°F		2747	3196	2779	2907
7	Max baghouse inlet temperature	°F		436.6	427	423.4	429
8	Min baghouse pressure drop	in. w.c.		6.36	5.21	5.03	5.53
9							
10	**312C11**	Trial Burn					
11							
12	Combustion zone temperature	°F		1693	1573	1532	1599
13	Min mid kiln temperature	°F		1052	1090	1172	1075
14	Max kiln exit temperature	°F		450.1	447	450.6	449
15	Max baghouse inlet temperature	°F		439	440	441	440
16	Kiln maximum negative pressure	in. w.c.					-4.37
17							
18	**312C12**	Trial Burn					
19							
20	Comb zone temperature	°F		2047	2156	1889	2031
21	Mid kiln temperature	°F		968	977	1003	983
22	Max kiln exit temperature	°F		388.2	380.5	375.6	381
23	Baghouse inlet temperature	°F		371	370	369	370
24	Kiln negative pressure	in. w.c.					-2.02

	C	D	E	F	G
1	**Process Information 2**				
2					
3	**312C1**		1	2	3
4					
5	Combustion Temperature	F	2773	2811	2811
6	FF APCD Temperature	F	426	424	425
7	FF Pressure Drop	in H2O	4.4	3.8	4.8

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**PCDD/PCDF**														
2															
3	Facility Name and ID:		Solite Corp, Lightweight Aggregate Kiln #3												
4	Condition ID:		**312C11** Trial Burn												
5	Condition/Test Date:		Nov 18-19, 1999												
6															
7			I-TEF			Run 1				Run 2				Run 3	
8			Wght Fact		Total	Total	TEQ		Total	Total	TEQ		Total	Total	TEQ
9						1/2 ND	1/2 ND			1/2 ND	1/2 ND			1/2 ND	1/2 ND
10	Detected in sample volume (ng)														
11		2,3,7,8-TCDD	1		0.360	0.360	0.360		0.480	0.480	0.480		0.910	0.910	0.910
12		1,2,3,7,8-PCDD	0.5		0.910	0.910	0.455		1.110	1.110	0.555		1.140	1.140	0.570
13		1,2,3,4,7,8-HxCDD	0.1		0.520	0.520	0.052		0.530	0.530	0.053		0.480	0.480	0.048
14		1,2,3,6,7,8-HxCDD	0.1		1.720	1.720	0.172		1.240	1.240	0.124		1.120	1.120	0.112
15		1,2,3,7,8,9-HxCDD	0.1		1.530	1.530	0.153		1.340	1.340	0.134		1.130	1.130	0.113
16		1,2,3,4,6,7,8-HpCDD	0.01		6.870	6.870	0.069		4.100	4.100	0.041		4.380	4.380	0.044
17		OCDD	0.001		4.540	4.540	0.005		2.720	2.720	0.003		2.330	2.330	0.002
18		2,3,7,8-TCDF	0.1		13.120	13.120	1.312		18.520	18.520	1.852		26.540	26.540	2.654
19		1,2,3,7,8-PCDF	0.05		8.640	8.640	0.432		12.550	12.550	0.628		14.040	14.040	0.702
20		2,3,4,7,8-PCDF	0.5		13.380	13.380	6.690		19.370	19.370	9.685		22.780	22.780	11.390
21		1,2,3,4,7,8-HxCDF	0.1		12.710	12.710	1.271		17.140	17.140	1.714		12.450	12.450	1.245
22		1,2,3,6,7,8-HxCDF	0.1		6.350	6.350	0.635		9.050	9.050	0.905		6.330	6.330	0.633
23		2,3,4,6,7,8-HxCDF	0.1		0.480	0.480	0.048		0.560	0.560	0.056		0.420	0.420	0.042
24		1,2,3,7,8,9-HxCDF	0.1		6.590	6.590	0.659		8.990	8.990	0.899		6.270	6.270	0.627
25		1,2,3,4,6,7,8-HpCDF	0.01		7.480	7.480	0.075		9.700	9.700	0.097		5.350	5.350	0.054
26		1,2,3,4,7,8,9-HpCDF	0.01		1.300	1.300	0.013		1.420	1.420	0.014		0.830	0.830	0.008
27		OCDF	0.001		1.060	1.060	0.001		1.120	1.120	0.001		0.810	0.810	0.001
28		Total TCDD	0		11.900	11.900	0.000		13.190	13.190	0.000		25.680	25.680	0.000
29		Total PCDD	0		16.120	16.120	0.000		14.850	14.850	0.000		19.930	19.930	0.000
30		Total HxCDD	0		17.270	17.270	0.000		13.080	13.080	0.000		13.810	13.810	0.000
31		Total HpCDD	0		12.720	12.720	0.000		8.030	8.030	0.000		8.350	8.350	0.000
32		Total TCDF	0		351.46	351.460	0.000		434.96	434.960	0.000		612.63	612.630	0.000
33		Total PCDF	0		139.55	139.550	0.000		189.94	189.940	0.000		231.44	231.440	0.000
34		Total HxCDF	0		60.00	60.000	0.000		81.12	81.120	0.000		58.29	58.290	0.000
35		Total HpCDF	0		12.870	12.870	0.000		15.920	15.920	0.000		8.950	8.950	0.000
36															
37		Gas sample volume (dscf)				149.46	149.46			145.80	145.80			132.59	132.59
38		O2 (%)				16.10	16.10			16.5	16.5			16.40	16.40
39															
40		PCDD/PCDF (ng in sample)				627.5	12.401			774.9	17.241			982.2	19.155
41		PCDD/PCDF (ng/dscm @ 7% O2)				423.87	8.38			584.28	13.00			796.66	15.54
42															
43		TEQ Cond Avg	12.304												
44		Total Cond Avg	601.61												

PCDD/PCDF

Facility Name and ID: Solite Corp, Lightweight Aggregate Kiln #3
Condition ID: **312C12** Trial Burn
Condition/Test Date: 19-May-00

	I-TEF Wght Fact	Run 1 Total Full ND	Run 1 Total 1/2 ND	Run 1 TEQ 1/2 ND	Run 2 Total Full ND	Run 2 Total 1/2 ND	Run 2 TEQ 1/2 ND	Run 3 Total Full ND	Run 3 Total 1/2 ND	Run 3 TEQ 1/2 ND
Detected in sample volume (pg)										
2,3,7,8-TCDD	1	28.6	29	29	54.1	54	54	105.0	105	105
1,2,3,7,8-PCDD	0.5	129.0	129	65	93.5	94	47	105.0	105	53
1,2,3,4,7,8-HxCDD	0.1	180.0	180	18	78.2	78	8	73.6	74	7
1,2,3,6,7,8-HxCDD	0.1	747.0	747	75	381.0	381	38	325.0	325	33
1,2,3,7,8,9-HxCDD	0.1	371.0	371	37	178.0	178	18	161.0	161	16
1,2,3,4,6,7,8-HpCDD	0.01	4240.0	4240	42	1630.0	1630	16	1400.0	1400	14
OCDD	0.001	15700.0	15700	16	2280.0	2280	2	1860.0	1860	2
2,3,7,8-TCDF	0.1	546.0	546	55	1410.0	1410	141	3100.0	3100	310
1,2,3,7,8-PCDF	0.05	385.0	385	19	736.0	736	37	1600.0	1600	80
2,3,4,7,8-PCDF	0.5	509.0	509	255	893.0	893	447	1900.0	1900	950
1,2,3,4,7,8-HxCDF	0.1	634.0	634	63	424.0	424	42	561.0	561	56
1,2,3,6,7,8-HxCDF	0.1	399.0	399	40	278.0	278	28	427.0	427	43
2,3,4,6,7,8-HxCDF	0.1	134.0	134	13	76.6	77	8	79.4	79	8
1,2,3,7,8,9-HxCDF	0.1	369.0	369	37	142.0	142	14	184.0	184	18
1,2,3,4,6,7,8-HpCDF	0.01	2430.0	2430	24	527.0	527	5	515.0	515	5
1,2,3,4,7,8,9-HpCDF	0.01	300.0	300	3	104.0	104	1	78.7	79	1
OCDF	0.001	2750.0	2750	3	628.0	628	1	565.0	565	1
Total TCDD	0	1760	1760	0	2480	2480	0	3960	3960	0
Total PCDD	0	3380	3380	0	2170	2170	0	2430	2430	0
Total HxCDD	0	6750	6750	0	3340	3340	0	3050	3050	0
Total HpCDD	0	7090	7090	0	2600	2600	0	2270	2270	0
Total TCDF	0	30600	30600	0	68900	68900	0	126000	126000	0
Total PCDF	0	8300	8300	0	17300	17300	0	36800	36800	0
Total HxCDF	0	3290	3290	0	2420	2420	0	3900.0	3900	0
Total HpCDF	0	3520	3520	0	819	819	0	775	775	0
Gas sample volume (dscf)			164.68	164.68		166.20	166.20		159.16	159.16
O2 (%)			16.00	16.00		15.9	15.9		11.60	11.60
PCDD/PCDF (ng in sample)			83.1	0.793		102.9	0.906		181.6	1.701
PCDD/PCDF (ng/dscm @ 7% O2)			49.95	0.476		60.08	0.529		60.05	0.562
TEQ Cond Avg	0.523									
Total Cond Avg	56.69									